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SPECIĀLĀ PEDAGOĢIJA
SPECIAL PEDAGOGY

BEHAVIOURAL DIFFICULTIES: CHILDREN'S POINT OF VIEW

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Abstract. *The author aimed at analysing the satisfaction with a school and education of primary school children, having behavioural problems, as well as to disclose the character and causes of their experienced difficulties, and describe their anxieties due to inappropriate behaviour. The structured interviews with children have been applied. Children had an opportunity to add their comments to certain question. It was found that the controversial approach towards the school is common for those children who experience behavioural difficulties. In the school the need of children to communicate with their peers is satisfied, however they are not satisfied within the requirements of education as well as with the conflict relationships with other students in a school. Children feel concern about their inappropriate behaviour, and experience anxiety and tension. However, they used to blame themselves because of inappropriate behaviour at school. Teachers are not enough focused on the support to a child, but usually shifts the responsibility on him or her.*

Keywords: *anxiety, behavioural difficulties, satisfaction with a school.*

Introduction

The research problem and its relevance. Teachers in the educational practice usually encounter not behavioural and emotional disorders but behavioural difficulties, which manifest themselves by inappropriate, unacceptable behaviour in certain situations. Dreikurs (Dreikurs et al., 1982) described four goals of misbehaviour (attention getting, seeking power, seeking revenge and retreat, and displaying helplessness). These goals are related to the child's inappropriate behaviour in order to secure a "special" position for himself / herself.

Researches on children with behavioural and / or emotional problems disclose different attitudes to these children, educators' different activity strategies. In some cases the characteristics and reasons of the child's disorder or misbehaviour are emphasised, strategies are applied in order to cope with children's inappropriate behaviour (Delfos, 2004; Hampton, Hess - Rice, 2004; Samašonok, Gudonis, Juodraitis, 2010, etc.). Researchers note that pupils' misbehaviour is often treated as the child's individual problem, context-oriented approaches are rare (Evans, Haarden, Thomas, 2004; Davis, Florian, 2004, etc.). Special learning environments for prevention or control of behavioural and

emotional disorders are rarely created (Mooij, Smeets, 2009, etc.). The systemic approach is characterised by the analysis of the problem and ways of its solution through interactions of children with behavioural and / or emotional problems with other participants of education and through improvement of these interactions (Evans, Haarden, Thomas, 2004; Thacker, Strudwick, Babbedge, 2002, etc.). Researchers (Geležinienė, Ruškus, Balčiūnas, 2008) notice that in the educational process the pupil with behavioural and emotional difficulties encounters different and little coherent activities of various teachers, ranging from orientation to constructive interactions and positive behaviour to construction of social isolation, stigmatization or even exclusion.

Studies attempt to typologize teacher activities educating children with behavioural and emotional disorders (Geležinienė, Ruškus, Balčiūnas, 2008, etc.), overview strategies of effective education of these children (Davis, Florian, 2004; Dervinytė - Bongarzoni, 2008; Evans, Haarden, Thomas, 2004; Gečienė, 2008; Thacker, Strudwick, Babbedge, 2002, etc.).

Documents often do not record children's behaviour and / or the emotional disorder, because parents do not address doctors, and the conclusion about the disorder can be made and documented only by a doctor (the child psychiatrist). Information provided by educators about pupils with behavioural and / or emotional disorders is controversial (Ališauskas et al., 2011). Educators state that solving problems of misbehaviour, they choose positive behaviour management techniques; however, every second surveyed educator has segregated attitudes towards children with behavioural problems and seeks to delegate the responsibility for inappropriate behaviour for the child (Ališauskas, Šimkienė 2013). As evidenced by research publications, researches on this topic most often view this problem from the standpoint of educators or specialists (special educators, psychologists, social educators, etc.). There is a lack of researches, where research participants would be the very children experiencing behavioural and / or communication difficulties and where it would be sought to analyse the problem from "inside", from the children's standpoint. This witnesses novelty and relevance of the research. This research¹ analyzes problems of pupils with behavioural disorders and / or difficulties, not differentiating them strictly by belonging to one or another group of disorders or difficulties.

The research aim: to identify the attitude of children with behavioural problems to experienced difficulties.

The object of the research: self-feeling of children with behavioural problems (the type of experiences).

¹ The interview was conducted and data were collected by G. Šimkienė

Research objectives:

1. To find out satisfaction with school and learning process of pupils with behavioural problems;
2. To disclose the character and reasons of difficulties arising for children;
3. To describe the child's experiences due to inappropriate behaviour and failures.

Research participants: pupils with behavioural and communication difficulties (N= 12) learning in primary classes of the general education school.

Research methods: a structured interview with freely formulated answers. The aim of the interview was to find out satisfaction with school, difficulties arising in the learning process and communication of the pupil with behavioural difficulties and children's emotional experiences.

Interview Results and Discussion

Pupils' satisfaction with school and the learning process

The attitude of pupils with behavioural and communication difficulties to school is controversial: on one hand, they like school because here they can meet the need of communication with their peers; however, the teaching process poses numerous difficulties for them. The ratio of pupils whose statements witness satisfaction or dissatisfaction with school is similar (11:15). The majority of pupils, who participated in the interview, like going to school, because here they meet friends, play, and communicate: *I like to go to school because here I meet my friends, we exchange stickers; I mostly like to go to school because I meet my classmates and I can play with them; yes, because here I find new friends; to meet friends, play.* Interviewed pupils said that they had friends at school: *I have very many friends and get along with them; all classmates are my friends, but I get along with boys better.* Relationships with friends are quite changeable, depending on the mood: *I have friends, we get on, but sometimes we fight because they annoy me, but I do not give up and defend myself,* etc. During breaks, pupils enjoy engaging in agile and active activities: *play with friends, run in the corridors, to catch friends; romp, compete with classmates, chase,* etc. A share of pupils state they like learning or engaging in some extracurricular activities: *I like it here because I can learn here; solve maths and attend the dance club,* etc. Pupils who stated that they liked going to school, naming difficulties arising in the lessons, mentioned fewer difficulties than those who liked going to school only because they meet their friends there. Teachers also positively spoke about those pupils and mentioned that behavioural difficulties were arising to them not constantly. Speaking about their favourite lessons, pupils often indicate that their favourite lesson is

physical education: *I like physical education most because then we play the square or other games; because I really like to do sports, etc.* Describing what they dislike at school, pupils named reasons of two kinds. The first is dissatisfaction with the educational process (or a certain lesson): *that we need to be at school long; I don't like lessons because we need to learn a lot and quickly; because I do badly and I get bad marks; I don't like the English language, because you have to learn a lot of words, you also have to write a lot, and while writing I make mistakes; I can't keep up with what the teacher tells to do in the lessons; I don't like to go when we write tests or when you have to do a lot of homework; when you have to be at school a long time, etc.* Most disliked lessons are mathematics and the Lithuanian language. According to pupils, they dislike these lessons not only because it is difficult to understand teaching materials but also because they have to stay after the lessons, do the tasks anew, do additional assignments, etc.

Another reason of unfavourable attitude to school is conflicts in relationships with other pupils at school: *I most of all dislike when the older ones annoy; I most dislike that other kids beat me, etc.*

Pupils' experienced teaching and learning difficulties and their reasons

Pupils with behavioural problems indicate that they experience various learning difficulties. Pupils experience learning difficulties in various learning areas: more often, in reading and writing, less often, in physical education, technologies and other lessons. The type of pupils' experienced difficulties is described in Table 1.

Prevailing difficulties are caused by the lack of attention and activity organization hindrances. During the lessons, pupils encounter many difficulties in activities requiring longer concentration, consistency, doing long and monotonous assignments. Children's experienced difficulties memorising and / or understanding assignments also hinder the learning process. This type of difficulties occurs two times less often than the ones caused by the lack of attention and activity organization. In case of difficulties, pupils usually receive teachers' assistance: *during the lesson the teacher helps, she repeatedly explains what is not clear; I receive assistance from the teacher, she explains to me, helps what I don't understand; the teacher checks how I do the task, explains and then it becomes clear; the teacher comes up and explains or tells to do another, easier task; when the teacher repeatedly explains, it becomes clearer.*" Pupils state that the teacher's assistance is useful for them. They feel that the teacher sincerely wants to help them, understand them, shows goodwill. In such cases, the very pupil also tries to behave reservedly, more respectfully.

Table 1 Character of Learning Difficulties

Character of difficulties	Examples of statements	No. of statements
Difficulties of attention and activity organisation	<i>To write without mistakes. I hate the Lithuanian language, because we have to write there and I make many mistakes, I can't keep up with others, get lost, cross through in the notebook, I make many mistakes. Dictations, spelling, punctuation because I make many mistakes. I don't like copying down from the book. I can't keep up with the teacher's dictation. I can't write neatly, and when you have to write a dictation, I write badly. I don't like when they ask to draw something concrete, they don't allow me what I want. I dislike sewing. I don't like when you have to fold from paper because I fail.</i>	24
Difficulties memorising and understanding teaching materials	<i>I dislike dictations because I make many mistakes and have forgotten the rules. To learn the rules, apply them. To learn poems by heart, tell texts. I hate learning words. I dislike solving problems because I have forgotten the multiplication table. I can't learn words. I dislike mathematics because I don't know the multiplication table. I hate calculating, I don't understand a lot there.</i>	12

Children's experiences due to inappropriate behaviour

Describing themselves, pupils attribute more positive than negative qualities to themselves. The ratio of indicated positive and negative qualities is 4:1 (43 positive and 12 negative qualities). Positive qualities dominated: consider themselves *good* (11 options), *friendly* (10 choices), *intelligent* (7 options), *agile* (6 options), *cheerful* (5 options), etc. Such pupils' self-assessment demonstrates that these pupils do not feel more inferior to others and do not give their learning and behavioural difficulties prominence. As to negative descriptions, the most common option is *sad* (6 options), pupils also mentioned such features as *naughty* (3), *mean* (2), *ignoramus* (1), etc.

Children's anxiety stems from failures in learning, hyperactivity, conflict relationships, etc. Interviews demonstrated that anxiety related to the child's behaviour or communication difficulties is encountered by all: the very children, their family members and teachers.

Pupils indicate: *I am a little bit worried because I do not very well at school; I am very worried because often don't understand what I have to do in the lesson, and when I do, I must cross through everything and again do everything on my own anew; I am anxious, I would like not to ask anybody's help and do everything on my own, etc.*

Pupils state that their family members are also worried about their behaviour: *mom and dad are worried; mom always asks what homework is*

given, checks when I do it; parents keep saying to me, "be quieter", "don't get into trouble", "don't say anything to the teacher"; mother, she always asks me to collect my thoughts and listen to what the teacher says", etc. Parental concern manifests it self both by remarks, advice and assistance doing homework, explaining what the child has not understood at school. Four pupils state that they do not notice their inappropriate behaviour and do not worry about it. It is likely that these statements reflect not the true position of the child and his / her state but are a defensive reaction to experienced feelings. Two pupils think that it is the teacher who worries about their behaviour most and who mostly takes care of them: *the teacher always asks me to learn and calms me*. Two children state that their misbehaviour does not cause any concern to anyone.

In order to find out pupils' attitude to experienced behavioural problems and the way out of the situation, pupils and teachers were asked to complete the sentence "There would be no problems if ...".

The majority of pupils who took part in the research tend to look for reasons of behavioural and communication difficulties in themselves: *if I learned even more; if I didn't make mistakes writing; if I were braver; if I were able to concentrate during the lessons; if I did everything quicker*, etc. Such pupils' answers show the attitude instilled by teachers and parents that the very child is guilty for difficulties arising to him / her. The minority of children think that they would avoid problems if they received assistance from parents, teachers, friends, if they were not separated from classmates and if other pupils treated them with respect.

Teachers, on the contrary, tend to see the problem and its solution in the very pupils, parents or other circumstances but not in their own activities. Teachers envisage the majority of problems in the very children: *if he were polite, thought what he is doing; if the girl reacted to remarks because she is talented enough; if the child finally descended on the ground and grew; if began to hear what I am saying and not only wanted to learn but also learned; if at least made a small effort; if didn't dream in the lessons and if asked when something is not clear, asked, asked for help*. Teachers would like to receive assistance from parents and the teacher's assistant; then, in their opinion, there would be no difficulties because solely teacher's efforts are insufficient: *if parents gave more love for the child and he / she felt safe and loved; if parents took interest in the child, because solely the teacher's efforts are insufficient; if there were the teacher's assistant, etc*. Although rarely, but some of teachers' statements reflected emphasis on exclusion of these pupils: *if there were no such children at all; if A. were not in the classroom*. According to these teachers, there would be no problems if such children were not present. Teachers' attitude towards children with behavioural and / or communication difficulties depends on the teacher's experience and competencies. The more the teacher has

encountered practice of educating such children, the more often he / she finds suitable education methods and does not reject these pupils.

Conclusions

1. Pupils with behavioural difficulties are characterised by a controversial approach to school: at school they can meet the need for communication with their peers and acquire knowledge; however, their poor satisfaction with organized and regulated teaching process (or separate lessons) and conflict relationships with other pupils come to prominence.
2. Pupils' experienced difficulties manifest themselves in various areas of learning (more often in writing and calculating, more rarely in physical education, technologies, etc.); they are mostly determined by the lack of attention and activity organization, and more rarely, by the lack of memorising and understanding of teaching materials.
3. Children suffer due to their misbehaviour, experience anxiety and tension; mostly tend to blame themselves for arising problems; such pupils' approach could have been formed by educators and parents, constantly blaming the child and emphasizing arising difficulties.
4. At school pupils with behavioural and communication difficulties feel little satisfaction with the educational process and communication, while teachers insufficiently focus on assistance to the child and mostly tend to blame children for their misbehaviour. Communication between teachers and pupils with behavioural problems should be changing replacing disciplinary relationships with the emphasis on positive behaviour and assistance to the child.

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THE REALIZED AND EXPECTED EARLY CHILDHOOD INTERVENTION PRACTICES IN LITHUANIA

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Abstract. *Inclusive early childhood practices are at the forefront of the research and practice efforts in many European countries. Inclusion in early childhood programs can set a trajectory for inclusion across the life course, making it critical that we include individuals with special educational needs in all facets of society from birth. In many European countries, including Lithuania, children with special educational needs and their families continue facing significant barriers to accessing inclusive high-quality early childhood practices and too many pre-school children with special educational needs and disabilities continue receiving special education services in separate settings, as opposed to the least restrictive environment. The aim of the research was to assess the realized and expected early childhood intervention practices while educating children with diverse needs in inclusive pre-school settings. The study was based on a survey using the instruments of Recommended Practices in Early Intervention/Early Childhood Special Education. The instrument includes the following topic areas: leadership, assessment, environment, family, instruction, interaction, collaboration, and transition.*

Keywords: *children with special educational needs, early childhood intervention, educational support, family support.*

Introduction

Inclusion is an educational approach and philosophy that provides all children with community membership and greater opportunities for achievements, particularly for social-emotional ones. Inclusion is about making sure that every child from his/her birth feels welcomed and that his/her unique needs and learning styles are recognized, valued, and met. This approach seems to be highly valuable in today's turbulent social economic and cultural contexts. An equitable inclusive education system is one in which all children, parents, other family, and community members are welcomed and respected, as well as every child is supported and inspired to succeed in the culture of high expectations for learning. The basic premise of inclusive education is that schools are about belonging, nurturing and educating all students regardless of their differences in ability, culture, gender, language, class and ethnicity (Kozleski et al., 2007). Educational settings and teachers, therefore, need to commit to the transformation of their communities for the implementation of inclusive education to be successful. Regarding the importance of the role of

teachers, research indicates that they play a critical role in the implementation of inclusive education (Forlin et al., 2010). The stress on inclusion from early childhood means holding high expectations and intentionally promoting participation in all learning and social activities, facilitated by individualized accommodations, and using evidence-based services and supports to foster their development, as well as a sense of belonging and friendships with peers (Policy Statement on Inclusion, 2015). This applies to all children, including those with special educational needs (SEN). The majority of European countries implement inclusive education and focus on the meeting of the diverse educational needs of children¹. Nevertheless, in many European countries, including Lithuania, children with SEN and their families continue facing significant barriers to access inclusive high-quality early childhood practices and too many pre-school children with SEN continue to receive special education services in separate settings.

The article focuses on inclusive early childhood education and intervention (ECEI) practices. The *aim* of the research was to assess the realized and expected ECEI practices while educating children with diverse needs in inclusive pre-school settings. The study was based on a survey *Recommended Practices in Early Intervention/Early Childhood Special Education*². The article presents the data collected in Lithuania in 2015.

The Concept of Inclusive Early Childhood Education

We base our understanding of inclusive education on the internationally adopted definition which highlights that inclusive education is an ongoing process aimed at offering quality education for *all* while respecting diversity and the different needs and abilities, characteristics and learning expectations of the students and communities, eliminating all forms of discrimination (UNESCO, 2009). The philosophy of educating children gradually focused on providing equal educational opportunities from a *rights-based* perspective which had led to inclusive education continuing to be implemented in most European countries and beyond over the past three decades. Inclusive education has increasingly become a focus of debate in discussions about the development of the educational policy and practice around the world (Farrell & Ainscow, 2002). Regarding the practicality of fully implementing inclusive education, many jurisdictions, though, continue to be reluctant to support inclusion (Woolfson & Brady, 2009; Alghazo & Gaad, 2004), especially when learners have more challenging support needs (Talmor, Reiter & Feigin, 2005). However, the

¹ www.european-agency.org

² DEC/Division for Early Childhood (2014). *Recommended Practices in Early Intervention/Early Childhood Special Education 2014*. Retrieved from <http://www.dec-sped.org/recommendedpractices>.

education of children with SEN is now an established key policy objective in many countries. Lithuania follows the description of children with SEN as having a need for assistance and services in the education process that occurs due to being exceptionally gifted, having congenital or acquired disorders or disadvantages in a person's surroundings (Teacher Education for Inclusion, 2010). Equity and inclusive education aims to understand, identify, address, and eliminate the biases, barriers, and power dynamics that limit children prospects for learning, growing, and fully contributing to society (Equity & Inclusive Education, 2014). Teachers, school administrations, school boards and policies do emphasize the need to achieve an inclusive classroom atmosphere. However, it is striking even over a decade into the unfolding of such policies, how tenuously these efforts are perceived as having any tangible links with the human rights dimension and the fundamental imperative to provide each student with access to learning (Beach, 2010). Accessibility in ECEI programs means that all children can interact with materials, activities, teachers, and peers to the fullest extent possible and with equal frequency and enjoyment. When applied in ECEI settings, universal design concepts refer to the program's physical features as well as to such features as daily schedule and classroom routines, curriculum, and teaching strategies (Conn-Powers et al., 2006; Klein et al., 2000). We base our understanding of inclusion in ECEI as holding high expectations and intentionally promoting participation of children in all learning and social activities, facilitated by individualized accommodations, and using evidence-based services and supports to foster their development, friendships with peers and sense of belonging. This applies to all children including those with SEN. Supporting all children to fully participate in their communities requires high-quality ECEI policies and practices. High-quality environment and support to classroom staff must characterize inclusive ECEI settings to ensure desirable outcomes for all children, especially those with SEN (Cate et al., 2010). High-quality inclusive ECEI consist of three key components: accessible to all children and their families; designed and carried out to show a great consideration for the unique needs of each child; ensure full participation (Underwood & Frankel, 2012). In high-quality ECEI programs, all children have opportunities to develop their language, social, physical and cognitive abilities. Inclusive ECEI is not just about placement in a program, but also active participation in social interactions and the development of children's abilities and skills. Children at a range of developmental levels, including those with identified SEN, should be welcomed as valued members of ECEI community by supporting active participation (ibid). Parents are among the most influential yet significantly underrated actors in their children's education. By recognizing parents' roles in their child's education, and working together, staff and parents can create and maintain a high-quality education for children. Professionals

working with young children and their families must recognize and respect their cultures, ethnicities, languages, values, faiths, and belief systems, and thus be able to effectively support children's development and learning. Cooperation between ECEI staff and parents is considered as beneficial for children's progress and development (Key Data on Education, 2009). Expertise from a wider community may help to improve the effectiveness of settings, ensure better use of resources and enabling extra-curricular activities to be delivered. For these reasons, many countries encourage ECEI practitioners to work closely with their stakeholders to support children's development, learning and general well-being (Key Data on ECEC in Europe, 2014). Inclusive education, as outlined in the EU documents, is a response to the widespread social, economic, political changes in Europe, as well as a means of establishing a caring, humane and egalitarian society. The introduction of this policy will, however, require extensive changes in ECEI, as the focus shifts from children's adjustment to the demands of the system, to the system's capability to accommodate all learners' needs as inclusively as possible.

Inclusive Early Childhood Practices in Lithuania: Realized and Expected

Research Design

Research methodology is based on the concept of inclusive education and the methodological approach, which combines exploratory and descriptive research. The exploratory research, which is broad in focus, helped us identify the key issues related to realized and expected ECEI practices. Descriptive research used to accurately assess and describe the realized and expected inclusive ECEI practices while educating young children with SEN in pre-school settings in Lithuania. For this survey, the data has been collected via online questionnaires '*Recommended Practices in Early Intervention*'. The article presents a part of the complex research data, taking into account the comments of participants. The data has been collected in Lithuania in the period August to November, 2015. There were 280 questionnaires collected (215 valid for analysis). The group of respondents consisted of 56 pre-school teachers, 47 speech therapists, 50 coordinators of the Child Welfare Commission, 27 other specialists, 14 special pedagogues, 8 social pedagogues, 7 psychologists, 3 social pediatricians, 1 social worker, 1 neurologist, 1 physiotherapist; 65 respondents omitted this information. The vast majority of respondents were female, and only two males took part. The respondents represented 149 pre-school settings, 10 early childhood intervention services, 37 other institutions related to ECEI. All settings included children with SEN.

Ethical issues have been considered when conducting the research. The participants received information about the research aims, methods, and the use of the results online before the research started. Confidentiality of their personalities has been assured. In order to respect the privacy and autonomy of the specialists, only those who were willing took part in the research.

Results

Realized and Expected Inclusive Early Childhood Practices

The realized and expected ECEI practices have been explored and described taking into account the comments of participants on *leadership, assessment, environment, family, instruction, interaction, collaboration, and transition*.

Leadership. The work of practitioners at the frontline is critical to improve outcomes for young children who have, or are at risk for, developmental delays/SEN and their families, but practitioners do not operate in a vacuum. Leaders establish the conditions that are essential for the successful implementation of ECEI (DEC, 2014). The analysis of the comments on *leadership* (115 comments received) revealed that participants working in the field of ECEI stressed the leader's contribution to team work and educational environment as key issues realized in ECEI practice, while the most expected ones are to receive more resources (material, human, informational, time etc.) and to ensure improved collaboration with parents. According to the requirements, leaders should promote efficient and coordinated service delivery for children and families by creating the conditions for practitioners from multiple disciplines and the family to work together as a team. Therefore, respondents admitted that *'leaders create and implement policies and practices that promote the shared decision-making with practitioners and families, and attention is focused on how 'to adjust an educational environment for all children, particularly for those who have special needs'*. On the other hand, they said *'no children with SEN - no problems'*. Leaders meet a lot of challenges related to resources: *'it is difficult to find money to cover professionals training courses which are quite expensive', 'to engage more specialists', etc.* According to respondents, the collaboration with parents is valued, but it is not sufficient because *'not all parents are collaborating, they used to conceal child's problems'*, etc. The personal characteristics of leaders and their efforts to create a positive microclimate in ECEI have been also highlighted. The results showed that leaders did much to create the culture and climate in which practitioners would feel a sense of belonging and want to support the organization's mission and goals (*'leaders create a warm atmosphere in the kindergarten', 'everyone*

can feel he/she is valued and important’, etc.). However, some comments relate to ‘autocratic style of management’, ‘stereotypical attitudes toward education and changes’, etc. For the overall picture of realized and expected leadership see Fig. 1.

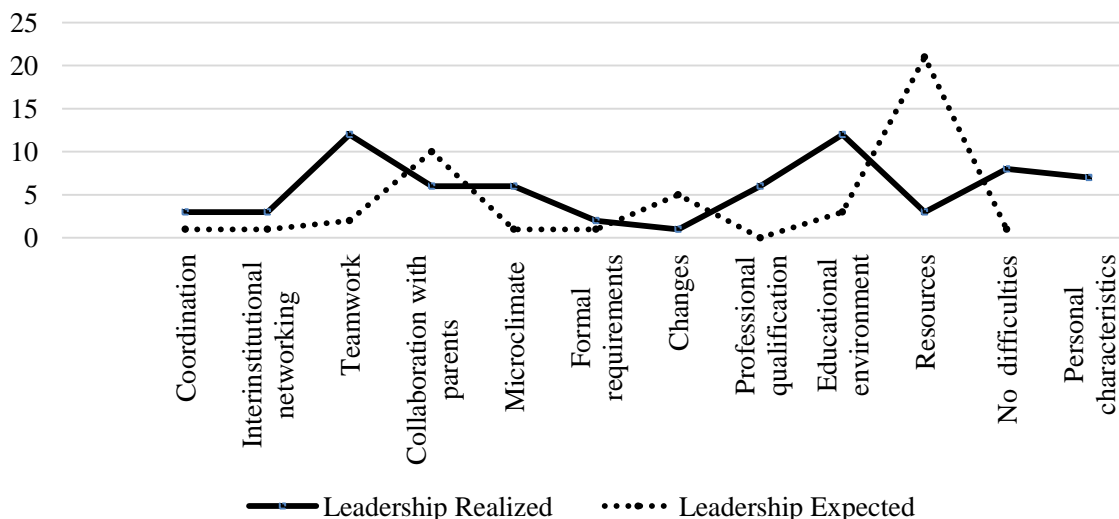


Fig. 1 **Realized and expected ECEI practices related to leadership**

Assessment in the field of ECEI is the process of gathering information to make decisions, and it is conducted for the purposes of screening, determining eligibility for services, individualized planning, monitoring child’s progress, and measuring child’s outcomes (DEC, 2014). The comments (n=122) of the participants have been analyzed, and 8 categories related to the assessment have been identified: collaboration with parents, team work, use of assessment instruments, assessment for education and support, assessment competence, assessment as a process, strengths and needs focused assessment, and formal assessment. The results show that the assessment for education and support, the collaboration with parents and the teamwork have been introduced as the prior issues realized in their ECEI practices. Practitioners implement systematic ongoing assessment to identify learning targets, plan activities, and monitor child’s progress to revise instruction as needed: ‘we developed the system of assessment to identify peculiarities, needs, and social situation of the child’. It helps us develop an Individual Education/Support Plan’; ‘assessment is a process which facilitates support to a child and a family’, etc. According to the respondents, they collaborate with parents in their ECEI practice: ‘the opinion of parents is important for us’, ‘the priorities of child’s education are set up together with parents’, ‘cooperation with parents ensures the continuity of the support to a child’. However, it needs to be improved: ‘information provided by parents is not always correct’, ‘we cannot always trust to them’, ‘not every

family knows how to support their child’, ‘parents are very cautious about the assessment’ etc. Also, the assessment for child education and support have been highlighted as requiring some improvement. According to the respondents, there is lack of specialists (‘mostly the speech therapist is responsible for the needs’ assessment’), and lack of competence to properly assess a young child (‘this is difficult to assess a child due to his/her poor communication’). The key categories of the comments related to the assessment are displayed in Fig. 2.

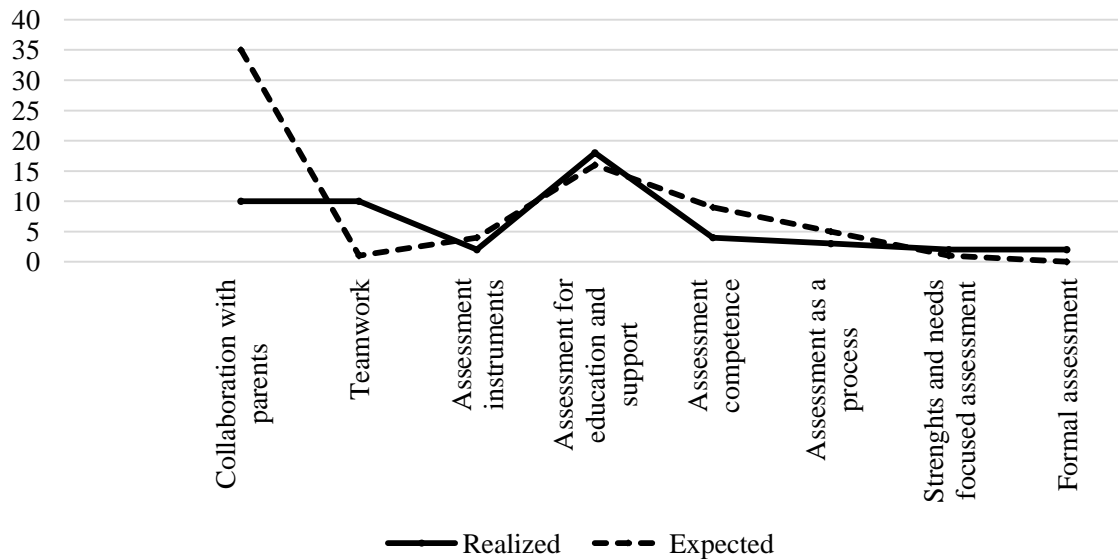


Fig. 2 Realized and expected ECEI practices related to assessment

Environment. Young children including those who have, or are at risk for, SEN learn, play, and engage with adults and peers within a multitude of environments such as home, school, child care, and the neighbourhood. Environmental practices refer to the aspects of space, materials (toys, books, etc.), equipment, routines, and activities that practitioners and families can intentionally alter to support each child’s learning across developmental domains. Through the implementation of the environmental practices, practitioners and families can promote nurturing and responsive learning environments that can foster each child’s development (DEC, 2014). The comments (n=102) of the participants are focused on eight categories of realized and expected practices: environment adjusted to the age, safe environment, specialized environment, environment available for children with SEN; and lack of space, lack of professionals, overcrowded rooms, disagreements with parents. The analysis of the comments revealed that the environment was sufficiently adjusted to children’s age, and it was at some degree available for children with SEN: ‘the suitable educational environment for all children according to their age is created’, ‘there is a lot of extra space in the kindergarten’, ‘we have a

special group of children with severe SEN. Those who have moderate SEN are integrated into general groups with their peers, ‘we use specialised environment to provide special support to children, e.g. room of a speech therapist’, etc. However, it is expected that environment should be much more available for children with SEN: ‘we have no facilities in order to provide proper support to children with SEN’, ‘outdoor spaces are not adjusted’. On the other hand, there were some comments, which showed a clear relation between physical environment of the setting and the attitudes of professionals: ‘we are not implementing inclusive education – we have no children with disabilities’. The evidence shows that parents and professionals have disagreements on environmental issues in ECEI settings: ‘often the expectations of a family are higher than the school can meet’. Realized and expected practices related to environment are displayed in Fig. 3.

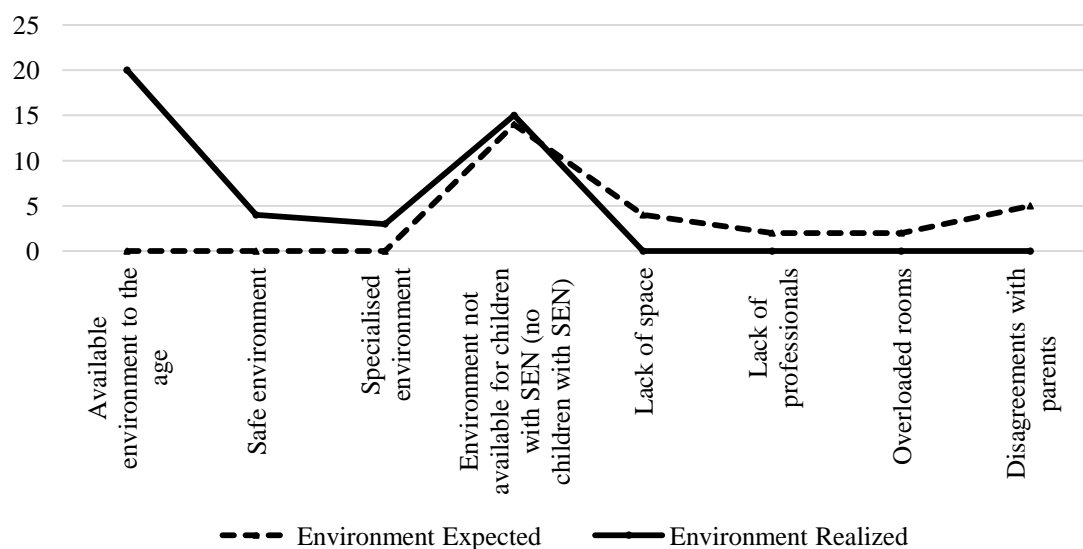


Fig. 3 **Realized and expected ECEI practices related to environment**

Family practices refer to ongoing activities that promote the active participation of families in the decision-making related to their child, lead to the development of a service plan, support families in achieving the goals they hold for their child. Family practices encompass three themes: *family-centred and family capacity-building practices, family and professional collaboration* (DEC, 2014). After analyzing the comments (n= 92) of the participants, we found out five categories on realized ECEI practices related to family, such as: professionals’ initiative and competence, parents’ initiative, resources, the briefing and educating of families, and the shift of responsibility. According to the participants, their initiative and professional competence to work with families together with their focus on training and information provision to families allow them realize ECEI practices: ‘we have an excellent team of

professionals including the Child Welfare Commission’, ‘specialists are searching for the means to cooperate with parents’, ‘we try to meet family expectations’, ‘we provide training for parents’, ‘we inform parents on child’s achievements, provide recommendations for parents to support the child at home’. At the same time, participants expect much more parents’ initiatives while educating young children and providing educational (including special) support to them: ‘parents do not accept their child’s disability’, ‘this is not easy to contact parents – they are always in a hurry, plunged in their routine’, ‘parents often don’t know what they want’, ‘we, as a teachers don’t want to disturb parents...’. Realized and expected practices related to family are demonstrated in Fig. 4.

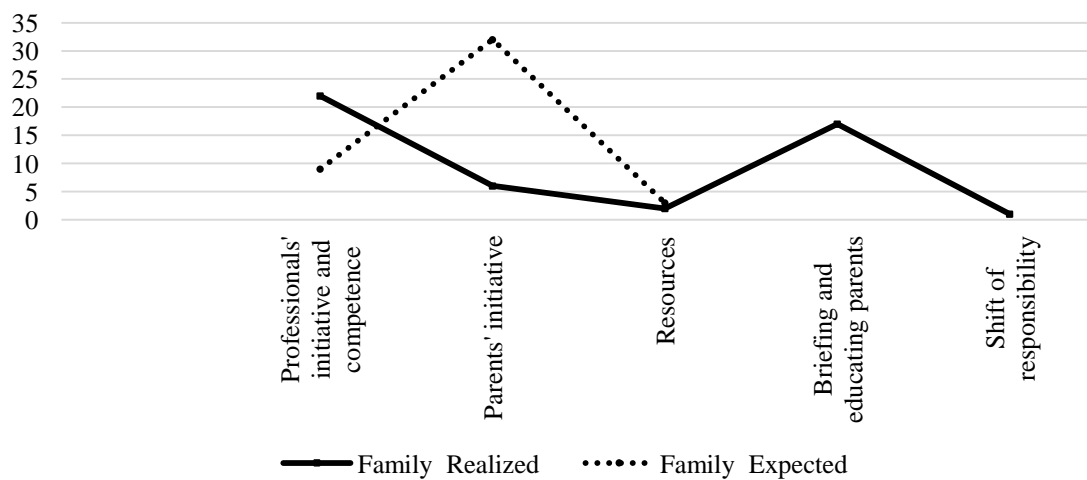


Fig. 4 Realized and expected ECEI practices related to family

Instructions. Instructional practices intentionally and systematically inform what and when to teach, how to evaluate the effects of teaching, how to support and evaluate the quality of instructional practices. Instructional practices are a subset of intervention activities conducted by practitioners and parents (DEC, 2014). The analysis of participants’ comments (n=99) revealed 5 key categories related to instruction: collaboration with parents, professional competences, the briefing and consulting of parents, teamwork, the individualized and timely support provided to children if needed. The results show that professional competence of instructions is recognized as well realized in ECEI practice: ‘specialists observe, analyse, plan and provide support accordingly’, ‘they find different methods to involve every child into educational activities’, ‘we encourage children’s participation’, ‘support is integrated into the routine’. On the other hand, participants expect it to be improved: ‘kindergarten teachers lack of competence to educate children with moderate SEN, they don’t pay

enough attention to these children’, ‘we provide support according to kindergarten’s resources and potential, but this not always suits children’s needs’. The evidences show, that ECEI proceeds in teamwork and tend to provide information / consultation to parents rather than collaborate with them: ‘in order to achieve good results specialists communicate and collaborate with teachers’, ‘the Child Welfare Commission do a lot to support teachers meeting SEN of children’, ‘individual support to a child is provided’, ‘consultations to a family are ensured’. However, ‘not all parents come to meet specialists’, ‘parents do not do their ‘homework’ according to specialists’ tasks to support a child’, ‘it is difficult to involve parents into support because they think that specialists alone should do this’. Nevertheless, the ECEI practitioners stressed that there was lack of collaboration with parents and that it needed to be improved (Fig. 5).

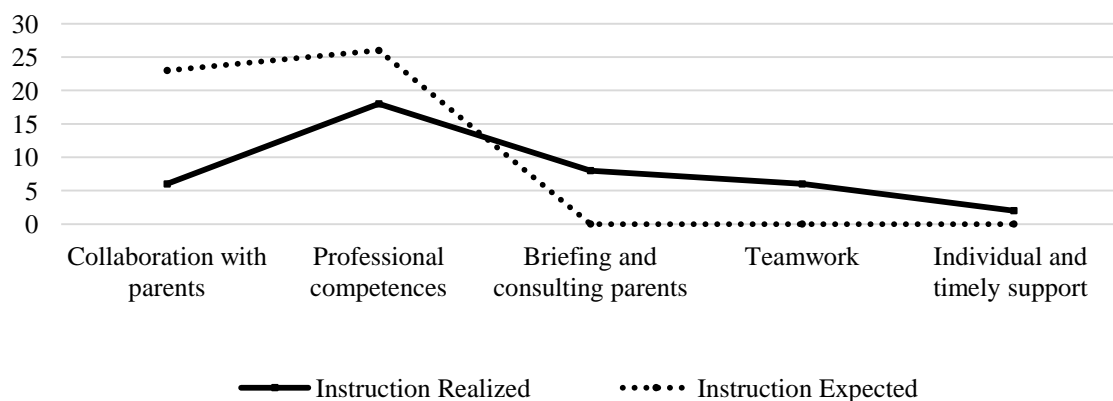


Fig. 5 **Realized and expected ECEI practices related to instructions**

Interaction. Sensitive and responsive interactional practices are the foundation for promoting the development of a child’s language as well as cognitive and emotional competence. Practitioners engage in these practices across environments, routines, and activities and assist others in the child’s life: family members, other caregivers, and peers, in learning sensitive and responsive ways to interact with the child and promote the child’s development (DEC, 2014). The analysis of the comments (n=73) showed that participants focused on interaction in order to identify child’s needs, provide support, ensure positive home–institution relationships and child’s relationship with peers: ‘observation and communication with a child allows us recognize the main needs of the child’, ‘...encourage child’s motivation to communicate’, ‘non-traditional methods support child’s ability to learn problem-solving skills’, ‘ensure the continuity of interaction in a kindergarten and at home’, ‘children

with SEN are integrated into group activities with their peers’, etc. On the other hand, specialists see the interaction as their duty: ‘the teacher is responsible for everything, including unpredictable issues’. Results showed that through the interactions practitioners recognized children’s needs, preferences, and interests, and promoted their development and education accordingly. Even though it is expected that interaction as a duty of pedagogues should be improved (Fig. 6).

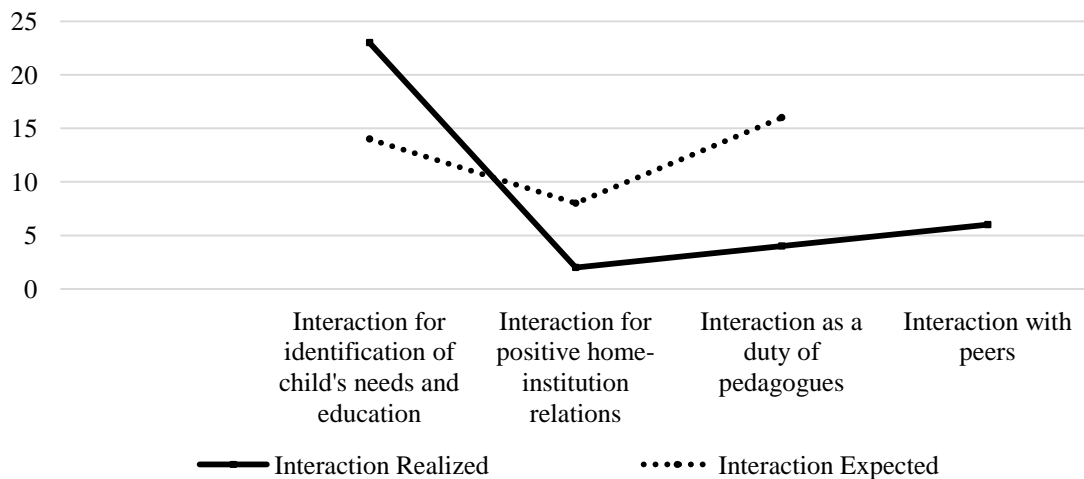


Fig. 6 Realized and expected ECEI practices related to interaction

Collaboration practices are these that promote and sustain collaborative adult partnerships, relationships, and ongoing interactions to ensure that programs and services achieve desired child and family outcomes and goals. The family is an essential member of the team and the team includes practitioners from multiple disciplines as needed (DEC, 2014). Five key categories related to collaboration have been identified in the comments (n=87) of the participants: teamwork and coordination, family as a part of the team, networking with professionals and institutions beyond of the setting, and professional competence. The results show that practitioners representing multiple disciplines work together as a team to plan and implement support and services to meet the needs of children: ‘specialists work in close cooperation and know about each other’s discipline very well; we support and complement each other’, ‘we seek to solve problems together, search for the ways how to better support families’. Practitioners and families work together as a team though not systematically, and it needs to be improved: ‘specialists representing diverse professions and families work together while planning individual support to a child and a family’, however, ‘teamwork with families is often impossible’, ‘parents are not motivated, they used to require...’. Evidences show that professional competence to collaborate with families is quite low and needs to be improved:

'we have no multi-professional team', 'lack of collaboration forms with families', 'some specialists lack the competence to cooperate with parents', etc. Realized and expected practices related to collaboration are displayed in Fig. 7.

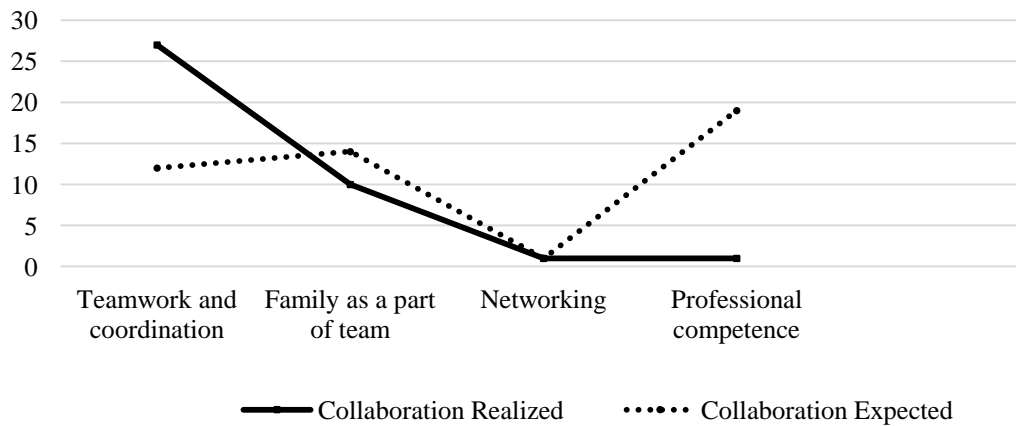


Fig. 7 **Realized and expected ECEI practices related to collaboration**

Transition refers to the events and processes associated with key changes between environments during the early childhood years and the practices that support the adjustment of the child and family to the new setting. These changes occur at the transition from early intervention to kindergarten and later to school. As with other life transitions or changes, positive teacher–child and practitioner–family relationships are associated with greater satisfaction, better adjustment, and better child outcomes (DEC, 2014). Analysis of the comments (n=65) revealed three main categories, such as transfer of information to another setting together with a child, transfer of information to a family, transfer of information to another setting as a part of the inter-institutional collaboration. Practitioners did agree with the importance of information exchange to support positive outcomes for both child and family, and this should be a part of inter-institutional collaboration: '*we exchange information if necessary*', '*specialists exchange information regarding support provided to a child when a child moves to another setting*', etc.

However, the transfer of information is not a requirement in ECEI practice and this is hardly ever realized, though professionals do it voluntarily: '*there are no regulations or recommendations regarding the transfer process*', '*the incoming child does not bring any documents/portfolio, sometimes parents would conceal the information related to SEN of a child*'. Realized and expected practices related to transition are available in Fig. 8.

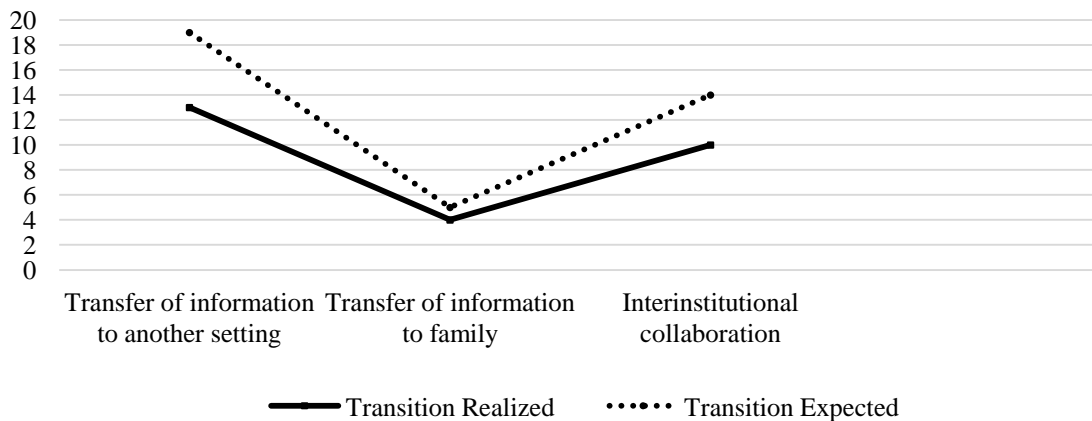


Fig. 8 Realized and expected ECEI practices related to transition

Summing-up

The categories related to realized / expected ECEI topics, such as Leadership, Assessment, Environment, Family, Instruction, Interaction, Collaboration, Transition, have been revised and the topical key categories in all analyzed topics have been selected. These are as follow: *teamwork, educational environment, collaboration with families, professional competence, inter-institutional networking, and resources.*

Realized ECEI practice. The results show that *inter-institutional networking* is most topical in the Transition, creation of available educational environment – in Interaction and Assessment, *professional competence* – in Instruction and Family, and *collaboration with families* – in Family, Assessment and Collaboration (Fig. 9).

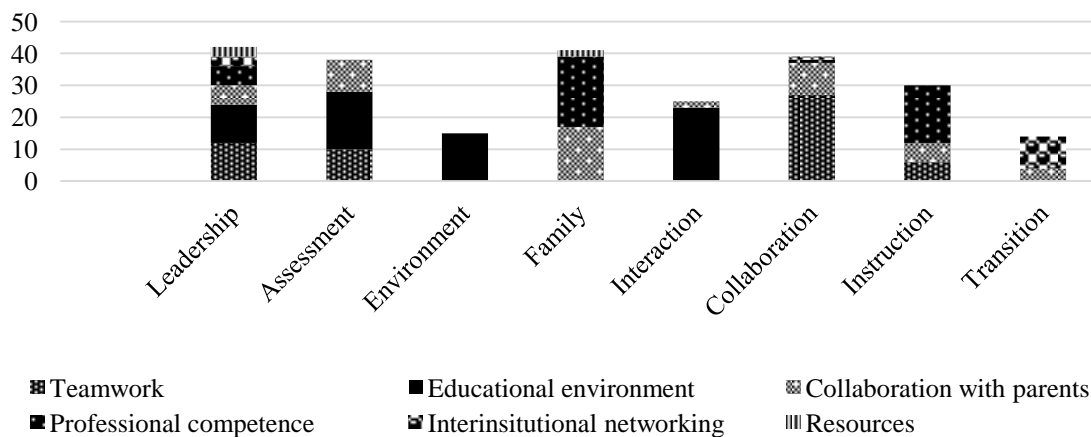


Fig. 9 Distribution of topical key categories in realized ECEI practices

Expected ECEI practice. Evidences of the research show that *teamwork* is the most topical in Collaboration, *professional competence* – in Instruction, Collaboration, Assessment, and Family, *available educational environment* - in Environment and Interaction, *inter-institutional networking* – in Transition, *collaboration with parents* is the most challenging and expected to be improved in Assessment, Family, Instruction and in the rest topics of ECEI practice. Resources are the most expected for Leadership and Assessment (Fig. 10).

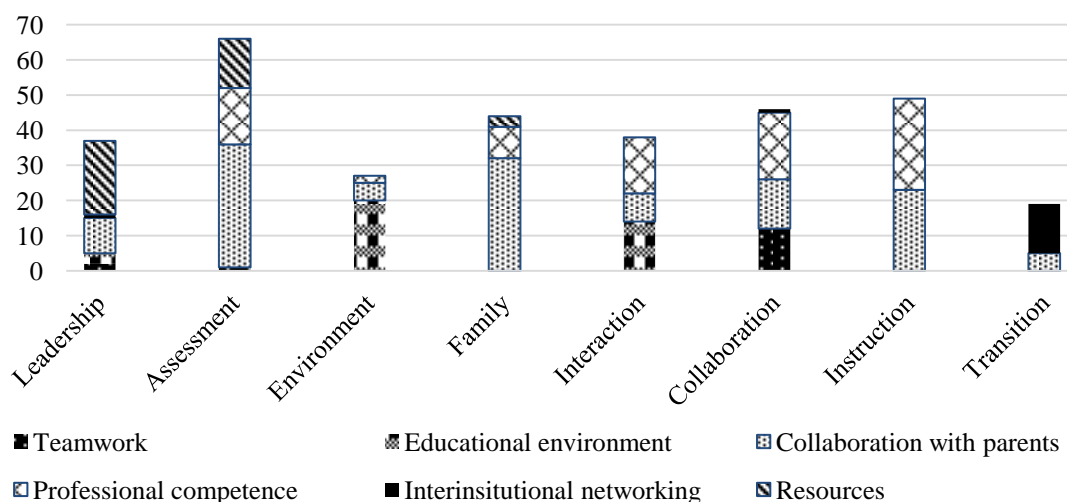


Fig. 10 Distribution of topical key categories in expected ECEI practices

Conclusion

The research showed that *teaming and collaboration* was the highly developed practice among ECEI specialists from multiple disciplines, though *professional competence* was expected to be improved, particularly for Instructional Practices, which are a cornerstone of ECEI. Teachers, other practitioners, family members, and other caregivers need to use instructional practices to maximize learning and improve developmental and functional outcomes for young children, including those with SEN.

The evidence shows that *cooperation with families* needs to be strengthened, particularly in Assessment, Instruction, Family, Leadership, and the rest of topics, as a family is an essential member of the team to achieve mutually agreed outcomes and goals that promote family competences and support the development of a child.

The issue of lacking resources, including financial, time, space, etc., has been highlighted as one of the main obstacles to realizing high-quality ECEI in Lithuania. The analysis of the comments revealed still existing stereotypical attitudes of ECEI specialists towards children with special educational needs

(‘No children with SEN – no problem’), and misinterpretation of inclusive education (‘We do not implement inclusive education because we have no children with disabilities’). The last-mentioned issue proves that all practitioners who work with young children, including those with SEN, are expected to access professional development to build knowledge and skills related to developmentally appropriate practices, discipline-specific knowledge, and positive attitudes.

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FROM SEGREGATION TO CELEBRATING DIVERSITY

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Abstract. *The move from segregation of students with behaviour difficulties to one of inclusion required teachers to make a significant paradigm shift. This paper reviews the strategies used by the New South Wales state education department to facilitate, over time, paradigm shifts in teacher thinking. Are there factors which limit the success of these strategies? What can be learnt from this?*

Keywords: *student behaviour, inclusion, teacher professional learning, education policies.*

Introduction

Do we really want to celebrate diversity when it comes to students who are experiencing difficulties with following rules, accepting consequences, interacting and communicating in a classroom setting? Such students, who are usually labelled as having an emotional disturbance or behaviour disorder (EBD), are the ones whom teachers find challenging (Kauffman & Landrum, 2009) and who can add to the teachers' stress levels and dissatisfaction with their career (Melnick & Meister, 2008). How can we support teachers to make the paradigm shift necessary to include these students in the classroom and in the celebration of diversity? Does professional learning do the trick?

This paper will review the transition from segregation to inclusion by the New South Wales (NSW) state education department, currently known as The Department of Education and Communities (DEC). It will identify the services and strategies that relate to students with behavioural difficulties that have been part of the Department's strategy to help teachers adjust to, and comply with, new policies culminating in celebrating diversity and review professional learning since the 1980s.

Changes to the dominant discourse surrounding the education of students whose behaviour impacts on classroom coherence and management have required teachers to undergo paradigm shifts in their beliefs about the education of such students, how teachers view their classrooms, their role and the responsibilities of other students in the class in the inclusion equation. In NSW, the DEC has used teacher professional learning to assist with the implementation of the new policies and with each shift in the dominant discourse has introduced new courses, modules and readings. They have

complimented this with additional resources such as special classes, known as support classes in NSW, in regular schools and in special schools, known as Schools for Specific Purposes, along with introducing additional support personnel. A raft of policy documents has guided the whole process. However, is this sufficient to achieve the necessary paradigm shift?

Aim of the study

This study aims to identify what strategies have been employed by the DEC to encourage teachers to make a paradigm shift from segregation to inclusion as well as what these strategies teach us.

Method

This paper is based upon an analysis of DEC policy documents and support services. Current theories on inclusion, professional learning and educational change management have guided the analysis and discussion.

The dominant discourse

Almost from the earliest days of public education in NSW, the dominant discourse concerning the education of students with EBD has been one of a deficit model. The label emotionally disturbed/behaviour disordered says it all. It is the student who has the problem. This works against including students with EBD in regular settings. The medical model focuses on a causal relationship. Students can be seen as different from their peers, as the “other” one in the class (Van Swet, Wichers-Bot & Brown, 2011). “A concern raised about mainstream policies and practices related to student behaviour is that they invariably locate ‘the problem’ within individual students, rather than in the context of classrooms” (Sullivan, Johnson, Owens and Conway, 2014, 4) therefore the responsibility for change rests with the student. Furthermore, labelling can lead some teachers to doubt whether they are qualified to teach students with disabilities (Slee, 2001). According to Senge (2014) “The biological world teaches that sustaining change requires... addressing (of) the limits that keep change from occurring.” (p. 8) The use of labels for identification and placement of students with disabilities, regardless of the nature of the disability, is a limiting factor and one that works against any paradigm shift by teachers. It was only in the 2000s that the DEC embraced a social model which reflected student needs, environmental adjustments, teacher professional judgements and personalised learning plans.

Then and now: public education in NSW and services for students with behaviour issues

Education in NSW has been influenced by a range of factors both historical and cultural such as political instability and the convict beginnings of the colony (1788). It was not until 1848 that Governor Fitzroy was able to establish the National Board of Education which created a government education system. A segregationist approach towards education of students with aberrant behaviours was established when the *Vernon* Nautical Training ship was launched as a program for delinquent boys in 1886.

In 1880 the Public Instruction Act meant that the administration of the education system became the responsibility of the State through the Department of Public Instruction. The Public Instruction Act of 1880 has provided the framework for education in NSW since that time. (Wilkinson, 2008). Children had to attend school between the ages of six and fourteen, which became seventeen only in 2010. The Guildford Truant School, again segregating troublesome students, was established in 1918, as compulsory education brought with its own problems. Segregation continued when the Enmore Activity School (1936) was established to provide a three year course for adolescent boys with a normal IQ who were educationally backward or had bad behaviour problems.

After the Depression and World War II there was considerable pressure in Australia for economic and social reform. A new middle class had developed in Australia, one that could not provide a secure future for their children by taking them onto the land or into business. Industrialisation, the basis for the new post-agricultural Australian economy, meant that job security for their children could be found in the growing public service, banking, retail and insurance industries. In response to this, from the 1950s through to the 1970s, each Australian state reformed or expanded their secondary school systems. During this period the first special school for students with emotional disturbance, Arndell, was established (1959) again segregating students whose behaviour challenged teachers.

The next major change to public education in NSW was the Wyndham Scheme, implemented from the early 1960s and based on establishing comprehensive high schools which did not determine their student intake on attainment or ability to pay fees and which prepared students for a broad range of post-school options. Gulson writes that there was an acceptance of the comprehensive schooling model as its aim was to allow all students to access equal educational opportunities and middle class parents favoured this. This is not surprising in an era which consisted of social movements, feminism and concern for the rights of the individual (Noyce, 1985).

In the 1960s and 1970s the quest continued for greater freedom and

openness. Henry Schoenheimer, an Australian educational commentator of that time believed that it was time to question everything: structures, institutions and beliefs. Schiefelbusch (1986) refers to the 1970s and 1980s as the “Renegotiation Period” when boundaries between regular and special education were being renegotiated. This process is reflected in the establishment, from 1972, of Adjustment Classes, special classes for students with emotional disturbance, which were located in regular schools in NSW and allowed for integration, at least partial, into mainstream classes.

By the 1980s neoliberalism began to influence public policy, including education, and it has continued to do so into the twenty-first century (Gulson, 2007). Neoliberalism favours individual competition, accountability, management and efficiency (Acton & Glasgow, 2015). If, as Declan McKenna notes, all policy processes are inherently political, the release of the *Enrolment of Children with Disabilities* policy and the *Integration Statement* in 1988 by the then Director-General of Education, is a valid example of how education was reflecting the neoliberal drive for efficiency, accountability and managerialism. It should be noted, however, that the policy also reflected the ideology of the time: that all children can be taught and that integration would allow students with disabilities to be part of a wider community.

Regardless of the aetiology, the era of integration of students with disabilities was firmly underway. Teachers had to make a paradigm shift with respect to students with disabilities including those with behavioural issues: if they continued to regard students with disabilities as the source of the problem, integration and later, inclusion, would be doomed to a half-hearted implementation without commitment. As later discussion will indicate, from the 1980s, as integration placed new demands on schools, the DEC offered direction through its policy documents and accompanied this with significant professional learning concerning the management of student behaviour. This was important as the greatest changes to the dominant discourse surrounding students with behaviour difficulties were yet to come with inclusion. “While older concepts, such as integration and mainstreaming, focused on how to integrate pieces into established wholes, inclusion became a quest for creating a whole” (Gorranson, Nilholm & Karlsson, 2011, p. 541).

The impact of legislature

As Skrtic (Skrtc, 1991) argues, schools and systems need external pressure in order to bring about change. The DEC is bound by, at a national level, the Disability Discrimination Act 1992, the Disability Standards for Education 2005, National Disability Strategy 2010-2020 and the National Disability Insurance Scheme Act 2013. The Standards cover enrolment, parent choice,

access and participation, curriculum development, accreditation and delivery, student support services, elimination of harassment and victimization. They include obligations for making reasonable adjustments to a student’s learning program and environment. It should be noted here that the term “reasonable adjustments”, however, allows schools to decline enrolments if such an enrolment would create undue hardships or interfere with the learning of other students, therefore, segregation of students with behaviour difficulties is still possible.

At a state level the DEC and its schools are also bound by the Ombudsman Act 1974, the Anti-discrimination Act 1997, and the Disability Inclusion Act 2014. These acts facilitated the move by the DEC from a disability category focus prevalent in the 1960-1970s to the current functional needs focus, where personalised learning adjustments are key.

Achieving a paradigm shift: additional resources

One way to support teachers to change their mindset is to assign additional resources geared at facilitating new procedures. A range of specialist services were created during the decades from the 1980s to the 2000s. Many of these services were available to schools to support the needs of students with any diagnosed disability, including emotional disturbance (Table 1). Some were specifically for students with EBD.

Table 1 **Additional Services for NSW schools**

Date	Service	Description	Availability
1980s	Integration Teachers	Support integration of students with disabilities into regular classes	Regular schools
	Integration Aides	Support integrated students	Regular schools
	Integration Consultants	Assist with integration including with applications for Commonwealth Schools Commission Integration Funding for individual students.	Regular schools
	Resource Teachers	Work directly in schools with students and teachers, initially withdrawing students but later working in a team teaching model in class	Regular schools
	Itinerant Support Teachers	Work directly in schools with teachers providing advice, modeling strategies in	Regular schools

	(Behaviour) IST(B)	class, helping to develop individual behaviour plans but also whole class plans	
	Support classes (ED)	Specialist classes established on a needs basis for students with a diagnosis (ED)	Usually established in regular schools
1990s	Outreach Teachers (ED)	Work in a similar way to IST(B)s but can only support students with an ED diagnosis	Regular schools
	Challenging Behaviour Team	Advise class teachers re students with moderate/severe disabilities and behaviour difficulties often associated with specific syndromes or autism	Support classes in regular or special schools
	Schools for Specific Purposes (Behaviour)	Established for students with no confirmed diagnosis but with significant behaviour disorders	Available for students from regular classes
	Support classes (ED)	Specialist classes established on a needs basis for students with a diagnosis (ED)	Usually established in regular schools
	Home school liaison officers (HSLOs)	Specially trained teachers who are authorised attendance officers. They work with schools, students and their families to resolve attendance issues.	All schools

The DEC has always maintained special schools but the nature of the needs of students attending these schools has changed significantly. In the 1980s the focus moved to integration rather than segregation. The aim was to return students to the least restrictive setting possible, usually to mainstream or regular classes, to re-integrate them. Support classes in regular schools, sometimes provided for partial integration into mainstream classes for some subjects. In the 1980s and 1990s such partial integration was not necessarily accompanied by any changes to the pedagogy, the school environment or the existing belief system about students with disabilities. The attempt was to create as little disruption to the functioning of the class as possible (Anderson, Klassen & Georgiou, 2007). This did not require a significant teacher mind shift.

Once the dominant discourse became one of inclusion, it was no longer viable to maintain the status quo in the classroom and somehow fit in the student with the disability or disorder. Re-alignment of resources is a strategy used by DEC. The introduction of *Every Student, Every School* was accompanied, in 2013, by structural change. 1800 Learning and Support Teachers were allocated to schools, which was partially achieved by restructuring the existing itinerant and support teacher programs. The new Learning and Support Teachers work collaboratively with classroom teacher to support students with disabilities.

Flexible funding to support students with disabilities was also made available to every regular school.

Another service which is important for students with behaviour difficulties is that of the school counsellor. Not only do they provide support for students and undertake psychological assessment, they also provide advice to the school executive and to classroom teachers. School counsellor numbers are increased but there is no formula for this. In 2015, \$167 million became available through the *Supported Students, Successful Students* project. This meant an increase of 45 % (DEC data) of counselling and wellbeing services across NSW.

NSW has a very strong teacher union, The NSW Teachers' Federation. A continuing argument that the Federation has promulgated is the need to allocate additional resources to support new initiatives and from the Federation's perspective the additional resources are rarely sufficient.

Achieving a paradigm shift: DEC policies

The United Nations' Convention on the Rights of the Child (United Nations, 1991) describes the importance of protecting children's quality of life and their rights to be educated in a safe environment, free from all forms of violence, victimization, harassment, and neglect. In 1994 a national inquiry into school violence, aggression, and bullying commissioned by the Australian government concluded that although insufficient data were available from which to reliably estimate the extent of school violence, aggression, and bullying, bullying appeared to be a significant national problem (Commonwealth Government of Australia, 1994).

In 1996 the DEC released the *Student Welfare, Good discipline and Effective learning Policy* which was a revision of the Student Welfare Policy of 1986 which had stated that '*Student welfare*' encompasses everything that a school community does to meet the personal and social needs of students. In 1996 this was modified to *Student welfare in government schools encompasses everything the school community does to meet the personal, social and learning needs of students*. This was the beginning of a move towards a co-ordinated educative approach to the issues surrounding behaviour. Prior to this behaviour management training had not focused on addressing curriculum and learning, it was all about the behaviours. It was an acknowledgement that a raft of additional programs and services were incomplete if learning needs were not also addressed. The focus on learning continued with the *Quality Teaching* model introduced in 2003. This stressed that the core business of teachers is pedagogy and for DEC there were three important aspects to pedagogy: it must focus on high levels of intellectual quality; there needs to be a quality learning environment; learning must be seen by students to have significance. It stressed

that intellectual quality was just as important for all students including “students identified with special needs in mainstream classes” (Quality teaching in NSW public schools, Discussion paper, 2003, 7).

As well a key focus in the 1990s was how to make schools safe, physically and emotionally, and this added to the complexity of including students with behaviour difficulties. In July 2003 the National Safe Schools Framework (NSSF) was endorsed by all Australian ministers of education. The framework aimed to raise awareness of the importance of a shared vision of physical and emotional safety and wellbeing for all students in Australian schools. The DEC released, in 2005, the *Student Discipline in Government Schools Policy*. This policy required that each school develop its own school discipline policy and that this contained: the discipline code or school rules; strategies and practices to promote positive student behaviour, including specific strategies to maintain a climate of respect; strategies and practices to recognise and reinforce student achievement; strategies and practices to manage inappropriate student behaviour. A specific anti-bullying policy *Bullying: Preventing and Responding to Student Bullying in Schools Policy* followed in 2010. DEC has also released the *Behaviour Code for Students*, the latest version being in 2015.

The Every Student, Every School (2012) initiative introduced a learning and support framework to ensure personalised learning and support for any student with special needs. This initiative aimed to provide better support for students whose learning was impacted upon by disability. Personalised learning and support has four elements: collaboration; assessed individual need; adjustments and the impact of adjustments and is solution-focussed. As van Swet et al., (2011, p. 920) point out “the concept of using a solution-focused approach in an assessment process widens the prospect of potential results” and as there are no universal solutions, it leads the teacher to work in a reflective manner collaborating with parents, students, school personnel, peers and outside providers in order to determine learning needs and address these needs.

Another element is that of assessment. Each student is assessed to determine his or her individual needs Based on this, adjustments are made which are changes to curriculum, instruction and environments that are personalised against each student’s assessed need. Finally the impact of the adjustments needs to be determined. Evidence is collected, analysed and interpreted in order to make a judgement about the value of the adjustments. This information informs further actions. As van Swet et al., (2011, p. 911) state, this means that “Diagnosis is no longer only conducted by individuals specifically trained for this purpose but, rather, within a cooperative network of teaching colleagues, parents, other professionals, organisations and the students themselves. This shifting assessment concept recognises the complexity of cognitive development

and the need for many voices to understand challenges presented by individual learners”. The limiting impact of labelling was being finally being assailed.

From 2015 it became mandatory for each school to take part in national disability data collection (National Consistent Collection of Data, NCCD) using evidence of personalised learning and support. Interestingly it is based on the professional judgement of teachers about their students.

Another document, *The Wellbeing Framework*, was release by DEC in 2015 and asks schools to build on the individual strengths of each student. DEC has moved to a strong welfare focus, from discussing student behavioural support needs because the students have been identified as emotionally disturbed, through the concept of student mental health to one of student wellbeing. The aim is to support students to “connect, succeed and thrive”. The question is where can students best achieve this?

Every Student, Every School reflects the DEC’s decision to define inclusion as applicable to both regular and special schools. Whilst seventy-seven percent of students with disabilities in NSW receive their education in regular schools (DEC, 2014 data), this document validates the existence of special schools as well. It is an acknowledgement of the confusion surrounding inclusive schooling as jurisdictions try to make sense of it with respect to their circumstances and needs. *Every student, Every School* acknowledges and celebrates diversity whether at a regular or special school but in doing so what is the impact on teachers making the necessary paradigm shift to accept that the student with behaviour difficulties is not the outsider, the one with the label but that he/she can contribute to the class environment. Similarly the teachers’ union *Special Education Position Paper (2014)* states “The experience of teachers in mainstream schools confirms, however, that for a small but significant minority of students, no amount of adjustments within mainstream schools is sufficient to engage them in learning” (p. 1). Does this help to confront existing teacher beliefs about students with behaviour difficulties?

Achieving a paradigm shift: professional learning

Most research shows that the successful introduction of reforms is directly related to the implementation strategies used by teachers and their knowledge, skills, attitudes, beliefs and ability to collaborate (Florian, 2008). As teachers have a crucial role to play as change agents it is not surprising that the DEC over the years has invested significantly in a range of professional learning programs for teachers and school executive. With respect to students with behaviour difficulties, the 1980s saw opportunities for teachers to attend courses, to be coached in school, to try out new strategies with back-up in the school in the form of the IST(B) and to engage in collegial discussions. Neoliberalism

brought with it less face-to-face contact and more training online and through video presentations, but it did put school-based individual teacher professional learning plans on the table. This meant that professional learning could be tailored to meet the needs of individual schools and, just as importantly, to individual teacher needs, therefore it should be possible to challenge and address assumptions about including students with behaviour difficulties with those teachers who need this.

Enrolment of Children with Disabilities stated that children with disabilities should attend regular neighbourhood schools “where it is possible and practical and in the best interests of the child” (*Enrolment of Children with Disabilities*, 1988, 1). This was acceptable to teachers when it came to students with sensory impairment or other non-confronting needs but a very different matter for students with EBD. There was also the question of the best interests of the remaining students in the class. Students with EBD challenged the teacher not only to re-evaluate how they thought about the students but also themselves and their role.

“From my point of view, the teacher’s professional self-concept has an important impact on how the classroom is constructed as a social practice and to what extent the classroom – and the teacher – can handle diversity” (Hansen, 2012). How a teacher thinks about, perceives or evaluates him/herself can change and is linked to how he/she develops and grows as a teacher. The educational change literatures emphasises that participation, information, education, communication, involvement, support and agreement are necessary for change (Dinham, 2008). However, teachers need more than these opportunities in order to accept and implement change. As Fulham & Hargreaves (1991, p. 5.) point out teachers need to be provided with opportunities to “confront the assumptions and beliefs underlying their practices, avoid faddism” and to develop a common purpose through on-going discussions with one another. Individualised professional learning plans for teachers provide an opportunity for this.

In the 1980s DEC started to tackle teacher beliefs and practices through a series of professional learning projects. It has continued to do so up until the present because it meets the DEC’s need to change teacher thinking but also in an attempt to ensure that teachers are not betrayed by the latest “flavour of the month” program. The DEC was also influenced by the concerns of middle class parents had about school safety and their desire to ensure that their child’s progress was not adversely affected by the inappropriate behaviour of others at school. These concerns led to a range of professional learning opportunities. The list below records some major initiatives but it is not exclusive (Table 2). There were many localised professional learning programs.

Table 2 DEC professional learning resources to support classroom and behaviour management

Date	Professional Learning Resource	Description
1980s	<p>Behaviour and Attendance Pilot Projects (BAPPS)</p> <p>Working Ideas for Needs Satisfaction (WINS)</p> <p>Talk Sense To Yourself</p> <p>Designing a management program for the disruptive student</p>	<p>Each of the 10 regions established their own projects e.g. Metropolitan South West Region designed and implemented BACME (Building Appropriate Classroom Management Eco-systems). The team worked in each high school for six months. They presented training and development workshops and advised teachers. It used an eclectic approach to classroom management encouraging teachers to choose strategies which matched their teaching style. Regional strategies but often shared further.</p> <p>Reality Therapy and Control Theory approaches in schools. Statewide.</p> <p>A cognitive restructuring approach. Material provided which can be used with students. Statewide.</p> <p>Classroom management strategies. Regional but again shared.</p>
1990s	<p>Strategies for Safer Schools</p> <p>Talk, Time Teamwork: Collaborative management of students with ADHD</p>	<p>This project added to the resources developed by BACME, maintained the whole school focus and relied on developing a team within the school who could continue to provide training and development support in the school with respect to classroom management. Statewide.</p> <p>This resource was developed by Departmental staff along with key paediatricians. Statewide and also used by other education systems.</p>
2000s	<p>Positive Behaviour for Learning</p>	<p>Evidence-based whole school systems approach which addresses the diverse academic and social needs of every student. It enables schools to establish a continuum of supports that are intensified to meet the needs of every student and it is team driven, using a problem solving approach (data, systems and practices) that engages students, parents and all school</p>

	<p>Quality Teaching</p> <p>Every Student, Every School</p>	<p>staff. Statewide, online.</p> <p>Statewide</p> <p>Nine modules detailing the initiative, Disability Standards e-learning (47,550 courses) and courses to assist with the implementation of Personalised learning and support such as: understanding autism spectrum disorder; understanding and managing behavior; Inclusion of learners with speech, languages and communication needs; understanding dyslexia and significant difficulties in reading; understanding co-ordination difficulties (24,000 courses).</p>
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The 1990s brought a change in the way that issues about behaviour were expressed which was now in terms of school safety and *Strategies for Safer Schools* was introduced. Two elements are worthy of note. The economic climate had changed. Neoliberal economic considerations, along with theories of ownership of strategies by staff and schools, placed the focus on schools developing the skills to manage by themselves and not rely on a team of outside “experts”. Similarly, the 2000s added a focus on teaching and learning, not just on behaviour strategies.

Additional professional learning is organised by schools as they are required to have incorporated professional learning into their school plan. As Ainscow & Sandill (2010) state “...the starting point must be with staff members: in effect, enlarging their capacity to imagine what might be achieved, and increasing their sense of accountability for bringing this about. This may also involve tackling taken for granted assumptions, most often relating to expectations about certain groups of students, their capabilities and behaviours” (p. 402). School based professional learning makes this easier to achieve as it is personalised.

Conclusion

As Hansen (2012, p. 95) states “It is primarily the teacher who draws the line between inclusion and exclusion in the specific classroom. ... we should examine how the teacher constructs categories, teaching and classroom, because it is these constructions which decide the boundary between inclusion and exclusion”. The DEC has been aiming to de-construct and then re-construct teacher beliefs and practices surrounding the inclusion of students with behaviour difficulties. Each decade has brought a shift in professional learning. The 1980s focussed on training that developed teacher/student interactions and relationships. The 1990s brought school safety into the equation and this meant

that there was a greater concern with processes such as discipline codes and suspension procedures. This focus was complimented the 2000s by *Quality Teaching*, an acknowledgement of the role of teaching/learning activities, not just teaching new behaviours and social skills. This journey hasn't meant that prior strategies are dismissed, rather they are discussed using different language and built upon to make a new dominant discourse. The problem with this is that not all teachers are in a position to make a paradigm shift. As Farmer, Reinke and Brooks (2014) note: professional learning needs to encourage teachers to reflect on their current beliefs and practices; consider how new knowledge compliments these and have the opportunity to share with colleagues. The trend of teacher personalised professional learning plans and school designed professional development is a positive step towards this. It allows learning to be specific to teacher and school needs. As it is managed at the local level it can be used to target specific assumptions, teach new skills for specific situations and support the teacher to incorporate new practices into their routines. What can be learnt from the DEC's journey in professional learning is that, just like for the students, personalised is best. Professional development programs are often provided to facilitate change. However, not all professional development programs are effective (Fullan & Hargreaves, 1991). Addressing the concerns of teachers is one of the principles for an effective professional development program (Hall & Hord, 2001). While professional development may resolve some of the teachers' concerns, it may also intensify other types of concern and personalised learning can be used to address this.

However there are elements to professional learning that need consideration. If policies reflect the political reality and professional learning is used to support policy shifts, what is the implication of this for using this to achieve paradigm shifts? The DEC experience is indicative of being caught on a treadmill: I need expert help, I am the expert; students with a diagnosis belong in my class, these students need to be educated elsewhere. In the 1980s it encouraged a range of professional development opportunities most of which were based on expert knowledge, all of which taught teachers new skills, and hopefully, helped them achieve new understanding, but its continuation of segregated programs sent a message about students with behaviour difficulties and teacher ability to include them, it reinforced the "specialness" of these students. Then the 1990s brought in the element of school safety, a range of associated procedures and processes for managing inappropriate school behaviours which further reinforced the idea "they don't belong" for some teachers. The DEC encouraged schools to become experts in behaviour management through programs such as *Strategies for Safer Schools* but this program requires immense investment by teachers and a school leadership team, again leaving some teachers to prefer the students to be "fixed" or removed.

Finally with *Every Student, Every School*, student personalised learning placed the teacher in a key position and required that the placement was accompanied by the necessary adjustments. This is a complex process and only once the National Consistent Collection of Data process has been in operation for a few years will it be possible to determine whether the process exists only on paper or is realised and teachers have made the paradigm shift.

This raises the issue of what messages are sent by the DEC by continuing placements in special schools, regardless how they are re-configured or re-labelled. This is not intended to be a discussion of the value or otherwise of special schools. It is a question of the mixed message that is being sent, which is being reinforced by the Federation's statement on the need for segregated placements for some students: there are some students who cannot be included; and, with the Disability Standards for Education allowing school to decline enrolments due to the "reasonable adjustments" phrase, this seems a problem for achieving a paradigm shift by teachers away from the concept of segregation.

Novoa & Yariv-Mashay (2015) wrote that in comparative education the focus should not be on the facts and realities as these cannot be compared. For complex comparisons the focus needs to be on the problem. If other systems are to take anything away from the DEC experience of moving to inclusion, it may be that the problem that really exists is the fusing of how to encourage teachers to pursue humanistic, inclusive approaches to teaching of all students, including those with behaviour difficulties, when the system's structure is based on techno-rational approaches and that professional learning is not sufficient under these circumstances.

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EPIGENĒTISKĀ PRINCIPA REALIZĒŠANĀS PERSONĪBAS SATURĀ CILVĒKIEM AR GARĪGA RAKSTURA TRAUCĒJUMIEM

Implementation of Epigenetic Principle in the Contents of Personality of People with Mental Disabilities

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Abstract. *The aim of this qualitative research was to determine the typical of the contents of personality of grown-up people with mental disabilities as well as when and under what conditions that became typical of them. 22 people of both genders aged between 22 and 58 took part in this study, all of them have 2nd group of mental or both mental and physical disabilities and live in Social Care home on regular and stable basis (>5 years). Research took part in the context of their living environment, both during everyday life using method of Symbolic interactionism, and retrospectively according to the human development model epigenetic insights. To describe the contents of personality the typological approach was used. Results of this study show that personological problems of these people that weren't identified and treated in a timely manner in most cases intensify and are transferred in the coming ages under conditions of destructive living environment.*

Keywords: *client, personality type, "significant other", "Ego-identity", crisis of psychosocial development phase, symptom.*

Ievads

Introduction

Cilvēka personība ir sociālo un humanitāro zinātņu viena no pamata kategorijām. Sakarā ar zinātniskās intereses pastiprināšanos personības restrukturizācijas un saturisko īpatnību izpētē dažādos sadzīves aspektos, ir nepieciešams izskatīt šo pārvērtību specifiku attiecībā uz cilvēkiem ar psihiskās veselības traucējumiem, ko izsauc psihosociālie faktori, piemēram, negatīva pieredze mikrovidē, īpaši vardarbība ģimenē, toksikomānija, narkomānija u.tml., kā arī traumējoši notikumi „dzīves vides ekstremalitātes” ietekmē prenatalā un postnatalā attīstībā, jo sevišķi pirmajos dzīves gados.

Mūdienās nopietnā zinātniskā līmenī šo problemātiku konceptualizējis T. Millons, kurš indivīda psihi redz kā procesu, kas raksturojas ar savu nepārtrauktību. T. Millons individualitātes analīzē un tās mijiedarbībā ar dzīves

vidi izmanto holistisko pieeju, jo psihe traucējumus (patoloģiskā nozoloģijā) viņš neatdala no bīstamās situācijas kā tādas (Millon, 2000).

Līdzīgi uzskata arī E. Eriksons apgalvojot, ka cilvēka personība attīstās pakāpeniski, bet dinamika un saturs šim procesam atkarīgs no viņa mijiedarbības kvalitātes ar dzīves vidi un daudzus apstākļus nosaka sabiedrība, kura dod virzības iespējas šai personībai. Cilvēks tās vai nu izmanto, vai palaiž garām (Erikson, 1963). Piekrītot E. Eriksona un T. Millona pozīcijai, radās vēlme līdzībās izpētīt situāciju Latvijā reālā dzīves vidē vienā no sociālās aprūpes iestādēm. Pētījums veikts 2015. gadā no aprīļa līdz decembra beigām.

Šī kvalitatīvā pētījuma mērķis bija noskaidrot personības satura tipiskos elementus cilvēkiem ar garīgo atpalcību, kā arī šizofrēnijas un šizotipisko traucējumu simptomātikas ģenēzi. No pētījuma mērķa izriet divi jautājumi:

1. Kādi ir šo cilvēku personības satura tipiskie elementi?
2. Kuros vecumos un kādos dzīves vides apstākļos tie sāka aktualizēties?

Pētījums tika veikts klīniskā sociovidē, visi izlases dalībnieki ir tajā dzīvojošie cilvēki (turpmāk tekstā – klienti), kuriem saskaņā ar Starptautisko slimību klasifikācijas desmito versiju (turpmāk tekstā – SSK-10) ir noteikta Psihisko un uzvedības traucējumu grupas patoloģijas (F00-F99) diagnoze. Taču sakarā ar to, ka pētījumā dominējošās tomēr nav klīniskās psiholoģijas intereses, sīkāk SSK-10 saturs netiks apskatīts, jo tam ir tikai skaidrojošs un galvenajam mērķim pakārtots statuss. Galvenais ir sociāli psiholoģiskais (personoloģiskais) uzsvars, tāpēc pētījuma problemātikas kontekstā uzmanība tiek vērsta tādi starpdisciplinārai problēmai, kā saslimstība ar šizofrēniju sabiedrībā.

Dati par šizofrēnijas izplatību dažādās valstīs ir diezgan atšķirīgi, kaut gan tās sastopamība visos avotos tiek lēsta ap 1 % no populācijas skaita gan pasaulē kopumā, gan konkrēti Latvijā, kur, piemēram, reģistrēto slimnieku skaits 2012. gadā bija 15549 jeb 0.76 % no visiem 2034319 valsts iedzīvotājiem, 2013. gadā 15711 jeb 0.78 % no visiem 2012647 valsts iedzīvotājiem, bet 2014. gadā 15792 cilvēki jeb 0,79 % no visiem 1993782 valsts iedzīvotājiem (Pulmanis, Japeniņa & Taube, 2015). Proti, ar šizofrēniju slimo kopskaita mainīgums nav nozīmīgs un visumā ir konstants, bet procentuālais pieaugums notiek uz iedzīvotāju ikgadējās samazināšanās pamata.

Saslimstībai ar šizofrēniju vecuma diapazons ir plašs. Saskaņā ar Sņežņevski (Снежневский) (citēts pie Киселев & Сочнева, 1988) 1910.gadā E. Krepelīns izpētīja, ka vidējais slimības sākuma vecums 24.1 gads, mediānas vecums ir 26.5 gadi, bet modālais vecums ir 24.4 gadi. Krietni jaunākā pētījumā, konkrēti Latvijas PSR teritorijā, tika iegūti sekojoši dati: vidējais saslimšanas vecums – 33.7 gadi, mediānas vecums – 30.8 gadi, modālais vecums – 28.2 gadi (Киселев & Сочнева, 1988). No autoram pieejamās zinātniskās literatūras par laikposmu pēc PSRS sabrukuma līdzīga pētījuma datu Latvijā nav. Galu galā

šodien šizofrēniskais sindroms tiek skatīts plašāk, bet šizotipiski personības traucējumi tiek definēti kā personības traucējumi, kuriem raksturīgi kognitīvie un uztveres traucējumi, dīvaina un ekscentriskā runa un uzvedība, kā arī izteikta intraversija un tendence distancēties no citiem cilvēkiem (Dambergā & Sebre, 2011).

Problēmas teorētiskais pamatojums *Theoretical background of the problem*

Svarīgi bija noteikt pētījumam atļautās robežas un saprast pētāmo indivīdu personības psiholoģisko statusu. Proti, tie ir cilvēki ar psihotiskas etioloģijas un/vai garīgas atpalcības rakstura traucējumiem ilgstošu laikposmu pastāvīgi dzīvojoši sociālās aprūpes iestādē. Būtiski ir nodalīt indivīda psihiatrisko komponenti no psiholoģiskās, precīzāk – no personoloģiskās. Ņemot vērā nosauktos problemātikas rāmjus, ērtākai pētījuma veikšanai tika izraudzīta divu elementu paradigma:

1. elements – cilvēka dzīves laikā piedzīvotās krīzes (sevišķi premorbīdā stāvoklī), līdz viņš nonāk sociālās aprūpes institūcijā (turpmāk tekstā – iestāde) un turpina savu dzīvi tur. Par galveno šā elementa izpētei izvēlēta E. Eriksona Personības attīstības epiģenētiskā teorija (Erikson, 1963), bet tai pakārtotā veidā izmantota psihobiogrāfiskā pieeja;

2. elements – klients „šeit un tagad”, proti, viņa personības saturs kopumā reālajā laikā un vietā, kā arī klienta mijiedarbība ikdienā savā dzīves vidē, sevišķi neverbālās komunikācijas veidā. Personības satura parocīgākam aprakstam izmantota personības tipoloģiskā (Eysenck, 1967), (Kretschmer, 1925) un (Sheldon, 1954), kā arī psihobiogrāfiskā pieeja, bet komunikācijas analīzei par pamatu ņemta simboliskā interakcionisma pieeja. Pie kam, abu paradigmas elementu izpētei palīgā ņemta T. Millona Personības traucējumu teorija (Millon, 1996) un A. Vorobjova Personības selektīvās aktivitātes un satura veidošanās periodizācijas ontogēnēzē modelis (Vorobjovs, 2002).

Metode *Method*

Pētījumā bija iesaistīti abu dzimumu cilvēki ($n=22$) vecumā no 22 līdz 58 gadiem ar garīga rakstura atpalcību pastāvīgi un ilgstoši (>5 gadi) dzīvojoši iestādē, pie kam, 11 klientiem papildus diagnosticēta šizofrēnijas un šizotipisko traucējumu simptomātika. Dažiem klientiem psihiatriskajā novērtējumā uzrādīta kombinēta diagnoze, pat ar ķermeniskas kroplības un/vai cerebrālās patoloģijas dinamiku. Pēc dzimuma kritērija pētījuma izlasē 7 sievietes un 15 vīrieši,

turklāt, no visa kopskaita 10 cilvēki dažādās iestādēs dzīvo jau no agras bērnības, vecākus neatceroties vispār.

Ontoloģiski galvenais pētījuma uzstādījums – ikviens pētāmais ir individualitāte, kas apzinās savu identitāti un savu „Es”, kā arī attiecīgi veido mikrovidi.

Epistemoloģiskā pieeja aprakstāmajā pētījumā ir saistīta ar ētikas normu un cilvēktiesību principu ievērošanu ikdienas darbā ar klientiem, piemēram, sensitīvo datu neizpaušanā, humānisma paradigmas absolutizācijā savstarpējās mijiedarbības procesā u.tml.

Ņemot vērā pētījuma paradigmas elementu retroaktīvo un reālo ievirzi, tika izmantota sekojoša metodoloģija:

- retroaktīvo datu ieguvei bija izmantota psihobiogrāfiskā pieeja (Головаха & Кроник, 1984), klienta kartes datu izpēte, nestrukturēta un/vai daļēji strukturēta intervija, kā arī A. Kronika vadībā izstrādātais kauzametriskās metodes datorvariants Life.Line (raksta autoram ir licence darbam ar šīs metodikas variantu Nr. 4.6. (2012));
- reālo ikdienas datu iegūšanai tika izmantota novērošanas metode, dažādu diskursu intervijas un pārrunas, ekspertu aptaujas, ikdienas novērojumu pieraksti, kā arī kauzametriskā metode.

Sākotnējās informācijas iegūšanai izmantotie jautājumi bija saistīti ar pirmatnējo datu ieguvei par pašu indivīdu: ģimeni un tuviniekiem, iespējamiem kontaktiem ar tiem, izglītību un prasmēm. Bija nepieciešams radīt klientos pozitīvu pirmtēlu par sevi un iegūt labvēlīgu attieksmi, kas veicināja turpmāko sadarbību ļaujot viņiem ātrāk atraisīties un sākt piekopt savu patieso uzvedības stilu.

Pētījumam nepieciešamā informācija bieži tika gūta brīžos, kad, klienti relaksējoties pie datora, strādāja internetvidē vai klausījās mūziku, proti, atradās emocionāli komfortablos apstākļos. Šajā pirmatnējā sadarbības fāzē intervijas jautājumi bija par klienta adaptācijas gaitu iestādē un atmiņām no bērnības: *Kā iekārtojāties? Kā ēdiens, vai paēdis pietiekami? No kurienes esat atbraucis pie mums? Vai jau sen dzīvojat pansionātos? Tēvs un māte ir? Brāļi un māsas? Vai sava ģimene Jums ir/bija? Kur viņi ir tagad, vai kontaktējaties? Kādas problēmas sadzīvē? Ar ko esat izmitināts istabiņā? Vai nav vēlme pēc aktīvākām nodarbēm?*

Labām savstarpējām attiecībām stiprinoties, darbs ar katru klientu kļuva individualizētāks. Piemēram, klienti bija sajūsmā par interaktīvās kartes iespējām datorā, apskatot katram emocionāli nozīmīgos ģeogrāfiskos objektus, jo sevišķi bērnības atmiņu vietas. Bija gadījumi, kad klienti izrādīja stipri izteiktu saviļņojumu. Visiem patika videoklipu demonstrācija gan filmu, gan mūzikas priekšnesumu veidā.

Sasniedzot drošu savstarpējās simpātijas un draudzības pakāpi, klientam tika piedāvāts atcerēties savu dzīvi izmantojot kauzometrijas metodi. 8 klienti piekrita tam uzreiz, turklāt, 6 sievietes un tikai 2 vīrieši. Pārējiem pārliecināšanai vajadzēja laiku, bet 11 cilvēkiem viņu iedrošināšanai uz sadarbību bija nepieciešams sākumā parādīt Life.Line Demo variantu. Savukārt 1 klients, visvecākais, kategoriski atteicās no šīs metodes.

Datu ievākšanai tika veikta informācijas apkopošana no kolēģiem un klienta kartes satura izpēte: psihiatra diagnoze, sociālo darbinieku u.c. speciālistu novērojumi.

Analīze **Analysis**

Ģimeniski nelabvēlīga situācija ir tad, ja bērna dzimšana vienam vai abiem vecākiem ir nevēlama un tiek uztverta kā nevajadzīgs slogs nākotnē. Vēl sliktāk, ja bērniņš piedzimst ar pataloģiju vai tā tiek atklāta pirmajos dzīves gados. Dažkārt tas rosina vecākus neuzņemt rūpes par šādiem bērniem un tie tiek nodoti bērnu namā, kur nesaņem ģimenes siltumu un mīlestību.

1.paradigmas elements – krīzes cilvēka dzīves laikā, jo sevišķi premorbīdā stāvoklī, līdz nonākšanai iestādē.

1.vecumposmu (pirmais dzīves gads) un 2.vecumposmu (~2-~3 g.v.) apvienosim, jo objektīvu apstākļu dēļ tagad nav iespējams noteikt vai klienta dzimšana tika gaidīta ģimenē. No klientu karšu materiāliem un pašu stāstītā izriet, ka 7 no 10 klientiem vecākus neatceras vispār, bijuši zīdaiņa namā un nekad nav dzīvojuši ģimenē. Tas nozīmē, ka mātes deprivācija nodarīja lielu ļaunumu zīdaiņa vecumā, jo trūka emocionālās tuvības un tas lika pamatus bazālai trauksmei, nedrošībai, nevis uzticībai, kā vajadzētu būt (Erikson, 1963).

Šī bazālā trauksme transformējas un līdz ar pāriešanu nākošajā vecumposmā nekur neizzūd, bet turpina bērnam attīstīties. Parasti bērnam šajā vecumā sāk formēties griba un vēlme izmantot visu sev apkārt esošo (Erikson, 1964). Top arī vērtību skala un izprotamāka kļūst dihotomija „labs-slikts”.

Pirmajā dzīves gadā tiek likti pamati bērna emocionālai sfērai, motivācijai uz baudu un visbiežāk tas realizējas caur tiešu emocionālu mijiedarbību ar māti, tādējādi veidojot empātijas skalu (Vorobjovs, 2002). Savukārt no 1 līdz 3 gadiem bērnam tiek likti kognitīvās sfēras veidošanās un radošuma attīstības pamati (Vorobjovs, 2002). Bērns meklē sev „nozīmīgo citu” un parasti tie ir vecāki.

Pētījuma secinājumi par 1. un 2.vecumposma krīzi – emocionālā siltuma trūkums zīdaiņa un agras bērnības vecumā veicina nedrošības izjūtu, bet dzīvojot ārpus ģimenes vai nelabvēlīgā ģimenē šī nedrošība tikai vairojas. Klientos tas parādās empātijas nespējā, jo sevišķi, ja diagnoze ir slēptā

šizofrēnija ar raksturīgu hipotīmiju, kā arī cilvēkiem ar smagu garīgu atpalcību. Šie klienti ir nedroši, sāpīgi uztver kritiku un bieži vien asi reaģē saskarsmē ar sev līdzīgiem, īpaši jau resursu sadales brīžos. Pastāvīgas trūcības un deficīta ietekmē stipri izteikta ir skaudība. Dominē neuzticēšanās, aizdomīgums: *Kāpēc es? Kāpēc tas vai tie nebrauc, nedara?* u.tml. Pēc mūsu domām, neirotikas personības pamati un gribaspēka apspiešana attīstījās tieši šajā vecumā un turpinājās visu dzīvi.

3. vecumposma krīze (~3--6 g.v.) saistās ar savā dzīvē pirmās dispozīcijas definēšanu, proti, „es gribu kļūt par...” un jautājumu gūzmu par interesējošām parādībām apkārt. Pie stimulējošas audzināšanas sākas mērķtiecīguma izkopšana un, kā saka E. Eriksons: „[...] veidojas vainas un atbildības izjūta par parkāpumu.” (Erikson, 1964, 122. lpp.). „Mans-tavs”, „labi-slikti” bērnam jau ir nevis abstrakti modusi, bet reāli izprotami jēdzieni.

Atmiņa par notikumiem šajā vecumposmā reģenerē pirmās apzināti pārciestās psihotraumas, kas vēlāk ir nostiprinājušās apziņā nelabu mnemoshēmu veidolā. Izmantojot kauzametrisko pieeju ar Life.Line uzrādījās klientu pietiekami noturīgas atmiņas par šo posmu bērnībā un tajā var izdalīt sekojošas viņiem nozīmīgas sfēras: ģimene/bērnu nams, daba. Parasti šajā vecumā cilvēks pirmo reizi apzināti atrodas ”pie dabas krūts”, piemēram, mežā, pie jūras. Visiem pētījuma dalībniekiem ar dabu saistās visgaišākās atmiņas.

Attiecībā uz sfēru „ģimene/bērnu nams” atmiņas diferencējās. Tā, piemēram, M atminās: *„Vēl nebiju gājis skolā, kad vienu reizi mamma mani ar vecāko brāli bija atstājusi vienus pa nakti. Bija stiprs vējš, tumsa, aiz loga viss izskatījās ļoti baisi, mūsu lauku mājā bija pazudusi elektrība – man bija ļoti bail, kaut arī brālis bija blakus istabā. Vēl joprojām izjūtu bailes būt tumsā vienam.”* Vairākiem klientiem ir traumējošas atmiņas par bērnu namu, par atsevišķām darbiniecēm – *palaida rokas, slēdza tumšos kambaros* u.tml. Ticamības pakāpe šādiem izteikumiem ir zema, jo pagājuši daudzi gadi, bet tādi un līdzīgi notikumi tomēr ir psihogēni bērnam un dzīves laikā krājoties attīsta neirozes un fobijas.

Pēc A. Vorobjova domām: „Starppersonu attiecību sistēmas „māte-tēvs” vai „bērns-pieaugušais” satura uztveres un vērtēšanas neiespējamība vai tās asociāls saturs rada bērnam psiholoģisku diskomfortu, var nostiprināt viņa personības saturā negatīvas lomu stratēģijas, izkropļojumus prasībās pret citu lomu uzvedību” (Vorobjovs, 2002, 181. lpp.).

Pētījuma secinājumi par 3. vecumposma krīzi – „nozīmīga cita”, viņa lomas un uzvedības parauga trūkums rosina bērnam pārdomas par to, ka viņš nevienam nav vajadzīgs, kas raksturīgs bērnu nama iemītņiem. Protesta veidā bērnam var sākt attīstīties deviantas uzvedības stils, savukārt asociāls „nozīmīgā cita” personības saturs var būt kā cēlonis bērna personības asociālai ievirzei, it sevišķi, ja nav izkopta vainas un atbildības izpratne par nodarīto. Sāk veidoties

deformēta Ego-identitāte, kuras pirmatnējos elementus jau var novērot šajā vecumā.

4. vecumposma krīzē (~6-~12 g.v.) attīstās vēlme būt aktīvam, darbīgam un ar savu Ego vienaudžu vidū. Taču pie nelabvēlīga izaugsmes scenārija arvien dziļāk transformējas nepilnvērtības izjūta, jo no 3. krīzes posma mantojumā nāk neprasme iekārtot savu mikrovidi, kas pastiprina sevī iepriekš izkoptos kompleksus, asociālas uzvedības paternus un vispārējo nekompetenci. Kā atzīmē E. Eriksons: „[...] kompetence šajā vecumā norāda uz infantīlās nepilnvērtības pārvarēšanu.” (Erikson, 1964, p. 124).

Līdzīgās domās arī A. Vorobjovs uzskatot, ka tas ir integrācijas un selekcijas periods personības saturā, kurš ilgst līdz ~ 16. g.v. Top motivācijas sistēma, veidojas priekšstatu struktūra un tiek izvēlēta “Es” pozīcija attiecībās ar sabiedrību (Vorobjovs, 2002). Šim vecumposmam raksturīgās sfēras ir: atmiņas par ģimeni vai bērnu nama psihotraumējošo pieredzi, tuvinieku nāve, vaļasbrīži, veselības stāvoklis, pārdzīvojumi savu īpašo vajadzību dēļ.

Atmiņas no bērnības šajā vecumā dalās A: *„Dzīvodams bērnu namā biju ļoti aktīvs, kustīgs. Nespējot mani savaldīt, soda veidā daudz reižu mani bāza iekšā polietilēna maisā un gremdēja ūdens pilnā vannā. Dažkārt izjutu nopietnu gaisa trūkumu.”*

D un J atceras, ka šajā vecumā dzīvojot bērnu namā viņus apbižoja vecāki zēni, bet M ar sāpēm atceras par vecākā brāļa traģisko nāvi ar motociklu.

V atceras: *„Šajā vecumā pilnībā sapratu un sāku apzināties sava ķermeņa pataloģijas. Tas bija nepatīkami, jo citi varēja darīt to, ko es nevarēju un lielākam kļūstot sapratu – nekad arī nevarēju. Tagad būdams pieaudzis, gribu strādāt, bet reti kura profesija man ir apgūstama.”*

Pētījuma secinājumi par 4. vecumposma krīzi – izstumts no vienaudžu aprites bērns bieži vien noslēdzas sevī, jo sevišķi, ja nav atbalsta ģimenē, vai tās nav vispār, kā, piemēram, dzīvojot bērnu namā.

5. vecumposma krīze (~12-~19 g.v.) ikviena cilvēka ontogēnēzē ir ļoti svarīga, jo tiek meklēta sava identitāte. Šajā vecumposmā jaunietis rod sevi, grib apjaust lomu sabiedrībā, tāpēc atstumtība no grupas iepriekšējā vecumposmā provocēs viņu meklēt tādu „nozīmīgo citu”, kurš viņu neatstums. Meklējumos esošs cilvēks izjūt trauksmi, nedrošību, tāpēc bieži piesliecas tiem, kas pirmie viņam retranslē savu simpātiju (Erikson, 1964). Un „[...] atrastā identitāte ļauj cilvēkam modelēt savu dzīves perspektīvu izvēloties turpmāko ceļu tajā.” (Erikson, 1963, p. 262). Savukārt A. Vorobjovs šo vecumu dēvē par personalizācijas sākumposmu (Vorobjovs, 2002). Tā, piemēram, no pētījumā iesaistītiem klientiem līdz 19 gadu vecumam iestādēs dzīvoja jau 17 cilvēki. Vēl vienu māte aizveda uz iestādi tieši divdesmitajā dzimšanas dienā.

Šajā vecumposmā klientu atmiņā dominē sekojošas dzīves sfēras: veselība (psihosomatiskā nozoloģijā), ģimene (dzīves veida nomaiņa pārbraucot uz bērnu

namu, vecāku šķiršanās vai kāda no tiem nāve, vecāku tiesību atņemšana), sociums (problēmas ar vienaudžiem), brīvā laika pavadīšana (līmes u.c. ķīmikātu ostīšana, narko- / alkoholizācija). Tā T atceras: „*Pazaudēju līdzsvaru, nokritu, ar galvu atsitot un mamma izsauca ātro palīdzību, kura konstatēja epilepsijas lēkmi. Vēlāk nekad kaut kas tāds nav noticis, bet šis ieraksts visu mūžu seko man; ar gadiem parādījās nevēlamas funkcionālas izmaiņas organismā, kas izjūtamās arī tagad.*”

G stāsta, ka tika pieņemts medicīnas iestādē, jo sākās biežas epilepsijas lēkmes kopā ar reālā laika izjūtas zudumu.

M atminas: „*Mamma pēc brāļa nāves sāka stipri dzert un nerūpējās par mani, labi ka laukos dzīvojām un es pats visu darīju, jo tēvu neatceros.*”

Z atceras: „*Ar atrasto sprāgstvielu norāva roku, aci zaudēju un no ģimenes nokļuvu bērnu namā.*”

Pētījuma secinājumi par 5. vecumposma krīzi – neatrodot sevi un vietu dzīvē, cilvēks neviļus sāk „drumstaloties” izmēģinot dažādas lomas, dzīvo pastāvīgas psihiskas spriedzes stāvoklī. Tas attiecināms arī uz pētījumā iesaistītajiem, jo tikai 4 no viņiem iestādēs nokļuva vēlākos vecumposmos.

6. vecumposma krīze attīstās agrīnā brieduma vecumā (~20-~25 g.v.), kad cilvēks ilgtermiņa attiecību dibināšanai meklē savam ideālam un identitātei atbilstošu personāžu. Neskatoties uz to, ka gandrīz visi pētījuma dalībnieki šajā vecumā jau dzīvoja iestādēs, viņiem atmiņās prioritāras šādas dzīves sfēras: ģimene, veselība, brīvā laika izmantošana.

G stāsta: „*Pirmo psihotraumu guvu, kad tētis mammu pameta, otro reizi psihotraumu guvu, kad māsu ar bērniem pameta vīrs. Arī es esmu šķirta, bet man ir meita, studente, kas man ir liels garīgs atvieglojums un dod man spēku.*”

Pētījuma secinājumi par 6. vecumposma krīzi – cilvēks meklē sev līdzīgus, neatrodot tos nonāk pašizolācijā un dzīvo emocionālā tukšuma telpā.

7. vecumposma krīze (~26-~64 g.v.) ir brieduma un dzīves satura kvantifikācijas posms. Cilvēkam ir dzīves pieredzes bāze, kura ļauj sākt dzīvot pašpietiekami un produktīvi. Mitinoties iestādē tādas iespējas ir minimālas, vai tādu nav vispār. Šajā vecumposmā pēc Life.Line rezultātiem dažādās proporcijās un kombinācijās svarīgas klientiem ir visas dzīves sfēras: veselība, profesija/darbs un naudas jautājumi, iekšējās pasaules bagātināšana, vide/daba, ģimene (jo sevišķi sievietēm), brīvā laika pavadīšana interešu pulciņos un jaunu prasmju apgūšana. Tā, piemēram, visi pētījuma dalībnieki labprāt pilnveido sevi darbā ar datoru, daudzi pērk atskaņošanas aparatūru, mobilās sakaru ierīces. Katrs ir atradis vismaz vienu sev interesējošu rokdarbu jomu.

Pētījuma secinājumi par 7. vecumposma krīzi – svarīgi, lai cilvēks apzinās resursu iegūšanas nepieciešamību, jo iestādes iemītnieki vairumā gadījumu to neapzinās, vai ir nemotivēti kaut ko darīt un tā attīstot sevī „iegūtās bezpalīdzības” sindromu.

2.paradigmas elements - klients „šeit un tagad” ir divdaļīgs: a) personības saturs reālajā laikā un vietā, b) klienta mijiedarbība ar citiem savā dzīves vidē iestādē, jo sevišķi neverbālās komunikācijas veidā. Pētījuma procesa gaitā noskaidrojās, ka klientiem rada grūtības subjektīvā laika plānošana. Viņiem grūti saplānot savu darbu parītdienai, aizparītdienai, bieži vien pat rītdienai, jo atrašanās ilūziju pasaulē veicina „Es” pagātnes–tagadnes–nākotnes laiku disproporciju kognitīvajos procesos.

Simbolus šie cilvēki pielieto primitīvāk, taču pēc savas etioloģijas un izmantošanas metodoloģijas viņu uzvedībā tie neatšķiras no veselu cilvēku mijiedarbībā izmantotās. Atšķiras ekspektācijas. Piemēram, ja klientam pēkšņi jāpārtrauc darbs un kaut kur jāaiziet, klienta teiktais: „atgriezīšos pēc apmēram tik un tik minūtēm” vēl nenozīmē, ka šodien viņš atgriezīsies darba turpināšanai vispār. Problēma ir laika vienību neizjušanā un nemācēšanā plānot, sevišķi sīkumos. Prot ieplānot vienu, maksimums divus notikumus dienā, turklāt, ja tie ir subjektīvi svarīgi. Pastāv problēmas ar abstrakto domāšanu un informācijas pārnēsāšanu nākotnē. Šīs afektīvi emocionālās un kognitīvās sfēras problēmas izpaužas ar dziļiem un raksturīgiem domāšanas un uztveres traucējumiem, neadekvātām emocijām.

Pašprezentācijas prasmes šiem cilvēkiem nav izkoptas, saskarsmē izteikta pašpastiprinājuma vajadzība („Es”, „Man”, „Mans”, „Priekš sevis”), proti, dominē intraplāns. Piemēram, V ļoti labi darbojas virtuālajā vidē, raksta bez gramatiskām kļūdām, datorekspluatācijas prasmes augstā līmenī, bet ikdienā jauc mēnešus, nespēj abstrahēties no šodienas, visu laiku dominē tagadne un savas intereses, grib būt tagadnē nemaz nedomā par pārējiem, nespēj gaidīt, ar grūtībām spēj atlikt vajadzību uz citu laiku.

Spēja klausīties citus vāja, jo interakcijā dominē intraplāns, introekcija, emocionālā vaļība, uzmanības noturības deficīts. Ķermeņa raidītie signāli ir līdzīgi kā veseliem cilvēkiem, piem., pozās, žestos, mīmikā, valodas intonācijā, acu kustībās, u.tml. Var novērot īpatnības impresijā, saskarsmes attālumos, jo šie cilvēki bieži vien ieiet personiskajā un pat intīmajā zonā, kas zināmos apstākļos var radīt diskomfortu nepieradušam pie tā saskarsmes partnerim. Komunikācijā ar šiem cilvēkiem secinājumus par viņiem nedrīkst veikt izejot tikai no kāda viena simbola, jāskatās kopumā uz visa ķermeņa indikācijām.

Šiem cilvēkiem bieži vērojams roku tremors, jo sevišķi uztraukuma brīžos, svīšana, sarunas ar sevi balsī, pēkšņa agresivitāte, garastāvokļa maiņa, savukārt intīmu, sensitīvu informāciju un notikumus bieži vien prezentē vārdiski visiem dzirdot. Lielu iespaidu uz šo cilvēku aktivitāti atstāj heliotaraktiskie un, jo sevišķi, lunārie procesi. Pilnmēness fāzē novērojama šizofrēniskā sindroma pastiprināšanās paaugstināta jūtīguma formā, dažkārt agresivitātes veidā, miega traucējumi, neraksturīgs rosīgums. Saules aktivitātei pastiprinoties klientu enerģētisms dažkārt sāk iziet ārpus ierastajām robežām –

nerēālu ideju vētra, vēlme pārvietoties, mainīt nodarbi ikpārdesmit minūšu laikā. Tas rada problēmas ne tikai personālam, bet arī pašiem klientiem, jo bieži vien nav resursu pēkšņi uzsāktām jaunām aktivitātēm.

Paradigmas 2. elementa otro aspektu – personības saturu, pateicīgāk ir izprast ar kauzometrijas metodes palīdzību, testu Life.Line. Klienti ir pietiekami viegli prognozējami, kaut arī eksplozīvi, emocionāli nenoturīgi, izņemot dažus ar garīgo atpalcību. Šizofrēnijas veids predisponē interaktīvās tendences vai nu introvertīvi vai arī ekstravertīvi un precīzi pēc H. Aizenka tipoloģijas (Eysenk, 1947, 1952). Psihotisms gandrīz visiem raksturīgs kā bieža noslēģšanās sevī un staigāšana ar drūmu seju kaut ko „murminot zem deguna”.

Analizējot ķermeņa konstitūcijas un rakstura īpatnības pēc E. Krečmera (Kretschmer, 1925) un Šeldona (Sheldon, 1954) tipoloģijas, novērojami visi trīs somatotipi, kā arī veselīgi cilvēkiem raksturīgās izpausmes. Klientu vidū pārsvarā astēniskais (ektomorfa) un pikniskais (endomorfais) tips. Vienam raksturīgs atlētiskais (mezomorfa) tips, kas ikdienā izpaužas vēlmē dominēt, būt neatkarīgam, kā arī organizēt visu tā, lai dzīve un cilvēki atrastos tikai viņa orbītā.

Pēc T. Millona neirotikas personības tipoloģijas (Millon, 2000) gandrīz visi klienti atbilst šizotipiskā tipa indikācijām, vairākiem raksturīgi: izvairīgais/nedrošais, paranoidālais, negatīvais, kompulsīvi obsesīvais apakštips.

Secinājumi **Conclusions**

Atbildot uz pētījuma jautājumu: „Kādi ir šo cilvēku personības satura tipiskie elementi?” tika konstatēts sekojošais:

- 1) apziņas struktūrā – emocionālā rigiditāte, empātijas nespēja, iztēles problēmas, atmiņas defekti, arī ar demences simptomiem, vāja uzmanības noturība, dezorganizācija stresa situācijās;
- 2) pašapziņas struktūrā – disproporcija „Es-identitātes” shēmā (dominē tagadne, vāja orientācija uz nākotni, ķermeņa koncepcijas ignorance), „Es-koncepcijā” dominē patmīlība, egocentrisms, pārlika personalizācijas vajadzība;
- 3) bezapziņas struktūrā – pastāvīgi aktivizēti dažādi psiholoģiskās aizsardzības mehānismi, instinkti nemaskēti, prasmju deficīts ar vienlaicīgu dispozīciju trūkumu, atitjūdi grūti novēršami un iesīkstējušies, bailes un fobijas, nedrošība ar trauksmainību stipri ietekmē subsensoro atspoguļošanu.

Tipiskās īpatnības komunikācijā: interakcijā dominē intraplāns, saskarsmes attālumi netiek ievēroti, nespēja klausīties otru partneri, egocentrisms, trūkst takta izjūtas – mēdz iejaukties citu cilvēku dialogā.

Atbildot uz pētījuma jautājumu: „Kuros vecumposmos un kādos dzīves vides apstākļos tie sāka aktualizēties?” tika konstatēts, ka neirotiskā ģenēze kvalificējošam vairākumam sākusies līdz ar dzimšanu vai pirmajos dzīves gados „dzīves vides ekstremalitātes” ietekmē un ir attīstībā nepārtraukti arī šodien.

Summary

The aim of this qualitative research was to determine the typical of the contents of personality of grown-up people with mental disabilities as well as when and under what conditions that became typical of them and it was fulfilled. Contents of personality between these people, reasons for age groups crises and transferability in ontogenesis were analyzed. Epigenetic approach and approach of Psychobiography were used to achieve the aim of the research while describing today's real profile of personality typological approach and concepts of symbolic interactionism were used.

Methodology that was used consists of following approaches: observation, interviews as different types of discourse, surveys of experts, client's card data analysis, collecting of daily observations and root cause analysis. To ease conducting of the research two paradigms of elements were used:

1. Element – crises during person's life (especially in premorbid condition) until moving to Social Care home. Primary epigenetic theory of Personality's development was used to analyze this element and secondary: approach of psychobiography;
2. Element – client “here and now” – contents of personality in general in present time and place as well as interaction in living environment during everyday life. To better describe contents of personality the typological approach and approach of psychobiography was used.

As elements of research of both paradigms Theory of Personality disorder and Ontogenetic model of activity and creation of content of personality was used.

When answering first question of this research – what is the typical of the contents of personality of these people with mental disabilities? following was found out:

In the consciousness structure - the emotional rigidity, inability to empathy, imagination problems, memory problems, also with symptoms of dementia, poor attention span, disorganization when in stressful situations.

In the structure of self-awareness: defects in structure of "Ego-identity" scheme (dominates the present, weak orientation to the future, ignorance of the body concept), "Ego-conception" is dominated by selfishness, egocentrism, the need of over-personalization.

Unconscious structure: different psychological defense mechanisms are permanently activated, open instincts, deficiency of skills together with lack of simultaneous disposition, intractable settings, persistent stereotypes, fears and phobias, subsensor presentation is strongly affected by insecurity and anxiety.

Typical particularities in communication: interplan dominates during interaction, communication distances are not met, inability to listen to the other partner, lack tact - tend to interrupt other people's dialogue.

When answering second question of the research - when and under what conditions that became typical of them? following was found out: Genesis of Neurotism for most started at birth or first years of life under conditions of destructive living environment and is still developing.

In conclusion it can be considered that this research programme is fully fulfilled.

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MOTOR DEVELOPMENT THROUGH FUNCTIONAL MUSIC THERAPY IN CHILDREN WITH CEREBRAL PALSY

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Abstract. *This paper presents an analysis of four case studies in order to elaborate the theory of functional music therapy. In the Czech Republic, the practices of functional music therapy are often used as a type of complementary rehabilitation. Although functional music therapy is based on sound and scientifically substantiated bases, practical applications lack comprehensive and systematic methodology. The aim of this paper is to deepen the knowledge of the links between the application of musical practices and functional development. On the basis of an interpretative approach to case studies (using a content analysis) we identified the objectives in the motor area, types of musical activities, and music therapy practices in persons with cerebral palsy. We also analysed the correlation between therapeutic objectives and musical activities, and set out methodological principles of their application. The outcomes of this study were compared with the results of a previous study by the author focusing on persons with severe multiple disabilities in order to develop a comprehensive theory of functional music therapy. Concerning the results of this comparison, this paper discusses the impact of intellectual disability on the flexibility of application of musical activities during functional training.*

Keywords: *Cerebral palsy, functional music therapy, motor functions, multiple disability.*

Introduction

Cerebral palsy (referred to as CP) is “an umbrella term used to describe non-progressive disabilities, which manifest as motion or postural abnormalities and result from a CNS lesion during early periods of brain development” (Jacobs, 2001, p. 53). In persons with CP, the difficulties in the motor area represent the core objectives of therapeutic intervention. However, the application of traditional therapeutic methods in persons with CP, for example physiotherapy is complicated by frequent combinations with other types of disorders (Phipps, Roberts, 2012). As a result, rehabilitation requires close interdisciplinary cooperation and communication. Due to the effectiveness of music techniques in functional training, a music therapist is frequently a member of the interdisciplinary team.

The application of music therapy in persons with CP is supported by many research studies. For example, they focus on the influence of music on the muscle tone (Wigram, 1996; Taylor, 2014 and others). In these research studies, music was mostly applied through a receptive form. However, there are

numerous studies from the area of active music therapy. For example John Bean (1996) developed a series of exercises for the development of targeted movements in children with CP, and with Amelia Oldfield are the authors of musical activities for the development of functional skills (Bean, Oldfield, 2001). Active work is also used by Lasse Hjelm, the author of the FMT method (music therapy focused on the functions of the human body), which is often indicated as a result of motor insufficiencies and is very well applicable in persons with CP (Hjelm, 2015). Another example that shows the positive effects of the application of active musical activities for the development of motor skills in persons with CP is a study by Iranian authors (Hatampour et al., 2011).

For the purposes of functional training some authors modified the traditional musical-educational concepts. Mary Helen Richardson adapted the methodology of Zoltán Kodály for children with health disability, which uses specific techniques facilitating the development of motor skills, e.g. hand signals (Lathom, 1974), other known approaches include the adaptation of the Orff Schulwerk (Darrow, 2008) or Suzuki method.

Other research studies addressed the use of music for patient motivation during physiotherapy and for pain control, which is a big barrier to active movement. Positive effects of music are documented in papers by Olav Skille (1991), Chesky, Russell, Lopes, Kondraske (1997) and other authors or in the summaries of research studies in the monographs by various authors (Peters, 2000).

In the Czech Republic (referred to as the CR) there are many music therapists in the field of education and social services institutions. As is clear from a content analysis of music therapy documents (Kantor et al., 2014), functional objectives are an important component of music therapy practice. On the other hand, however, there seems to be an insufficient conceptual framework in the work of music therapists, which in the CR results from the absence of systematic methodology for functional training. For this reason a number of studies were initiated, whose objective was to develop a theory, according to which it would be possible to elaborate methodological procedures for functional music training.

Research methodology

The research described in this paper builds on the previously published studies by the author in the field of functional music therapy and also used some previously published methodological procedures (Kantor et al., 2014). The aim of this research study is to analyse the correlations between musical activities and motor objectives of functional training. The difference between this and previous studies lies in the fact that now the research sample includes persons

with CP, whose functional ability (at least mental functions) are at a higher level.

The research study is based on a qualitative-interpretative analysis of case studies of 4 persons with CP. As stated by Ženka & Kofroň (2012), the aim of the interpretative approach to case studies is not to develop a new theory but rather to interpret the cases according to known theories. Therefore, this paper does not examine effective factors of therapeutic intervention but the way in which music therapy intervention is delivered. The results will be interpreted on the basis of known theories. The main contribution of this is the enrichment of methodological procedures that can be applied in music therapy aimed at persons with CP.

The objectives of the research study are as follows:

- To find out which objectives in the motor area can be addressed by means of musical activities in persons with CP.
- To identify the musical procedures used to achieve the objectives.
- By means of a data analysis to determine whether it is possible to define methodological principles relevant for the delivery of musical activities in order to develop motor skills in persons with CP.

The results of this research study will be compared with the conclusions of a previous study by the author (Kantor et al., 2014) in order to determine the influence of various mental levels of persons with CP on the delivery of musical activities.

The following criteria were used to form the **research sample**:

- Persons with CP, but not with severe multiple disabilities or severe mental retardation.
- Music therapy intervention to develop motor functions was carried out for at least six months and was documented.

The **research sample** included two boys and two girls.

Case 1: Monitoring of the course of five years of music therapy, which was delivered primarily through teaching piano playing. Music therapy began when the girl was 8 years old. This was a girl with moderate functioning autism, bilateral hemiparesis (severe impairment of the right side), strabismus and an outstanding musical talent.

Case 2: A boy with severe quadriplegia, moderate mental retardation and anarthria. Music therapy lasted for three years (music therapy began when the boy was 6 years old); however, this research monitored only the initial period lasting for about half a year.

Case 3: A boy with diparesis (and with mild impairment of the upper limbs) and with mild mental retardation. We monitored 2 years of music therapy, which focused on the development of motor skills through playing the

piano combined with rhythmic education and listening activities. Music therapy began when the boy was 7 years old.

Case 4: A girl with severe quadriparesis (severe impairment of the lower limbs), moderate mental retardation, strabismus and severe dysarthria, which allowed very limited communication with the environment. Music therapy was delivered for a period of 4 years and began when the girl was 7 years old. Musical activities focusing on the development of motor functions primarily involved improvised and simple interpretative activities using various rhythmic musical instruments.

Data collection was performed by means of interviews with music therapists, analysis of music therapy documents and analysis of products. These products included songs composed for the individuals by music therapists, and rare audio recordings of some parts of the therapy (in two cases also several minutes of video; however, their poor acoustic quality did not allow a detailed analysis). All relevant data relating to individual cases were collected and transcribed into a written form.

The initial **data analysis** used a content analysis. Its aim was to identify the data relating to the following:

- Objectives of the music therapy process. From all objectives we isolated and separately analysed those objectives that related to the development of motor skills and those related to the development of musical skills.
- Musical activities that required volitional movement of a person with CP or those that might have a positive impact on motor skills. The data material includes the description of the nature and course of individual activities.
- Music aspects that characterize the musical expression of persons with CP (quality of tone, tempo, dynamics, etc.)

For each case we conducted an analysis of the relationships between the development of motor functions, the development of musical skills, course and development of musical activities, and the quality of musical expression. The results of the analysis are presented in the text below. In this way it was possible to describe the relationships between musical activities, their development, objectives in the area of motor skills and specific features of musical expression, which can be used for diagnosis and evaluation.

Results of analysis of individual cases

The results are related to individual cases.

Case 1

The girl in case study 1 had an outstanding musical talent, which allowed her to identify piano song melodies just by ear. At the very beginning (during diagnostic stage) the music therapist revealed that she was not able to work in an improvisatory manner. She needed a clear structure provided by the music material with a song form. The therapy was performed by means of learning musical skills for playing the songs. Table 1 shows some of the crucial moments in learning musical skills, increasing the complexity of motor objectives and examples of the music material applied.

Table 1 Analysis of the relationships between motor objectives, development of musical skills and music material

Motor objectives and their development	Development of musical skills	Examples of music material
Coordination of two fingers of LUL	Melody of two to three tones	Lullabies and nursery rhymes set to music.
Gradual involvement of other fingers of LUL	Melody up to the fifth	Simple songs, e.g. "Běžela ovečka", "Lítala si laštověnka"
Coordination of the five fingers of LUL, thumb passing under the finger and the hand passing over the thumb	Melody up to the sixth and more	Simple songs, e.g. "Skákal pes"
Playing with one finger (index finger) of RUL	Playing a melody with one finger	Reproduction of learned melodies, adding other melodies
The same in coordination with RUL	Playing the bourdon (bass) as accompaniment	Accompaniment of songs in C major using bass tones of C and G (for harmonic functions of the keynote and dominant).
Gradual adding of fingers of RUL in coordination with LUL	Playing songs with a small melody range and chordal accompaniment	Songs with chordal accompaniment for harmonic functions of the keynote and dominant.
Playing with several fingers of LUL at the same time (difficult chords in terms of motor skills)	Teaching chords and their shifts	Various songs, at the beginning, accompanied by cadence, gradual adding of other chords.

Increasing the movement range on the keyboard	Adding semitone keys and playing in various keys	The first practice songs included the keys of G major, A minor, D major, F major, etc.
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Note: throughout the whole text, the abbreviation of UL means upper limb, LUL left upper limb and RUL right upper limb.

In terms of musical means of expression the following was monitored:

- Range of movement, including e.g. the ability to stretch the fingers of one UL.
- Strength of movement, including e.g. the dynamics of individual tones and chords (as a result of insufficient muscle strength in her little finger of RUL, the girl made typical movements of the whole hand, so the movement was not primarily based on the little finger, but rather the whole hand).
- Speed of movements, which affected the tempo of the songs.
- Coordination of the movements of a single hand, for example coordination of the fingers when playing chords, and coordination of both UL during chordal accompaniment of a song melody.

Regarding the fact that Case 1 provided the largest body of data material, it was possible to use the data to define the basic principles of the methodology of therapy aimed at motor functions of the hands through piano playing.

Case 2

In Case 2 the possibilities of engaging the boy in musical activities were strongly limited by the severe mobility and communication impairment. At the beginning of therapy the boy's mental level was undervalued as a result of limited diagnosing possibilities (also as a result of anxiety and slow adaptation to the school environment).

The priority area for music therapy defined at the beginning was non-verbal communication because it was necessary to train at least basic movements to allow simple yes/no communication. These communication signals were performed by means of head movements to the sides and up and down. First we used stimulation by listening to various sounds, then simple exercises with an encouragement to move the head down as instructed in the song. The song was composed by the music therapist directly for the boy.

After achieving a better control of head movements, the attention of music therapy shifted to the mobility of the upper limbs. For the boy it was important to improve the controlled movements of the upper limbs (their mobility was of approximately the same level) to facilitate communication, which was performed by selecting photographs or pictograms. Regarding the boy's musical

preferences this was performed by assisted guitar playing. At the beginning of training, the whole UL and palms were relaxed (stretching the fingers against the top resonant body of the guitar). After that, playing was practised in an effort to sound the strings (by means of one or both upper limbs). The music therapist played chords on the guitar and accompanied by singing. The music therapist held the guitar in a position accessible for the boy concerning his limited range of movement.

At the end of the first six months we observed greater motor control over the movements:

- Quicker opening and releasing of the palm from a spastic hold.
- Greater speed of movements for sounding the strings, which allowed continuous accompaniment of certain sections of trained songs.

However, the progress was negatively affected by frequent performance fluctuations and was apparent only in some situations (motor performance was affected by frequent fatigue, overall tension, etc.) After the first six months, music therapy with the boy continued but focused on other objectives.

Case 3

Case 3 included a boy with perinatal complications and significantly unbalanced development. The objective of music therapy in this case was to train motor, perception and cognitive functions. Music therapy primarily included playing the keyboard with complementary rhythmic education (training of perception and cognitive functions) and listening activities in order to increase the motivation for exercise. At the beginning, teaching the keyboard was conducted by means of common piano school methods (with minor adjustments to the methodological procedures). During the first six months the boy acquired basic skills to orientate on the keyboard and to coordinate the movements when playing with a single upper limb, including thumb passing under the finger and the hand passing over the thumb. The acquisition of musical skills was considerably slower compared with intact peers. The therapy was complemented with an exercise of reproducing simple rhythmic structures.

Greater problems were encountered in practising tunes that required reading notes and coordination of both upper limbs. Usual note scores were difficult to comprehend for the boy; there were also problems in practising the use of alternative forms of notation. The boy was able to musically reproduce only those tunes that were short and easy to remember (e.g. melodies of simple folk songs). This fact was reflected in the course of therapy. The therapy continued with practising folk songs with simple chordal accompaniment.

During the second year the therapist began to create variations of the accompaniment to facilitate the reproduction of songs, practise coordination of motor functions and increase the aesthetic level of musical expression. The keys were provided with various audio functions for bass accompaniment (such as the

sound of the organ) so it was possible to accompany the songs not through chordal accompaniment, but through a simple progression of the bass line. In this way, it was possible for the boy to learn songs that were more difficult in terms of harmonic accompaniment. The connection of the melody line of the song played with the right hand and the accompaniment of the bass line was used for training the coordination of the movements of UL.

At the end of the second year a new method was effectively incorporated into the work procedure. The boy began to compose simple melodies, for which the therapist composed the accompaniment, including alternative note scores for the accompaniment. The boy recorded his own production of the songs and then played the recordings to his family members, classmates, teachers, etc.

Case 4

The fourth case included a girl with quadriplegia combined with athetosis movements. At the beginning of therapy, mobility of UL allowed her to grasp objects with one hand (the left side of the body was more impaired). Music therapy was conducted by means of creating structured exercises aimed at training various motor functions. Initially, this was any physical activity allowing the girl to sound an instrument and accompany a song, e.g. playing the cymbal or drum (with a stick), playing the tambourine resting on her lap, etc. Emphasis was placed on motivation for and confidence in her movement.

During the fifth month of music therapy, basic prerequisites were created for training through more difficult activities. Parallel training was carried out focusing of grasping functions and extending the range of movement of the right UL. Similar exercises (with less intensity) were performed by the left UL in order to prepare for coordinated movement using both UL. The training of movements included flexion and extension of the elbow, abduction of the shoulder and extension of the elbow (playing the drum positioned on the side of the body), horizontal flexion of the shoulder joint (movement into the transverse crossing), elevation of the shoulder and supination of the forearm. The girl managed to perform individual movements but had problems with extreme positions of certain movements, especially elevation of the shoulder. She also had a problem with decreased muscle strength and accuracy of movements, which was apparent in the dynamics and quality of the sound.

The instruments used included primarily the drum (accompaniment by means of a stick, drum positioned on a stand in an open space). The girl was able to create a rhythmic pulse, while the therapist accompanied her on the guitar at her pace. It was also possible to complement the drum with other instruments (cymbal and other drums) and create simple drum sets. This increased the range of movements in space, e.g. when setting the height of the instruments, various distances of the instruments from the body, etc. These exercises focused on the accuracy of movements.

In terms of grasping functions the exercises focused on the tweezers grasp (e.g. holding a piece of string with bells and jingle bells attached) and persistence of the cylinder grasp (so that the girl is able to hold a stick throughout the whole song). In terms of training the cylinder grasp an effective way was to use sticks of various diameters, which was achieved by using different sleeves (including ergonomic sleeves for holding pens and pencils, which are used with persons with spastic hold).

During the second year it was necessary to increase the control over the movements of the fingers of UL to improve self-care. A song was composed for the girl, during which she showed various shapes by her hand (fists, open palms), and when the names of fingers were pronounced she caught them with the more movable upper limb.

At the beginning of the third year of music therapy an objective was defined to support the coordination of both UL. Until then the girl was able to use the less movable left UL only to hold some objects (in this way she played the tambourine, which she usually held resting against the side of the orthopaedic wheelchair or on the lap). This objective was significant also due to the fact that at this time the school began training independent control of the orthopaedic wheelchair, which was difficult for the girl due to worse control of movements and lower muscle strength in LUL.

The stages and the sequence of the development of the coordination functions are shown in Table 2. At first, music therapy focused on the training of the coordination functions by means of holding the instrument with the left UL, after that by means of parallel movements, alternating movements and independent movements. In the course of therapy the girl also trained various qualitative and performance aspects of movement. By means of intentional positioning of the instrument in space, selection of the instrument, selection of the tempo and dynamics of accompaniment, adding additional verses, etc. it was possible to train speed, strength, persistence, coordination, range and accuracy of movements.

Table 2 Stages of training the coordination of the upper limbs

Stage	Characteristic movements	Examples of musical activities	Specific requirements for musical skills
1.	Playing and holding the instrument with the less movable UL	Playing the tambourine, rhythm sticks, small drum (sounding with a stick or palm), small cymbals.	-
2.	Parallel movements	Playing the African drums, or a set of instruments (e.g. drum and cymbal).	Ability to develop a rhythmic pulse.

3.	Alternating movements	Similar musical activities as in parallel movements.	Ability to develop a rhythmic pulse.
4.	Independent movements	Practising the African drum or a set of instruments as in the previous case.	Combination of accented and unaccented beats according to various movements of UL, for example playing a rhythmic pulse by one UL combined with accented beats played by the other UL.

Discussion

The answers to the research questions are detailed below and are based on an analysis of data material concerning the case studies:

First objective: Musical activities in persons with CP focused on the following objectives – mobility of the whole UL (range, speed, strength, accuracy and persistence of movements), motor functions of the palm and fingers, coordination of UL and the development of the functions controlling head movements. A total of four stages were developed for the coordination of the movements of the upper limb.

Second objective: The above defined musical objectives were linked with the following musical activities – teaching piano playing according to specifically adapted methodologies (2 cases), assisted guitar playing, songs with encouragement to control head movements, and activities including rhythmic instruments.

In most cases the music material included songs and instrumental accompaniment. The therapists used original songs (mostly folk songs with simple melodies and simple musical form, but also artificial songs or songs composed by the therapist). In the third case there were attempts to compose own musical fragments. The music therapy methods included primarily interpretation and composition.

Third objective: In terms of methodological principles the paper described specifically developed methods for playing the piano (Case 1) and for the development of coordination of UL (Case 4).

The findings of the present survey provided a body of data, which were compared with a previous research study by the author. This research study included persons with severe multiple disabilities. The comparison was performed by means of searching for agreements and disagreements in the data material in order to identify the methodological procedures for persons with milder degrees of multiple disabilities. The conclusions defined in the paper

relate to the impact of the level of mental functions on the characteristics of the music therapy process. **Significant differences** were identified in the following areas:

Applied methods and the design of musical activities – a higher mental level allows the use of e.g. composition or interpretive methods, which are difficult to apply in the case of persons with severe mental retardation (here music therapy intervention relies primarily on music improvisation).

Course of intervention – at the beginning of music therapy it is necessary to establish an interaction in a musical context, in persons with severe multiple disabilities this stage can take quite a long time (some authors mention months of therapy, e.g. Drlíčková, 2012). In groups of persons with milder mental disabilities the intervention takes place in a different context, the procedures that the therapist intends to use can be explained, the purpose of intervention can be explained, etc. The therapeutic process is more diverse.

Music products – music products created by persons with severe multiple disabilities are less complex, their musical analysis is too plain to have sufficient response relevance concerning the content of the music product from a musical viewpoint.

Conclusion

The paper used an interpretative content analysis and analysis of case studies to identify the musical activities used for the development of motor objectives in persons with CP, and to describe some differences in the intervention, which are caused by various mental levels of persons with CP (comparison of severe mental disability with milder degrees of limited mental functions). The outcomes of this research study were compared with the conclusions of previous studies by the author, and incorporated into the currently emerging theory of functional music training, which will be used to design music therapy practices.

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KID WITH SPEECH DELAY AND LANGUAGE COMPETENCE EMPIRIC SOLUTION

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Abstract. *The paper explains the experience and the principles, how to teach knowingly the language and constructively communication for preschool kid with delayed speech. The external environment should be mainly calm, when necessary rigidity on setting borders should be demonstrated. Playing on the feelings, when necessary and when borders not recognized by kid. The teacher and the parent should update the attitude to kid based on experience. The teacher or the parent should grow as personality during the job with kid. The external environment should be well defined and consistent. The rules and the actions and the language with the actions should be in the everyday routine. The goal of the paper is to demonstrate the language structure, the condition for kid and examples used to communicate with kid with speech delay.*

Keywords: *autism, attention deficit hyperactivity disorder (adhd), language, speech delay, delayed speech, hyperactivity, sensitivity, preschool age.*

Introduction

The aim of the paper is to share the experience how to teach kid with speech delay language word by word and structurally. While teaching the neural links are defined in the brain. The contemplation methods, reflection and recurrence methods are used to reach the objective.

New way of thinking - or how to teach the people with special needs develop to speech consistency and harmonically.

The question is how to teach the kid to speak or to say some words using communication skills. How to grow up the communication skills. Author of this paper speaks about empiric based experience and also on the research about how the people perceive the information.

There are three types how sensitive kids perceives information. The first group of kids are photo –visual thinkers. These kids are mainly artistic oriented. The second group of kids are pattern thinkers. Mathematicians, musicians, programmers. These kids are poor readers. They need additional help in reading. If they are getting to easy tasks in maths, the learning process ends with

behavior problems. The third group of kids are thinkers in words. In a learning process we have to develop all type of thinking, (Kennedy & Banks & Grandin, 2011), but we have to take notes, which is primary thinking type for the kid.

The language teaching method is not created in one day, it has been changed and updated every day based on everyday experience in 3 years period. It based also on teaching observation research methods (Albrehta, 1998). The main person or the mentor has to give the kid 100 % attention, to demonstrate the initiative to be precise in giving the directions using language phrases.

This experience is based on the professional life of author – experience as programmer and as a mother. Author likes to investigate the situations herself and others in real life and take some action, modify the behavior and attitude. Author asks the question herself: “What to change in the process or myself while bringing up the person with speech delay, and then got the answer intuitively”.

Little kids or either big one, who has inability to speak and to communicate the way the main people do, have the opportunity to develop it. While the parents are developing their strength to set the borders to kid. Even the kid will have not a nice, but adequate response reaction - cry 1-2 hours in the beginning.

Autists ask us to be precise and consistency and calm. The same as computer asks us to be consistency and also calm. Even he himself still is not precise and is excited. Autist asks the mentor to be an authority to be precise with him. The aim is to get feedback from autistic kid to be accurately himself. Autistic kid wants to create precise, updatable process descriptions and rules in the world with defined exceptions.

They have their own will and it is hard to convince them to hear yourself. But from the religion - from the Bible we know that we have to name the demon in the name of it, if we expect to overcome it. So the author frequently says until nowadays to the boy - „Please, hear with the ears!” and I show with my hands my ears. „Please, look at the things only with eyes!” in the shop or while we have gone visiting other people.

At the first time it looks, he does not understand or does not hear you. But it is illusion. On average he checks whether the author is faithful to your life principles – he checks if you ask others to respect your true life values.

Autistic kid asks you as a parent – will you give up your true heart values? Do you know the true values what are in the heart and not in the mind?

About the precise language competence

Author has taught some basic words - person, up, down, room, bathroom, cup etc. Later author has used the associative principles. Author had asked: “Please answer – yes or no”. In the first year kids did not react. After 2 years

author started to use - person mama or person doctor or person teacher. Author has defined many times small rules, like.

„Please, ask you – Am I allowed to do it?“ After a year the kid asked something like that I understood it. I was happy. One step forward.

Author has used every day the same words: Person, Morning!, Trousers, T-Shirt, Socks, Breakfast, Porridge, Potatoes, Water or Juice. Jacket. It was necessary to speak briefly and precise. In every step we played the game – who is the main person.

“Please, get ready for going out!” (First year it will take some 10 minutes to be him ready.) “Please, do not that!” (Very useful phrase.) “Sorry!” (Very useful phrase, the kid like politeness.)

“You have to dress up!” (Many times should be said convincingly if he does not like.). It was very hard to get the confidence of him, so the author took the extra care for him to get the confidence of him.

Author bought some clothes, even the kid did not accept the first 5 times them. Author had announced 1 day before the kid, that she had a plan to buy clothes, it helped her. A kid started to trust her. Finally he dressed up the clothes author bought, but not all clothes. At the same time the progress has been, because author has accepted his behavior with peaceful reaction. And the kid accepted the mentor’s activities.

Author regularly bought some necessary useful things (plasticine, glue stick, interesting pencil), showed how to use them.

Every day precise the same words should be used. When a kid understand this, you can extend the phrases.

After two years of individual work author started to use such structures are: “if, then.” “First....., after.” A kid did not understand the first 5 structures of course, but he tried. This is a game - who will be more assertive and more unyielding. Unyielding against your true life values.

The essence of teaching language (some similarities to computer language)

One year only nouns. Or nouns with small verbs if necessary? Nouns we use every day. Everything should be said mild or very strict.

After two years I used the structured sentences with following structure.

“At first, then”

“If, then”

“That not ... that is....”

Some tips and tricks using the timeline

The mentor have to define the jobs for the kid step by step in timeline.

The kid should use comprehensive daily schedule that embeds the supports the student needs to be successful. In addition, the daily schedule should include the activities which continue develop the skills and the measurement of skill development. Social, communication and sensory needs should be planned and defined for support team for exactly kid. (Henry & Miles, 2007)

“Fig. 1”, “Fig. 2” Defined jobs and exceptions should be explained always before.

The mentor have to think all the time, before you do or say. You should say and explain short and precise, - you should be honest. Kid with special needs asks of you to live disciplined, effective and precise life – it means to become happy. Kid with special needs asks of you to see, accept and solve the problems immediately, if that is possible.

He asks you to understand that he feels more emotionally tone than physically hears the words. It means mainly to speak with him in calm tone, if not rare necessary strict tone. Otherwise you will increase their excitement.

“Fig. 1” The day should be planned and explained.

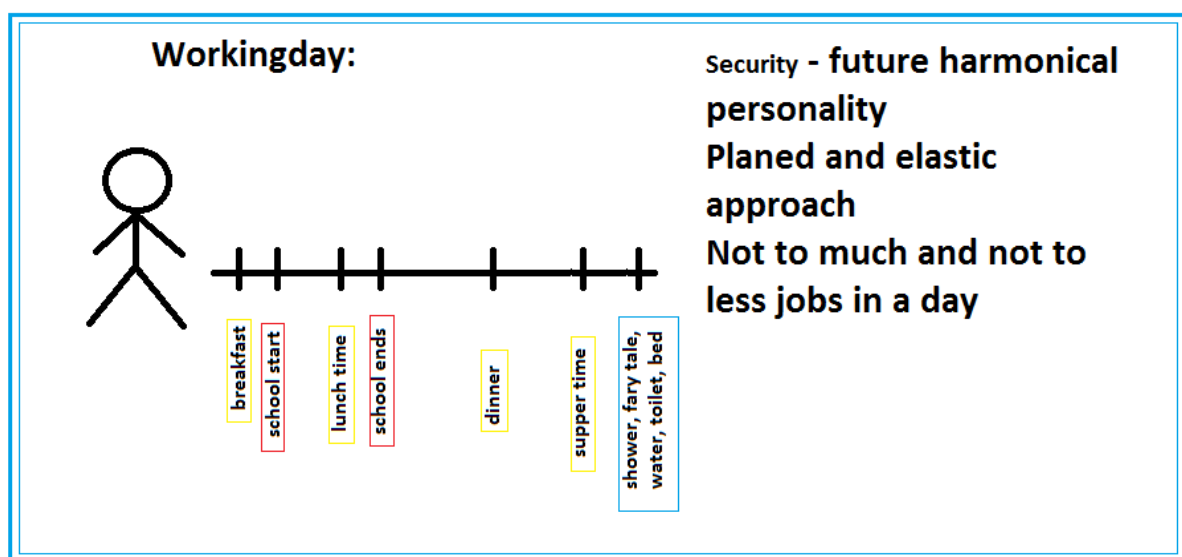


Figure 1 **Planned Workingday everyday**

“Fig. 2” You have to explain the kid honestly if some changes are happening in plans.

In author experience she touched 1 year long period 1 word in the sentence. Sometimes two words in the sentence. Always the same. Every day the same day. Every day in the breakfast the porridge. So a kid knows that it is a breakfast. “Juice or the water?” the author asked every day to get the answer one day.

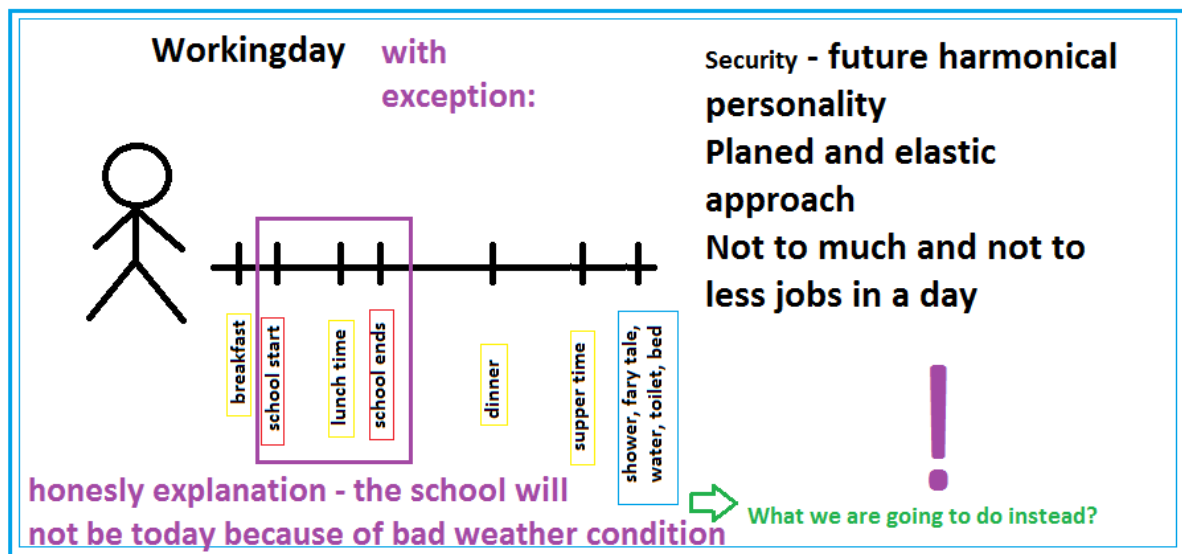


Figure 2 Planned Workingday with exceptions

Speech, language and listening develops from the birth but in different speed. Kids with language problems mainly have listening problems, because the listening process is the most common way how we get the information into brain. Also the ear and noise health problems could cause some later language expression and listening problems. Alternative communication (like PECS, BLISS) could be used to decrease the stress level of the kid (Hamaguchi, 2010).

Lot of psychological restrictions should be respected. Giving simple, but tasty food percentage high dosage and a little dosage of low value food. Creating mild and strict regulations. What did it pay to author? Needs time to be alone regularly, because kid rejected the regulations 1-2 years with an adequate shouting. What were the benefits? Author has got a mild kid in the park and shop and on the street mainly but not in the working place - home.

Working with children means enough personal, technically organized environment, psychology organized environment. Problems should be resolved in team work: parents together with teachers (Wood, 2006).

The nutrition plays significant role in developing learning disabilities, psychiatric disorders and physical problems. Probiotics are suggested to use to update digestive system. GAPS diet is recommended to clean the body systems. GAPS diet is based on SCD (the Specific Carohydrate Diet), the aim is to rebalance the immune system and to balance optimal bacterial ecosystem within the gastrointestinal tract. The diet restricts all grains, commercial dairy, starchy vegetables and all processed/refined carbohydrates (Campbell-McBride, 2010).

Structural language helps kid make some patterns in head, kid has time to understand the structured sentence. Some kids like to play with letters, so they

recognize that some words can be divided, analyzed and created other words from them (Monsees, 1972).

We have not to focus that kid is not hearing, but we have to focus on that we have to speak with a kid shortly, precise words or sentences, every day the same. We have to focus, what author can give - not too much and not too less. A little bit progress concerning the society development and integration will be noticed after 6 months. A larger progress will be noticed after two years.

Conclusions

Based on the empirical research observation method the principles of communication teaching is developed and demonstrated. It based on a process and word repetition, beginning with nouns, then nouns with verbs concentrating with 100 % on the kid. Working individually with kid, changing the methods if not working with him. Working individually with the materials found in nature and home – books, plasticine. Being polite, mild and strict. Working regularly 2-3 years long period. Encouraging to answer and ask many times. Even looks like he do not react first year. Accept the kid how he is but give the attitude as to a well behaved student.

The language teaching is based on structural language sentences. The structure is equal so the kid recognize what we want from him. Very often in the speech is used 1-2 words, otherwise the kid is not able to working out how to distinguish the words.

The daily routine should be defined and explained. Then the unexpected changes should be explained timely if possible. Direct and concise language should be used.

After 2-3 years period you can start to explain the complicated everyday rules. We should remember that the mentor needs to explain an autistic kid more casual and society rules, when he is ready to accept the borders and he is ready to communicate.

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KUSTĪBU KOORDINĀCIJAS GRŪTĪBAS BĒRNIEM AR MĀCĪŠANĀS TRAUCĒJUMIEM

Motor Coordination Difficulties in Children with Learning Disabilities

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Abstract. Nowadays increasing the number of children with learning disabilities in comprehensive schools of Latvia, so it is necessary preventive measures during school time. One of the support measures are short movement activity in academic lessons. The aim of article is theoretical analyze the correlations between motor coordination difficulties and the child's academic achievement and find out primary school teachers' viewson possible support for children with learning disabilities .Main findings – development of motor coordination in children of primary schools is effective when using short movement breaks in classroom. Research methods: analysis of scientific and methodological literature, a survey of primary school teachers from Riga (88 respondents), data collection and analysis.

Keywords: Learning disabilities, motor coordination difficulties, movement activity in classroom.

Ievads

Introduction

Latvijā vispārizglītojošās izglītības iestādēs pieaug bērnu skaits ar mācīšanās traucējumiem, tāpēc ir nepieciešami preventīvie pasākumi mācību stundu laikā. Viens no atbalsta pasākumiem, ko var organizēt sākumskolas skolotājs teorētisko mācību stundu laikā, ir kustību pauzes.

Raksta mērķis – analizēt mījsakarības starp kustību koordinācijas grūtībām un bērna akadēmiskajiem sasniegumiem, kā arī aktualizēt pedagoģiskā atbalsta nepieciešamību mācību stundu laikā, lai pilnveidotu bērna kustību koordinācijas attīstību.

Pētījuma metodes: zinātniskās literatūras analīze, aptauja Rīgas sākumskolu skolotājiem, kurā piedalījās 88 respondenti, datu apkopošana un analīze.

Diskusija un rezultāti ***Discussion and Results***

Mūsdienās modernās informācijas un komunikācijas tehnoloģijas ieņem arvien nozīmīgāku lomu sabiedrības, tai skaitā bērnu ikdienā. Bērni brīvajā laikā biežāk izvēlās tehnoloģiju piedāvātās izklaides iespējas nevis fiziskās aktivitātes. Informācijas pārbagātība un izklaides iespējas, ko piedāvā tehnoloģijas (televizors, dators, viedtālrunis, planšetdators) ir saistošākas kā citas brīvā laika aktivitātes. Pēc Centrālās statistikas datu bāzes informācijas 2015. gadā 99,1 % skolēnu regulāri lieto internetu, tātad gandrīz visi Latvijas skolēni. Tehnoloģiju lietošana veicina mazkustīgu dzīvesveidu, jo bērni atrodas statiskā stāvoklī (sēdus pozā). Arī mācību stundu saturs pārsvarā ir balstīts uz rakstīšanu, lasīšanu un klausīšanos, tātad ne tikai brīvais laiks tiek pavadīts sēdus pozā, bet lielākā dienas daļa. Mazkustīgums ietekmē bērnu veselību un attīstību, tāpēc mūsdienās ir īpaši aktuāli runāt par fiziskajām aktivitātēm. Slimību profilakses un kontroles centrs akcentē, ka fizisko aktivitāšu veicināšanai būtu jābūt vienai no sabiedrības veselības prioritātēm, iekļaujot tajā visus sabiedrības slāņus (Slimību profilakses un kontroles centrs). Bērna attīstība norit nepārtraukti – gan emocionālā, gan sociālā, gan kognitīvā, gan fiziskā un tās ir cieši saistītas, tāpēc ir svarīgi attīstīt visas šīs jomas. Zinātnieki savos pētījumos ir diskutējuši par fiziskās aktivitātes ietekmi uz mācību procesu. Fizisko aktivitāšu ietekmē uzlabojas kustību koordinācija (Smukā, 2011). Ja skolēna kustību koordinācija neattīstās pietiekami, tad tas ietekmē kognitīvo, sociālo un emocionālo attīstību (Sibley, Etnier, 2003). Kustību koordinācijas attīstība ir nozīmīga ikvienam bērnam, lai sekmīgi iekļautos mācīšanās procesā. Kustību koordinācija ir nopietna problēma daudziem bērniem ar mācīšanās traucējumiem (Lernen, Johns, 2014).

Mācīšanās traucējumi ***Learning Disabilities***

M. Raščevska ar pētnieku grupu definē, ka mācīšanās traucējumu pamatā ir nelielas bioloģiskas jeb neiroloģiskas disfunkcijas, kas izpaužas kognitīvās apstrādes savdabībā, un tā ir raksturīga jau agrīnās attīstības stadijās un par pamatu nav nepietiekami izglītojoša vide, smadzeņu traumas vai slimību sekas. (Raščevska et al., 2010). Ministru kabineta noteikumos nr. 709. 1. pielikumā (Kritēriji pedagoģiski medicīnisko komisiju atzinumu sniegšanai), balstoties uz starptautisko statisko slimību un veselības problēmu klasifaktoru SSK-10, izdala specifiskus mācīšanās traucējumus – lasīšanas traucējumi vai disleksija, aritmētisko iemaņu mācīšanās traucējumi, izteikti vizuāli telpisko spēju

traucējumi, verbāli loģisko spēju traucējumi, izteikti pazemināta kognitīvā produktivitāte, jaukti mācīšanās iemaņu traucējumi (F81.3), specifiski lasīšanas traucējumi (F81.0), specifiski aritmētisko iemaņu traucējumi (F81.2), specifiski motoro funkciju attīstības traucējumi (F82), jaukti specifiski attīstības traucējumi (F83), bērniņas autisms (F84.0) vai atipisks autisms (F84.1), vai Aspergera sindroms (F84.5), ja intelektuālo spēju attīstības līmenis atbilst vecuma vidējai vai zemākajai normai (nesasniedzot garīgās atpauces robežu), viegli kognitīvi traucējumi (F06.7) (Ministru kabineta noteikumi Nr. 709, 1. pielikums), (SSK – 10 klasifikācija).

Kustību koordinācija *Coordination of Body Motion*

Logopēdijas terminu skaidrojošā vārdnīcā kustību koordināciju ir definēta kā mērķtiecīga, saskaņota dažādu muskuļu kustības, ko īsteno atgriezeniskā aferentācija un lielo pusložu galvas smadzeņu garozas regulējošā darbība (Lūse et al., 2012), savukārt R. Jansone ar pētnieku komandu skaidro, ka kustību koordinācija ir kustību precizitāte, līdzsvara izjūta, spēja orientēties laikā un telpā, spēja saskaņot savas kustības ar citu bērnu kustībām (Jansone et al., 2011). N. Bernšteins, diskutējot par kustību koordināciju, lieto četrus jēdzienus – spēks, ātrums, izturība, veiktība (Бернштейн, 1990). Sākumskolas vecumā bērni veiksmīgi apgūst kustības, kuru izpildīšanai nepieciešama precizitāte, atsevišķu muskuļu grupu saskaņota darbība, veiktība, ātrums un spēka piepūle (Jansone, Krauksts, 2005). Sākumskolā bērniem morfoloģiski nobriest kustību analizatora centrālās struktūras, kas veicina kustību koordināciju attīstību. Šajā vecumā attīstās veiktība, kustību ātrums un lokanība, tāpēc jāļauj bērnam pēc iespējas vairāk kustēties nevis ilgstoši sēdēt (Geske, 2005, Svence, 1999).

Pētījumi liecina, ka bērniem ar mācīšanās traucējumiem kustību koordinācija ir vājāk attīstīta nekā viņu vienaudžiem (Lewis, Doorlag, 1987). Bērniem, kuriem ir kustību koordinācijas grūtības, ir novērotas grūtības ar lielās un sīkās motorikas kontroli, grūtības iemācīties jaunas motorās prasmes, stājas un līdzsvara problēmas, neveiktība, roku – acu koordinācijas problēmas, vājas organizēšanas un plānošanas prasmes, runas traucējumi (Gubbay, 1975, Hudson, 2014, Kirby, Drew, 2003, Portwood, 1999).

Kustību koordinācijas pilnveidošana sekmē bērna kognitīvo attīstību. Sākumskolas pedagogam ir būtiski laicīgi pamanīt kustību koordinācijas grūtības bērniem klasē un informēt kādu no skolas atbalsta personāla speciālistiem (logopēds, speciālais pedagogs, psihologs, medicīnas māsa, sociālais pedagogs), kuri nodrošinās atbilstīgu palīdzību. Kustību koordinācijas grūtības vislabāk var novērot sporta, mājturības un tehnoloģijas stundās, kā arī rakstīšanas laikā (Lewis, Doorlag, 1987). Ilgstoša sēdēšana un rakstīšana

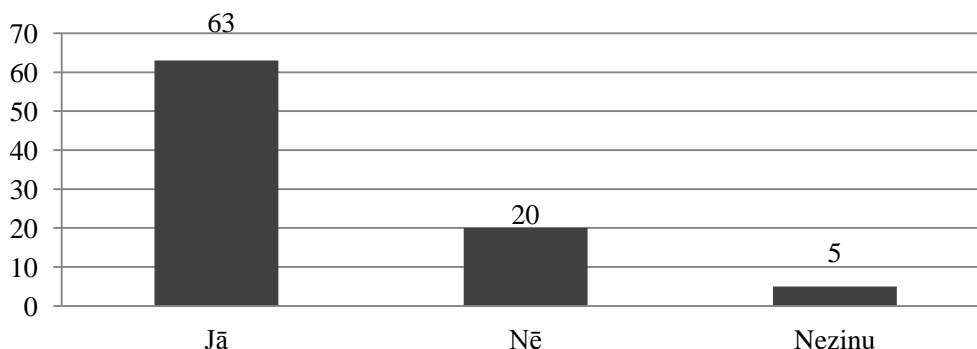
bērniem var izraisīt nepatiku pret mācību stundu, tāpēc ir svarīgi pārtraukt ilgstošo vienveidīgo darbību ar īsām kustību pauzēm (2 – 5 min.). Kustību pauzēm ir pozitīva iedarbība uz mācīšanos, tās palīdz izvairīties no ilgām vienveidīgām statiskām pozām un noguruma (Puškarevs, Golubeva, 1999). Īpašu vērību kustību koordinācijas attīstīšanai ir jāpievērš sākumskolā, īpaši vecumā no 5 līdz 12 gadiem (Jansone et al., 2011). Mācību stundu aktīvajās kustību pauzēs jāiekļauj vieglus fiziskus vingrinājumus un atslābināšanos, jo viegls muskuļu darbs labvēlīgi ietekmē garīgo darbību. Mazkustīgiem bērniem stundās ir grūti koncentrēties mācību vielai (Jansone, Krauksts, 2005). Kustību pauzes mācību stundu laikā pozitīvi ietekmē kustību koordinācijas attīstību gan bērniem ar mācīšanās traucējumiem, gan pārējiem bērniem. Kustību koordinācijas attīstīšana uzlabo rakstītprasmi, lasītprasmi, rēķinātprasmi, socializēšanos, uzmanības noturību un bērniem ir vieglāk koncentrēties darbam. (Laszlo, Sainsbury, 1993).

Teorētisko mācību stundu laikā ir nepieciešams organizēt nelielas (2 – 5 min) kustību pauzes, kas tiek dēvētas arī par dinamiskajām pauzēm, iekļaujot 1 – 2 vingrinājumus, kas sekmē kustību koordinācijas attīstību. Kustību pauzes ir salīdzinoši vienkāršs un preventīvs pasākums, kā arī tās var sasaistīt ar konkrēto mācību priekšmetu.

Sākumskolas skolotājiem, organizējot kustību pauzes, ir svarīgi tām sagatavoties, izprast to nozīmi un ietekmi uz bērna attīstību. Par piemērotiem kustību vingrinājumiem var konsultēties ar sporta skolotāju, skolas speciālo pedagogu, logopēdu, kā arī citiem speciālistiem ārpus skolas. Šie vingrinājumi, kas tiek veikti vien pāris minūtes mācību stundas laikā, uzlabo kustību koordināciju, sekmē mijiedarbību starp labo un kreiso smadzeņu puslodi. Kustību pauzēs var izmantot arī sporta inventāru, dažādus priekšmetus, dabas materiālus un mācību līdzekļus, kas šīs īsās pauzes padara saistošākas un interesantākas bērniem. Kustību pauzes mācību stundu laikā būtu jāveido kā paradums gan bērniem, gan skolotājiem.

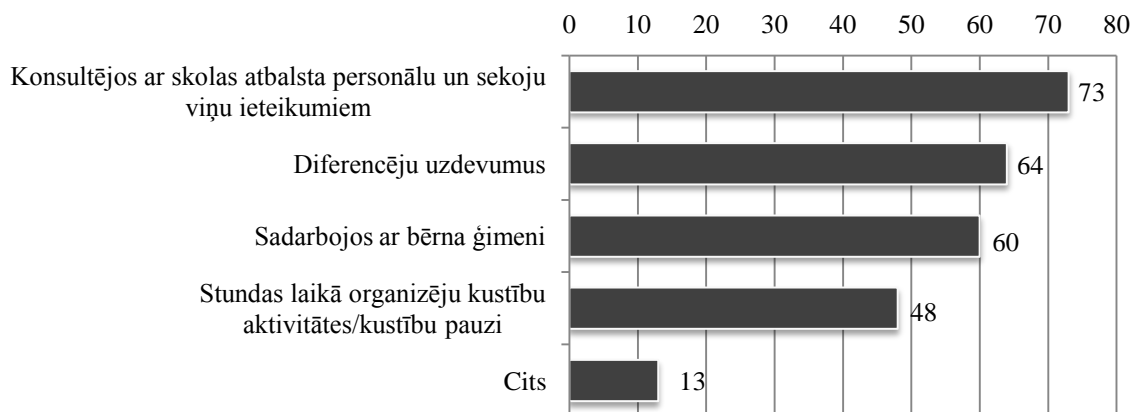
Pētījuma laikā tika veikta aptauja sākumskolas skolotājiem. Aptaujā piedalījās 88 dažādu Rīgas vispārīgglītojošas sākumskolas skolotāji. Respondentu vidējais vecums 39,6 gadi. Aptaujas mērķis – noskaidrot, vai skolotāji sākumskolas posmā pievērš uzmanību bērniem ar mācīšanās traucējumiem klasē, novēro viņu specifiskās grūtības un organizē atbalsta pasākumus mācību procesā.

Aptaujā tika noskaidrots, vai sākumskolas skolotāji ir pamanījuši, ka viņu klasē ir bērni ar mācīšanās traucējumiem. Aptaujas rezultāti (skat. 1. att.) liecina, ka 63 (71 %) respondentu klasē ir bērni ar mācīšanās traucējumiem, 20 (23 %) respondentu šādu bērnu klasē nav, savukārt 6 respondenti nav pārliecināti un atbild, ka nezina.



1.att. **Bērni ar mācīšanās traucējumiem vispārīzglītojošās izglītības iestādes klasē**
 Fig. 1 *Children with Learning Disabilities in Mainstream Classroom*

Tā kā vispārīzglītojošās izglītības iestādēs sākumskolas klasēs ir bērni ar mācīšanās traucējumiem, tika noskaidrots, kādus atbalsta pasākumus skolotāji šiem bērniem nodrošina. Aptaujas dati rāda (skat 2. att.), ka 73 no 88 respondentiem konsultējas ar skolas atbalsta personāla speciālistiem un seko viņu ieteikumiem. Tas ļauj secināt, ka lielākajai daļai aptaujāto sākumskolas skolotāju ir sadarbība ar skolas atbalsta personālu. 48 respondenti organizē kustību pauzes mācību stundu laikā, tātad tikai mazliet vairāk par pusi aptaujāto.

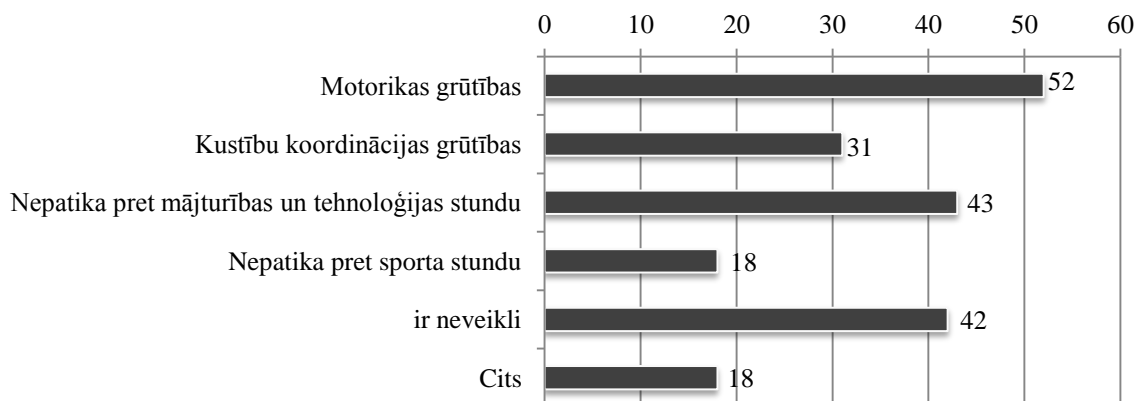


2.att. **Atbalsts bērniem ar mācīšanās traucējumiem mācību procesa laikā**
 Fig. 2 *Support for Children with Learning Disabilities in the Learning Process*

5 % skolotāju nodrošina arī citus atbalsta pasākumus (skat. 2. att.) (ļauj bērnam izmantot atgādnēs, dot papildus laiku pārbaudes darbu rakstīšanai, rosina izmantot papildmateriālus, uzslavē par padarīto darbu, papildus strādā individuāli, runā ar bērnu par viņa stiprajām un vājajām pusēm).

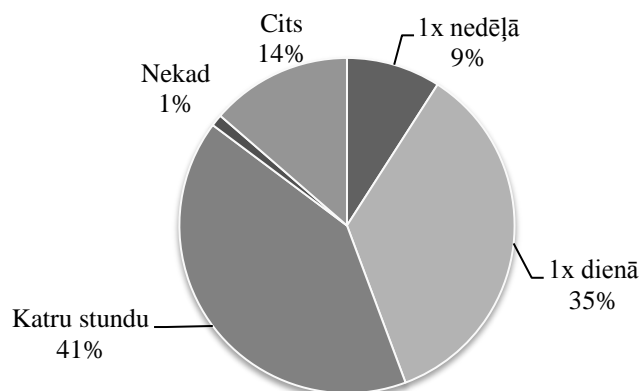
Skolotāji mācību procesā novērojuši bērniem ar mācīšanās traucējumiem motorikas, kustību koordinācijas grūtības, nepatiku pret mājturības un

tehnoloģijas stundām, neveiklību un nepatiku pret sporta stundām (skat. 3. att.). Aptaujas dati rāda, ka 18 (9 %) bērnu ar mācīšanās traucējumiem ir novērotas arī citas grūtības – saskarsmes problēmas ar vienaudžiem, uzmanības traucējumi, grūtības koncentrēties mācību darbam, bieža garastāvokļa maiņa, ir problēmas ar runu, neizprot laika jēdzienu, nenoturīga uzmanība, uzvedības problēmas, nervozas kustības (skat. 3. att.).



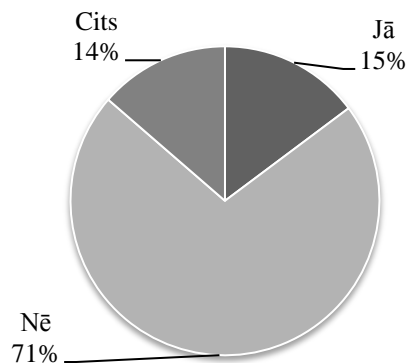
3.att. Skolotāju novērotās grūtības bērniem ar mācīšanās traucējumiem
 Fig. 3 Teachers Observed Difficulties in Children with Learning Disabilities

Lai gan 18 respondenti minējuši bērnu nepatiku pret sportu (skat. 3.att.), tas ir salīdzinoši neliels skaits, kas ļauj secināt, ka lielākai daļai sākumskolas bērnu patīk kustību aktivitātes, tāpēc kustību pauzes, iekļaujot tajās vingrinājumus kustību koordinācijai, būtu vienkāršāk organizēt mācību stundu laikā, jo tās bērniem sagādās pozitīvas emocijas. 41 % respondentu kustību pauzes organizē katrā mācību stundā, 35 % vienu reizi dienā, 14 % nepieciešamības gadījumā, 9 % vienu reizi nedēļā, 1 % nekad nav organizējuši bērniem kustību pauzes (skat. 4. att.).



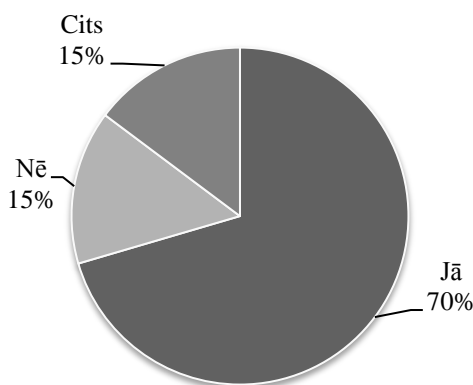
4.att. Kustību paužu nodrošināšana mācību stundu laikā
 Fig. 4 Movement Breaks in Classroom Work

Respondenti apgalvo (skat. 4. att.), ka 1., 2. klasē organizē kustību pauzes daudz biežāk nekā 3., 4. klasē. Aptaujas dati rāda, ka sākumskolas skolotāju mācību stundu laikā organizē kustību pauzes, tomēr tas būtu diskutējams jautājums, vai tas ir pietiekami. Lai kustību pauzēs iekļautu vingrinājumus kustību koordinācijas pilnveidošanai, skolotājiem ir svarīga sadarbība ar sporta skolotāju, kurš var ieteikt un parādīt konkrētus vingrinājumus, tomēr kā aptaujas dati rāda (skat. 5. att.), ka 71 % respondentu nav konsultējušies ar sporta skolotāju.



5.att. **Sadarbība ar sporta skolotāju**
 Fig. 5 *Collaboration with Sports Teacher*

No visiem aptaujātajiem (skat. 5. att.) tikai 15 % ir sadarbojušies ar sporta skolotāju, pārējie informāciju par kustību paužu nozīmi mācību stundā uzzinājuši no semināriem, kursiem, interneta, grāmatām, žurnāliem, fizioterapeitiem un citiem kolēģiem. Viens no aptaujātajiem respondentiem min, ka skolas metodiskajā sanāksmē sporta skolotājs ir ieteicis un rādījis vingrinājumus, ko var iekļaut kustību pauzēs.



6.att. **Fizioterapeita nepieciešamība skolā**
 Fig. 6 *The Necessity of Physiotherapist in Mainstream Schools*

Pētījuma aptaujas dati liecina, ka vispārizglītojošo izglītības iestāžu sākumskolas klasēs ir salīdzinoši daudz bērnu ar mācīšanās traucējumiem, kuriem ir kustību koordinācijas grūtības, tas liek domāt, ka skolās iespējams būtu vajadzīgs fizioterapeits, par ko liecina arī aptaujas datu rādītāji (skat. 6. att.) – 70 % respondentu uzskata, ka ir nepieciešams, bet 15 % respondentu uzskata, ka tā ir veselības aprūpes kompetence, tas ir skolas medmāsas pienākums, tā ir bērnu vecāku izvēle, pārējie 15 % respondentu uzskata, ka fizioterapeits skolā nav nepieciešams. Daži respondenti min, ka fizioterapeits būtu nepieciešams ne tikai skolēniem, bet arī skolotājiem.

Secinājumi **Conclusions**

- Kustību koordinācijas grūtības ietekmē bērna kognitīvo, sociālo un emocionālo attīstību, tāpēc kustību aktivitātes mācību stundu laikā veicina ne tikai sākumskolas bērnu fizisko attīstību, bet arī bērna attīstību veselumā.
- Pētījuma aptaujas dati rāda, ka daudziem bērniem, kuriem ir mācīšanās traucējumi ir vērojamas arī kustību koordinācijas grūtības.
- Kustību pauzēs veiksmīgi var iekļaut vingrinājumus, kuri pilnveido bērnu kustību koordināciju.
- Organizējot kustību pauzes, sākumskolas skolotājiem daudz biežāk būtu jāsadarbojas ar sporta skolotāju.

Summary

The main issue of scientific literature (Gubbay, 2005, Hudson, 2014, Jansone et al., 2011, Sibley, Etnier, 2003, Portwood, 1999, Leren, Johns, 2014, Laszlo, Sainsbury, 1993) – Children with learning disabilities had poorer motor coordination than their peers. Motor coordination difficulties impact child academic achievement or activities of daily living. Movement activities in classroom positive influence development of child with learning disabilities (attention, writing, reading, socializing and mathematics). Movement activity breaks are simple way for classroom teachers to enhance pupil motor coordination and academic performance.

During this research elementary school teachers have been surveyed. Respondents of the empirical research: 88 teachers of elementary school in Riga. Surveys goal– to find out teacher sat primary stage, pay attention to children with learning difficulties in class, observe their specific difficulties and organize support activities in the learning process. Results of the data showed: 71 % respondents affirm that in classroom have children with learning disabilities and they have difficulties with motor coordination (Fig. 3.). Teachers (41 %) of elementary schools organized movement breaks in classroom every lesson (Fig. 4).

Main findings:

- Movement activity breaks can be integrated into academic lessons (2 – 5 min), it promotes to reducing motor coordination difficulties and may improve the development of academic abilities in children with learning disabilities in primary school.
- Movement activity breaks in the classroom not only contribute primary schoolchildren's physical development, but also the whole development of the child.
- Teachers of primary schools in Riga are not sufficiently informed about what exercises could include movement breaks to develop children's motor coordination.



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ИНОСТРАННЫЕ ЯЗЫКИ С ТОЧКИ ЗРЕНИЯ ЗАНЯТОСТИ ЛИЦ С ПРИОБРЕТЕННЫМИ НАРУШЕНИЯМИ ЗРЕНИЯ

Foreign Languages in the Terms of Employment of Persons with Visual Impairment

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Abstract. *A good job is one of the most important criteria of the quality of life of people with severe visual impairment. It not only helps people to widen their range of social interactions, but also to improve people's skills and abilities. This study focuses on the difficulties these people experience in the study of foreign languages, and whether they perceive the learning of foreign languages as an important part of their work.*

This qualitative type of research was made through interviews and studying of clients' documentation. Participants in the study were people of mature age, who have been forced to change their jobs, or even the qualifications because of the acquired disability. Currently, these people use the services of a local specialized Center for people with visual impairments, where the study took place.

The survey results show that clients do not only perceive the knowledge of a foreign language as an important component of their quality of life, but also would like to use foreign languages in the workplace. Unfortunately, this is often impossible because of the lack of appropriate materials and training courses, and in some cases, because of low internal motivation of these people.

Keywords: *blindness; employment; foreign languages.*

Введение **Introduction**

На сегодняшний день обучение иностранным языкам является очень современной тенденцией. Языковые навыки и знания в настоящее время относятся к тем основным способностям, которые каждый гражданин Европейского Союза обязан развивать на протяжении всей своей жизни. Знание иностранных языков расширяет не только круг общения с иностранными партнерами и возможности трудоустройства, но также дает возможность знакомиться с другими культурами, путешествовать, передвигаться, встречаться и знакомиться с новыми людьми не только между государствами-членами ЕС, но и за его границами.

Также как и здоровая часть популяции, так и часть взрослых людей с тяжелыми нарушениями зрения, хотят продолжать изучение иностранных языков. Знание иностранного языка помогает уменьшить дефицит информации, которая возникает в связи с нарушением зрения, найти лучшую работу или привлечь новых клиентов и деловых партнеров. Лица с нарушениями зрения часто не имеют возможности посещать регулярные курсы, организованные языковыми центрами, в частности, потому, что слепые люди не могут работать прямо с печатным текстом, как другие участники, и, следовательно, не могут развивать свои языковые навыки соответствующим для них способом. Ниже описаны основные проблемы, с которыми встречаются люди с тяжелыми нарушениями зрения в процессе обучения иностранному языку, а то, прежде всего, с точки зрения использования иностранных языков при трудоустройстве таких лиц, а также с точки зрения их личностного подхода к изучению иностранных языков.

Сбор данных в исследовании проводился с помощью полуструктурированного интервью и изучения документации клиентов регионального специализированного центра для лиц с нарушениями зрения. Как показывают ниже приведенные результаты, респонденты воспринимают знание иностранных языков как важную часть своей жизни, но обучению сильно препятствуют не только низкая мотивация, но и недостаток подходящих курсов и материалов.

Занятость лиц с нарушениями зрения *Employment of persons with visual impairment*

В современном обществе, работа играет важную роль не только в плане финансового обеспечения, но также в плане своей социальной значимости и связанной с ней социальным статусом. Работа также является важным инструментом для повышения уровня жизни, который мог быть снижен в результате ухудшения зрения (Ludíková, 2006).

Тоже пишет и Сайферт (Seifert & Procházková, 2009), что занятость для лиц с ограниченными возможностями важна в получении социальной и экономической самостоятельности, статуса независимого, работающего и зарабатывающего человека, в расширении социальных контактов вне семьи, и не в последнюю очередь в обеспечении смысла собственного существования и стимуляции развития личности. Вопрос реинтеграции в общество лиц с нарушениями зрения особенно важен, и работа является одним из главных средств достижения этого состояния (см. также Ludíková, 2014).

В настоящее время вопрос о занятости лиц с нарушениями зрения не был в Чешской Республике удовлетворительно рассмотрен, но тем не менее есть некоторые статистические данные на которые можно полагаться. Новак (2014) в своем исследовании показывает, что из всех лиц с нарушениями зрения в Чешской Республике, включая лиц пенсионного возраста, только 10 % являются работающими. Около 5 % от общего числа безработных и на 69 % это люди пенсионного возраста. Хотя статья и не приводит точное число людей с точки зрения возраста и степени нарушений, из таблиц видно, что наибольший процент людей с нарушениями зрения находится в категории 45+ и растет с возрастом. Всемирный доклад по проблемам старения и здравоохранения (ВОЗ, 2015) сообщил, что в 2050 году две трети населения европейских стран будет находиться на пенсии. Неизбежно, поэтому, возникает вопрос экономической стабильности и занятости не только здорового населения, но также и лиц с ограниченными возможностями.

В последние годы в Чешской Республике был осуществлен ряд проектов, ориентированных на рабочие места и переподготовку лиц с нарушениями зрения. Интересно отметить, что в 2001 году исследовательское агентство GfK показало, что большинство из 1000 опрошенных считают, что государство должно поощрять организации, занимающиеся вопросами занятости лиц с нарушениями зрения. В настоящее время, однако, существует очень мало проектов, направленных на улучшение качества языкового образования лиц с нарушениями зрения. Как было указано выше, языковое образование непосредственно влияет на успешность этих людей на рынке труда. Чтобы получить более глубокое понимание вопроса изучения и знания иностранных языков, а также влияния этих факторов на трудоустройство, мы опросили несколько человек с тяжелыми нарушениями зрения на предмет их отношения к иностранным языкам, важности владения языками при трудоустройстве, и на их трудности при обучении новому языку.

Языковое образование для людей с нарушениями зрения *Language education of people with visual impairment*

В настоящее время молодые люди с нарушениями зрения изучают иностранные языки в рамках обязательного образования. Это главным образом английский язык, часто на выбор бывает язык немецкий или французский, а иногда испанский или русский. Независимо от своих внутренних убеждений, студенты, для успешного окончания школы, должны выучить иностранный язык. У взрослых с нарушениями зрения мотивация, которая заставляет их учить иностранный язык, другая. Эта

мотивация может быть разделена на две основные группы: профессиональная мотивация и личная мотивация. Профессиональная мотивация включает в себя:

- получение новой работы;
- лучший выбор работы из-за более высокой квалификации;
- построение карьеры: совершенствование языковых навыков требуется работодателем;
- более эффективная коммуникация: свободное общение с зарубежными коллегами и клиентами - по телефону или в письменной форме;
- обслуживание клиентов: профессии, которые традиционно доступны для людей с нарушениями зрения (сотрудники колл-центров, массажисты, диспетчеры, работники в области физиотерапии и туризма) эволюционируют, работодатели, если они хотят эффективно предоставлять услуги своим клиентам, все чаще требуют языковые способности от своих сотрудников. Изучение языков таким образом может помочь в получении рабочего места. (Хорошая практика для улучшения обучения языку слабовидящих, 2010)

Личная мотивация к обучению иностранным языкам включает в себя:

- тренировка памяти и готовность совершенствовать языковые навыки, даже без определенной цели;
- знание и изучение культур других стран;
- контакты с иностранцами;
- доступ к зарубежным сайтам и СМИ;
- больше возможности для путешествий: повышение навыков общения дает ощущение большей независимости;
- участие в различных международных встречах, лагерях и т.д.;
- возможность помочь детям в выполнении домашних заданий. (Хорошая практика для улучшения обучения языку слабовидящих, 2010).

Хотя, как указывалось в предыдущем тексте, мотивация к обучению у лиц с нарушениями зрения может быть действительно сильной, обучение иностранным языкам возлагает также большие требования на учителя. Наиболее распространенными недостатками в преподавании являются плохое знание классификаций, типов и видов нарушений зрения и их последствий, отсутствие соответствующих учебных материалов, вспомогательных устройств и технологий, и прежде всего тех методов обучения, которые приводят к эффективному запоминанию и овладению языка (Ludíková, 2011).

У отдельных компонентов языка в преподавании иностранных языков для людей с нарушениями зрения имеются свои специфики. Как пишет Хамадова (Hamadová & Vítková, 2004), в лексике могут появиться проблемы с вербализмом, в произношении, прежде всего в английском языке, распространенным явлением являются омофоны слов, которые могут легко привести к путанице между двумя словами, поэтому необходимо обратить достаточное внимание на письмо. Аиаццы (Teaching English to Blind and Visually Impaired Pupils [online], 2008), далее в качестве важного аспекта приводит эгоцентризм у людей с нарушениями зрения, последние часто вызывают учителя к диалогу в самые неподходящие моменты, чтобы убедиться, что они работают должным образом и привлекли внимание к себе и своим знаниям. Эти аспекты часто существенно влияют на процесс обучения и предъявляют высокие требования к учителям. Поэтому необходимо, чтобы педагоги при формировании новых концепций в преподавании иностранного языка использовали наиболее подходящие методы, которые положительно влияют на участников обучения и помогают сохранить необходимую информацию в долговременной памяти студента, нужную для его дальнейшего обучения.

Методы исследования *Research methods*

Сбор данных, кодирование, анализ и оценка данных производились в виде качественного дизайна. Как сообщают Храпка (Chráska, 2007) и Хендл (Hendl, 2005), качественное исследование сосредоточено на углубленное изучение отдельных случаев посредством наблюдения и интервью в естественных условиях социальной среды. Для этого исследования, характерно, что в начале выбирается тема и основные вопросы исследования. Эти вопросы могут быть изменены в ходе процесса; качественное исследование, таким образом, рассматривается как очень гибкий тип исследования. В ходе исследования открываются новые гипотезы и решения, где исследователь постоянно ищет, анализирует информацию, приходя так к дедуктивным и индуктивным выводам. Анализ и сбор данных проводятся одновременно, после чего, можно вернуться на место исследования. Эти циклы необходимы для рассмотрения выводов. Из вышеизложенного видно, что качественные исследования трудно проводимы, но в тоже время они дают углубленное описание рассматриваемого явления.

Недостатком качественного исследования является невозможность обобщения для больших, генерализированных групп, так как сбор данных

и их анализ очень трудоёмки. Высокие требования также накладываются на самого исследователя и связаны с большим риском влияния исследователя на результаты интервью (Hendl, 2005).

Сбор данных в исследовании, проводился с помощью полуструктурированного интервью и изучения документации. В исследовании проводился опрос с пятью респондентами, которые в связи с приобретенными тяжелыми нарушениями зрения были вынуждены сменить свою текущую работу. Все респонденты принадлежали к категории 41-60 лет и степени нарушения зрения классифицированной как «тяжелая форма нарушения зрения» или «слепота» (WHO, 2015). Благодаря долгосрочному сотрудничеству с одним из Центров для людей с нарушениями зрения, и длительной работе с клиентами, у исследователя была возможность задавать личные вопросы и использовать результаты долгосрочного общения. В центре внимания были, составленные из множества вопросов, ключевые области, такие как – нарушения зрения, занятость, языковые навыки и способности, изучение языков. Для обработки данных использовались выделение качественных данных, сравнение, систематизация и редукция данных первого порядка, кодирование, объединение в категории и образование категориальных структур. Преобладает описательный подход к анализу.

Результаты ***Results***

Респондент № 1 окончил школу по механизации сельскохозяйственного производства. В области сельскохозяйственного производства работал в течении десяти лет, за это время он сменил несколько рабочих мест. До появления нарушений зрения в течение следующих десяти лет продолжал работать в качестве инструктора вождения в автошколе. В настоящее время его состояние стабилизировано, и мужчина принимает участие как в общественной жизни, так и в работе, и межличностных отношениях. Его рабочая нагрузка делится на две деятельности - массаж и работа в сфере социальных услуг.

Респондент № 2 является квалифицированным каменщиком и его карьера прерывалась только один раз, когда он в качестве добровольца помогал людям с ограниченными возможностями здоровья в Великобритании. В настоящее время он работает как предприниматель в области массажных услуг.

Респондент № 3 окончил факультет электрических машин и аппаратов технического университета. Этой области он посвятил себя до появления инвалидности и сменил при этом несколько рабочих мест. В то время,

когда инвалидность и психическое состояние респондента были стабилизированы, он попытался возвратиться на место своей последней работы, но без успеха. В настоящее время, этот человек переписывает аудиозаписи в текстовые файлы, работая при этом лишь на полставки.

Первый вопрос был - могут ли респонденты читать и писать по азбуке Брайля и сколько времени они посвящают чтению, будь то в тактильной форме или слушая записи. В то время как два респондента еще только учат шрифт Брайля и не пользуются им даже у себя дома, респондент № 2 шрифт Брайля активно использует: "Где-то чуть больше года я учился читать и писать. Я могу написать что-то, хотя и с некоторыми ошибками, и последовательно это после себя прочитать. Но чтение на ощупь, это для меня как расшифровка, очень медленно... Но я использую его для маркировки с помощью специального прибора. Для меня это очень удобно, поэтому я этим и пользуюсь". Чтение нравилось всем трем респондентам, но только через прослушивание записей или электронное зачитывание. "Чтение было самой большой мотивацией, для того чтобы я начал сам с собой что-то делать. Так что теперь все книги, которые меня интересуют, и которых нет в онлайн библиотеке, я копирую, редактирую, а затем читаю. У меня уже своя система, и я храню их либо в компьютере либо в телефоне, если я в дороге". - респондент номер 1.

Знание иностранного языка подтвердили все три респондента. Это был английский, немецкий и русский, которые они учили в период школьного обучения. Двое из трех респондентов в настоящее время занимаются изучением иностранного языка - в обоих случаях это обновление забытого английского языка. Респондент № 3 пользовался иностранными языками и до возникновения инвалидности: "Я пытаюсь вспоминать английский язык, когда есть время. Даже в то время, когда я был на работе, мы использовали основные языки - английский, русский и немецкий". Все респонденты также считают, что изучение иностранного языка важно даже после установления инвалидности. Респондент № 1 сам совместил этот вопрос с вопросом о занятости: "Знание и изучение иностранного языка всегда важно. И я думаю, что на работе это всегда только плюс, потому что без этого в наше время трудно обойтись. Мир тесно связан и людей, которые говорят на других языках все больше и больше. Таким образом, человеку не остается ничего другого как изучать другие языки".

На вопрос, могут ли они использовать иностранные языки в их текущей работе, все три респондента ответили положительно, но все по разным причинам. "Так у меня всегда есть доступ к новым материалам, новым книгам гораздо раньше, чем они будут переведены на наш язык. А некоторая литература не переводится вообще. А в том, чем я занимаюсь,

это для меня большой плюс." - респондент № 1. "Для меня язык важен, мне всегда надо уметь немного общаться по-английски, когда ко мне приходят иностранцы на массаж." - опрашиваемый номер 2. "Я, конечно, мог бы использовать иностранный язык, но в настоящее время этого от меня не требуется. Хотя, например, в последнем контракте мы переписывали воспоминания, и там иногда присутствовали некоторые немецкие слова. Ну и, конечно, можно было бы и английский". - респондент номер 3.

Что касается преподавания и изучения иностранных языков, два из трех респондентов сказали, что в настоящее время существует нехватка квалифицированных курсов и материалов, доступных для людей с нарушениями зрения. Оказалось, что самые большие трудности были при запоминании лексики. Респондент № 1 подтверждает: "Хорошо еще, если человек когда-то видел, то тогда он может себе представить буквы. Поэтому, когда я учу иностранный язык, я должен все переводить на буквы. Взять каждое слово букву за буквой и представить его перед собой. И только потом заниматься произношением. По этой причине мне не хватает зрения - я всегда все мысленно фотографировал и оно там [в голове] оставалось". "Если человек записывается на [языковой] курс, всегда проблема с материалами. Они в основном печатные, но это для здоровых людей, без проблем со зрением. Может быть, что-то есть там, в столице, но здесь ничего". У респондентов также возникали проблемы с изучением произношения, программы для зачитывания были не в состоянии справиться с транскрипцией отдельных слов. Одному из респондентов не было достаточно ни внешней, ни внутренней мотивации, как мы уже упоминали в предыдущем тексте: "Я мог бы использовать языки [на работе], но этого никто не требует. Иногда я сам что-нибудь посмотрю, но не часто, нет времени." - респондент № 3.

Заключение *Conclusions*

Целью этой статьи было дать понимание сложных явлений обучения иностранным языкам лиц с тяжелыми нарушениями зрения и использовать эти знания в области трудоустройства. Частичные результаты показывают, что респонденты воспринимают знание иностранного языка как важную часть качества жизни в современное время, и часто его используют в своей собственной работе. Более глубоким знаниям и широкому использованию языка часто препятствует отсутствие соответствующих учебных материалов и курсов, адаптированных для людей с тяжелыми нарушениями зрения. Другим фактором, который негативно влияет на

изучение языка, является низкая внутренняя и внешняя мотивация этих людей.

Эта статья открывает широкий спектр вопросов, ответы на которые появятся в следующей научно-исследовательской деятельности. Насколько внешняя мотивация (по просьбе работодателя) влияет на желание изучать иностранный язык? Сильнее ли эта мотивация, чем внутренние мотивы (личные)? В то время, как первые два респондента склоняются более к внутренней мотивации, у третьего респондента не хватает обеих; и, тем не менее, он считает, что изучение языка имеет большое значение. Возможно ли правильным способом преподавания иностранных языков для людей с тяжелыми нарушениями зрения повысить уровень занятости этих лиц? Здесь открывается широкое поле для дальнейших исследований, которым будет продолжаться уделяться должное внимание.

Summary

The paper aimed to provide the insight into the complex phenomenon of learning foreign languages by the persons with severe visual impairment and was trying to use this knowledge in the area of employment. Partial results show that respondents perceive the knowledge of a foreign language as an important part of quality of life in modern world, and these languages are often used by themselves at work. But a deeper knowledge and greater use of language are often hampered by the lack of appropriate teaching materials and courses provided for people with severe visual impairment. Another factor that negatively affects language learning is the low intrinsic as well as extrinsic motivation of these people.

This article opens up more questions that will be answered in the following research activities. To what extent does the extrinsic motivation (at the request of employer) influence the willingness to study a foreign language? It is this motivation stronger than internal motivation (personal)? While in the first two interviewees the motivation is rather intrinsic, the third respondent lacks both types of motivation; nevertheless he believes in the importance of language learning. Is it possible to raise the level of employment of persons with severe visual impairments by providing them better opportunities to study a foreign language? This topic opens up a broad field for further research, to which full attention will be given.

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ARTIKULĀCIJAS MODEĻI – SKAŅU IZRUNAS TRAUCĒJUMU NOVĒRŠANAS LĪDZEKLIS BĒRNIEM PIRMSSKOLAS VECUMĀ

Articulation Models – Correction Tools of Children Sound Pronunciation Disturbances in Pre-school Age

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Abstract. *Sound pronunciation disturbances are one of the frequent speech problems observed in pre-school age, that is why there are developed different methods in correction methodology and one of them is approach by using sound articulation models. They help for a child in pre-school age to acquire meaningfully the physiological basis of sound pronunciation and allow being an active participant in correction process.*

Keywords: *articulation models, graphic sign, modelling, profile, sound pronunciation disturbances.*

Ievads

Introduction

Logopēds runas koriģējoši attīstošajā darbībā plaši izmanto dažādas praktiskās metodes, kas ietver vingrinājumus, rotaļas un modelēšanu (Логопедия, 2004).

Pirmsskolas vecumā rotaļa ir bērna dzīvesveids, ar tās palīdzību pirmsskolēns izzina appasauli, veido savu attieksmi pret redzēto, dzirdēto, izjusto, attiecības ar pieaugušajiem un vienaudžiem, apgūst praktiskas iemaņas un prasmes. Tieši tādēļ rotaļa arī caurvij katru runas korekcijas darba posmu. Veicot vingrinājumus (artikulācijas aparāta, pirkstu sīkās motorikas, fonemātiskās uztveres u.c.), logopēds izmanto rotaļu elementus, pilnveidojot runas kustību un runas dzirdes pamatus.

Modelēšanu kā metodi logopēdijā izmanto retāk. Biežāk tā tiek lietota aprakstošo stāstījumu veidošanā, kad ilustratīvie balsta attēli faktiski veido aprakstošā stāstījuma plānu (Miltiņa, 2008; Ткаченко, 1997). Grafiskās zīmes arī izmanto, analizējot teikuma un vārda struktūru, zilbju un skaņu sastāvu vārdā u.c.

Pirmsskolas vecumā skaņu izrunas traucējums ir viens no vadošajiem runas traucējumu veidiem. Nav noliedzams, ka minēto nepilnību novēršanas metodikā ir izstrādāti daudzveidīgi darba paņēmieni, taču nozīmīga vieta logopēdijas jaunajās tehnoloģijās ir ierādāma skaņu artikulācijas modeļiem kā līdzeklim pirmsskolēnu izrunas traucējumu novēršanā (Акименко, 2005*).

Raksta mērķis. Atklāt un pamatot artikulācijas modeļu izmantošanas nepieciešamību pirmsskolas vecuma bērniem skaņu izrunas traucējumu korekcijā.

Modelēšana saistībā ar skaņu izrunas traucējumu struktūru *Modelling in connection with the structure of sound pronunciation disturbances*

Modelēšana ir process, kurā tiek veidoti modeļi ar mērķi radīt priekšstatus par objektu struktūru, par tā elementu savstarpējām attiecībām (Логопедия, 2004). Т. Smišļajeva un J. Корчуганова papildina iepriekš teikto, proti, tiek veidots un izmantots objekta aizstājējs, kas apkopo tā būtiskākās īpašības (Смышляева & Корчуганова, 2005).

Artikulācijas modeļi (objekta aizstājēji) atspoguļo runas aparāta perifērās daļas atsevišķu orgānu (lūpu, mēles, mīksto aukslēju, balss saišu) pareizo pozīciju, kas atbilst konkrētas skaņas artikulācijai un skanējumam tās izrunas brīdī. Tas nozīmē, ka neatkarīgi no tā, kāds ir skaņu izrunas traucējuma veids, modelis palīdz pirmsskolēnam jēgpilni apgūt skaņas pareizrunas fizioloģiskos pamatus, ļauj bērnam no pasīva atdarinātāja (Skaties! Klausies! Atkārto!) kļūt par aktīvu dalībnieku koriģējoši attīstošajā darbībā.

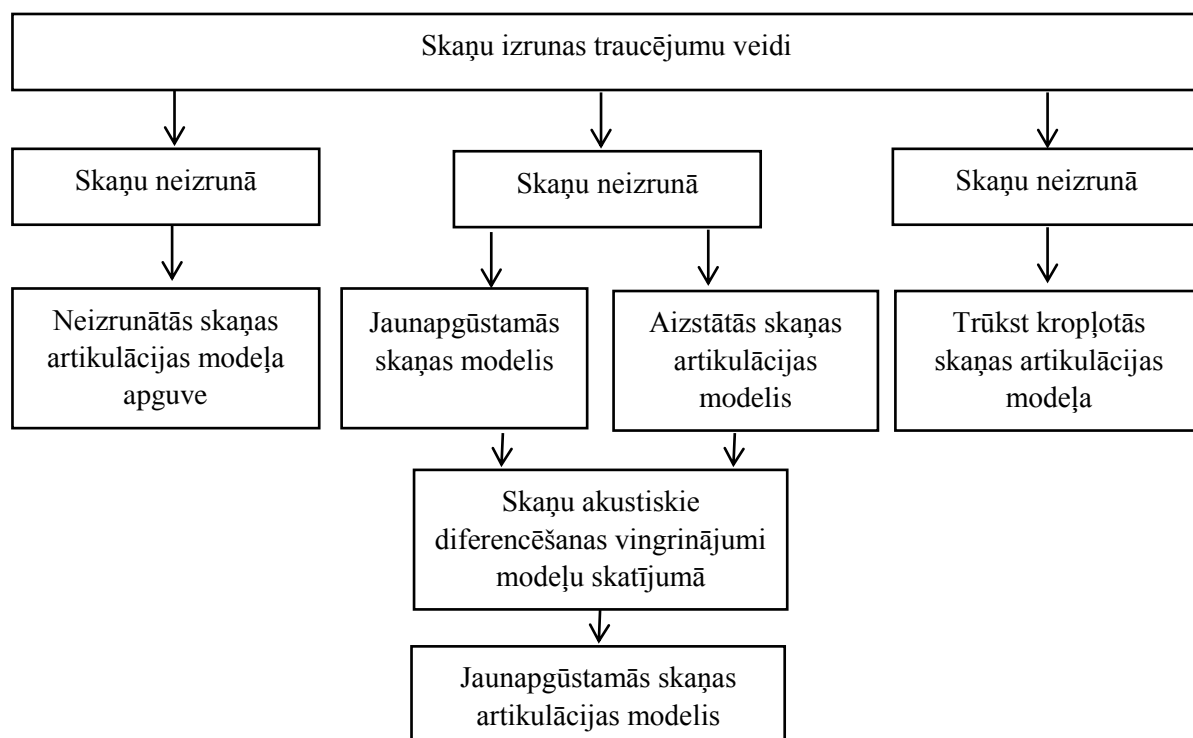
Modeļu apguves gaitā tiek sekmētas domāšanas operācijas:

- pirmsskolēns analizē tikai to artikulācijas orgānu darbību izpausmes, kuri piedalās konkrētas skaņas pareizizrunā;
- vingrinot atsevišķas vienkāršas kustības skaņas izrunas sagatavošanas posmā, bērns tās sintezē sarežģītas kustības veselumā;
- skaņas izrunas apgūvē pirmsskolēns darbojas nevis ar konkrētiem priekšmetiem, bet ar modeļiem, kas veicina abstrahēšanu: darba procesā tiek analizēts skaņas jēdzieniskais tēls, norobežojoties no faktiem, kas neattiecas uz analizējamo parādību (Lüse et al., 2014, 12);
- artikulācijas modeļi kā uzskates līdzeklis, redzes uztveres balsts, vienlaicīgi kļūst par bērna patstāvīgas darbības – kontroles veicinātājiem. Nostiprinot artikulācijas kustības un veidojot konkrētas skaņas akustisko veidolu, pirmsskolēns salīdzina savu veidoto skaņas tēlu ar modelī redzamo;

- darba procesā ar modeļiem bērns nosaka katras skaņas būtiskākās īpašības, apzināti vispārinot, t.i., visi patskaņu un līdzskaņu artikulācijas modeļi atšķiras savā starpā (Машкова, 2010; Акименко, 2005**).

Modelēšana ir cieši saistīta ar skaņu izrunas traucējumu veidu. Tieši tādēļ nozīmīgs kļūst logopēdiskais slēdziens, proti, ir jānoskaidro vai pirmsskolēnam ir fonētisks vai fonētiski fonemātisks skaņu izrunas traucējums. Artikulācijas modeļu un skaņu izrunas traucējumu veidu ciešā sasaiste skatāma 1. attēlā (Акименко, 2005*).

Paplašināti skatāma skaņu aizstāšana, kurā ir vērojama fonemātisko procesu attīstības nepietiekamība. Katrai valodai piemīt sava fonemātiskā sistēma, ko raksturo noteikts fonemātisko pazīmju kopums. Tas nozīmē, ka valodā ir skaņas, kurām piemīt vārda nozīmes šķīrēj pazīmes, un šīs šķīrēj pazīmes parādās pretstatījumos: latviešu valodā tie ir garie – īsie patskaņi (piemēram, ada – āda); cietie – mīkstie līdzskaņi (lipa – ļīpa); balsīgie – nebalsīgie līdzskaņi (zili – sili) (Miltiņa, 2005).



1.att. Skaņu izrunas traucējumu veidi artikulācijas modeļu skatījumā
 Fig. 1 Forms of sound pronunciation disturbances in articulation models perspective

Fonemātiskā dzirde bērnam attīstās līdztekus skaņu artikulācijas apguvei. Jo veiksmīgāk norit skaņu izruna, jo pilnīgāk notiek tās atšķiršana pēc skanējuma, un – otrādi. Fonemātiskā dzirde veicina fonēmu atpazīšanu un

atšķiršanu vārdā, veidojot vārda kopskanējumu, vārda izpratni. Tas nozīmē, ka skaņu izrunas apguve vienlaicīgi saistāma ar fonemātisko procesu attīstību.

Sagatavošanas posms artikulācijas modeļu apguvē; patskaņu izrunas īstenošana modeļos
Preparation stage in acquisition of articulation models; realization of vowel pronunciation

Pirms artikulācijas modeļu apzinātas apguves logopēdam ir jāparedz sagatavošanas posms, kurā bērns ↔ logopēds rūpīgi pēta skaņu veidojošos orgānus.

Bērns ↔ logopēds skata artikulācijas orgānus spogulī. Izpildot skaņu veidojošo orgānu kustības, pirmsskolēnam nozīmīgs kļūst ne tikai atsevišķa orgāna, bet visa runas aparāta anatomiskais izvietojums. Tieši tādēļ tiek izmantots skaņu veidojošo orgānu profils – sejas sānskats, kas raksturo objekta pamatiezīmju kopumu (Svešvārdu vārdnīca, 1999, 630).

Tiek konstatēts:

- ir aktīvie runas orgāni (mēle, lūpas) un pasīvie runas orgāni (zobi, alveolas, aukslējas);
- lūpas, mēle veic daudzveidīgas kustības, bet apakšžokļa kritinājums regulē zobu rindu pavērumu;
- gaisa plūsmas pamatiezīme – tās plūdums vai nu pa muti, tad veidojas mutes (orālās) skaņas, vai caur degunu, tad rodas deguna (nazālās) skaņas. Gaisa plūsmas ceļu nosaka mīksto aukslēju darbība;
- gaisa plūsma iedarbina „balss motorīnu” – ja balss saites ir slēgtas, veidojas balsīgas skaņas, bet, ja tās ir pavērtas, rodas nebalsīgas skaņas;
- skaņas izrunas brīdī atsevišķas kustības tiek apvienotas kustību un skanējuma veselumā (Laua, 1997).

Izmantojot profilu un savu artikulācijas aparātu, logopēds iepazīstina pirmsskolēnu ar artikulācijas orgānu uzbūvi. Atbildot uz jautājumiem: „Kas tas ir? Kā to sauc?”, bērns veido atbildes, izmantojot profilu, norādot konkrētas skaņas veidojošo orgānu. Kad bērns apgūst artikulācijas kustību iemaņas, viņš izpilda kustības gan atdarinot, gan pēc vārdiskas norādes, nosakot, kurš artikulācijas orgāns darbojas, kādas kustības tas veic, kam pieskaras, tā atrašanās vietu mutē un profilā.

Darbības gaitā pakāpeniski tiek ieviestas grafiskās zīmes (simboli), kas nosacīti apzīmē artikulācijas procesa galvenos momentus. Katra grafiskā zīme akcentē artikulācijas orgāna noteiktu pozīciju. Pieņemtās grafiskās zīmes var uzsākt ievietot artikulācijas modeļos patskaņu izrunas nostiprināšanas gaitā.

Bērns izrunā patskani, uzmanību pievēršot trim kritērijiem: lūpu pozīcijai, gaisa plūsmai, skaņas skanējumam. Piemēram, izrunājot patskaņus [u], [ū], lūpas ir pastieptas uz priekšu, apaļotas (grafiskā zīme – ○), gaisa plūsmai nav šķēršļu. Patskanis [u] skan īsi, bet [ū] – gari (grafiskā zīme – aplītis ar garumzīmi – ○̄). Abu skaņu izrunā balss saites sakļautas, tās vibrē (grafiskā zīme – zvaniņš – ⊕). Tiek veidoti patskaņu artikulācijas modeļi (sk. 2. attēlu).



2.att. Patskaņu [u], [ū] artikulācijas modeļi

Fig. 2 Articulation models of vowels [u], [ū]

Līdzīgā veidā tiek analizēti pārējie patskaņi – [a], [ā]; [i], [ī]; [o]; [e], [ē], kārtējot grafiskās zīmes artikulācijas modeļos.

Līdztekus grafisko zīmju apguvei un artikulācijas modeļu veidošanai, rit dažāda veida vingrinājumi:

- logopēds izrunā patskani, bērns to atkārti, parāda artikulācijas modeli;
- patskani izrunā pēc paša izvēles, parāda artikulācijas modeli;
- izvēlas artikulācijas modeli, izrunā skaņu;
- izrunā skaņu, iztaktē to, parāda artikulācijas modeli;
- izrunā skaņu, parāda modeli, parāda burtu;
- atpazīst skaņu „mēmajā artikulācijā”, izrunā to, parāda modeli;
- salīdzina īso, garo patskaņu artikulācijas modeļus, atrod to līdzības, atšķirības.

Tātad artikulācijas modeļi kā uzskates līdzeklis ļauj skaņu izrunas mācību procesu dažādot, veidot to interesantāku, vienlaicīgi pirmsskolēns mācās analizēt, salīdzināt, vispārināt, apgūst patskaņu diferencēšanas iemaņas, skaņas ↔ burtus. Tiek likti pamati līdzskaņu artikulācijas modeļu apguvei.

Līdzskaņu izrunas īstenošana modeļos

Realization of consonant pronunciation through models

Lai piemērotu grafiskās zīmes līdzskaņu artikulācijas modeļu veidošanai, ir analizētas dažādu autoru – V. Akimenko, T. Smilšļajevas, E. Korčuganova, N. Maškovas, A. Boldirevas, A. Lauas – izteiktās atziņas.

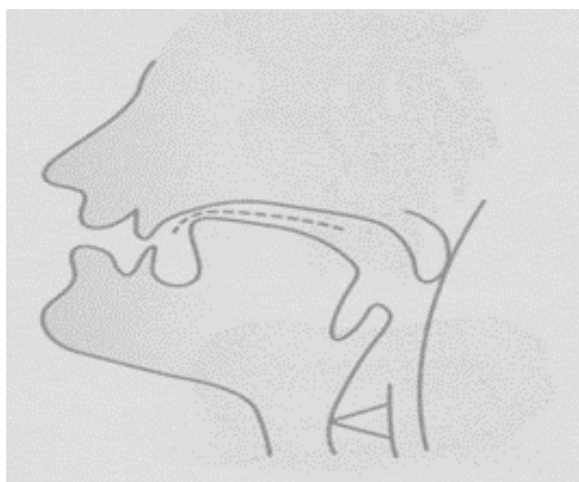
Var atzīmēt, ka minēto autoru rakstos ir izmantotas daudzas grafiskās zīmes, kuras ir nostiprinājušās un jau iekļautas logopēda koriģējoši attīstošajā darbībā. Taču katrai valodai piemīt sava skaņu izrunas specifika, tādēļ, veidojot

patskaņu, līdzskaņu artikulācijas modeļus latviešu valodā, grafiskās zīmes tiek papildinātas.

Līdzskaņu izruna ir daudz sarežģītāka par patskaņu izrunu. Par to liecina līdzskaņu izrunas fonētiskie un fonētiski fonemātiskie traucējumi. Lai paskaidrotu konkrēta līdzskaņa (piemēram, [š]) izrunu, pirmsskolēnu iepazīstina ar skaņas [š] artikulācijas profilu (sk. 3. attēlu).

Bērniem tiek skaidrots, ka, izrunājot skaņu [š]:

- lūpas ir pastieptas uz priekšu, apaļotas;
- zobu rindas – mazliet pavērtas;
- plats mēles gals, pacelts pret augšējo zobu alveolām, veido spraugu, mēles sāni pacelti pret augšējiem sānu zobiem;
- silta, plata gaisa plūsma virzās pa mēles vidu „kausiņu”. Balss saites nevirē.



3.att. Skaņas [š] artikulācijas profils
Fig. 3 Articulation profile of sound [š]






Minētā līdzskaņa fonācija tiek skaidrota gan skatoties spogulī, gan artikulācijas profilā. Bērns saprot, ka, izrunājot skaņu [š], lūpas ir pastieptas uz priekšu, apaļotas, tādēļ grafiskā zīme ir aplītis – ○, mēles gals (grafiskā zīme – ●) ir pacelts uz augšu (grafiskā zīme – ↑), sprauga starp mēles galu un alveolām ļauj skaņu izrunāt ilgstoši (grafiskā zīme – ∞). Skaņa ir nebalsīga, tādēļ modelī nav grafiskās zīmes – zvaniņa – ⊕. Tiek veidots artikulācijas modelis (sk. 4. attēlu).


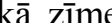





4.att. Skaņas [š] artikulācijas modelis
Fig. 4 Articulation model of sound [š]


Līdzīgā veidā tiek apgūti arī citi līdzskaņi.



Ir jāatzīmē, ka līdzskaņu pareizizrunā uzmanība pievēršama lūpu, mēles gala, mēles muguras pozīcijām, gaisa plūsmas virzienam, tā ilgumam, balss saišu darbībai.


Lūpu pozīcijas apzīmēšanai pirmsskolēns ir apguvis atsevišķas grafiskās zīmes, veidojot un analizējot patskaņu izrunas artikulācijas modeļus. Lūpu iestiepums smaidā (grafiskā zīme – taisnstūris – ) ir nepieciešams gan patskaņu [i], [ī], gan līdzskaņu [s], [z], [c], [dz] izrunā; savukārt lūpu pastiepums un apaļojums uz priekšu (grafiskā zīme – aplītis – ) tiek izmantots patskaņu [u], [ū] un līdzskaņu [š], [ž], [č], [dž] izrunā. Apgūstamas arī citas grafiskās zīmes: piemēram, apakšlūpas izliekums uz augšu (grafiskā zīme – izliekts taisnstūris – ) , kas nepieciešams, fonējot skaņas [f], [v]; lūpu pasivitāti izrunā apzīmē grafiskā zīme – kvadrāts – , ko lieto skaņu [t], [d], [n] modeļos; lūpeņu [p], [b], [m] lūpu pozīciju apzīmēšanai izmanto grafisku zīmi – rombs – .


Mēles gala (grafiskā zīme – ) pozīcija ir noteicošs faktors priekšējo mēleņu izrunā. Piemēram, mēles gals pie apakšējiem priekšzobiem, izrunājot skaņu [s] (grafiskā zīme – taisnstūris, zem kura ir pildīts aplītis – ) . Fonējot skaņu [t] (grafiskā zīme – kvadrāts, virs kura ir pildīts aplītis – ) , jo mēles gals ir pie augšējiem priekšzobiem. Skaņas [r] izrunā mēles gals ir drebošs, tādēļ tiek veidota šāda grafiskā zīme () .


Vidējo mēleņu ([k], [ģ], [l], [ņ], [j]) izrunas gadījumos mēles gals ir vienmēr pie apakšējiem priekšzobiem, taču noteicošais šo skaņu izrunā ir mēles vidējās daļas pacēlums pret cietajām aukslējām (grafiskā zīme – nepilnīgs pusaplis – ) .

Pakaļējo mēleņu izrunā svarīgs ir mēles pakaļējās daļas pacēlums pret cieto – mīksto aukslēju robežu (grafiskā zīme –  – figūra, kas norāda mēles pakaļējās daļas pacēlumu).

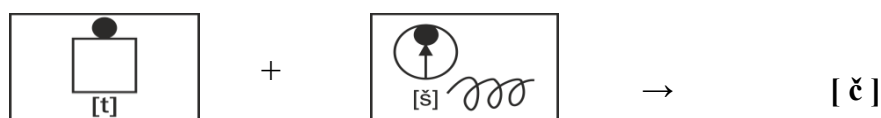
Gaisa plūsmas virzienu caur muti (orālās skaņas) vai caur degunu (nazālās skaņas) nosaka mīksto aukslēju darbība. Par to logopēds runā sagatavošanas posmā, uzmanību pievēršot trīs līdzskaņu [m], [n], [ņ] fonācijai. Grafiskajās zīmēs horizontāla līnija norāda uz skaņas deguna (nazālo) izrunu, piemēram, skaņas [m] grafiskā zīme – , skaņas [n] grafiskā zīme –  u.c.

Svarīgs ir gaisa plūsmas ilgums, kas analizējams, ievērojot skaņu artikulācijas veidu: slēdzenus izrunā īsi, bet spraudzenus var izrunāt izelpas garumā (grafiskā zīme – spirāle – ) .

Gaisa plūsma skaņas izrunā var būt arī sāniska (laterāla). Tā artikulējot līdzskani [l], veidojas šāda grafiskā zīme – .

Balss „motoriņa” darbības apzīmēšanai tiek lietota grafiskā zīme – zvaniņš – , kas ir jau ir apgūta, vingrinoties patskaņu izrunā. Interesanti

artikulācijas modeļi veidojas saliktajām skaņām (afrikātām) – [c], [dz], [č], [dž]. Piemēram, skaņas [č] artikulācijas modelis ir šāds (sk. 5. attēlu):



5.att. Afrikātas [č] artikulācijas modelis

Fig. 5 Articulation model of affricate [č]

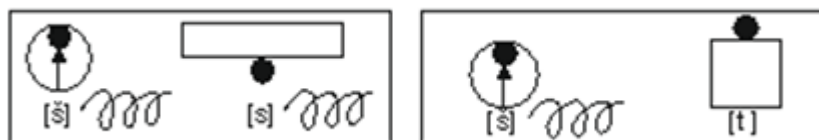
Saliktajā artikulācijas modelī tiek akcentēta doma, ka skaņas [č] izrunas sākumā mēles gals veido slēgumu ar augšējiem priekšzobiem, tad lūpas tiek pastieptas uz priekšu apaļoti, bet mēles gals atslīd pie alveolām skaņas [š] pozīcijā. Līdzīgā veidā tiek analizēti skaņu [c], [dz], [dž] modeļi.

Skaņu izrunas fonētisko traucējumu gadījumos logopēds demonstrē jaunapgūstamās skaņas izrunas paraugu, lietojot spoguļi/profilu un skaņu izrunas artikulācijas modeli.

Fonācijas nostiprināšana zilbēs, vārdos noris ātrāk, jo bērna uzmanība tiek pievērsta savas darbības paškontroles iespējām, izmantojot modeli.

Izmainās bērna attieksme pret skaņu korekciju, jo darbības tiek apjēgtas, izprastas, vienmēr izmantojot jauno uzskates līdzekli. Pieaug bērna patstāvības iespējas savas runas labošanā.

Apgūtie patskaņu, līdzskaņu modeļi noder arī skaņu aizstāšanas (fonētiski fonemātiskie traucējumi) gadījumos. Saliekot kopā diferencējamo skaņu modeļus, bērns viegli var konstatēt konkrēto skaņu artikulācijas un akustiskās atšķirības (sk. 6. attēlu).



6.att. Skaņu [š] – [s], [š] – [t] diferencēšana modeļu skatījumā



Fig. 6 Differentiation of sounds [š] – [s], [š] – [t] in models perspective

Piemēram, skaņu [š] – [s] modeļu salīdzinājumā viegli rodamas atšķirības: izrunājot [š], lūpas ir apaļotas (modelī – aplis), fonējot skaņu [s], lūpas izstieptas smaidā (modelī – taisnstūris). Artikulējot skaņu [s], mēles gals (modelī – melns aplītis) atrodas zem taisnstūra (pie apakšējiem priekšzobiem), bet izrunājot skaņu [š], mēles gals pacelts pie alveolām (modelī bulta parāda mēles gala pacēlumu).

Abas skaņas var izrunāt izelpas garumā (modelī – spirāle). Abas skaņas ir nebalsīgas, tādēļ modelī trūkst zvaniņa (grafiskā zīme – ⊕), kā arī [š] un [s] ir

mates (orālas) skaņas (nav grafiskās zīmes). Skaņu [š], [t] diferencēšana notiek līdzīgā veidā.

Fonemātisko procesu pilnveidei tiek izmantoti dažādi vingrinājumi:

- bērns mācās diferencēt skaņas pēc rezonatoru līdzdalības, nosakot ar taustes palīdzību, vai deguns „dūc” vai „nedūc”, vai skaņa plūst pa muti. Tiek meklēta modelī konkrētā grafiskā zīme;
- tiek pretstatītas skaņas pēc artikulācijas veida (slēdzeni – spraudzeni). Bērns nosaka, vai skaņu var „stiept”, vai tā izrunājama īsi, ātri. Minētais fonemātiskais skaņu pretstatījums meklējams modelī (grafiskā zīme – spirāle – );
- diferencējot balsīgos – nebalsīgos līdzskaņus, tiek noteikts, vai „zvaniņš skan”. Sava atzinuma pareizību bērns var atrast modelī (grafiskā zīme - ) (Акименко, 2005**).

Skaņu artikulācijas modeļus var sekmīgi izmantot arī lasīt mācīšanās. Ja atbilstīgu modeli attiecina uz konkrētu burtu, tad burts tiek iegaumēts ātrāk. Arī burtu saliedēšana zilbēs, vārdos notiek vienkāršāk, jo modelis atspoguļo „tīru” skaņu un bērns lasot pēc modeļiem, redz skaņu artikulāciju. Izrunājot līdzskaņa pirmo modeli, bērns plūstoši pāriet uz patskaņa izrunu otrajā modelī (Болдырева, 2014, 40). Tātad pirmsskolēns var kontrolēt burtu secību vārdā, konkrētā burta atrašanās vietu, burtu skaitu lasīšanas procesā, vēlāk – arī rakstot. Tādā veidā tiek apgūtas elementārās, sarežģītās fonemātiskās analīzes un fonemātiskās sintēzes prasmes, kas atvieglo bērnam lasīt un rakstīt prasmes apguvi.

Pamatojoties uz iegūtajām teorētiskajām atziņām un izstrādātajiem artikulācijas modeļiem, 2014./2015. mācību gadā praktiskie materiāli tiek aprobēti 3 pirmsskolas izglītības iestādēs, ietverot 41 bērnu ar fonētiskiem un fonētiski fonemātiskiem traucējumiem (vecums 5 – 6 gadi).

Trīs logopēdu darba rezultātā tiek gūtas šādas atziņas:

- uzteicams ir sagatavošanas posms, kurā bērni apjēgti gūst informāciju par artikulācijas aparāta darbību. Izmantojot spoguļus, artikulācijas profilu un praktiski darbojoties, bērns vingrinās konkrētu artikulācijas orgānu darbību atpazīšanā;
- tiek atzīmēts, ka patskaņu modeļus bērni apgūst viegli. Logopēdi, izmantojot pirmsskolēnu zināšanas par ģeometriskām formām, skaidro katras grafiskās zīmes nozīmi. Kā pozitīvs moments tiek uzsvērtā atvieglinātā īso – garo patskaņu diferencēšana. Bērni labprāt strādā apakšgrupās, pāros, izmantojot patskaņu modeļus kā galda spēli, diferencējot garo – īso patskani, izdziedot un iztaktējot tos. Tā bērniem veidojas panākumu motivācija, vēlme pierādīt savu prasmi;

- modeļi kā uzteicams palīgs ir izmantojami darbībās ar bilingvāliem bērniem. Viņiem mēdz būt grūtības pilnībā uztvert mutvārdu skaidrojumus, tādēļ vizuāli uztveramais artikulācijas modelis nozīmīgi papildina valodas izpratni;
- līdzskaņu izrunas korekcijā modelis kļūst par veiksmīgu uzskates līdzekli („špikeri”), jo, apgūstot katru grafisku zīmi, bērns salīdzina modelī redzamo un attiecina to uz savu runas orgānu – to fiksējot, slēpjot vai aktīvi izpildot kustību;
- materiāls ir nozīmīgs atbalsts līdzīgi skanošo līdzskaņu (balsīgo – nebalsīgo, cieto – mīksto, svelpeņu – šņāceņu u.c.) diferencēšanā. Izgatavojot vairākus modeļu komplektus, logopēdi organizē savu audzēkņu darbību pāros. Rotaļdarbība rit līdzīgi kā ar patskaņu modeļiem, kuros bērni darbībās pierāda savu prasmi diferencēt līdzskaņus gan pēc artikulācijas, gan pēc akustiskām pazīmēm. Tādā veidā tiek sekmēta bērnu patstāvība.
- modeļi tiek veiksmīgi izmantoti lasīšanas prasmju apgūvē. Sākumā 2 modeļi tiek kārtoti blakus (zilbju apguve), vēlāk pievienojami 1 – 2 modeļi, veidojot vārdus (piemēram, [es], [mēs], [man], [māsa] u.c.)

Secinājumi **Conclusions**

Artikulācijas modeļu izmantošana ir cieši saistāma ar skaņu izrunas korekciju. Pirmsskolēns gūst papildu informāciju par runas aparāta orgānu pareizu stāvokli, to darbību, izmantojot skaņu modeli un skaņu izrunas profilu.

Tādā veidā tiek panākta noturība artikulācijas orgānu pareizas pozīcijas iegaumēšanā visā koriģējoši attīstošās darbības laikā.

Līdztekus skaņu fonācijas apguvei, notiek arī skaņu fonemātiskā diferencēšana. Veidojot bērna apziņā priekšstatu par valodas skaņu artikulācijas un fonemātisko koptēlu, palielinās bērna aktivitāte, patstāvība, un mācību process kļūst interesantāks un daudzveidīgāks, palielinās bērnu motivācija pozitīvu rezultātu sasniegšanai.

Modelēšana koriģējoši attīstošajā darbībā tiek izmantota gan kā izziņas metode, gan kā programma dažādu valodas parādību analīzei, atvieglojot skaņu izrunas korekciju, lasīšanas sākotnējo iemaņu apguvi.

Summary

Sound pronunciation disturbances are one of the most frequently observed speech problems in pre-school age. Models of sound articulation are significant part of contemporary technologies in speech therapy. In correction process the model is a tool in prevention of sound articulation disturbances. As a visual aid – model with included graphic signs enables for pre-school child meaningfully learn correct pronunciation of the sound by providing

opportunity to be an active participant in the prevention process of disturbances. There are included not only information about the sounds articulation but also those phonemic characteristics reflecting contraposition: long – short vowels, voiced – silent, hard - soft, nasal – oral consonants etc.

By considering theoretical approach and using developed models in three institutions of pre-school education approbation of new materials was done (number of participants is 41 children with phonetically phonemical and phonetical disturbances). Speech therapists involved in research emphasize, that acquisition of vowel's pronunciation models makes easier for children the process of differentiation of long – short vowels. It is possible to help in development of phonemical perception by using models as a board game, by singing, by using gestures in reflection of vowels. In the correction process of consonants' pronunciation the model turns into successful visual aid where each graphic sign reflects position of lips and tongue, direction and duration of air flow, activity of vocal cords. Attitude of pre-school child is more focused to correction process of sound articulation, because activities become comprehensible, child's motivation and independence in his/her speech correction increases. Visually perceived material significantly supplements speech therapist's oral explanation to bilingual child.

The process of consonants pronunciation automatization develops more quickly: by articulating consonant's first model, pre-school child fluently moves to consonant's articulating in the second model. It is helpful not only in articulation of syllables, but also promotes first steps in reading skills development. The results obtained present evidence about necessity of using articulation models in correction process of sound pronunciation disturbances.

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PRACTICAL ACTIVITIES ALLOW STUDENTS WITH DISABILITIES TO DEVELOP AN UNDERSTANDING OF THEIR ENVIRONMENT AND THEMSELVES

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Abstract. *The research problem was to find answer to the question: how did the role of practical tasks and activities in the education of students with moderate/severe disabilities is an important one. A review of current and past theories of cognitive development focusing on the role of experiential learning because for today's students with disabilities there is a stronger emphasis on practical skills and motor skills development opportunities than on traditional learning approaches. Home Economics and Its Technologies is one of the subjects in today's curriculum where time is allocated to activity-based learning and experiences. Occupational therapy has a positive effect on the child's psyche, helps to manage and organise the child's impulses, renews and promotes appropriate work habits, helps organise his/her activities and reduces the child's focus on his/her own shortcomings or disabilities.*

Keywords: *students with disabilities, moderate/severe disabilities, special education, curriculum, Home Economics and Its Technologies, the educational process.*

Introduction

The popularity of teaching everyday work skills in schools is longstanding as demonstrated by the fact that in Latvia's 1925 overall curriculum plans "almost one third of the mandatory lessons for students were dedicated to subjects who required activity-based learning by the students" (Antalogija, 1994, 14).

The pedagogue, Cirulis, a Latvian educator and expounder of "trade schools" and the most prodigious creator of systemic approaches for the use of activity-based learning in teaching of handicrafts in Latvia, stresses that the aim of teaching handicrafts is not to teach the student a trade but to aid the student's physical and emotional development. One subject in today's curriculum that includes activity-based learning through a range of topics or units, including the teaching of handicrafts, is Home Economics and Its Technologies (Цируль, 1890).

The subject of home economics has had many name and content changes over the years. If, originally, home science was viewed only as a practical subject with limited possibilities, then today it has become a man-faceted way of helping in the overall personal development of the student. This movement has

been influenced by social and economic changes as well as the community's changed expectations of formal education. Home Economics and Its Technologies was associated with the preparation of the student for work, as well as teaching specific practical skills, neglecting the opportunity to use this subject to aid the overall development of the student. Today it is a complex subject with multiple directions, technologies and skills which also uses and tests the student's ability to generalise knowledge gained in other subjects. It is one of the subjects in today's curriculum where time is allocated to activity-based learning and experiences. By completing set activities the student becomes familiar with the major steps of the task, as well as becoming familiar with the tools or instruments that will allow him/her to complete the task effectively. It has moved from teaching and learning of practical tasks to promoting the overall personal development of the student.

Vygotsky stressed that special education must be linked to regular education in that it should follow the same principals as general education, that is that education must lead development (Vygotsky, 1983, 50-60). He discusses students with disabilities in terms of their "primary" and "secondary" disabilities and their interactions. The primary disability is the impairment due to biological factors but this is compounded by distortions to higher psychological functions due to social factors. Vygotsky sought to define a student with disabilities from a point of strength calling this "positive differentiation". He also argued that scaffolding of learning through the assistance of an adult supports the development of emerging abilities revealing the potential of the student. This process, the Zone of Proximal Development, utilises appropriate assistance from an adult or more advanced peer to assist with learning as Vygotsky's theories place a strong emphasis on culture affecting cognitive development.

For today's students with disabilities there is a stronger emphasis on practical skills and motor skills development opportunities than on traditional learning approaches (Florian, 2007). Freimanis reinforces this when he states that lessons need to focus on well-defined activity-based learning (Freimanis, 2007). Subject – specific teaching and learning programs should focus on activity-based experiences across a range of situations because "sensory experiences and words are the key to the formation of concepts, but words removed from sensory experiences transfer the process to a verbal sphere which is not characteristic for children" (Vygotsky, 2002, 120). For this reason one of the biggest challenges facing remedial education today is the preparation of students for the workforce (Liepina, 2008). Similarly Freimanis states that "occupational therapy has a positive effect on the child's psyche, helps to manage and organise the child's impulses, renews and promotes appropriate work habits, helps organise his/her activities and reduces the child's focus on his/her own shortcomings or disabilities" (Freimanis, 2007, 180)

Students with moderate/severe disabilities need to participate in real but guided experiences. They need the opportunity to experience multiple activities and their consequences. They need to be able to share their experiences in order to enrich their lives.

The aim of this paper is to analyse the literature, Latvian policies and national directions and evaluate personal experience in order to identify the role of practical tasks and activities in the education of students with moderate/severe disabilities is an important one.

Theoretical guidelines

Dewey (1974) believed that experience was the basis of all learning. However the experience itself is not sufficient for learning to occur. Bacon (1989) asserted that knowledge comes primarily from sensory experience but this needs to be processed, to be made sense of, in order to generalise the knowledge to other situations. Locke (1977) also stressed that the experience itself was not knowledge but that knowledge grew from it.

Bruner (1996) believed that cognition developed through interaction with the environment and that it developed in the move from the concrete to the abstract. Rogers (1994) also favoured experiential learning but for the best outcomes teachers need to provide a positive climate, clarify the purpose, organise the resources, balance intellectual and emotional components and share feelings, all without dominating.

Vedins (2008) states that all students can learn as all people are born with the ability to explore their environment through their senses. Positive, practical activities allow students to develop an understanding of their environment and themselves.

However more than “direct” experience is needed, the experience also needs to be corrected to become a “true” experience. It is through the identification of discrepancies and making sense of them that students can return to a sense of equilibrium which Piaget (2002) sees as crucial for the learning process. One way of making sense of an experience is through socio/cultural interaction according to Vygotsky (2002). Teachers need to create an environment which will encourage participation and Vygotsky identifies the use of the Zone of Proximal Development as a way for the adult to promote student learning.

As students with disabilities come from a range of environments with a range of experiences, mediation of experiences is important. This mediation can take various forms such as deliberate practice (Vedins, 2008), the use of language (Vygotsky, 2002; & Piaget, 2002), changing attitudes (Spona, 2001), reflection (Broks, 2007; Boud et al., 1985) and feedback (Race, 2010).

Kolb (1984) identified a cycle of experiential learning which involves a concrete experience, reflective observation, abstract conceptualisation, active experimentation. Honey and Mumford (1992) preferred to identify the process as a spiral as the process involves constant development and Race (2010) as a series of ripples which impact on one another and which are driven by the student's wants or needs and impacted upon by feedback.

Liepina (2008) notes that students with disabilities need instruction, practical demonstration and the use of appropriate language i.e. precise and concise. Knowledge of fundamental concepts (e.g. size, shape, number) is a pre-requisite for students being able to use experiences, to identify similarities or differences and to move to further learning.

Organisation of the educational process for students with moderate/severe disabilities

In Latvia, the National Primary Education Standard sets the overall goals and requirements of education, but the Special Education Curriculum seeks to implement these through the development of Individual Educational Programs (IEPs) for students with disabilities. For students with moderate/severe disabilities these IEPs are developed jointly by the student's parents and teacher. The process focuses on the student's needs and abilities, taking into account the student's experiences, skills, cognitive development as well the National Primary Education Standard and the goals and objectives of each subject. This type of plan is viewed as a "remedial education program whose methodology and structure is appropriate for people of a mandatory schooling age who require additional support with their primary education" (General Education Law, 1999, 1.p.).

Home Economics and Its Technologies, together with subjects such as Latvian and World History, Social Science, Sport, Ethics and Religious (Christian) Education fall within the overall area of Citizenship and Society the major objectives of which are to:

- develop and understanding of emotional and physical development and the obligations of citizenship;
- develop an understanding of lifelong learning;
- develop expertise in understanding and expressing the student's own point of view about past and present events;
- develop communication and interaction skills;
- promote a proactive approach to life in the community and develop the citizenship skills for participation in a democratic society;
- develop independent learning skills (MK Regulations, No. 468, 2014).

The Special Education Curriculum Model for students with disabilities or multiple disabilities defines:

- the education program’s goals and objectives;
- the content;
- the implementation plan;
- requirements relating to prior learning;
- the necessary human, financial and material resources for the implementation of the educational program based on the health and development needs of the student.

This model aims to secure the implementation of IEPs to facilitate “practical skills development” for students with disabilities. In instances where the motor and cognitive skills development is extremely impeded, the school can develop a remedial program that is not tied to specific timetabled subjects (Sample special primary education program for students with moderate/severe disabilities and severe developmental disorders, 2009).

The Special Education Curriculum has, from the beginning of schooling, a greater emphasis on activity-based, practical subjects than the regular education curriculum because activity-based learning:

- encourages intellectual activity;
- promotes attending behaviours;
- is instrumental in strengthening the student’s will;
- develops work skills and ethics (Liepina, 2008, 310).

Organisation of the educational process for students with moderate/severe disabilities is as follows:

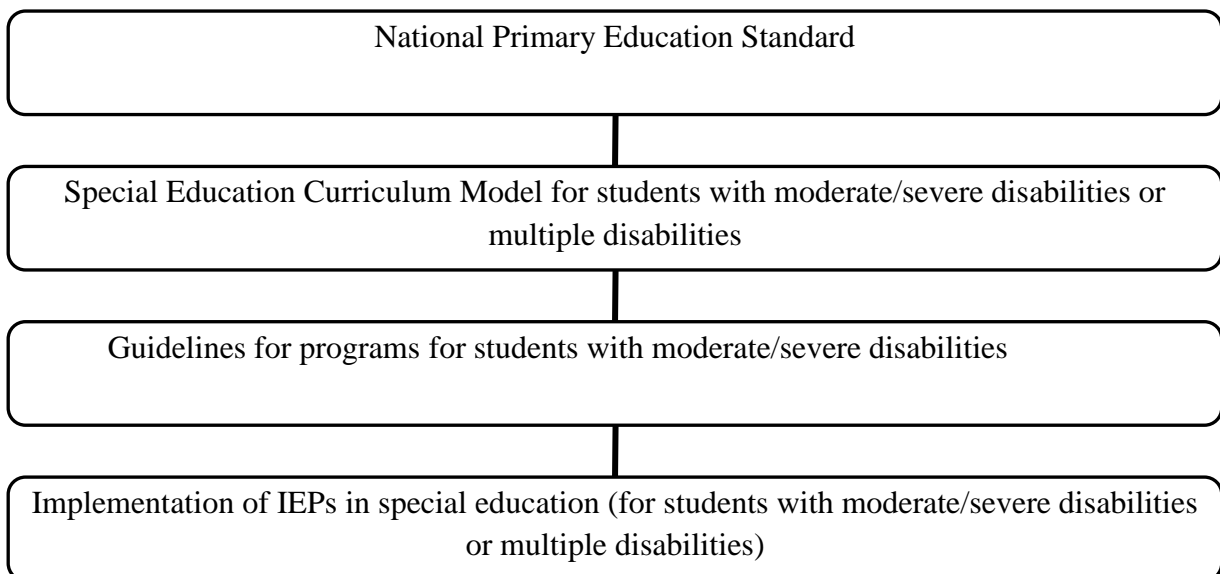


Figure 1 Organisation of the educational process

An individual approach is developed in conjunction with the specific student taking into account “the psychological, physical, intellectual, social and behavioural characteristics” and it places the student in the centre of the process, taking into account his/her needs and interests in order to foster development of an understanding of home economics and the social interaction process (Freimanis, 2007, 73). Special schools (institutions) need to implement special education programs appropriate for the special needs of the students which comply with the demands of the educational institution (Liepina, 2008; Freimanis, 2007), taking into account the following operating principles:

- educational content which is practically orientated;
- a comprehensive review of the student and his/her needs;
- interaction between the teacher, year advisor and parents in developing the IEP so that the student can live as independently as possible;
- accessing opportunities for work and contributing to life in the community;
- development of work-related skills so the student is able to find employment post-school;
- creation of a data base which details the student’s development and his/her learning and health needs;
- preparation of all those involved in supporting the integration of the student into the life of the school (parents, teachers, health workers, other students);
- appropriate adaptations to enable students with severe physical disabilities to participate;
- co-operation with special education development centres.

All special education settings in Latvia work towards expanding the functions of the setting as is reflected by the enrolment numbers of students with moderate/severe disabilities (Level C) in special schools. “...As students with disabilities find it more difficult to develop work skills and competencies than their normal peers” (Liepina, 2008, 311) it is necessary to provide more opportunities for practice, more repetition. This is compounded language learning difficulties which impact on understanding oral instructions but even more so on the comprehension of written or diagrammatical instructions. Problems also arise when generalising skills to other situations (Liepina, 2008; Friend, 2005). Rubinstein emphasised that “for the development of all mental processes, help from the teacher is crucial” (Рубинштейн, 1986). For this reason in C Level classes there is both a teacher and an assistant teacher (not a teacher’s aide).

The first C Level classes were opened in Riga’s 5th Primary Boarding School, and in Liepaja’s and Daugavpils’ special schools. They were the first step in integrating students with moderate/severe disabilities (C Level) into special schools. In the 1990/91 school year, there were 15 students with moderate/severe disabilities in C Level classes in 2 special schools. In the 1996/97 school year this had grown to 62 C Level classes in 27 special schools which provided education for 366 students. In 2001 this had risen to 703 students, in 2005 to 1125 students and in 2015 to 1557 students (IZM Statistics and Data Analysis Division).

The data shows that most special schools continue implementing IEPs for students with moderate/severe disabilities for another three years after they finish their primary education, which finishes in Year 9 in Latvia. Based on the student’s needs, his/her health and the opportunities provided by each setting, the students are prepared for life and work in the community. The subject Home Economics and Its Technologies combines learning at school with the students’ everyday experiences and the skills required for life in the community. Information which has been learned by the students through experience and everyday interaction with their families is extended. This is an important period in the life of students with moderate/severe disabilities, as the opportunities provided by the school to develop skills, attitudes and knowledge cannot be replicated just through family interactions.

As can be seen from the Figure below, Home Economics and Its Technologies requires the systematic teaching of specific skills.

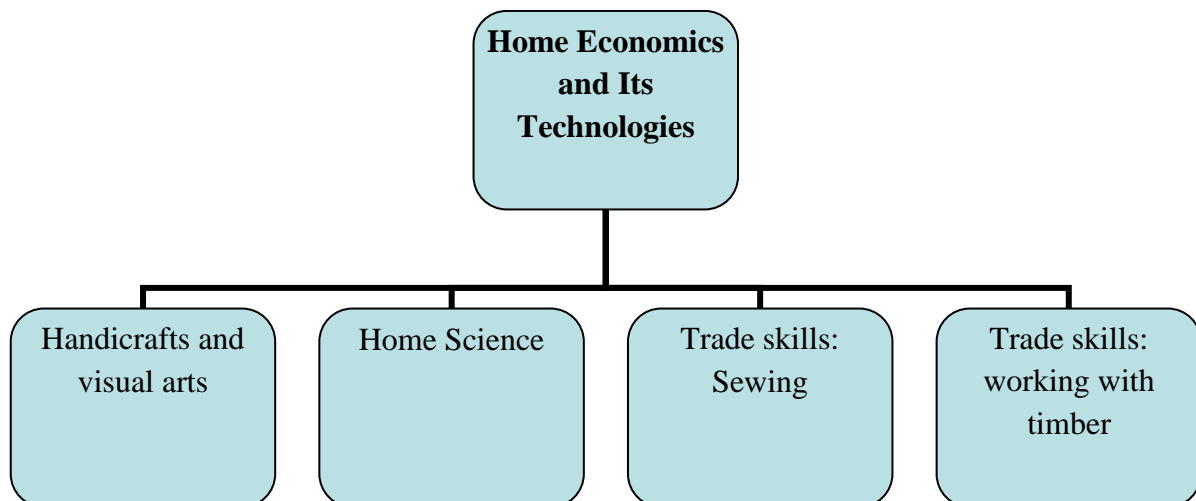


Figure 2 The content of Home Economics and its Technologies

Within the abovementioned units the focus is on helping students to gain insights about the man-made environment, to develop work skills specific to each unit as well as skills related to maintaining and using leisure environments.

They acquire the skills to model and shape materials such as paper, natural materials, textiles, wire, and plasticine and other materials. They learn to be responsible for their work, to work individually or in a group, skills for working with pencils, rulers, scissors, needles, to observe rules for occupational safety, to master the technologies used in production (e.g. timber) as well as the basics of design, to use the tasks for self-expression, to assess their work and that of their peers and others, prepare for life and work in the community.

Each student, according to his/her state of health, abilities and level of development is ensured opportunities, to learn to live in a rapidly changing society while at the same time the student is provided with the pedagogical, psychological and medical support required. Students come to understand how they can achieve their full potential, which will ensure both their and society's welfare in the future.

The focus is on motor development, beginning with hand and finger exercises and then whole-body movement coordination as, even though these activities, through the mastery of elementary skills, it is possible to support the development of speech, the ability to think, to make purposeful movements, to develop emotions and willpower. The main aim of these activities is "for the child to comprehend the activity, no matter how basic or primitive" (Liepina, 2008; 134).

The aims for Home Economics and Its Technologies are as follows:

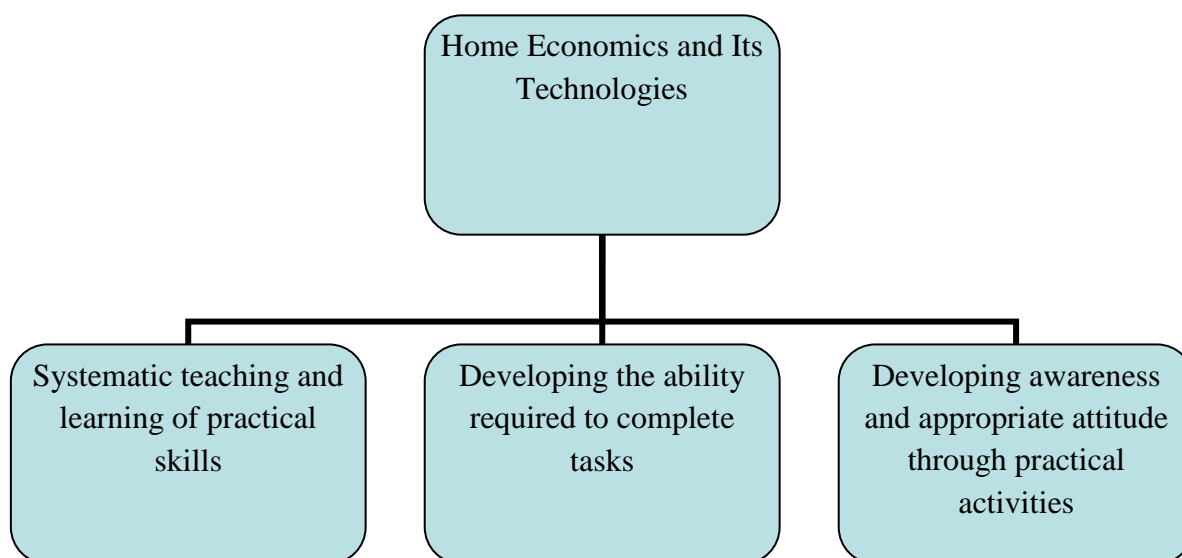


Figure 3 The goals of Home Economics and its Technologies

The needs of the student are paramount for the development of an IEP which addresses all subject areas including Home Economics and Its Technologies. This plan, based on the skills and abilities of the student, includes:

- developing an understanding of equipment, food, cleaning, cooking, and knowledge of the personal significance of these activities as well as the motivation to complete these practical activities (Home Science);
- developing an understanding of materials, tools, equipment, the use of equipment (technologies used) and materials, and knowledge of the personal significance of these activities as well as the motivation to complete these practical activities (handicrafts and visual arts);
- developing an understanding of working with textiles and the associated technology, the skills to use this technology, and knowledge of the personal significance of these activities as well as the motivation to complete these practical activities (Trade skills, Sewing);
- developing an understanding of wood working and the relevant tools, skills in using appropriate technology, and knowledge of the personal significance of these activities as well as the motivation to complete these practical activities (Trade skills, Woodwork).

It is important for students with moderate/severe disabilities, for the teaching Home Economics and Its Technologies to commence in the primary school building on prior learning and knowledge. Then, through the use of systematic and sequential teaching, to expand the student's interests and knowledge, so that the student is aware of his/her needs, goals and interests and can work towards achieving these in the future.

Conclusions

Students with moderate/severe disabilities need to participate in real but guided experiences. They need the opportunity to experience multiple activities and their consequences. They need to be able to share their experiences in order to enrich their lives.

The role of practical tasks and activities in the education of these students is an important one. Cognitive, humanistic, social and constructivist learning theories stress the importance of making sense or meaning from experiences.

A review of current and past theories of cognitive development focusing on the role of experiential learning is linked to implications for practice as well as to current Latvian policies and national directions. As well the subject, Home

Economics and its Technologies is used as an example of an experiential learning structure which utilises previous experiences to enhance current and future learning.

The investigation of research literature on disabilities and the impact on the cognitive development of students with moderate/severe disabilities, leads to the conclusion that such students have a right to have their own learning systems, where the school's environment supports the students with disabilities to undertake purposeful learning tasks, ensuring that these are appropriate to their needs and which utilise sequential and multi-level activities and provide opportunities for learning through practice.

The subject Home Economics and its Technologies is, by its very nature, a practical subject. It fits within the overall education area of Citizenship and Society and it aims to develop students into life-long and independent learners, with an understanding of the rights and obligations of citizenship in a democratic society, as well as developing skills in communication, interaction and community participation. It is divided into four units and each unit is designed to develop the students' knowledge, skills and attitudes through the completion of practical activities.

As can be seen, learning through practice is made up of several phases of experiences which impact on the student's motivation, skills and attitudes which lead to new learning. This process can be supported through the use of Individual Educational Plans (IEPs) where teachers and parents can assess student needs, set goals, use specific prior experiences to promote new learning, use appropriate feedback to support the student's scaffolding of his/her learning in order to encourage active participation and further learning. This can be done in a regular setting, but specialist classes (C Level) are growing in popularity in Latvia.

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AGRĪNĀS IEJAUKŠANĀS IESPĒJAS IEKĻAUJOŠAS IZGLĪTĪBAS ASPEKTĀ

Early Intervention Possibilities in Aspect of Inclusive Education

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Rēzeknes Tehnoloģiju akadēmija

Abstract. *Inclusive education is an essential component, which provides people with special needs state of society in the future. Nowadays education, bringing together scientists, psychologists, educators theories and knowledge, gives off the focus early intervention idea. Early help is different sectoral expert professional advice and support. Fundamental of early intervention is inter-institutional cooperation that promote child development and socialization. Child's preparation to school is directly related to the timely, early assistance and support measures. Quality of inclusive education depends on all the parties of professional competence.*

Keywords: *special needs, early intervention, early childhood, preschool, family's needs, preschool education, inclusion, children's rights.*

Ievads

Introduction

Izglītības attīstības pamatnostādnes 2014.-2020.gadam iekļaujošu izglītību definē kā procesu, kurā tiek nodrošinātas atbilstošas visu izglītojamo daudzveidīgās vajadzības, palielinot ikviena izglītojamā līdzdalības iespējas mācību procesā, kultūrā un dažādās kopienās un samazinot izslēgšanas iespējas no izglītības un izglītības ieguves procesa (Izglītības attīstības pamatnostādnes 2014.-2020.gadam, 2014). Arī UNESCO sniegtā definīcija nosaka, ka iekļaujoša izglītība ir process, kurā izglītība tiek nodrošināta atbilstoši visu izglītojamo daudzveidīgajām vajadzībām, palielinot ikviena līdzdalības iespējas mācību procesā, kultūras aktivitātēs un kopienas dzīvē un tādējādi mazinot savstarpēju noslēgšanos un atstumtību sabiedrībā, izslēgšanas iespējas no izglītības un izglītībā. Kvalitatīva valsts izglītība visiem, neatkarīgi no izglītojamo sociālekonomiskajiem apstākļiem, funkcionālā stāvokļa un dzīvesvietas, ir vienlīdzību un sociālo iekļaušanu veicinošs instruments. Tāpēc ir svarīgi, lai visiem izglītojamiem jebkurā attīstības periodā tiktu nodrošināta pieeja kvalitatīvai, galvenokārt valsts izglītībai, kas atvērtu durvis uz darba tirgu un ļautu strādāt pienācīgas kvalitātes un labi apmaksātu darbu. Veiksmīgas

mūžizglītības, sociālās integrācijas, personīgās izaugsmes un turpmākās nodarbinātības būtisks pamats pēc Eiropas Komisija uzskatiem ir agrīna pirmsskolas izglītība un aprūpe (Eiropas Komisija, 2011).

Mūsdienās tiek uzskatīts, ka tas, kas notiek bērna pirmajos dzīves mēnešos un dzīves gados, ietekmē bērna attīstību turpmākos periodos. Agrīnie bojājumi var kļūt neatgriezeniski, ja bērnībā tiek palaistas garām agrīnās iejaukšanās iespējas, saprotot ar to nepieciešamo darbību, kas jāveic, lai atbalstītu jebkuru bērnu un viņa ģimeni, pēc iespējas ātrāk jebkurā bērna izglītības posmā. Saskaņā ar psihologu, pedagogu teorijām un atziņām agrīnā pirmsskolas izglītība un aprūpe aizvien biežāk tiek uzskatīta par būtisku pirmo soli bērna turpmākajā izglītības attīstībā (Peterander, 2003; Blackman, 2003; Park & Peterson, 2003; Shonkoff & Meisels, 2000 u.c.). Nodrošinot kvalitatīvu pirmsskolas izglītību un aprūpi, tiek radītas un nostiprinātas mazo bērnu prasmes tādās jomās kā valoda, rakstpratība, matemātika un dabaszinātnes un veicināta ar mācīšanos saistīto sociāli emocionālo kompetenču, īpaši pašregulācijas un sociālās kompetences attīstība (McClelland et al., 2006). Latvijā spēkā esošajos normatīvajos regulējumos un starptautiskās saistībās, kuras Latvija ir uzņēmusies, noteikts, ka Valsts uzņemas atbildību par visu Latvijas iedzīvotāju labklājības celšanu un sociālās nodrošināšanas jautājumu risināšanu, tai skaitā arī par bērniem agrīnā pirmsskolas vecumā. Latvijas iedzīvotāji saņem sociālās garantijas un sociālo palīdzību pēc vienotiem principiem un vienlīdzīgā apmērā.

Pētījumi un debates ir pievērsušās jautājumam par integrētām agrīnās pirmsskolas izglītības un aprūpes nodrošinājuma sistēmām, kuru pamatā ir izglītības, veselības un sociālās pieredzes mijiedarbības ietekme uz bērna ar speciālām vajadzībām vispusīgu attīstību, jo tiek uzskatīts, ka šīm nozarēm ir jāuzņemas kopēja atbildība bērna agrīnā attīstībā (European Agency for development in Special Needs Education, 2010), lai īstenotu iekļaujošas izglītības mērķi un nodrošinātu kvalitatīvu izglītību visiem izglītojamiem.

Pētījuma mērķis ir, balstoties uz teorētiskiem avotiem, analizēt agrīnās iejaukšanās jēdzienu plašākā un daudz sarežģītākā kontekstā, aptverot vairākus aspektus, un anketēšanā noskaidrot, cik sagatavoti ir speciālisti, lai strādātu ne tikai ar pašu bērnu vecumā līdz pieciem gadiem, bet arī ar viņa ģimeni, tuvāko apkārtējo vidi, un izvērtēt vecāku, kuru bērni apmeklē speciālo pirmsskolas izglītības iestādi un 2015./2016.m.g. uzsāka mācības vispārīzglītojošajās skolās, viedokli par atbalsta nepieciešamību, lai savlaicīgi identificētu riska faktorus un sniegtu nepieciešamo atbalstu.

Teorētiskās pamatnostādnes *Theoretical guidelines*

Vairākums pedagogijas teoriju, kuras sākotnēji pievērsušās pirmsskolas vecuma bērnu ar speciālām vajadzībām izglītības stratēģijām un iespējām, ir tās, kur galvenā uzmanība tiek pievērsta tieši bērnam un bērna traucējumiem, kurus uztver neatkarīgi no tās apkārtējās vides, kurā bērns dzīvo (Skinner, 1968; Piaget, 1970). Aplūkojot turpmākos pētījumus, var konstatēt, ka pakāpeniski tiek akcentēta ģimenes, aprūpētāju loma (Ainsworth et al., 1978) un apkārtējās vides ietekmes loma (Bronfenbrenner, 1979).

Tas ļauj secināt, ka agrīnā bērna attīstība ir sarežģīts process un nevar koncentrēt uzmanību tikai uz bērnu, bet ir jāņem vērā apkārtējā vide, kurā bērns dzīvo. Saskaņā ar Blackman "agrīnās iejaukšanās uzdevums ir aizkavēt vai samazināt fiziskos, izziņas, emocionālos un resursu ierobežojumus maziem bērniem ar bioloģiskajiem vai apkārtējās vides riska faktoriem" (Blackman, 2003, 2. lpp.). Autors pētījumā izceļ ģimenes galveno lomu un uzskata to par iejaukšanās veiksmes faktoru.

Ģimene ir vistuvākā bērna vide, kurā tiek veidota sociālās pieredze jau agrīnā vecumā. Ģimenes morālā, emocionālā un sociālā labklājība ir bērna labvēlīgas attīstošās vides pamats. Vecākiem, ģimenei, kurā aug bērns ar speciālām vajadzībām ir tiesības uz īpašo aprūpi un palīdzību, kā arī tiesības, kuras kā pamatprincipus nosaka ANO Bērnu tiesību konvencija. Saskaņā ar šo dokumentu bērnam ar attīstības traucējumiem ir jādzīvo pilnvērtīga un cienīga dzīve, kāda nepieciešama bērna fiziskai, intelektuālai, garīgai, tikumiskai un sociālai attīstībai apstākļos, kas ļauj saglabāt pašcienību, palīdz uzturēt ticību saviem spēkiem un atvieglo viņu iespējas aktīvi piedalīties sabiedrības dzīvē. Ikvienam no šiem bērniem ir tiesības uz īpašu aprūpi un lūgtā palīdzība, kas būtu piemērota konkrētā bērna stāvoklim un viņa vecāku vai citu par bērnu atbildīgo personu apstākļiem, tiek sniegta bez maksas, lai bērnam būtu reālas iespējas saņemt un viņš arī saņemtu izglītību, mācības, veselības aprūpes pakalpojumus, rehabilitācijas pakalpojumus, kā arī tiktu sagatavots darba dzīvei un varētu atpūsties, reizē veicinot pēc iespējas pilnīgāku bērna sociālo integrāciju un personības attīstību, tostarp, kulturālu un garīgu izaugsmi (ANO, Bērnu tiesību konvencija, 1989).

Loģisks pamats, ka ģimenēm, kurās aug bērns ar speciālām vajadzībām, bieži ir nepieciešama palīdzība. Dansts definē agrīno iejaukšanos kā "atbalsta (un resursu) nodrošināšanu ģimenēm ar pirmsskolas vecuma bērniem, ko sniedz neformālie un formālie sociālās palīdzības pakalpojumu sistēmas locekļi, kas tieši vai netieši ietekmē vecākus, ģimeni un bērna funkcionēšanu" (Dunst, 1985, 179), tādējādi uzsverot specifisko pakalpojumu lomu, kas apmierina bērna un ģimenes vajadzības.



1.att. **Agrīnās iejaukšanās pamatelementi**
Figure 1 Basic elements of early intervention

Eiropas valstu pieredze rāda, ka speciālisti, kuri sniedz palīdzību šīm ģimenēm, strādājot nošķirti viens no otra, bieži nesasniedz gaidīto rezultātu. Saskaņā ar Eiropas speciālās izglītības aģentūras ziņojuma materiāliem agrīnās iejaukšanās darbības mērķis ir nodrošināt dienestu un pakalpojumu kopumu dabiskā vidē, dodot priekšroku vietējās pašvaldības līmenim, izmantojot uz ģimeni vērstu un daudz dimensiju komandas darba pieeju. Labi rezultāti tiks nodrošināti ar nosacījumu, ka šīs būs darbības, kur kopīgi mijiedarbosies dažādu profesionālo nozaru pārstāvji, iesaistīto pakalpojumu sniedzēji un vecāki vai citi ģimenes locekļi (European Agency for development in Special Needs Education, 2005). Saskaņā ar Eiropas speciālās izglītības aģentūras ziņojuma materiāliem agrīnās iejaukšanās iespējas ieguva pozitīvus un nozīmīgus rezultātus tādu Eiropas valstu iekļaujošās politikas pieredzē kā, piemēram, Lielbritānija, kur darbojas valsts programma, nodrošinot agrīnās iejaukšanās pakalpojumus bērniem un ģimenēm jau no dzimšanas, Islandē, kur darbojas veselības aprūpes sistēmas valsts skrīninga programma, kura nodrošina turpmāko starpinstitucionālo dienestu pēctecīga sadarbību, veicot agrīnās iejaukšanās palīdzību bērniem un viņu ģimenēm. Eiropas speciālās izglītības aģentūras ekspertu grupa ieteiktā agrīnās iejaukšanās definīcija ir “... pakalpojumu/pakalpojumu dienestu kopums agrīnā vecuma bērniem un viņu ģimenēm, kas tiek nodrošināts pēc viņu pieprasījuma, noteiktā bērna dzīves laikā un aptver jebkuras darbības, kad bērnam ir nepieciešams īpašs atbalsts:

- lai nodrošinātu un uzlabotu viņa/viņas personīgo attīstību;

- lai stiprinātu ģimenes kompetences, un
- lai veicinātu ģimenes un bērna sociālo iekļaušanu” (European Agency for development in Special Needs Education, 2010, 7),

Agrīnās iekļaušanās modeļa veiksmīgu darbību nosaka piecu pamatelementu īstenošana reālajā vidē (1.attēls).

Analizējot tādu agrīnās iekļaušanās elementu, ka “starpnozaru darbs,” priekšplānā izvirzās iesaistīto nozaru speciālistu profesionālā pieredze. Atzīmējot, ka agrīnajā iekļaušanā iesaistīti sociālās jomas, veselības aprūpes un izglītības nozares speciālisti, šī raksta kontekstā tika pētīta izglītības nozares pārstāvju sagatavotība, lai strādātu ne tikai ar pašu bērnu vecumā līdz pieciem gadiem, bet arī ar viņa ģimeni, lai savlaicīgi identificētu riska faktorus un sniegtu nepieciešamo atbalstu. Pētījumi pierāda pedagogu profesionālās un personiskās gatavības darbā ar bērnu ar speciālām vajadzībām nozīmi. Piemēram Kim (2011) pētījumi pedagogu profesionālās gatavības aspektā izdala kombinētās izglītības programmas nozīmi, kura vienlaicīgi sniedz zināšanas par vispārējo pedagoģiju, gan arī par speciālo pedagoģiju, kuru rezultātā pedagogam ir tiesības strādāt gan vispārējā, gan speciālajā izglītībā. Šī pētījuma dati liecina, ka tieši kombinētās programmas absolventi visvairāk gatavi iekļaujošai izglītībai. Savukārt, Scorgie (2010) pētījuma dati liecina, ka studenti, kuriem izglītības programmā tika izmantota “iegremdēšanas vidē” metode, turpmāk darbā veido vairāk uzticamus sakarus ar bērna ģimenēm, kas ir viens no pamatfaktoriem veiksmīgas agrīnās iekļaušanās procesā. Tālākizglītības programmu pedagogiem pieejamības nozīmi apliecina arī citi pētījuma dati (De Boer, et al., 2011, Cagran & Schmidt, 2011) uzsverot, ka tieši zināšanu trūkums pedagogiem par speciālām izglītības vajadzībām, par šo bērnu apmācības īpatnībām negatīvi ietekmē gan pedagoga personisko gatavību iekļaujošai izglītībai, tā arī iekļaujošās izglītības iespēju.

Pētījumā iegūtie rezultāti

Results of the reserch

Pētījumā piedalījās Rēzeknes Tehniskās Akadēmijas programmas “Speciālā pedagoģija” 2.kursa maģistranti, kuru pedagoģiskais darba stāžs ir no 0 līdz vairāk nekā 10 gadi. Rezultātu analīzei tika izmantotas 16 pedagogu anketas. Tika pētīti atbalsta pasākumu nepieciešamība pedagogiem, starpinstitucionālās sadarbības nepieciešamība, kā arī pakalpojumu daudzveidība agrīnās iekļaušanās kontekstā. Pētījumā piedalījās arī 16 bērnu ar speciālām vajadzībām vecāki/likumīgie pārstāvji. Tika izvērtēta bērnu ar speciālām vajadzībām vecāku/likumīgo pārstāvju, kuru bērni apmeklēja speciālo pirmsskolas izglītības iestādi un 2015./2016.m.g. uzsāka mācības

vispārizglītojošajās skolās, viedoklis par speciālistu palīdzības nepieciešamību un lietderību.

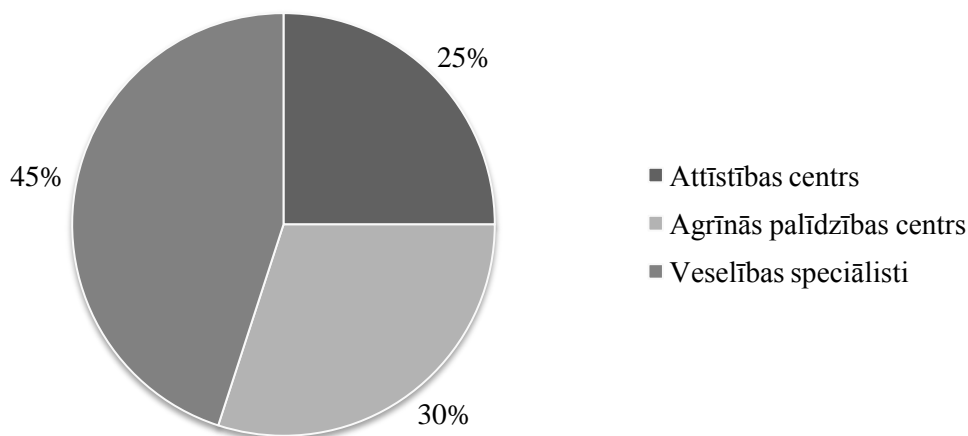
Rezultāti tika kodēti un apstrādāti SPSS programmā. Tika izmantots Kruskala–Vallisa tests vairāk nekā divu neatkarīgu izlašu salīdzināšanai un atšķirību noteikšanai pētāmo pazīmju līmenī.

Atbildot uz jautājumu "Vai pedagogam darbā ar bērniem ar speciālām vajadzībām ir nepieciešamas atbalsta personāla/speciālistu konsultācijas," pedagogu viedoklis apliecina, ka 80 % no aptaujātajiem, neatkarīgi no pedagoģiskā darba stāža, ir nepieciešama speciālistu palīdzība un profesionālās konsultācijas.

Kruskala-Vallisa testa rezultāti apliecināja, ka nepastāv atšķirības pedagogu viedoklī par pārejas perioda organizāciju un bērnu sagatavošanu skolai atkarībā no pedagogu darba stāža, kas liecina, ka, neskatoties uz darba pieredzi, pedagogiem ir nepieciešamas speciālistu konsultācijas, pārejas perioda organizācijas metodika, atbalsta speciālisti un sadarbības pasākumi starp pirmsskolu un sākumskolu izglītības pakāpju pēctecības nodrošināšanai.

Izpētot pedagogu viedokli par starpinstitucionālās sadarbības nepieciešamību, tika konstatēts, ka 96 % aptaujāto uzskata, ka ir nepieciešama starpinstitucionālā sadarbība, tikai 1 % aptaujāto domā, ka tā nav nepieciešama un 3 % aptaujāto nav viedokļa.

Izvērtējot, kur tieši pedagogi vēlētos saņemt atbalstu, lai nodrošinātu gan izglītības procesa organizāciju, gan kvalitatīvu sadarbību ar vecākiem, kā arī pilnveidotu savas profesionālās zināšanās iekļaujošās izglītības nozarē, pedagogu viedoklis izsaka pakalpojumu daudzveidības nepieciešamību kā veiksmīgās iekļaujošās izglītības iespēju un izglītības pakāpes pārejas perioda nodrošināšanu (2.attēls).



2.att. **Starpinstitucionālās sadarbības nepieciešamība pedagogiem**
Figure 2 The need of inter-institutional cooperation for teachers

45 % no aptaujātiem pedagogiem uzskata par nepieciešamību sadarboties ar veselības jomas speciālistiem, 30 % aptaujāto pedagogu pēc palīdzības visbiežāk vērstos agrīnās palīdzības centrā, bet 25 % aptaujāto norāda attīstības centru.

Viena no vērtējamām jomām, kas liecina par izglītības satura apgūšanu, ir sociālā joma, jo pirmsskolas pedagoģiskajā procesā bērnu sasniegumus vērtē atbilstoši vadlīnijās noteiktajiem pirmsskolas izglītības satura apguves plānotajiem rezultātiem (Noteikumi par valsts pirmsskolas izglītības vadlīnijām, 2012). Atbilstoši MK noteikumu Nr. 533 sociālā joma iekļauj savstarpēji saistītas prasmes, iemaņas un attieksmi.

Lai izvērtētu vecāku viedokli par speciālistu palīdzības nepieciešamību un iespējām bērnam ar speciālām vajadzībām gatavības skolai aspektā, tika aptaujāti 16 bērnu ar speciālām vajadzībām vecāki/likumīgie pārstāvji, kuru bērni apmeklēja speciālo pirmsskolas izglītības iestādi un 2015./2016.m.g. uzsāka mācības vispārizglītojošajās skolās. Nepieciešams atzīmēt, ka respondentu dati liecina, ka 96 % bērnu, kuri saņēma agrīno palīdzību jau pirmsskolā tika sagatavoti skolai pilnā apjomā, tikai 4 % - daļēji. Pēc vecāku uzskatiem bērnu speciālās vajadzības ietekmēja fizisko bērna stāvokli, kas ir ciešā saistībā ar bērna veselības stāvokli.

Pedagogu aptaujas dati par pirmsskolas kvalitatīvu sagatavošanu skolai, kas pētījumā parādījās korelācijas datus starp sociālo gatavību un sagatavošanu skolai pirmsskolā ($R=0,522$, $p=0,043$), liecina par to, ka bērnam ar speciālām vajadzībām sociālās gatavības nosacījums ir agrīnā palīdzība, kuru bērni un vecāki saņem jau pirmsskolā, kas izpaužas pedagogu, speciālistu, mediķu un ģimenes ciešā sadarbībā kopējā rezultāta sasniegšanai.

Secinājumi

1. Agrīnā iejaukšanās ir pakalpojumu/pakalpojumu dienestu kopums agrīnā vecuma bērniem un viņu ģimenēm, kas tiek nodrošināts pēc viņu pieprasījuma, noteiktā bērna dzīves laikā un aptver jebkuras darbības, kad bērnam ir nepieciešams īpašs atbalsts:
 - lai nodrošinātu un uzlabotu bērna personīgo attīstību;
 - lai stiprinātu ģimenes kompetences;
 - lai veicinātu ģimenes un bērna sociālo iekļaušanu.
2. Agrīnās iejaukšanās ir jāveic, lai atbalstītu jebkuru bērnu un viņa ģimeni, pēc iespējas ātrāk jebkurā bērna izglītības posmā.
3. Agrīnās iejaukšanās modeļa veiksmīgu darbību nosaka piecu pamatelementu īstenošana reālajā vidē: pieejamība, pakalpojuma tuvums, finansiālā pieejamība, pakalpojumu daudzveidība, starpnozaru darbs.

4. Bērna ar speciālām vajadzībām ģimenei ir nepieciešama profesionālā speciālistu agrīnā palīdzība, kas nodrošina laicīgu situācijas analīzi un izvērtējumu, un, kā rezultātā – agrīno nepieciešamās palīdzības nodrošināšanu.
5. Agrīnās palīdzības sniegšanā nepieciešams izskatīt plašākajā kontekstā, kas aptver dažādas nozares: veselības, sociālā un izglītības.

Summary

Education development guidelines for year 2004 – 2020, defines inclusive education as the process which provides the corresponding diverse needs of each learner, increasing every learners participation possibilities in the learning process, culture and various communities and decreasing the possibility of exclusion from education and the process of obtaining education (Education development guidelines for year 2004 – 2020). Qualitative state education for everyone, regardless of learners socio-economic conditions, functional status and place of residence, is the instrument for promoting equal opportunities and social inclusion. Nowadays, it is believed that what is happening in the child's first months of life and years of life, affect the child's development in future periods. In current Latvian regulatory framework and international commitments which Latvia has undertaken, it is defined that the state shall assume responsibility for rising of welfare and social security issues of the entire Latvian population, also including pre-school children at an early age. Aim of the study is to analyze early intervention concept, basing on theoretical sources, in a broader and more complex context, covering a number of aspects and to find out how prepared specialists are in order to work not only with a child under five years of age, but also with his family by the means of questionnaires. There was studied the necessity of supportive measures for teachers, the need for inter-institutional cooperation, as well as the diversity of services in the context of early intervention.

Having researched the teacher's point of view on the need for inter-institutional co-operation, it was stated that 96 % of respondents believe that there is a need for inter-institutional co-operation, only 1 % of the respondents think that it is not necessary, and 3 % of the respondents have no opinion.

Teachers' survey data on the quality of preschool preparation for school in the study appeared in the correlation data between social readiness and preparation for school in preschool ($R=0.522$, $p=0.043$), indicates of the fact that the condition of social readiness for a child with special needs is in the early assistance which children and their parents are already receiving in pre-school in the form of close cooperation of teachers, specialists, physicians and family in order to achieve the total score.

Parental survey data show that 96 % of children who received early help in preschool were prepared for school in full.

Theoretical sources, survey and regulatory documents data show that:

- Early intervention is needed to support any child and his or her family as soon as possible in any stage of child's education.
- The successful functioning of early intervention model is determined by the implementation of the five key elements of the real environment: accessibility, proximity of service, affordability, diversity of services, interdisciplinary work.
- Children's with special needs families need a professional help of a specialist at

the early age which will lead to analysis and assessment in due time and, as a result, the immediate necessary assistance.

- Early assistance is necessary to be considered in the broader context, covering different sectors: health, social and educational.

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VECĀKU UN LOGOPĒDA SADARBĪBA PIRMSSKOLAS IZGLĪTĪBAS IESTĀDES BĒRNURUNAS TRAUCĒJUMU KOREKCIJĀ

The Cooperation of Parents and Speech Therapist in the Treatment of Speech Impediments of Children at Pre-school Education Institution

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Daugavpils 4. specializētā PII

Abstract. *The issue of the involvement of parents in the treatment of children with speech impediments in cooperation with speech therapists at pre-school education institutions is examined in the paper, as the correction of speech cannot be fully effective, if the family is not involved in the process. Parents' insufficient awareness on speech impediment and treatment, undervaluing the importance of speech impediments' early detection and timely actions, incorrect and sometimes harmful beliefs regarding child's speech, shows the necessity to cooperate at all the stages of treatment, provide parental education on the possibilities of children speech development. The author describes the research, carried out at a pre-school education institution, on the parents', whose children have speech impediments, perception of their role and the evaluation of their involvement in the speech impediments' correction, that proves that, estrangement occurs when children, being in specialized twenty-four hour care pre-school groups, do not receive the necessary interaction and overall development stimulating activities with their parents.*

Keywords: *speech therapist, pre-school education institutions, children with speech impediments, correction of speech impediments.*

Ievads

Introduction

Vēsturiski daudzi izcili krievu pedagogi bijuši pārliecināti, ka galvenie pirmsskolas vecuma bērna audzinātāji ir viņa vecāki. Pedagogs K. Ušinskis (Ушинский, 1958) uzskatīja, ka vecākiem vajadzētu lasīt pedagoģisko literatūru un iegūt zināšanas saskarsmē ar pedagogiem. V. Suhomļinskis runāja par ģimenes un sabiedrības izglītības nepārtrauktību un vienotību, kas balstās uz sadarbību starp vecākiem un pedagogiem (Сухомлинский, 1979). Pedagoģes T. Markova un M. Ostrovska (Маркова, Островская, 1983; Островская, 1983), kuras izstrādājušas pirmsskolas izglītības iestādes darba ar ģimeni saturu,

formas un metodes, uzskata, ka vecāku iesaistīšanās mācību un audzināšanas procesā rada labvēlīgus apstākļus bērna runas attīstībai, bet, lai tā būtu efektīva, darbs ar vecākiem jāsāk sākuma posmā un tam ir jābūt labi izplānotam. Šim nolūkam ir nepieciešams veidot labvēlīgu mikroklimatu un iesaistīt vecākus izglītības procesā.

Pēc Latvijas Logopēdu asociācijas datiem Latvijā 35 – 40 % 5-6 gadus vecu bērnu nepieciešama logopēdiskā palīdzība valodas un runas attīstībā un korekcijā, bet vecumā no 3-5 gadiem pat līdz 50 % bērnu nepieciešama logopēdiska palīdzība (Latvijas logopēdu asociācija, 2015). Latvijas Logopēdu asociācijas pētījumi pierāda, ka, ja nav pietiekami nodrošināta logopēdiskā palīdzība pirmsskolas posmā, pieaug skolēnu skaits ar ielaistiem runas, valodas un komunikācijas traucējumiem, kuru korekcijai nākotnē ir nepieciešams daudz lielāks laiks.

Pašlaik pirmsskolas izglītībā aktuālas ir tādas darba formas, kas nodrošina valodas problēmas risinājumu katram bērnam un ģimenei individuāli. Korekcijas darba panākumus lielā mērā nosaka tas, cik lielā mērā tiek organizēta pēctecība pedagoga un vecāku darbā. Tieši tāpēc šobrīd svarīga ir tāda savstarpēja pirmsskolas izglītības iestādes pedagoga, logopēdu un vecāku sadarbība, kas paredz domu, jūtu, pārdzīvojumu apmaiņu; ir vērsta arī uz vecāku pedagoģiskās kultūras paaugstināšanu, t.i., zināšanu nodošanu viņiem, pedagoģisko prasmju, iemaņu veidošanu.

Neviens korekcijas darbs nevar būt pilnībā efektīvs, ja tajā nav iesaistīta ģimene. Jau pirmsskolas iestādē ir ļoti svarīga ir cieša pedagoga un vecāku sadarbība. Mūsdienu pirmsskolas izglītības iestādes pedagoģiskais process pamatojas uz humānisma, uzskatāmības un pēctecības principu, ir bērns centrēts, kas nosaka to, ka pirmsskolas pedagoģiskajā procesā tiek ievērotas bērna vajadzības, intereses un spējas, tiek nodrošināta bērna individuālā attīstība, nodrošināta bērna, pedagoga un vecāku vai bērna likumisko pārstāvju sadarbība, kā to paredz Ministru kabineta noteikumi Nr. 533 „Noteikumi par valsts pirmsskolas izglītības vadlīnijām” (MK noteikumi Nr. 533, 2012).

Saistītai runai ir liela nozīme cilvēka dzīvē, jo tā nodrošina komunikāciju, mijiedarbību, saskarsmi. „Ar saskarsmes palīdzību īstenojas cilvēka sociālās vajadzības: piederības vajadzība, vajadzība pēc pieķeršanās un simpātijām, vajadzība pēc pašapziņas, vajadzība pēc pašapliecināšanās, vajadzība pēc informācijas un vērtību orientāciju sistēmas” (Cupere, 2014, 24). „Bērniem ar valodas sistēmas nepietiekamu attīstību ir lielas grūtības izplānot viņa stāstījumu, kas ļoti apgrūtina viņu darbību. Bērni nevar dalīties savos pārdzīvojumos, iespaidos. Citiem komunikācijas partneriem grūti saprast viņus, un no tā cieš saskarsme” (Cupere, 2014, 24), bērna attīstība, dzīves darbība un kopumā pašrealizācija nākotnē.

Bērnu runas traucējumus izraisa dažādi faktori un zināmā mērā to rašanās ir saistīta ar bērna saskarsmes stilu ar māti, kas var stimulēt vai bremsēt bērna runas attīstību; ar nelabvēlīgu valodas vides ietekmi, ko izraisa nepietiekama bērna un mātes verbālā saskarsme (Маркова, Островская, 1983, Островская, 1983). Jo stiprāk izteikts mātes vēsums saskarsmē ar bērnu, jo lielāka ir runas traucējumu rašanās iespējamība. Ir arī vecāki, kam nav intereses par bērna runas kvalitātes uzlabošanu, ir arī tādi, kuri izvirza paaugstinātas prasības bērniem, mācot dzejoļus, dziesmas, skaitāmpantus, kaut skaņa vēl nav automatizēta vārdos (Maksimova, 2012).

Pirmsskolas vecuma bērniem svarīgākie cilvēki ir viņu vecāki, bet tas, vai vecāki spēj ietekmēt savu bērnu, ir atkarīgs no vecāku personiskās attieksmes pret savu bērnu. „Gan skolotājam, gan logopēdam ir jāzina, ko vecāki domā par sava bērna situāciju, var būt, ka viņu cerības ir nepamatotas” (Tūbele, 2008, 123.). Pirmsskolas izglītības iestāžu darbinieku sadarbībā ar ģimeni bieži atklājas tas, cik maz vecāki pievērš pienācīgu uzmanību bērna runas traucējumu atpazīšanai un korekcijas uzsākšanai, uzskatot, ka valodas traucējumi ar laiku tāpat pāries. Vecāku nepietiekama informētība runas traucējumu un korekcijas jautājumos, nenovērtējot runas traucējumu agrīnās atklāšanas un savlaicīgas iedarbības nozīmi, nepareizi un reizēm pat kaitīgi uzskati attiecībā uz bērnu runu, liecina par nepieciešamību sadarboties visos korekcijas posmos. Audzināšanas haotiskums ģimenē un atbildības par bērna runas panākumiem pārlīkšana uz logopēdu un pirmsskolas izglītības skolotājiem, neveicina cieņā balstītas saskarsmes veidošanos starp pedagogiem un bērnu, veido negatīvu vai vienaldzīgu bērna attieksmi pedagoģiskajā procesā.

Mācību rezultātus ievērojami paaugstina pedagoģiskā kolektīva mērķtiecīgs, sistemātiski plānots, vispusīgs darbs un vecāku apzināta ieinteresētība. Svarīga un neatņemama bērnu runas traucējumu novēršanas darba daļa ir cieša logopēda un vecāku sadarbība. Vecāku palīdzība ir obligāta, un tā ir ārkārtīgi vērtīga. „Lai pilnībā izvērtētu visas cēloņa – seku sakarības, pareizi izprastu valodas traucējumu un pamatoti izvēlētos nepieciešamās korekcijas metodes, jāzina runas traucējuma rašanās iemesli, iespējamais rašanās laiks, apstākļi, raksturs, dziļums un pakāpe, kādi valodas sistēmas komponenti ir skarti” (Tūbele, 2002, 71-72).

Vecāku loma bērnu izglītošanā ir nepārvērtējama. Tikai sadarbībā ar skolotājiem un, ja nepieciešams, ar logopēdu, psihologu, mediķiem, vecāki varēs palīdzēt skolēnam pārvarēt runas attīstības nepilnības un ar tām saistītos mācību traucējumus (Tūbele, 2002, 75-76). Tādēļ ir svarīgas sarunas ar vecākiem, vecāku aptaujas, lai papildinātu informāciju par bērnu, noteiktu pareizo diagnozi.

Sadarbība ar vecākiem jāturpina arī ikdienas darbā, lai bērna attīstība būtu optimāla (Tūbele, 2002, 76). Svarīgi ir arī tas, ka vecāku viedoklis ir

visnozīmīgākais bērnam, un, otrkārt, tikai vecākiem ir iespēja katru dienu nostiprināt veidojamās prasmes dzīvās, tiešās saziņas ar savu bērnu procesā. „Rotaļājoties, pastaigājoties un citādi kopā pavadot brīvo laiku, vecāki saskarsmē ar bērnu palīdzēs atcerēties apgūtās pareizas izrunas iemaņas” (Tūbele, 2002, 76).

Strādājot ar vecākiem mācību gada laikā ir svarīgi:

- veidot partnerattiecības ar katra audzēkņa ģimeni, radīt interešu kopības un savstarpēja emocionālā atbalsta atmosfēru;
- paaugstināt vecāku psiholoģiski pedagoģisko kompetenci runas attīstības jautājumos, rosināt viņos interesi un vēlmi piedalīties bērna audzināšanā un attīstībā;
- veidot vecākiem prasmes vērot bērnu un izdarīt pareizus secinājumus no šiem vērojumiem;
- palīdzēt vecākiem izstrādāt pārliecinātu un mierīgu audzināšanas stilu, lai bērnam radītu komfortu un drošību ģimenē;
- iemācīt vecākiem noteiktus logopēdiskā darba paņēmienus.

Konkrēti, logopēdam sadarbojoties ar bērna vecākiem runas traucējumu korekcijā ir svarīgi:

- iepazīstināt vecākus ar logopēda bērna valodas vērojuma rezultātiem;
- iesaistīt vecākus iespējamā, aktīvā runas traucējumu korekcijas procesā mājas apstākļos: skaidrojot, mācot, demonstrējot ko un kā darīt, lai trenētu bērna artikulācijas aparātu, lai rosinātu motivāciju runāt un bērns mācītos pareizi runāt, utt.;
- veidot pareizu vecāku priekšstatu par bērna gatavību pārejai uz skolas mācību procesu.

Kopēja logopēda uzdoto darbu izpilde brīvajā laikā ļauj vecākiem ar bērnu veidot uzticības pilnas attiecības, saprast un pieņemt bērnu ar viņa individuālajām spējām un nevarēšanu, dalīties ar bērnu priekos un bēdās, priecāties par bērna sasniegumiem un atbalstīt neveiksmju gadījumā, nebūt autoritāram, bet saprotošam un pieņemošam.

Pedagogs A. Petrovskis (Петровский, 1981) izdala 4 posmus pedagoģu un bērnu vecāku sadarbības organizācijā:

1. posms – *bērna pozitīvā tēla raidīšana vecākiem* (Pedagogs nekad nesūdzas par bērnu. Pat ja viņš ir kaut ko izdarījis. Saruna notiek ar devīzi: „Jūsu bērns ir vislabākais”);

2. posms – *zināšanu par bērnu, kuras viņi nevarētu gūt ģimenē, sniegšana vecākiem* (Pedagogs ziņo par bērna panākumiem un attīstību, saskarsmes īpatnībām ar citiem bērniem, mācību darbības rezultātiem);

3. posms – *pedagoģa iepazīšanās ar ģimenes problēmām bērna audzināšanā un apmācībā* (Šajā posmā aktīvā loma pieder vecākiem, pedagoģs tikai uztur dialogu, nesniedzot vērtējumu. Jāatceras, ka, no vecākiem gūtā

informācija nav jāizpauž kolēģiem grupā un, tā ir izmantojama tikai pozitīvas savstarpējās sadarbības organizēšanai);

4. posms - *bērna personības kopīga pētīšana un veidošana* (Tikai šajā posmā pedagogs, kas ir guvis vecāku uzticību, sekmīgi organizējot iepriekšējos posmus, var sākt uzmanīgi sniegt padoms vecākiem).

Logopēdes E. Mastjukova, A. Moskovkina, V. Tkačova norāda, ka korekcijas procesa un logopēda un ģimenes sadarbības organizācijas formas (Мастюкова, Московкина, 1991, Ткачева, 1998) var būt: kolektīvas, individuālas un vizuāli informatīvā nodrošinājuma veidā. Pie kolektīvām vecāku iesaistīšanas darba formām bērna runas traucējumu korekcijā var būt:

1. *Vecāku sapulces* (Iespējamās tēmas: „Vecāku iepazīstināšana ar korekcijas darba uzdevumiem un saturu”, „Bērnudārza un vecāku sadarbība, sagatavojot bērnu mācībām skolā”, „Sīkās motorikas attīstīšana un rokas sagatavošana rakstīšanai”, „Mācību gada korekcijas darba,” u.c.);
2. *Mājas darbi* (Pedagogs sniedz vecākiem iespēju iepazīties ar bērna individuālām burtnīcām, lai viņi varētu sekot bērna mācību dinamikai, organizēt viņu dalību, pildot mājas darbus; kā arī mājas darbi tiek izvietoti vecāku standā);
3. *Testēšana un anketēšana* (Ļauj identificēt vecākiem aktuālākās problēmas).
4. *Mājas spēlējamu rotaļu krājums* (Rotaļu krājums iepazīstina vecākus ar vienkāršām, bet ļoti interesantām, un, galvenais, bērniem noderīgām rotaļām. Tajā ietilpst tādu rotaļu apraksti, kuras veicina bērna runas attīstību, un kuras vecāki varētu spēlēt ar bērnu jebkurā viņiem ērtā laikā: „virtuvē”, „ceļā uz bērnudārzu”, „brīvajā laikā”);
5. *Atvērto durvju dienas* (Vecāki apmeklē nodarbības, skatās, kā bērni darbojas, ko viņiem ir nepieciešams nostiprināt mājās, pie kā vēl jāstrādā. Pie tam viņu pienākums nav savlaicīgi informēt pedagogu par savu apmeklējumu);
6. *Vecāku piecminūtes* (Vecākiem ir iespēja saņemt īslaicīgu privāto konsultāciju);
7. *Praktiskās konsultācijas* (Kopā ar bērniem, vecāki mazās apakšgrupās apgūst artikulācijas vingrinājumus, mācās veikt uzdevumus kopā ar bērniem darba burtnīcās);
8. *Svētki un izklaide* (Piedalīties tiek aicināti vecāki. Gada beigās vecāki tiek aicināti uz noslēguma nodarbību - svētki, kuros bērni demonstrē visas mācību gada laikā gūtās zināšanas, prasmes un iemaņas.);
9. *Izstāžu organizēšana* („Kā veiclas rociņas mēlītei palīdzēja”. Apskatei tiek izlikti tikai tie eksponāti, kurus bērni ir darinājuši mājās kopā ar vecākiem.);

10. *Informācijas stends vecākiem* (Veltīts bērna runas attīstības problēmām: gramatiskai runai, vārdu krājuma bagātināšanai, lasītprasmes apgūšanai, sīkās motorikas, artikulācijas attīstīšanai utt.).

Dotās darba formas ļauj iesaistīt vecākus aktīvai līdzdalībai korekcijas procesā, paredz pozitīvu attiecību veidošanu starp logopēdu un vecākiem, ģimenes un vecāku lomas bērna izglītībā un audzināšanā apzināšanos.

Lai sasniegtu rezultātus korekcijas darbā ir nepieciešams ievērot prasības logopēda darbam:

1. Korekcijas nodarbībām jānotiek sistemātiski;
2. Katram bērnam pirmsskolas izglītības iestādē un ģimenē ir nepieciešama individuāla pieeja;
3. Vecākiem ir jāievēro logopēda un skolotāju ieteikumi un prasības;
4. Runas materiāls, kuru bērns nostiprina mājās, ir jāsystematizē, saprotami jāpaskaidro bērnam un vecākiem (kā un cik daudz vingrinājumi - uzdevumi jāizpilda mājās);
5. Pastāvīgi jānodrošina kopīga, sekmīga logopēda, skolotāju, vecāku un citu speciālistu sadarbība;
6. Jāuztur savstarpējo izpratni starp vecākiem un bērniem.

Piedāvātās logopēda darba formas ar vecākiem, kuri audzina bērnu ar runas traucējumiem, veicina partnerības un sadarbības attīstību starp vecākiem un bērnu, adekvātas un vienlīdzīgas komunikācijas prasmju veidošanos, kas, savukārt, veicina harmonisku bērna personības un runas attīstību.

Pateicoties izveidotām uz uzticību balstītām partnerattiecībām starp visiem korekcijas procesā iesaistītiem dalībniekiem, veiksmīgi tiek pārvarēti ne tikai bērna runas, uzmanības, atmiņas, domāšanas, motorikas, uzvedības traucējumi, bet arī tiek veidotas bērnu un vecāku attiecības.

Katra pirmsskolas izglītības iestāde, kurā strādā logopēds, organizē efektīvus vecāku izglītošanas un iesaistes runas traucējumu korekcijas darbā pasākumus. Viens no šī darba veidiem ir logopēda ieteikumu izstrāde vecākiem bērnu runas korekcijas veicināšanai brīvajā laikā. Autore, logopēde O. Čapkeviča izstrādājusi un aktualizējusi savus ieteikumus vecākiem, kas rosina:

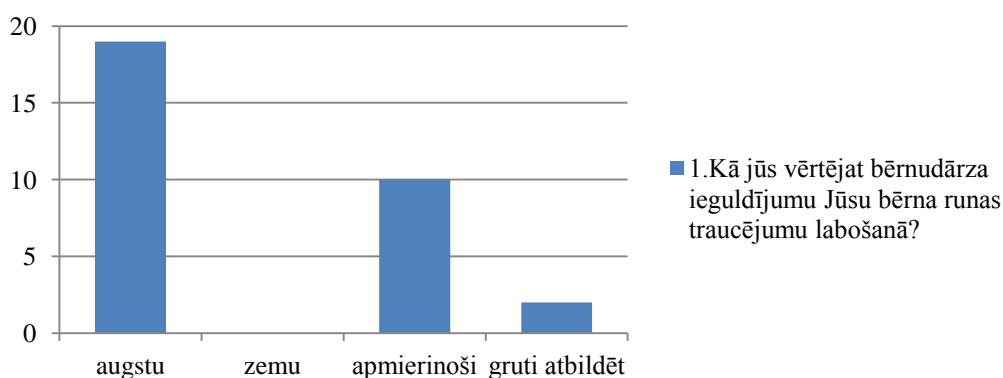
1. *Spēlējieties ar savu bērnu*, jo spēles laikā, kopā liekot mozaīkas, puzzles, lipinot no plastilīna, zīmējot, verot zīlītes, braukājot ar mašīnītēm, aijājot lelles un vienlaicīgi runājoties, uzlielot, iedrošinot kaut ko darīt, Jūs attīstat savu bērnu, attīstat viņa kustības, attīstat viņu valodiņu;
2. *Lasiet saviem bērniem bērnu grāmatiņas, pasaku grāmatiņas*, jotas parāda bērnam Jūsu mīlestību, vēlēšanos būt kopā, sniedz iespējas attīstīt runu, skaidrot nesaprotamo, fantazēt par iespējamo, ļauj bērnam justies droši un uzticēties Jums;

3. *Klausieties un sadzirdiet savu bērnu: interesējieties par viņa sajūtām, domām, viņa dzīvi un pacietīgi, ar interesi klausieties bērna stāstīto, nenoraidiet, nesakiet, ka nav pareizi, nepazemojiet bērnu;*
4. *Jūs tikai tagad varat kaut ko izmainīt savā un bērna dzīvē, jo vēlāk jau būs par vēlu.*

Aktualizējas jautājums par to, kā vecāki vērtē pirmsskolas izglītības iestādes, logopēda darbu, savu līdzdalību un iesaisti bērnu runas traucējumu korekcijas darbā pirmsskolas izglītības iestādē. Autore izstrādā anketu un aptaujā 31 pirmsskolas izglītības iestādes bērnu vecākus. Jāatzīmē ka vecāki nesniedz atbildes uz visiem jautājumiem, tādēļ atbilžu skaits var atšķirties. Vienlaicīgi autore O. Čapkeviča veic personīgu bērnu vecāku iesaistes runas un valodas korekcijas darbā izvērtējumu.

Pētījuma rezultāti *Findings*

Atbildot uz jautājumu par pirmsskolas izglītības iestādes darbību bērna runas traucējumu korekcijā vecāku vērtējumā, jāatzīmē, ka 19 bērnu vecāki iestādes darbu novērtē augstu, 10 vecāku novērtējums ir apmierinošs, bet 2 vecāki nespēj sniegt novērtējumu (skatīt 1.attēlu). Aptaujāto ģimeņu vecāku sastāvs izglītības, vecuma, bērnu audzināšanas pieredzes un ieinteresētības sadarbībai ziņā ir ļoti dažāds, par ko faktiski liecina tas, ka ir vecāki, kuriem nav izpratnes kā faktiski būtu jāstrādā šādai izglītības iestādei, kuri nevar novērtēt notiekošo darbu iestādē.

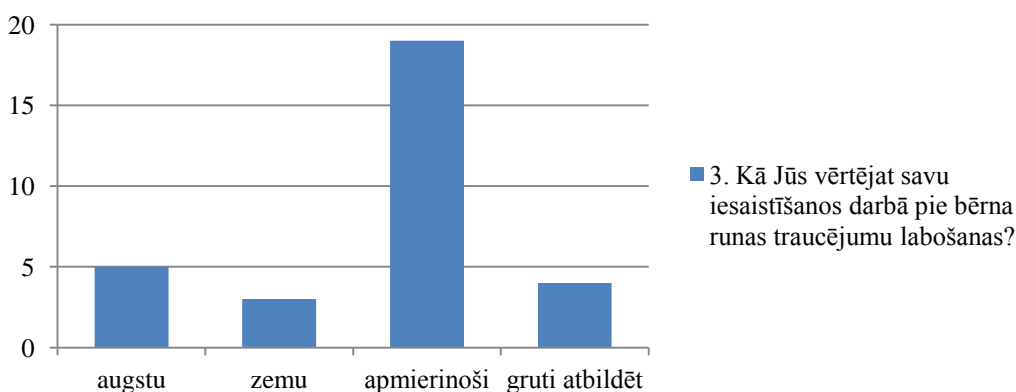


1.att. Pirmsskolas izglītības iestādes ieguldījums bērnu runas traucējumu korekcijā vecāku vērtējumā

Figure 1 Parents assessment of the contribution of pre-school education institution to the correction of children's speech impediments

Nosakot vadošo lomu pirmsskolas vecuma bērnu valodas un runas attīstīšanas un korekcijas darbā, lielākā daļa (21) aptaujāto vecāku uzskata, ka vadošā loma ir pirmsskolas izglītības iestādei un vecākiem, ģimenei, 8 vecāki kā galveno bērnu valodas un runas attīstīšanas un korekcijas darbā redz pirmsskolas izglītības iestādi, nekādi nesaistot ar šo darbu sevi. Divi bērnu vecāki uzskata, ka galvenā vadošā loma bērnu valodas attīstīšanā ir viņiem.

Vecākiem tiek piedāvāts novērtēt savu ieguldījumu bērnu valodas un runas attīstīšanas un korekcijas darbā. Tikai 5 vecāki savu līdzdalību novērtē augstu, lai gan arī tas nav pilnībā objektīvi, salīdzinot ar autoru sniegto vecāku iesaistes novērtējumu. 19 no aptaujātajiem 31 ģimeņu vecākiem savu līdzdalību novērtē kā apmierinošu, četru ģimeņu vecākiem ir grūti atbildēt uz šo jautājumu, bet trīs ģimenes savu līdzdalību novērtē zemu, kas faktiski abos gadījumos, pēc autoru novērojumiem, atbilst patiesībai.



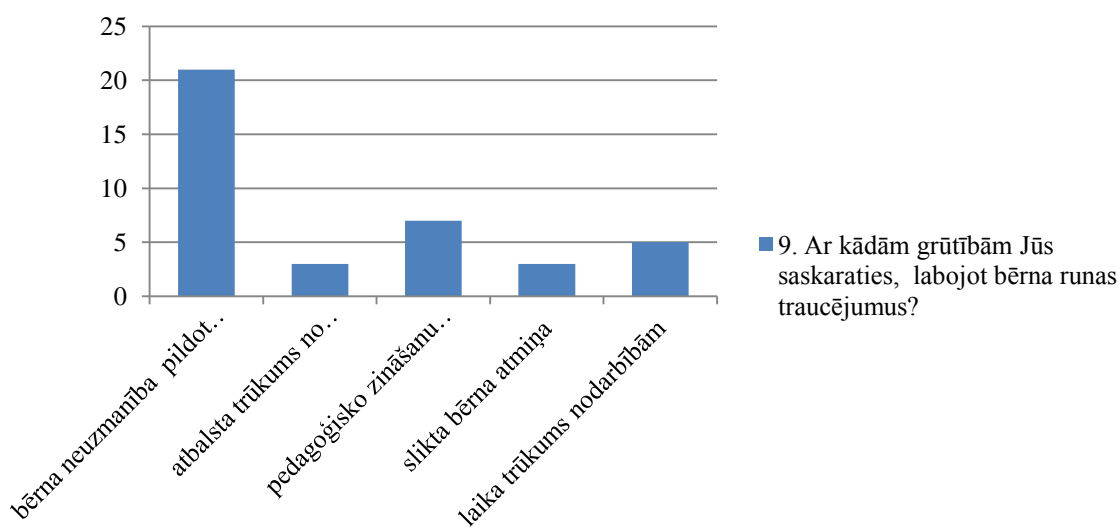
2.att. **Personīgā iesaistīšanās bērnu runas traucējumu korekcijas darbā vecāku vērtējumā**

Figure 2 Parents assessment of personal involvement in the child's speech impediments' correction process

Kā savu devumu bērnu runas traucējumu korekcijā vecāki uzskata to, ka: bērni tiek atvesti uz izglītības iestādi un tādēļ sistemātiski piedalās nodarbībās (19 atbildes), paši vecāki piedalās vecāku sapulcēs (11 atbildes), atklātajās nodarbībās (8 atbildes), apmeklē individuālās konsultācijas (12 atbildes). Ja ņem vērā, ka lielākā daļa bērnu uzturas pirmsskolas izglītības iestādes diennakts grupās 5 dienas nedēļā, ir skaidrs, kādēļ vecāki ne ļoti bieži griežas pēc padoma pie iestādes logopēda (16 atbildes), reti (4 atbildes), nevar atbildēt (5 atbildes), kas kopumā sastāda divas trešdaļas atbilžu. Tikai 6 ģimeņu vecāki logopēda informāciju par saviem bērniem vēlas bieži. Šī informācija caurmērā ir par bērna panākumiem nodarbībās (17 atbildes), informācija par bērna valodas traucējumu korekcijas darbu ģimenē (9 atbildes), mājas darbu pildīšanas jautājumos (8 atbildes), bet četriem vecākiem ir grūtības atbildēt uz šo jautājumu.

Savukārt uz jautājumu, ar kādiem jautājumiem pie vecākiem griežas logopēds, tiek sniegtas sekojošas atbildes: logopēds runā par bērnu sasniegumiem nodarbībās (15 atbildes), mājas darbu pildīšanas jautājumos (10 atbildes), par bērnu runas traucējumu korekciju ģimenē (6 atbildes). Ir vecāki, kuri nevar atbildēt uz šo jautājumu (8 atbildes). 23 vecāki savas zināšanas par bērna valodas attīstības un korekcijas iespējām saņem no logopēda, 5 vecāki uzskata, ka ir pietiekoša dzīves pieredze, 3 vecāki informāciju meklē speciālā literatūrā, bet 2 ģimeņu vecāki informāciju meklē internetā un televīzijā.

3.attēlā sniegtas vecāku atbildes uz jautājumu: ar kādām grūtībām vecāki saskaras veicot bērnu runas attīstības un korekcijas darbu.



3.att. **Grūtības, ar kurām saskaras vecāki veicot bērnu runas traucējumu korekciju**
Figure 3 The challenges encountered by parents during the child's speech impediments' correction

Lielākais skaits vecāku (21 atbildes) norāda uz bērnu neuzmanību pildot logopēda noteiktos uzdevumus, 7 vecāki atzīst pedagoģisko zināšanu trūkumu, lai kvalitatīvi veiktu šo darbu, 5 vecāki aizbildinās ar laika trūkumu šīm nodarbībām, 3 vecāku atbildes liecina par to, ka vaina tiek meklēta ne pašu vecāku darbībā, bet norādot, ka trūkst atbalsta šim darbam un arī pašu bērnu atmiņa ir slikta.

Bērnu runas traucējumu korekcijā vecāki ar logopēdu labprāt iesaistītos kopīgos projektos (9 atbildes), saņemtu konsultācijas (16 atbildes), vērotu atklātās nodarbības (10 atbildes), risinātu sev interesējošos jautājumus apaļo galdusarunās (4 atbildes).

Secinājumi **Conclusion**

1. Vecāki pilnā mērā neapzinās situācijas ar bērna runu smagumu, neapzinās savas līdzdalības bērnu runas traucējumu korekcijā nozīmi, norobežojas no līdzdalības runas korekcijas darbā, pilnībā atbildību par rezultātu uzliekot pirmsskolas izglītības iestādes skolotājiem un logopēdam.
2. Daļa vecāku pārvērtē savu iesaisti runas traucējumu korekcijas darbā, kas neatbilst īstenībai, jo sistemātiski ar saviem bērniem pēc logopēda ieteikumiem strādā trešā daļa aptaujāto 31 ģimeņu vecāku, kuri sadarbojas ar logopēdu, konsultējas un ieklausās ieteikumos.
3. Pirmsskolas izglītības iestādē ir svarīgi turpināt iesākto vecāku izglītošanas darbu, iesaistīt vecākus darbā ar bērna runas traucējumu korekciju jau pirmsskolas iestādes ikdienas aktivitāšu laikā, logopēda klātbūtnē, kas dotu vecākiem drošības sajūtu, ka viss notiek pareizi, pamazām pieradinātu vecāku darboties ar bērnu, saprast bērnu.
4. Katrā pirmsskolas izglītības iestādē, ne tikai specializētā, būtu svarīgi nodrošināt logopēda darbu, kas ļautu samazināt bērnu skaitu, kas visu nedēļu pavada specializētās pirmsskolas iestādēs, netiekoties ar saviem vecākiem, abpusēji attālinoties vieniem no otriem.

Summary

The pedagogical process of today's pre-school education institution is based on humanism, the principle of visibility and succession, it is child-centered, defining that in the pre-school pedagogical process the needs, interests and abilities of a child, his individual development, the cooperation between child, pedagogues, parents or child's legal representatives is ensured.

Speech impediments are caused by various factors. Pedagogues' studies show that the occurrence of children's speech impediments is in some way related to the child's style of interaction with his mother, that can stimulate or slow down child's speech development; the adverse effect of language environment, caused by insufficient verbal interaction between mother and child (Маркова, Островская, 1983, Островская, 1983). The more strongly mother's coldness is expressed in interaction with the child, the higher is the possibility of the occurrence of speech impediments'.

In the cooperation of pre-school education institutions' workers with family, it is often discovered, how little attention parents pay to identify child's speech impediments and to begin corrections, believing that language disorders will eventually pass. Parents' insufficient awareness on speech impediments and treatment, undervaluing the importance of speech impediments' early detection and timely actions, incorrect and sometimes harmful beliefs regarding child's speech, shows the necessity to cooperate at all the stages of treatment. The chaotic state of upbringing in a family and shifting the responsibilities for child's speech progress on speech therapist and pre-school educators is not encouraging the formation of

interaction based on respect between pedagogues and child, but creates child's negative attitude or indifference in the pedagogical process.

A significant and integral part of child's speech impediments' correction is close cooperation between speech therapist and parents. Parents help is obligatory, as it is crucial and extremely valuable. Only in cooperation with teachers and, if necessary, with speech therapist, psychologist, doctors, parents will be able to help a pupil to overcome speech development imperfections and learning difficulties related to them (Tūbele, 2002, 75-76).

It is significant that parents' opinion is the most important for a child, and, secondly, only parents have the opportunity to strengthen developing skills each day in a live, direct interaction process with their child. „While playing, going for a walk and spending free time in some other way, parents, when interacting with a child, will help the child to remember acquired correct pronunciation skills” (Tūbele, 2002, 76).

The author O. Čapkeviča has developed recommendations for parents how to correct children's speech impediments, which prescribes to read books together with a child; read, tell and make up tales, organize massage of the child's fingers during playtime, etc.

A questionnaire has been developed and 31 pre-school education institution family parents have participated in the survey, and simultaneously the evaluation of parental involvement in speech and language correction process has been provided from a speech therapist. The results of questionnaire allow drawing the following conclusions:

1. Parents are not fully aware of the severity of children speech impediments, are not aware of the importance of their participation in child's speech impediments' correction, disassociate themselves from participation in the speech correction process, putting the responsibility for the result fully on pre-school education institution teachers and a speech therapist;
2. A part of parents overrate their involvement in the process of speech impediment correction, because only one third of surveyed 31 parents, who cooperated with a speech therapist, consulted and listened to suggestions, regularly work with children, as recommended by the speech therapist.
3. It is important to continue the educational process of parents at pre-school education institution, involve parents in work with child's speech impediment correction already during the everyday activities at the pre-school education institution with speech therapist's presence, that will reassure parents that everything is done correctly, will slowly train parents to work with children, understand them;
4. In every pre-school education institution, not only specialized ones, it would be important to ensure speech therapist's presence, that would allow to reduce the number of children that spend a whole week in specialized pre-school institutions, without seeing their parents and mutually estranging from each other.

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ATTITUDES TO MUSIC THERAPY AS A METHOD OF MAINTAINING PSYCHICAL HEALTH OF PEOPLE SUFFERING FROM PSYCHIATRIC DISORDERS

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Abstract. *The article presents the pilot research on the attitudes to music therapy of people who have psychiatric diseases. The attitudes were analyzed according to the preferred form of relax and leisure; information they have about the impact of music therapy on psychical health of individuals, expedience of music therapy for maintaining positive psychical health, the attitude to music therapy as a tool of personal empowerment and the preferred type of music of the respondents, the level of their music education, the type of music they used for relax activities, the meaning of music as a tool of therapy. It was revealed that music therapy is acceptable for the most of the respondents, nevertheless, there is lack of information for patients and applied activities of music therapy in the processes of treatment or rehabilitation.*

Keywords: *psychiatric patients, attitude, music therapy.*

Introduction

During the last decades the entrenchment of humanistic and democratic values in our society impels to learn more about the effective ways to develop psychical wellness of people with psychiatric diseases. Modern medicine allows having shorter periods of hospitalization and it supports people with mentally diseases to keep closer relationships with community. However, even being out of hospitalization mentally impaired persons must keep some medical recommendations to prolong the periods of relapse. Therefore, the responsibility for their psychical health lays on the community, family, social services. Music therapy is one of the methods that could significantly affect psychic health of people suffering from psychiatric disorders (Ansdell, 2003, Catherin Carr et al., 2013). All forms of music may have therapeutic effects, although the music from one's own culture may be the most effective.

Styles of music differ in the types of neurological stimulation they evoke. Neuroscientific studies have shown music to be an agent capable of influencing complex neurobiological processes in the brain and suggest that it can potentially play an important role in treatment (Shuai-Ting Lin et al., 2011). Authors indicate that clinical studies provide some evidence that music therapy

can be used as an alternative therapy in treating depression, autism, schizophrenia, and dementia, as well as problems of agitation, anxiety, sleeplessness, and substance misuse (ibid).

Music has great influence on individual's motor activity. It is known that persons suffering from psychiatric diseases mostly are passive (Gurevich et al., 2012; Elzbergaitė, 2012) they spend their leisure preferring reading, watching TV, playing table games, etc. Music therapy helps patients to reduce muscle tension, achieve better muscle co-ordination, balance and strength, develop essential motor skills needed for holding and making use of objects (e.g. a beater), use rhythm to stimulate gross and fine motor movement e.g. dancing, jumping etc. (Gold et al., 2005; Peluso, et al., 2005, Elzbergaitė, 2012).

Besides positive influence on motor activity it is expedient to apply music therapy for maintaining positive psychical health. The authors (McCaffrey et al., 2011; Ryan et al., 2012) emphasize improvement of self-image and group cohesiveness; increase of self-esteem verbalization and motivation; decreased anxiety/agitation.

Therefore, different approaches could be used applying music therapy for people with psychiatric illnesses. Restorative – using music to regain a skill or function, compensatory – using music to compensate for losses in conjunction with tools such as memory/communication aids and psycho-socio-emotional – using music to enable emotional expression, engagement in social interaction and adjustment to disability (Covington, 2001; Keen, 2001; Nelson et al., 2001; Eyre, 2015).

The mentioned findings support bettering of psychical health and social empowerment that is a problematic area of social participation of persons suffering from psychiatric diseases. Empowerment is connected to a resource-oriented perspective on music therapy that implies a focus upon the client's strengths and potentials and emphasizes the importance of collaboration. The music became a powerful image that connected experiences in music therapy with challenges in real life (Rolvsjord, 2004). The current health promotion policy and practice emphasizes high value of community development work – it enables to identify problems, develop solutions and facilitate change (Mockeviciene, 2012). Theoretical exploration of the concept of empowerment (Randi Rolvsjord, 2004) together with its applicability to music therapy is another philosophical perspective because it focuses on positive changes in client's behavior, communication and self-beliefs.

The object of the research – attitudes to music therapy as a method of maintaining psychical health of people suffering from psychiatric disorders

The aim of the research is to reveal the attitudes to music therapy as a method of maintaining psychical health of people suffering from psychiatric disorders.

Methods of the research: 1) analysis of research literature; 2) quantitative approach using closed type questionnaire, 3) descriptive statistics applying SPSS (*Statistical Package for Social Sciences*) program. Relations of demographic variable (gender) with dependent variables were checked with non-parametric test of Mann-Whitney criterion at the level of significance $p \leq 0,05$.

The questionnaire was composed according to the analysis of academic literature (Covington, 2001; Keen, 2004; Rolvsjord, 2004; Kardelis, 2002). The pilot research instrument consists of 15 questions that were divided into 5 diagnostic areas that could reveal the attitudes of people suffering from psychiatric diseases on the opportunity to apply music therapy in the process of rehabilitation.

1. Preferred form of relax and leisure
2. Information about the impact of music therapy on psychical health of individual
3. Expedience of music therapy for maintaining positive psychical health
4. Attitude to music therapy as a tool of personal empowerment
5. Preferred type of music of the respondents

The research was performed in 2014 in Šiauliai County. The quota of the research consists of 96 persons from 20 to 63 years of age, according to gender the respondents were 41 women and 55 men. The respondents' distribution according to age and gender corresponds to general demographic characteristics of Lithuania. The empirical data of the research was collected during the summer camp of people with different types of disabilities.

Analysis of the results

Understanding the high values of music therapy mentioned above it is presumable that in the process of rehabilitation music therapy could be applied widely maintaining person's psychical health in the period of remission. It was expedient to learn how much patients are involved with music in everyday life.

The main leisure activities of people suffering from psychiatric diseases were revealed (see Figure 1) in the pilot research.

Reading ($p=0,035$) and communication with others are the most popular forms of relax and leisure of people suffering from psychiatric diseases. Passive forms of relax could be attendant circumstances of the type of disability, individual characteristics of persons, or just life habits. Drawing as a tool of relax is used rarely but it must be mentioned that knitting, needlecraft, woodcraft was selected by 1/3 of the respondents. The fact that people who are suffering from psychiatric diseases prefer passive leisure could indicate limited social environment, human or financial recourses. The same could be mentioned talking about sport activities. A small part of patients relax in sport activities.

The analysis of empirical data shows that most popular type of psychical activity is basketball and tennis. Lack of physical activities, hypodynamia is common feature for people suffering from psychiatric diseases. This fact corresponds to the research by (Richardson et al., 2005) justifying those increasing exercise secondary symptoms such as low self-esteem and social withdrawal could also be alleviated. Individuals who engage in regular leisure-time activity of any intensity are less likely to have symptoms of depression (Harvey et al., 2010).

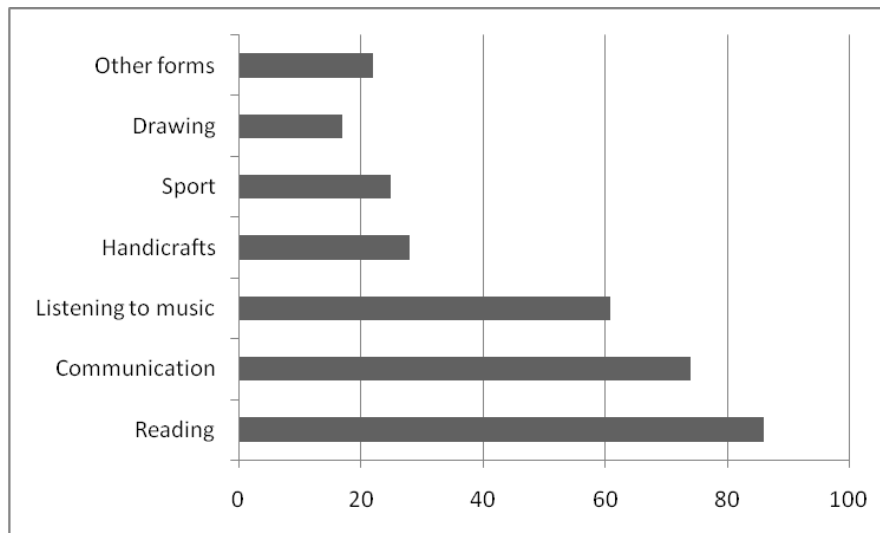


Figure 1 Preferred form of relax and leisure (%)

Other types of relax such as taking care about pets, houseplants, hobbies were indicated. Harmful habits (usage of alcohol, gambling) were mentioned as well.

Listening to music is on the third place and it makes 61 per cent of all answers. It is an important fact talking about the process of rehabilitation, because for quite a large part of the participants' music therapy is an acceptable activity applying together with other alternative methods of influence. So for patients in the period of remission the conditions to develop music listening skills and motivation must be created in the nearest environment of the created opportunities to attend music therapy sessions in the community social services.

All the respondents have experience of hospitalization that is why they have some information about music therapy or even the experience in participating in it (see Figure 2).

Information about the impact of music therapy on psychical health of persons differs according to gender. Analyzing empirical data it was set up that men ($p=0,020$) need more information. The part of men who do not have any information about music therapy is larger as well. It could be explained in several aspects. Men are not so active and involved in the alternative

rehabilitation activities because it is the free choice of the patient. Women are likely to be more sensitive and more open to accept and to try different types of alternative rehabilitation. On the other hand, it could be associated with the experience they gained in hospital, the level of their own music education, individual traditions of their nearest environment.

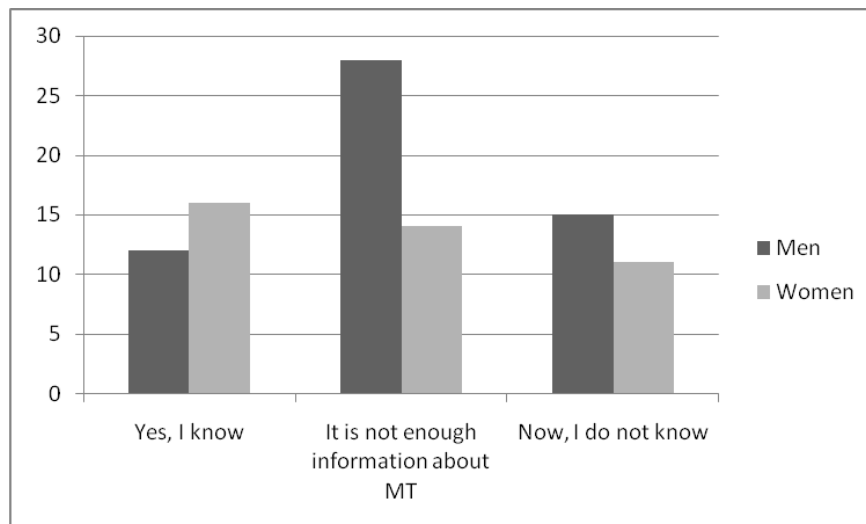


Figure 2 Information about the impact of music therapy on psychological health of individual (%)

Knowing the level of information that individuals have about music therapy the expedience of alternative support for maintaining positive psychological health could be discussed. In spite of the fact that men have insufficient or even no information about music therapy they prefer to use it in the rehabilitation process during the period of remission.

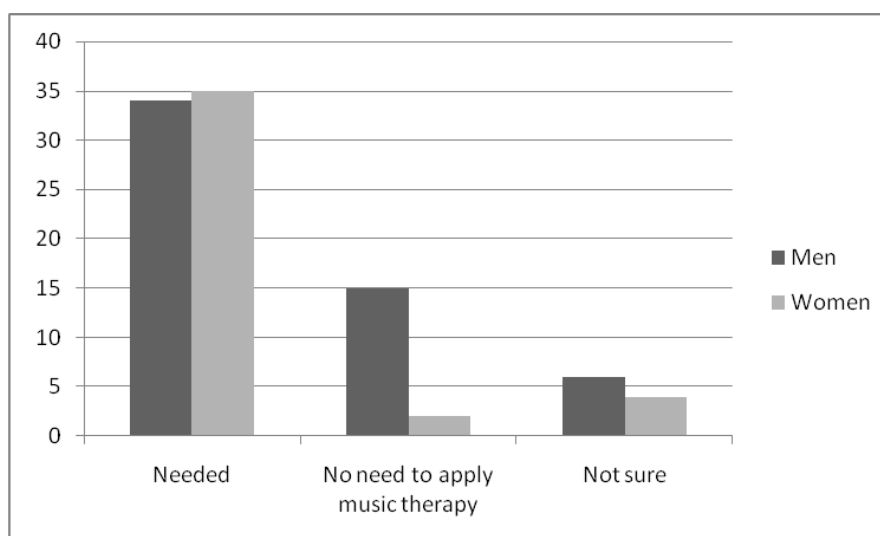


Figure 3 Expedience of music therapy for maintaining positive psychological health (%)

The results show that more than a half of the patients indicate music therapy as a desirable form of alternative rehabilitation ($p=0,032$). Analyzing the results according to gender it was set that men's attitude to the expedience of music therapy is more negative than women's ($p=0,012$). Nevertheless, the fact that listening to music is one of the most prevalent activities among people suffering from psychiatric diseases the programs of music therapy could be offered to social services, families as a kind of leisure, nearest social environment in which patients are integrated in the period of remission. Similar information is presented by Ansdell (2002). It is advisable to work with men more actively, to involve them into sessions of music therapy during the process of treatment, because refusing to participate in music therapy sessions they lose an opportunity to keep their psychological health more stable.

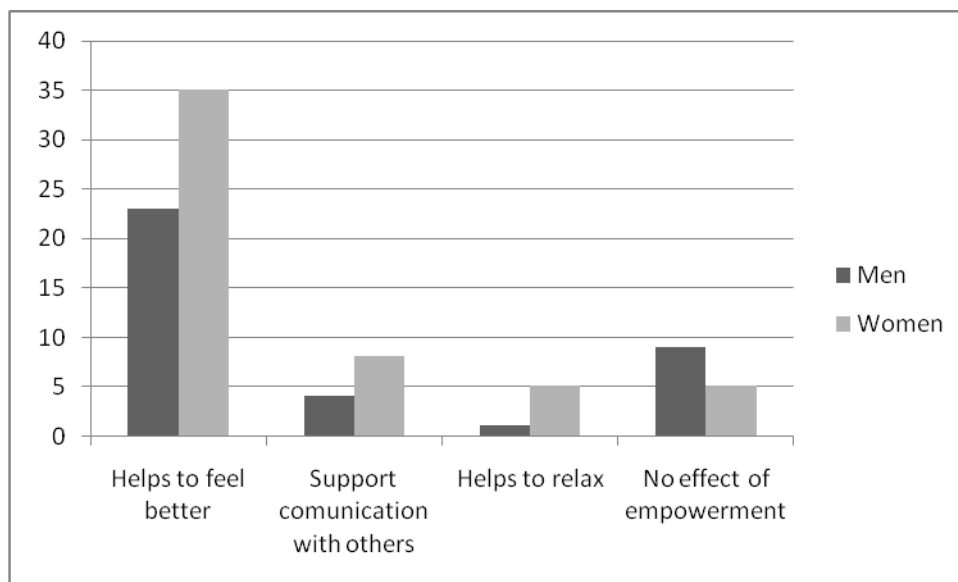


Figure 4 Attitude to music therapy as a tool of personal empowerment (%)

The aspect of empowerment applying music therapy is widely discussed in theoretical and practical issues of social wellness of patients suffering from psychiatric diseases. Sometimes patients cannot describe exactly what effect of music therapy they expect, because some of them participated in the sessions of music therapy and the others did not. It was set that the largest part of the patients indicated that music therapy might help to feel better. To understand the expression "better" it must be discussed in more detail. The respondents in the term "better" include "positive emotions", "less sense of anxiety", "good sleep", "better appetite", etc. It means that general functioning of a person became more active and balanced. It would be useful to clarify what evidence of empowerment could be mentioned by people who have experience of music therapy. In this article the general data of patient's attitude to the music therapy

as a tool of empowerment have been presented. Both men and women indicate that music therapy supports better personal feeling ($p=0,015$) comparing with other empowerment characteristics described in the questionnaire. The experience of self-sufficiency in the sessions of music therapy in women is expressed more than in men. These findings correspond to the thoughts of Silverman (2003), Smith et al., (2005) that music therapy as a tool for relax could be important for the creation and maintaining relationships with other people, because it significantly diminished patient's negative symptoms, increased ability to converse with others, reduced social isolation, and increased their level of interest in external events.

Rather unexpected result is that a large part of the respondents have no idea about the value of music therapy in the terms of empowerment. Research data indicate some ideas about application of music therapy as a tool of empowerment in the rehabilitation process of patients suffering from psychiatric diseases. In the first periods of rehabilitation music therapy could be applied like optional activity without higher goals of empowerment: self-confidence, critical thinking, and decision making skills (Brijunaite, 2007, Mockeviciene, 2012, Aleksiene, 2010).

The attitude to music therapy depends on the music education that patients could have. Those who have experience in music may understand the effect of music deeper and wider.

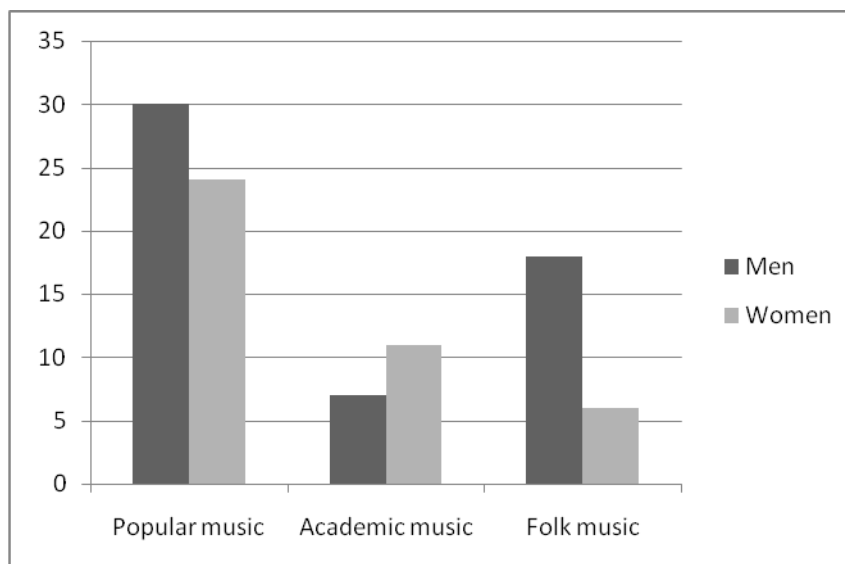


Figure 5 Preferred type of music of the respondents (%)

Talking about the preference of music for music therapy sessions people suffering from psychiatric diseases indicate rather different types of music. The most preferred type is popular music. This kind of music is familiar to wide

audience of population, it sounds on the radio and television, in concerts and celebrations. Therefore, for the research target group this kind of music is the most easily accessible. Significant differences comparing the preferences of folk music ($p=0,023$) were set up in men's and women's attitude. It could be associated with the peculiarities of the Lithuanian folk music in which minor tunes prevail. Folk music being a part of ethnocultural heredity strongly affects person's psyche, even in the level of archetype. This may cause emotional dispirit, apathy, melancholy. This idea must be studied in more detail by empirical and theoretical analysis, but at the same time it indicates undeveloped opportunities of folk music as a tool of empowerment. The analysis of the research data shows extended reaches of psychological and cultural understanding of folk music.

Any significance was not found talking about the preference of classic music. The lack of acquaintance with classic music both among men and women could be mentioned as a tendency. These results could reflect general music sophistication, music culture in society, the development of music linking through media as well. Nevertheless, talking about music therapy it must be mentioned that popular music for this purpose is used quite rarely.

The research is composed according to the principles of research ethics and approved in Ethic Board of Faculty of Social Welfare and Disability Studies. All the participants gave their informed consent to participate in this study.

Conclusions

1. Analysis of scientific literature shows that music therapy is one of the methods that could significantly affect psychical health of people suffering from psychiatric disorders. Besides positive influence on motor activity it is expedient to apply music therapy for maintaining positive psychical health, improving self-image and group cohesiveness; increasing verbalization and motivation of self-esteem; reducing anxiety/agitation.
2. Reading and communication comparing with other types of activity are the most popular forms of leisure of people suffering from psychiatric diseases. Drawing as a tool of relax is used rarely but it must be mentioned that knitting, needlecraft, woodcraft was selected by 1/3 of the respondents. Passive forms of relax could be attendant circumstances of the type of disability, individual characteristics of persons, or just life habits.
3. Men are not so active and involved in the alternative rehabilitation activities because it is the free choice of the patient. Women are likely to be more sensitive and more open to accept and to try different types of alternative rehabilitation. On the other hand, it could be associated with the

- experience they gained in hospital, the level of their own music education, individual traditions of their nearest environment.
4. Both men and women indicate that music therapy supports better personal feeling and self-confidence comparing with other empowerment characteristics. Experience of self-sufficiency in the sessions of music therapy was expressed in women more than in men.
 5. Classic music is the least wanted type of music for therapy sessions among patients suffering from psychiatric diseases. It could be so because of the lack of the acquaintance with classic music both among men and women. The results could reflect general music sophistication, music culture in society, the development of music linking through media as well.

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PROBLEMATIC OF MÖBIUS SYNDROME - CASE STUDY

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Abstract. *The article focuses on the problematic of Möbius syndrome, a specific description of a child with this syndrome. This is a very rare syndrome. At the time of diagnosing this girl's syndrome, doctors in the Czech Republic had almost no experience and had no seen any other child with Möbius syndrome. So she got the intensive care specific for this syndrome just before her third birthday. The aim of our study was to obtain data in motor development, cognitive skills and abilities and especially to obtain information about speech development. In this article, we try to capture the main therapeutic approaches that led to the development of communication skills and promote the development of all language levels.*

Keywords: *case study, Möbius syndrome, speech development, therapeutic approaches.*

Introduction

Moebius syndrome is a rare congenital neurological disease, which was first described in 1888 by Paul Julius Möbius. The most obvious symptom is a facial paresis, which arises as a result of damage to the cores VII. cranial nerve. Most often is paresis bilateral, but they may occur asymmetric variation. People with this syndrome are unable facial expression and are often referred to as a person with a mask or deadpan. Palsy is on the face lead to a decrease of muscle tone mimic muscles, triggering the drop side of his mouth and eyelids. For Möbius syndrome is also typical disability of VI. cranial nerve and that is the reason why they aren't capable of lateral movement of the eye (Abott, 1998; Zuker, Manktelow, 2014).

At the Möbius syndrome are damaged other cranial nerves, the combination is usually individual. Most often are affected these nerves: V., IX., X. and XI. These nerves innervate the muscles of the jaw, tongue, larynx and gullet and are involved in the production of speech. Because the people with Möbius syndrome have facial paresis, they can't smile, frown, raise eyebrows, blink or close their eyes. Other symptoms include strabismus, dental problems, high palate, cleft palate, hypersalivation, deformities of the ears, hearing difficulties (conductive or mixed disorder), vision disorders (photophobia, corneal erosion). There is a lag of motor development due to hypotony. Cognitive skills are in the norms range, at about 10 % of people with Möbius syndrome the mental disorder occurs (Rosenfeld-Johnson, 1999; Redett, Hopkins, 2006; Cole, Spalding, 2009; Čápová, 2010; Ilenčíková, 2013).

Based on the facts described above it is necessary during the therapy the interdisciplinary cooperation. The Möbius syndrome is usually diagnosed by a neurologist and an ophthalmologist abroad. The team also usually includes a speech therapist, physiotherapist, paediatrician, psychologist, neurosurgeon, plastic surgeon and the other experts based on the individual needs (Tabachová, 2014).

The aim of this article is to describe the development of girl with Möbius syndrome from birth to her five years of age - how did the mother's pregnancy to birth and then proceeded motor and speech development of a child. To obtain the data the medical history questionnaires, reports from individual professional and recording sheets from the examination of speech were utilized.

Case report

The described person is a girl who was born in 2009. She was born like a third child to parents, who were 35 and 32 years old. The pregnancy was physiological. At 24th week of pregnancy equinovarus congenitus using ultrasound (in the normal control) was diagnosed. Also absence of the umbilical artery was discovered. Therefore Doctors recommended parents terminate pregnancy. Parents seek other experts who told them that there is no reason to terminate the pregnancy. During third trimester of pregnancy, the mother had elevated blood pressure, so she must taking medications. Month before the birth, the hypertrophy of the fetus was diagnosed and mother had preeclampsia, which was grounds for immediate termination of pregnancy by caesarean section in the 35th week of gestation. After birth the girl was hypotonic and slightly immature hypotrophy. Apgar scores were 3/7/8. The girl weighed 1900 grams and measured 40 cm. Immediately after birth the child had irregular hyperventilation, bradypnoea and bradycardia. The girl had to be connected to the artificial lung ventilation and there was also an indirect heart massage. The child's crying was weak and whiny. Already after birth the face stigmatization was evident. Gradually spontaneously condition occurred and hypotonia and occasional tapping of the bulbs prevailed.

In the fourth day of life the child's pneumonia was diagnosed. In the fifth and sixth day lack of interest in food prevailed and reflexes weren't nearly perceptible. For persistent difficulties in sucking the girl was not breastfed. The first Vojta's reflex locomotion method was launched, leading to better reflexes and momentum. The girl was fed through a nasogastric tube with breast milk. A week after birth, she was transferred to the neonatology in Prague. Doctors began to think about Prader-Willy syndrome there. Based on the examination this hypothesis was refuted, doctors didn't determine another syndrome. After three weeks she was transported again into a hospital in the

hometown. Here she underwent hearing tests - otoacoustic emissions presented on the right, left absent; also eye examination - without proof of pathology. After nearly eight weeks the girl was released to home care.

To treat orthopaedic disability conservative Ponseti treatment was recommended. Every fifth day she had to go to hospital for an exchange redresser plaster bandages. These bandages covered the entire leg from the fingertips to the end of the groin. In third month percutaneous tenotomy of the Achilles tendon was realized. After this treatment the feet were fixed again in a cast for a period of three weeks. After removing the plaster Denis Browne splint was applied. Girl wore this plaster 23 hours per day for a period of three months. After this period she wore it only during night sleeping until her fourth birthday.

In third month there was a slight momentum improvement. There were still problems with feeding. The girl was fed by syringe, bottle feeding was not possible. The girl could not coordinate the movements of sucking, swallowing and breathing, plus suction force was very small. The girl grew by weight tables, so the paediatrician had no reason to deal with feeding. In this period she began to turn his head toward the sound, began to hum and babble and watch toys.

Because of the persistent problems the family turned to the Early Care Centre. The Early Care Centre worker helped to find to family the expert examinations for girl - visual, psychological and audiology. Audiology examination revealed a severe lesion on the left and retro-cochlear or pre-cochlear lesion on the right. Eye examination revealed nystagmus and astigmatism. As the girl could not blink her parents regularly instilled artificial tears eye to prevent drying of the corneas.

Problems with feeding was still not resolved, in her sixth month doctors wanted to proceed with the insert of PEG. Parents rejected this solution. Mother found a contact to a speech therapist with whom she consulted the situation. The position during feeding was changed, the feeding was more frequently and in smaller portions, parents began trained sucking with the child. Also speech therapist acquainted the family with Bobath concept. Vojta's method was changed by Bobath concept and girl's development began to move forward again.

The girl could rewind from back to stomach in ninth month (but only on the right side). She was able to lean on the forearm in the prone position. In this period, she began use soft drink cup and spoon for feeding. At the end of ninth month, she underwent scheduled strabismus surgery. After the surgery, she had to wear eyeglasses. In order to develop binocular vision, she had to exercise regularly at home.

When she was approximately one year old, the girl began to sit, eyes fixed the communication partner as well astoys. If she wanted to watch the moving object shehad to rotate the whole head. She began to play with more intonation,

duplicate syllables. She was not using words yet. Oral motoric was delayed, voice was in unnatural high position. After the first year there were frequent upper respiratory tract infections with a high fever and inflammation of the middle ear.

When she was two years old endoscopic adenoidectomy and bilateral tympanostomy were performed so it solved the otitis. At this age her mouth was filled by milk teeth. She had an overbite, high palate and soft palate dysfunction. Elevation, retraction and lateral movements of the tongue absented.

In three years of age, she began to walk around furniture, in a speech vowels prevailed, she used around 40 words actively. In this period she showed a good musical ear – she could imitate melody, intonation and rhythm. Only her mother understood her speech. Understanding of another person's corresponded to the child's age. She still wore diapers. The girl was sent to the hospital department of paediatric neurology, where she underwent a detailed examination and subsequently Möbius syndrome was diagnosed. Doctors had no experience with this syndrome. This syndrome was diagnosed by accident when one doctor read article about the syndrome, and thanks to the information gathered from this article doctors began to think whether it is really Möbius syndrome. Doctors were unable to disclose further information or to answer parents' questions. Parents contacted foreign organisations, which provided them very important information. Girl has bilateral palsy of facial muscles. Function of III., IV., VII., IX., X. and XII. cranial nerve is damaged. Other symptoms include language abnormality, high palate, submucosal cleft palate, short mandible, clubfoot turning inwards, breathing difficulties. In newborns and infants age she had difficulty during sucking and she was fed through the NG tube. Girl is photophobic, short-sighted, hypersensitive to noise and she has hearing loss. Sleep disorders are associated too.

When she was four she started attending the kindergarten where she came together with her mother, who made assistance to her daughter every day from 8 to 12 pm. The girl was under speech therapy and psychological examination, and she had individual education plan. Adaptation in kindergarten proceeded very well. During kindergarten attendance gross motor skills significantly improved, fine motor skills and consequently articulation were improved too. Walking is safer, girl manages to walk upstairs with support railings, she doesn't go downward even with support. At the age of five she learned how to ride the bike with side wheels. The level of gross motor skills is delayed relative to peers. She performs almost all of the self-service operations. She has problems with fastening buttons and tying shoelaces. There is still bedwetting during sleep and she have to wear diapers. She has problems with spatial orientation and walking on uneven terrain.

In terms of speech dysarthria is evident, articulation is more understandable but all speech sounds are not still induced. There is still a movement disorder of tongue, lips, cheeks, soft palate and hypernasality. The girl has a bad tongue position, does not protrusion of the lips, jaw angle is small. Morphological-syntactic and lexical-semantic language skills corresponding to average age. The pragmatic language skills are disturbed, discontinuous and partly non-created visual contact and stigmatization in the face - the girl cannot pull up the eyebrows upwards, inflate the cheeks or pucker nose.

The first meeting with a speech pathologist led to food intake improve by changing feeding techniques and tools. Speech therapist began with orofacial stimulation based on the Bobath concept, which led to the improvement of oral reflexes and oral motor skills. Parents were trained how to use orofacial stimulation and massage techniques of soft palate to improve velopharyngeal mechanism. Girl regularly carried out breathing exercises and phonation. With improving muscle tone and momentum of the orofacial region she was introduced with active therapy exercises aimed at developing motor coordination. Speech therapist started with inferring speech sounds. Because great incomprehensibility of speech persisted and girl wanted to speak a lot, they started use elements of augmentative communication and natural gestures. The girl can communicate with the people around her. Her speech is more understandable. The therapy is aimed at the overall development of gross motor skills (there is cooperation with the physiotherapist), fine motor skills and graphomotoric (cooperation with occupational therapist) and the sensory perception development. The goal of therapy is the practical language use and communication with other people.

Discussion

The aim of this article was a partial view on the issue of Möbius syndrome at particular child. Overhand we described the development of a child with Möbius syndrome from birth to age five. We see that the development of the girl was delayed in all areas, but we also see a positive potential of development. Girl reaches the particular periods later than its peers but the development does not stagnate. Early physiotherapy, speech therapy and intensive work of parents can affect the development of person with Möbius syndrome and improve his life. It is important to know detailed specifications of symptoms for each child because symptoms are variable and individual. We proceed in the preparation of an individual plan of therapy on the basis of the detailed information. It leads to more effective therapy for individual client. It is necessary to approach to each client individually and collaborate with other professionals who contribute to the

improvement of the client's condition. With interdisciplinary cooperation we can achieve better results.

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FORMER PUPILS' EXPERIENCED MENTAL HEALTH (MH) AND QUALITY OF LIFE (QOL) SOME YEARS AFTER COMPLETION OF ADAPTED SECONDARY EDUCATION

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Abstract. *The article addresses the following research question: Some years after having completed adapted secondary education, (a) how do former pupils assess their present status of MH and QoL, and (b) what aspects of the adapted education do they consider to have contributed positively to this status? The purpose of the study is to look for positive outcomes of adapted secondary education in pupils' adult life, regarding their MH and QoL in particular. The study may also contribute knowledge that may be relevant in reducing drop-out from secondary vocational schools. Data collection was done by interviewing nine former pupils, all from the same school. Their statements were analyzed by a combination of editing analysis and quantitative content analysis. Firstly, findings show that the informants' scored QoL of a similar level as found in other studies of the general Norwegian population. Presumably the MH is also similar. Secondly, the following aspects of the adapted secondary education are reported to contribute positively to this status: (1) The set of attitudes and relationship-building competence of the staff; (2) the good peer-milieu, and the efforts the staff invested in it; (3) the school's well-organized program for apprenticeship and possibilities of working practically; and (4) the latter plus the modes of teaching which made the pupils achieve a feeling of coping.*

Keywords: *Adapted secondary education, attitudes of staff, feeling of coping, mental health, peer-milieu, program for apprenticeship, quality of life, relationship-building competence.*

Introduction

Ministers of Education in Norway have for years expressed their concern for the great number of pupils who fail to complete their secondary education in proper time. For instance, Kristin Halvorsen (Minister 2009-2013) stated in an interview: “Barely 55 % of those starting on a vocational training program complete it with a vocational document or a certificate of completed apprenticeship.” (Solhaugen, 2013). The heading of the article says that the drop-outs annually cost 7.5 billion NOK. Another Minister (during the 1990ies), and now researcher, Gudmund Hernes suggests 5 billion (Hernes, 2010). There seems to be a link between the drop-out status and later experienced condition of mental health (MH). Lunde (2013: 17) claims: “Young people between 16 and

30 years, who neither have a job nor are involved in educating themselves, experience a poorer health status than their peers. One out of five is referred to a psychologist or psychiatrist, and many of them struggle with different symptoms and pains in their daily lives.” In an editorial to a proposal from the present Minister of Education, Torbjørn Røe Isaksen, the author expresses (Editorial, 2nd Jan. 2015, p. 2): *“The drop-out-problem is a Gordian tangle.”* And he continues: *“When pupils explain why they experience the secondary school like an uphill-walk, loneliness and mental problems are among the most common reasons.”* These statements underpin the claim that there is a connection between the status of education offered at this level and the reported MH of the pupils, and that a high-quality secondary education might be a key-solution both for the individual and society.

The purpose of the study is to look for the impact of adapted vocational training on former pupils' later experienced MH and quality of life (QoL) some years after their completion of secondary education. The first author has been occupied with adapted education for marginalised teenagers since 2002 at a particular secondary school (in the following called VGS), which is run by a temperance society. He was challenged through his own work and his school-management to search for possible durable outcomes of the adapted training. Due to little former Norwegian research the second author challenged him to look for MH and QoL aspects.

From theme to research question

Generally in special needs education there is a lack of longitudinal studies, both in Norway and in the Nordic countries (Dalen 2013). This also concerns direct research of the impact of adapted education on pupils' MH and/or QoL in later life. However, there is some research pointing to the positive effects of having completed vocational training in secondary school for later labor-enrollment (Falch & Nyhus, 2011). Not completing has a negative match with inactivity. Inactivity leads to poorer MH and QoL while to be employed is vital for both good MH and QoL (ibid.). Sikveland (2013: 572) points to negative expectations semi-openly communicated to youth with mental health illnesses in an article entitled: *“18 years and soon a disabled pensioner”*. This vulnerable group is easily forgotten and an outsider in the society, and also kept outside the labor market.

Based on the lack of former studies, and the context of one of the researcher's employment as a teacher in a school practicing a high level of adapted education, and thereby somehow easier access to informants with relevant experiences the following research question was focused on: *Some years after having completed adapted secondary education, (a) how do former*

pupils assess their present status of MH and QoL, and (b) what aspects of the adapted education do they consider to have contributed positively to this status?

Clarification of concepts

In this paragraph we will explain the three key-concepts MH, QoL and adapted education generally and some of its particulars at VGS. Firstly, we look at MH as it is defined by World Health Organization (WHO, 2014):

“Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make contribution to her or his community.”

This definition is complex. To make it easier to grasp we introduced it to the informants by talking of its five sub-points. The individual:

1. Has a state of well-being
2. Is aware of his/her potential
3. Is able to cope with the normal stresses of life
4. Can work productively and fruitfully
5. Is able to make a contribution to her or his community.

By doing so we hoped that the concept validity would be better cared for. It is necessary because MH is a complex concept. WHO (2014) states that it is affected by cultural differences, and in many cases assessed and defined subjectively. Bøe et al., (2015: 169) adds that MH must be comprehended as more than the absence of mental diseases, and something more than an individual phenomenon. It also has to do with the relationship with other people as well as the society.

Secondly, the concept QoL is also hard to define precisely. WHO (1997) defines it like this: *“Quality of life is individuals’ perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.”* We relate to this definition, but also to other professionals’ interpretations of the concept. Researchers have emphasized the experience of meaning as an essential element of high-leveled QoL (Keyes & Haidt, 2003; Gabrielsen, 2009). Gabrielsen (2009) also claims that good things like having one’s own children, a car, nice journeys and even a top career may not necessarily bring meaning to one’s life. Although the economic growth in Norway has doubled during the last 30 years, neither the level of happiness, nor the QoL has increased in the population (Næss et al., 2011). This fact shows, as Keyes (2006) has pointed out, that the concept of QoL has objective elements, relating to from outside parameters like income, level of education, health status, and age of living, but also a subjective element, which refers to the individual’s own perceived measures of what gives

him/her qualities. This means that the individual has a defining power to assign QoL to him-/herself according to what is important. Among subjective elements that are often positively mentioned by Norwegians are happiness, enjoyment of life, smiles, laughter, feeling of freedom and access to social aid when necessary (World Happiness Report 2015: 46). Næss et al., (2011: 18) break WHO's definition of QoL into five sub-points. To attain higher concept validity we introduced these sub-points to the informants in the beginning of the interviews:

- A. To feel fine
- B. To have good emotions
- C. To be satisfied with one's life
- D. To be free from bad emotions
- E. To have access to use one's abilities.

When talking with the informants we also explained that there is an overlap between the five sub-points of the two concepts MH and QoL.

Thirdly, the concept of adapted secondary education needs to be explained. Legally in Norway youths from the age of 16 have a right to three years of secondary education. This right must be utilized before they turn 24 (Act of Education, 1999, § 3-1; § 5-1). If a pupil has a need for special education, he/she has a right to receive it (Act of Education § 5-3). The county is responsible for organizing secondary education as well as adapted special education at this level. Particularly, VGS organizes such adapted special education and recruits pupils with this need, which have various reasons such as general learning disabilities, bullying at school, earlier drop-out-behavior, drug-addiction, inadequate home situations etc. VGS teaches smaller classes with usually 8-10 pupils compared to 15 in ordinary vocational classes at the public secondary schools. VGS complies with the standards of the national curriculum and participates in the same exams as the other secondary schools in the county.

Five out of 18 teachers are trained special needs educators. In addition craftsmen are employed to assist the training of particularly skilled professions. All the employees at VGS receive supervision from an external psychologist. Such external counseling helps the staff to get an outside perspective of their own work, and to analyze it critically in a way that improves the quality. It also benefits also the ways the staff cooperates. VGS has a special office for organizing apprenticeship training. Due to a thorough co-operation with the teachers the staff of this office knows the pupils well. They also know the companies and enterprises of the area, and are able to offer a close follow-up.

VGS has a slogan: A goal for all; all attain that goal. This is concretized: Headed towards a vocational certificate we wish for the pupils that they shall

- attain an improved self-image
- experience a sense of coping
- meet with adults who care

- receive an individually adapted timetable/teaching
- have a sober schooling
- encounter Christian values

In this article the three first sub-aims are considered relevant because they are closely related to the pupils' experienced MH and QoL.

Method

A phenomenological, hermeneutic approach was selected due to the lack of former, systematic knowledge in the field. A qualitative interview was applied. A semi-structured interview guide was used, consisting of four major questions. This article focuses on questions (1) and (4), which states: (1) How do you assess your present status of MH and QoL on a scale from 1 to 10 (10 is the highest score)? And (4) what aspects of the adapted education do you consider to have contributed positively to this status?

We wanted to collect the informants' own descriptions and interpretations of their own experiences (Thagaard, 2013: 13). The guide was tested beforehand by interviewing two former pupils from different adapted classes than the three selected. Minor changes were made, but the test-interviews made the interviewer more conscious about the two main concepts MH and QoL, and prepared him for asking relevant follow-up questions during the real data collection.

As a warm-up for the topic interview the interviewer small talked with the informant about common experiences from the informant's days at VGS. Furthermore, the concepts of MH and QoL were explained by referring to the definitions by WHO, and talked through to attain a basic level of concept validity. The topical interviews varied in duration between 17 and 30 minutes. They were all recorded, all in all 212 minutes. The transcribed text consisted of 47 pages, and was written in formal Norwegian to avoid recognition of informants and VGS's geographical belonging. In addition some informant-statements from the informal smalltalk before and after the recorded part of the interviews were written down, like for instance the informants' personal data. The interviews were conducted between January and April 2015.

The informants were selected among former pupils of VGS. Strategically, pupils from the adapted classes of 2005, 2008 and 2011, a total of 27 pupils were selected. To get an impression of the experiences over some years and to avoid possible biases created by only one particular class these three classes were sampled. The 27 former pupils were contacted by a secretary at VGS. She sent a letter of consent to participate. This letter explained about the research project and its purposes. Six informants promptly replied yes, while three others consented to participate after a reminder. All in all nine former pupils were interviewed, five females and four males. This indicates an even gender

distribution. However, based on the fact that these classes mainly focus on health and social vocational subjects, and that there are generally a male-female ratio 1-4 between pupils, the gender representativeness is biased. The informants' age varied between 21 and 34 years. All, but one, lived in the municipality of the school, or the neighboring municipalities. Six of them were permanently employed, one worked as a substitute every now and then, one was an apprentice and one was examined for the purpose of a pension.

Considering the fact that only nine of 27 former pupils were willing to participate one might wonder what characterizes them compared to those 18 who never replied. There are reasons to believe that the willing informants are among those who have had some form of success in life since it was easy to reach them by postal letters, many of them are permanently employed, and they scored relatively quite high on question (1). If these considerations are right, one must conclude that the findings of this study point out aspects of adapted secondary education that are in particular perceived as relevant for pupils in adapted education that consider themselves quite successful in later life.

Analyses of transcribed material

To gain a structure of the collected data *Systematic Text Condensation* (STC), inspired by Giorgi's phenomenological analysis (1985), modified by Malterud (2011), was applied. This approach is relevant when it comes to analyzing phenomena characterized by limited previous research, and spoken of by informants who are insiders of the investigated field. The aim is to develop new concepts and descriptions (Malterud, 2011). In this study a combination of editing analysis and quantitative content analyses was applied. The former consists of these main-steps (Malterud, 2011: 98-110):

- (1) Identifying significant general impressions. Related to the research question this means to look for expressions that described experiences from the pupil's days at VGS which contributed to his/her MH and QoL.
- (2) Identifying and coding significant units. The following units were established: Aspects related to (a) the staff; (b) the peer milieu of the class; (c) the feeling of safety and relational belonging; (d) the sense of coping; and (e) the period of apprenticeship.
- (3) Condensation. Statements belonging to each unit in (2) were selected and categorized together. During this assessment process one found that statements belonging to unit (c) were much related to staff-behavior. Subsequently this unit was merged with unit (a).
- (4) Summarization. The selected quotes were read in their true contexts one more time to check both the reliability and validity of their

belonging to the classified units. Some statements may, due to their complex content, have been double classified.

The quantitative analysis was applied first to the research question (a), the informants' subjective scaling of the pupils' experienced MH and QoL. Secondly, it was used to count the total number of statements related to research question (b), and to count the quotes belonging to each of the established units in main-step (2) above. All in all 68 statements were identified and categorized.

Ethical considerations

Anonymity of the informants was attended through giving each informant a letter and number code. In the invitation letter to the potential informants it was made clear that participation was voluntary, and that it was possible to withdraw after signing the letter of consent, or any time later during the research process. The recorded conversations were immediately transcribed and thereafter deleted. The transcription was stored on a memory stick and an unlinked computer was used. The research project has been approved by Norwegian Social Science Data Services (NSD).

Findings and discussions

This paragraph is divided in two. Part one presents the informants' scaled status of their experienced MH and QoL respectively. Part two focuses on aspects of how adapted education has contributed positively to these statuses.

(a) How do former pupils assess their present status of their MH and QoL? The subjectively assessed average score of MH for the nine informants was 7.6. Pupils from class 2008 scored quite evenly with an average of 9. The two other classes scored 7.3 (2005) and 6.0 (2011). The differences in average scores between genders was minimal, male 7.5 and female 7.6. Individually among the informants there was a variation between 3 and 10. The person who scored 3 explained that she had experienced a tough week at the time of the interview, while the one scoring 10 declared: *"I am permanently employed, have good friends around me, my own flat, and feel comfortable with what I am doing..."*. These comments show that the scoring depends on the informants' frame of mind and conditions at the time he/she was interviewed. This is in line with Nilsen who claims that most likely a qualitative study will not be completely replicable, deducing the same findings (Nilsen 2012: 141). The differences between the averages of the classes are according to the interviewer partly colored by the pupil in class 2011 scoring only 3, and partly by the spirit of the class 2008 in particular. He remembered this class as marked by its eagerness.

Regarding the scores of QoL they showed a more even distribution than the MH, both class by class and individually, but with slightly more discrepancy for gender, i.e. 8 for men and 7.4 for women. The class 2008 had an average score of 8 while the classes 2005 and 2011 scored 7 and 8 respectively. This gave an average of 7.7 for all the informants. Individually the scores varied between 6 and 9. However, more interesting is the fact that these informants appeared to have a similar average score as found among the general Norwegian population in a big European study (ESS). This study used a scale from 0 to 10 to assess how content people are with their lives. The summarized average in six surveys from 2002 to 2012 is 7.9 (Barstad, 2014: 274). If one considers contentment with life similar to QoL, it is logical to claim that the VGS informants reach the same emotional QoL as the average Norwegian population. Since we presume a considerable overlap between QoL and MH the same most likely applies to MH. The knowledge of the informants' background together with their own descriptive information connected to research question (b) - see below - tell us that the adapted secondary education at VGS may have contributed much to their present contentment with life. If this is so, it is a promising signal about the positive role of both adapted education and the idea of running special schools for marginalized pupils as an investment for better future lives for them as adults. However, one must remember that this was a sample of only nine people, and also that the sample may be biased, probably consisting of the more successful informants from the three selected classes. Nevertheless, there are good reasons to look for what aspects of the adapted education that these nine informants point out as important for both their present MH and QoL.

(b) Aspects of adapted education contributing positively to MH and QoL

Analyzing the informants' statements resulted in four main aspects that we present one by one, combining MH and QoL quotations.

The impact of staff's attitudes and relationship-building competence

All nine informants related to this aspect in a total of 31 statements. This shows that the attitudes and behavior of the staff seemed to have a high impact on the informants' subjectively reported MH and QoL. Typical statements are (concepts underlined by us):

- a) **Attitudes:** *"To be met with such understanding and faith shows that you (the staff) respected us"; "He was very clever in understanding (me)"; "... Class master and other teachers showed that you cared for us"; "You became a friend (with the teachers)", i.e. friendliness; "The key word is patience"; "... Was met by a positive person in the morning", i.e. positivity.*
- b) **Behavior:** *"You were at school not only to teach us, but to be social, as well"; "Was greeted with "Good morning" from everybody";*

“... You used time to talk to us as well”; “He sat down and talked to the pupils to grasp what they meant”; “We were seen both as a class and as an individual”; “It was ok to ask questions without a feeling of being interpreted as silly”; “You helped me extremely much”; “The teachers helped any time whether it was working hours or leisure time, or the issue related to subjects or personal needs”.

The quotations show that there is a link between the attitudes of the staff and the behavior they exposed. They refer to characteristics that commonly apply to the staff as a good manner of practice. In some quotations informants relate to teachers, in others to menial staff, advisors, etc. A reasonable interpretation of this is that the staff jointly abides with the slogan/goal of VGS, one goal for all, and all (should be helped) to attain that goal. Moreover, there are quotations which clearly match with the sub-aims. For example to attain an improved self-image and meet with adults who care are underlined by statements like *“to be met with such understanding and faith shows that you (the staff) respected us”*; and *“Class master and other teachers showed that you cared for us.”* To experience a sense of coping is also emphasized in quotations like *“It was ok to ask questions without a feeling of being interpreted as silly”*; and *“You helped me extremely much.”* Didactically speaking, the “correlation” between the intentional and planned curriculum of VGS, the curriculum exposed by the staff, and the curriculum grasped and spoken of by these nine pupils is quite explicit (cf. Goodlad, 1979). This shows that the VGS’s didactical philosophy penetrates to all the actors of VGS-campus. To reach such accordance within a staff is quite outstanding. However, in many cases this is desirable because it is in the line with research. Studies imply that qualitatively good didactical guidelines permeating both the attitudes and behavior of the school-management, the teachers and other members of the staff, have a protective impact on the pupils’ MH (Nordahl & Manger, 2005: 99). Support from teachers in particular is a significant contributive factor (Helland & Mathiesen, 2009: 50; Federici & Skaalvik 2013: 58).

Quotations like *“...to be met with ... faith”* and *“... you believed I was able to something”* yields support to the research of Rosenthal and Jacobson (1968) about the Pygmalion effect. It claims that pupils’ performance was influenced by teachers’ positive expectations towards them. As stated by Nordahl & Manger, (2011: 99) explicit, concurred and realistic expectations towards pupils’ behavior and coping promote their development and MH. Although the reliability of the Pygmalion-effect is discussed, it is clear that the above quotations add support to the idea. Moreover, this knowledge is also related to the pupils’ social and safety needs (Maslow, 1987). Citations like *“You became a friend with the teachers. You were admitted to the teachers, the same way you admitted them”*; *“You employees were always available”*; and *“I knew that you*

the staff were approachable, irrespective of anything” imply very safe relation and confident terms between the pupils and the staff. This finding is supported by other research. It states that the terms between teachers and pupils are important for the pupils’ learning outcomes, the quality of their emotional development, and how they see the school (Federici & Skaalvik, 2013: 58; Murberg & Bru, 2009).

The danger in such whole day massive availability to the pupils is that it may cause burn-out in the long run. Subsequently, the staff must protect themselves from being invaded by the pupils. VGS care for this challenge by offering the staff periodic counseling by an external psychologist where this theme is handled every now and then. However, this study shows beyond any doubt that the staff’s exertions in form of showing positive attitudes and friendly behavior pay off. The informants are satisfied, and most likely experience improved MH and QoL both during their days at school and in their future life. Such feedback may provide the staff with energy to continuously give the little extra like always greeting the pupils with a friendly “Good morning”, taking time to listen to them and commend both their school progress and social behavior. This study seems to underpin the old slogan that “tiny things make a difference”.

The peer milieu of the class

All nine informants related to this aspect too in a total of 21 statements. This indicates that a high quality peer milieu in the class is vital for promoting good MH and QoL in these pupils’ later life as adults. Table 1 refers to particularly contributing sub aspects with corresponding quotations.

Table 1 Sub-aspects and quotations of peer milieu contributing to pupils’ MH and QoL

Sub-aspects contributing to MH – QoL	Citations
(1) Tiny things in everyday life like <ul style="list-style-type: none"> • Common breakfast, small talk • Having fun and feeling contentment and belonging • Getting friends/developing friendship 	<ul style="list-style-type: none"> • <i>It was very good to be fetched, eating breakfast, talking, a pleasant start of the day</i> • <i>We had breakfast every morning</i> • <i>Contentment meant a lot. We had fun together</i> • <i>Contentment with the peers of your class</i> • <i>Here I got some friends.</i> • <i>I remember particularly two. I was much together with them.</i> • <i>I felt we were good friends all of us.</i> • <i>I still meet with some people from the class.</i>

(2) Special events like the class-trips	<ul style="list-style-type: none"> • <i>Trips. All the journeys were very positive.</i> • <i>The trips made me feel that this is my class</i> • <i>The trips ... made a companionship among us</i> • <i>The trips we made (various destinations mentioned)</i>
(3) The general VGS environment has existential life-changing impact	<ul style="list-style-type: none"> • <i>The school environment was so important to me. It changed my life in a way</i> • <i>I was bullied for ten years before I came here</i> • <i>At this VGS I found myself somehow normal</i>

Primarily, one notices that the tiny everyday things were mentioned as important by many informants. Again this emphasizes the conclusive remark in the paragraph above, the impact of tiny differences. This is in accordance with other researchers' findings. Skatvedt & Schou (2010) write about the potential of the commonplaces, and the beauty of the commonplaces (Skatvedt & Schou, 2008). Topor (2004) emphasizes the impact of the tiny elements of everyday life. The importance of a good peer-milieu also relates to Bøe et al.,'s underlining (2015) that the definition of MH deals also with relationships to other people. Moreover, one may see a connection between point (1) and (3) in table 1, i.e. that the sum of tiny things may cause crucial, existential changes in people's life. For a school like VGS and its staff the reading of such quotations is encouraging. Small, extra, possibly unnoticed, deeds seem to be very important and providing a safe and secure foothold in some pupils' existence. Secondly, the journeys mentioned as point 2 in table 1 are highly appreciated by the pupils and appear to have contributed to healthy per building companionship. The staff gets an expressed proof of how strenuous class-trips with young people pay off. Generally, these findings are supported by other scholars who emphasize the significance of having peers as friends at school (Imsen, 2010: 145; Nordahl & Manger, 2005: 99; Webster-Stratton, 2007: 170).

Period of apprenticeship

Six informants speak of this, in nine statements. The quotations relates to two major experiences. Firstly, about the apprentices' good emotions like: *"To help people, in particular children ..., gives me a feeling of doing something"*; *"I feel it matters for those (clients) that I am present"*; *"...it mattered enormously to me"*; and *"It was a very good period with much contentment"*. Secondly, the significance of supervision is highlighted: *"I received a lot of support..., also by very clever supervisors from the training office"*; *"The*

follow-up I received as an apprentice was very good”; and “I had very good supervision from other colleagues of mine.”

These statements are in accordance with both signals in public white-papers and research. White-paper (St. meld.) no 44 (2008-2009: 32-37) emphasizes the importance of offering young people a complete and continuous training scheme to obtain vocational certificates, not least to those with special needs, as the pupils at VGS. The alternative is often drop-out with a subsequent poorer MH and QoL and probably also various forms of abuse and addiction, cf. the worries of Norwegian Ministers of Education mentioned in the introduction. Lunde (2013: 19) claims that young people outside school, labor or conscription assess their health to be comparatively poorer than that of their peers. The connection between good MH and QoL and being employed is also obvious, cf. the definitions sub-points like: “Can work productively and fruitfully”; “is able to make a contribution to her/his community”; and “to have access to use one’s abilities”. Not least the quotations related to good emotions find their “counterparts” in the QoL-definition, cf. items A to D. The reported experiences with supervision of high quality indicate that VGS here attains its sub-goal that the pupils should “meet with adults who care”. The same seems to apply to the enterprises offering apprenticeships.

Experiences a feeling of coping

This aspect, which is one of the main goals of VGS, was mentioned by four informants, in six statements. Quotations related to a feeling of coping can be grouped in two major categories:

(a) The fact that the pupil had received a visible certificate of accomplishing something, like completing secondary education and/or an apprenticeship, cf. citations like *“This is probably the first issue I have achieved, which is proved by papers”*; and *“I have obtained a certificate of completed apprenticeship, and I find it very satisfactory.”* It is not surprising that to have such a certificate is highly valued by these informants since a certificate and documentation is a gate opener to the labor market in a modern society. Work, in the next turn, means status, something which often has improved and good MH and QoL as its normal outcome. Nordahl & Manger (2005: 99) underlines that *“Abundance of possibilities for pupils to cope is a preventive factor in their lives.”*

(b) The experiences of being verbally praised and boasted of by significant others, cf. quotations like *“They (my colleagues) say that I am very clever”*; and *“At work I feel I accomplish well, there I receive a lot of praise.”* Nordahl &

Manger (2005:215) also emphasizes the importance of giving pupils' positive feedback whenever they accomplish something well.

An illustrative conclusion

There is obviously a link between the four aspects referred to by the informants. To summarize the findings and to illustrate links we have constructed a model consisting of squares, see fig. 1. Square A relates to the educational philosophy and targets of VGS, square B to E to the four aspects mentioned by the informants, cf. research question (b), and square F to the measured outcomes of the educational efforts done by the VGS, related to the subjectively scored MH and QoL, cf. research question (a). F also refers to the average score in surveys of Norwegians' scaled life contentment, as reported by Barstad (2014).

The influence from square A on the squares below is not considered surprising. All serious educational institutions believe to a great extent in management by objectives. The particulars of this study are that it looks at outcomes seldom evaluated in schools: the pupils' subjectively reported level of MH and QoL, and that this is looked at retrospectively. Moreover, they also speak of what parts of the school program that promote these qualities. However, one should be careful with generalizing the results to other samples of secondary school pupils, both because VGS practices special needs education and thereby has extra resources, and because it is based on religious and temperance values. Lastly, the use of a qualitative method means that the study is, in its nature, not generalizable – not least when the number of informants is only nine. Nevertheless, the aspects described as outcomes of the study (frames B to E) are compatible with what scholars point out as essential factors leading to both positive MH and QoL (Bøe & Ulland, 2012, Næss et al., 2011, Nordahl & Manger, 2005).

Regarding the reliability of the informants' descriptions one should remember that informants looking back into the past may have forgotten negative incidences and enlarged positive issues, cf. the slogan "memory idyllizes". We also know that it can be hard to separate events from particular factors. However, figure 1 illustrates interrelationships which ought to be educationally promising: VGS has meant a lot and accomplished much in the nine informants' life regarding their MH and QoL. Concrete elements of the educational approaches have been pointed out as vital for developing good MH and QoL. To go on practicing these elements appears, based on this study, to be promising.

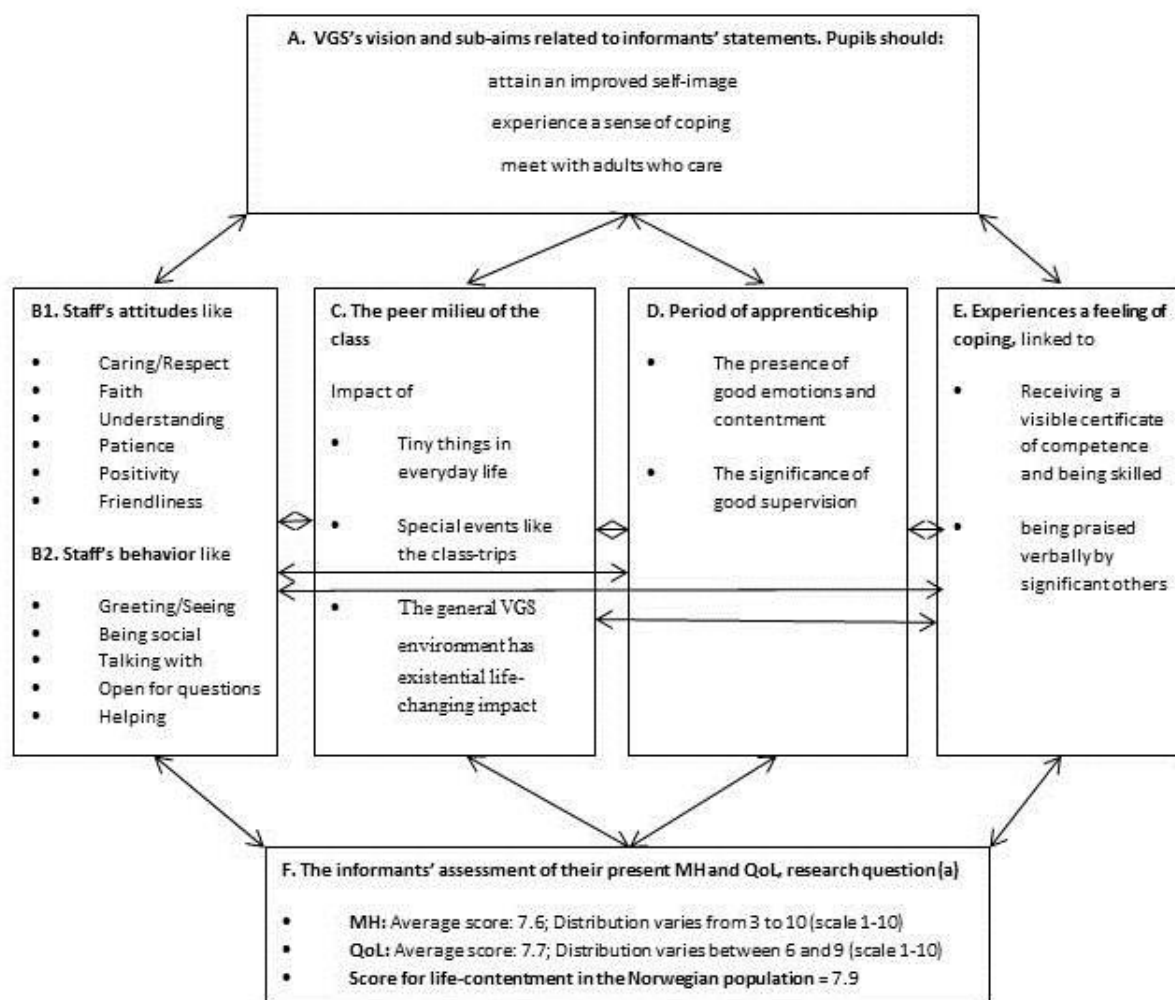


Figure 1 A constructed visualization of the main results of the study. Frame A describes some aims of VGS, the school where the pupils were educated. Frames B to E describe sub-aspects of the school's activities that contributed to the MH and QoL - research question (b). The average scores, cf. research question (a), are related in frame F.

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DISLEKSIJAS, DISPRAKSIJAS UN DISKALKULIJAS MIJSAKARĪBAS SKOLĒNIEM AR MĀCĪŠANĀS TRAUCĒJUMIEM

Correlation among Dyslexia, Dyspraxia and Dyscalculia in Students with Learning Disabilities

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Abstract. *The article is devoted to evaluate the correlation among dyslexia, dyspraxia and dyscalculia in students with learning disabilities. There is a point of view that students with learning disabilities mostly have dyspraxia, but not all of them have dyscalculia or dyslexia. There is a necessity to have theoretical findings and state criteria for evaluation to carry out empirical research. Students with learning disabilities have difficulties in many areas, but it is not possible to assure that all of them meet the same problems.*

Keywords: *dyscalculia, dyslexia, dyspraxia, learning disabilities.*

Ievads

Introduction

Disleksijas un diskalkulijas problēmām tiek pievērsta uzmanība gan zinātniskajos rakstos, gan arī citās publikācijās, tāpat arī par mācīšanās traucējumiem tiek runāts aizvien vairāk. Mazāka uzmanība tiek pievērsta dispraksijas problēmai, un pavisam maz ir tādu pētījumu, kas noteiktu minēto problēmu mijsakarības. Līdz ar to, tiek domāts par empīrisku pētījuma veikšanu Latvijā, lai konstatētu šīs mijsakarības, tomēr vispirms ir jānosaka kritēriji, kas ļautu izvērtēt situāciju un izmēģinājuma pētījumā konstatēt, vai vispār šādas mijsakarības tiek novērotas. Ņemot vērā mācīšanās traucējumu sarežģīto struktūru un dažādo izcelsmi, nepieciešama dziļāka izpratne par dažādo grūtību raksturu, ar ko ikdienā saskaras skolēni ar mācīšanās traucējumiem. Skolotājiem arī nepieciešama izpratne un padoms, kādi atbalsta pasākumi katram skolēnam ir nepieciešami.

Pētījuma mērķis: precizēt un aktualizēt teorētiskās nostādnes par disleksiju, diskalkuliju un dispraksiju un to saikni ar mācīšanās traucējumiem.

Metodes: zinātniskās literatūras analīze un aptauja.

Disleksija, diskalkulija un mācīšanās traucējumi *Dyslexia, dyscalculia and learning disabilities*

Vairāki zinātnieki ir veltījuši savu uzmanību disleksijas pētīšanai un gan grāmatās (Kauliņa, Tūbele, 2012; Tūbele, 2008; Корнев, 2003; Лалаева, 2002; Klicpera et al., 2003; Naegele, Valtin, 2003; Ott, 1997; Shaywitz, 2003; Snowling 2004), gan zinātniskos rakstos (Shastry, 2007; Reid, Shaywitz, 2003; O'Brien et al., 2012) ir pausti viedokļi par diagnostiku, izpausmēm un korekciju. Lielākā daļa disleksijas gadījumu ir cēlonis mācīšanās traucējumiem, kas ir ļoti specifiski un prasa izpratni un nopietnu pieeju no logopēdu un pedagogu puses. Lai arī Latvijā vēl nav konkrētu testu, kas ļautu diagnosticēt disleksiju, logopēdi, izvērtējot mutvārdu runu, lasīšanas grūtības un analizējot šos procesus, var noteikt specifisko lasīšanas traucējumu esamību skolēnam. Vairākas pazīmes, kas iekļaujas izvērtēšanas kritērijos, liecina arī par riska faktoriem pirmsskolas vecumā. Pamata kritēriji ir: mutvārdu runas attīstība kopumā, fonoloģisko procesu attīstība, dzirdes uzmanība un atmiņa, redzes, telpisko un laika priekšstatu attīstība, motorās prasmes (sīkās un lielās muskulatūras darbība), ko nepieciešams precizēt, nosakot konkrētus rādītājus, lai var izvērtēt lasīšanas vai specifisko lasīšanas traucējumu esamību.

Diskalkulijas pētījumi nav tik plaši, arī grāmatas ir mazāk pieejamas, tomēr pētījumu pamatā ir specifiskās grūtības matemātikā skolēniem ar mācīšanās traucējumiem (Лалаева, Гермаковска, 2005; Cappelletti, Price, 2013; Wilson, Dehaene, 2007). Tās raksturo īpašas grūtības saprast un rīkoties ar skaitļiem, risināt aritmētiskas darbības un atcerēties matemātikas jēdzienus un sakarības (Turkington, Harris, 2006). Diskalkulijas diagnostikā izmantojamie testi nav daudziem pieejami, tomēr skolotājiem ir zināmas raksturīgākās grūtības, ar kurām sastopas daži skolēni. Diskalkulijas diagnostiskie kritēriji saistās ar izpratni par matemātiskajiem priekšstatiem, matemātisko darbību apguvi, redzes un telpiskās uztveres attīstību, laika izpratni, kustību attīstību. Jau no šī kritēriju uzskaitījuma redzams, ka vairāki komponenti pārklājas un grūtības var tikai padziļināties.

Mācīšanās traucējumu pētījumi vēršas plašumā arī Latvijā, tomēr vēl nepieciešami konkrēti piedāvājumi skolotājiem šo traucējumu mazināšanā. Izpratne par mācīšanās traucējumiem pilnveidojas, tiek piedāvāti pētījumi par mācīšanās traucējumu neviendabīgajām izpausmēm (Turkington, Harris, 2006; Gorman, 2001; Breuer, Weuffen, 2006), gan par to, kā mazināt mācīšanās traucējumus, izmantojot pētījumus un atziņas neiropsiholoģijā (Gaddes, 1991; Herrmann, 2006; Schachl, 2006; Sousa, 2007; Ахутина, Пылаева, 2008; Полонская, 2007). Plaša izpētes anketa (SASMDU) tika piedāvāta skolotājiem ESF projekta «Atbalsta programmu izstrāde un īstenošana sociālās atstumtības riskam pakļauto jauniešu atbalsta sistēmas izveidei», kurā tika ietvertas dažādu

jautājumu grupas, lai izvērtētu skolēna iespējamās mācīšanās un uzvedības traucējumus (Rašcevska, Martinsone, 2014). Šo anketu gan drīkst izmantot tikai sertificēti skolotāji, bet tā parāda vairākas likumsakarības un ļauj izvērtēt nepieciešamās palīdzības apjomu un saturu. Viena no iegūto datu analīzes atziņām ir tā, ka ir nozīmīga vidēji cieša sakarība starp mācību grūtību raksturojošām trim dimensijām – matemātiku, rakstīšanu un lasīšanu (Rašcevska, Martinsone, 2014). Vienā no anketas sākotnējiem variantiem tika iekļauti arī jautājumi par kustību koordināciju un veiclību, kas varētu būt samērā nozīmīgi, skatot mācīšanās traucējumus plašākā izpratnē. Tomēr, veidojot teorētisko pamatojumu SASMDU anketas izstrādē, netika pilnībā ņemtas vērā dispraksijas izpausmes un tās ietekme uz mācīšanās traucējumiem; runājot par motorikas traucējumiem, vairāk tika akcentētas tikai rokraksta problēmas (Rašcevska, u.c., 2013). Izprotot dispraksijas ietekmi uz mācīšanās traucējumiem, būtu iespēja pilnveidot atbalstu un palīdzību skolēniem, kam tas ir nepieciešams.

Mācīšanās traucējumu spektrs ir plašs un daudzveidīgs, bet skolotāja darbībā tas ne vienmēr tiek ņemts vērā, līdz ar to zaudējot iespēju precizēt un konkretizēt skolēnam nepieciešamo specifisko palīdzību.

Dispraksija un mācīšanās traucējumi *Dyspraxia and learning disabilities*

Izpratne par dispraksiju Latvijā veidojas lēni; tiek izmantots jēdziens *apraksija*, ar ko apzīmē nespēju veikt mērķtiecīgas, ierastas kustības vai darbības galvas smadzeņu garozas bojājuma dēļ; lai gan nav paralīzes un parēzes, tomēr traucējums ir kustību akta organizācijā; nespēja mērķtiecīgi darboties, lai gan locekļus cilvēks var kustināt un tajos nav jušanas traucējumu; ir saglabāti kustību veidojošie elementi (Lūse, u.c., 2012); *verbālā apraksija* vairāk saistīta ar nespēju izdarīt precīzas, mērķtiecīgas, koordinētas artikulācijas kustības, kas padara runu nesaprotamu, kaut arī nav redzamu nervu vai muskuļu bojājumu. Ņemot vērā zinātnieku izteikumus par dispraksiju (Kirby, Sugden, 2007; Gibbs et al., 2006; Langham, 2015), to var definēt kā daļēju mērķtiecīgu, koordinētu kustību un darbību traucējumu; ar to apzīmē virkni dažādu stāvokļu, kam ir raksturīgas grūtības izpildīt iemācītus kustību paraugus vai koordinācijas grūtības bez jeb kāda muskuļu vai nervu bojājuma. Daži pētnieki apgalvo, ka dispraksijas simptomi pārklājas ar citiem attīstības traucējumu sindromiem, kas ir ne tikai disleksija un diskalkulija, bet arī ar uzmanības deficīta sindromu (UDS), uzmanības deficīta un hiperaktivitātes sindromu (UDHS) un Aspergera sindromu (Cowen, 2010). Vairāki simptomi ir kopīgi, bet tas atkal nenozīmē ka visiem skolēniem ir visas problēmas vienlaikus. Dispraksijas izvērtēšanas kritēriju pamatā ir kustību koordinācijas un veiclības proves, kas saistītas gan ar

sīko muskuļu, gan lielās muskulatūras kustībām, rokraksta izvērtējums, novērotās grūtības lasīšanas, rakstīšanas un matemātikas apgūvē.

Tā kā jau A. Lurija apgalvoja, ka augstākās psihiskās funkcijas kā sarežģītas funkcionālās sistēmas nevar būt lokalizētas šaurās galvas smadzeņu garozas zonās, bet tās ir dažādos smadzeņu laukos un reizēm pat tālu viena no otras (Лурья, 2008), tad tas nosaka iespējamību, ka bērnam var būt tikai viens no deficītiem (lasīšanas, kustību vai matemātikas). Tomēr starp šiem laukiem ir funkcionāla saikne un veidojas vienota funkcionālā sistēma (Леонтьев, 2001; Выготский, 2005). Īpaši tas sakāms par kustību veidošanos un to organizāciju, ko ir pētījis N. Bernšteins (Бернштейн, 1990; 1991) un definējis smadzeņu funkciju plastiskumu, vairāk akcentējot kustību sistēmas dinamisko lokalizāciju. Daudz tiek runāts arī par neuroplasticitāti, kas ļauj smadzenēm, īpaši bērna vecumā, pielāgoties jaunām situācijām, paaugstināt funkcionalitāti, neskatoties uz kādu zonu nepietiekamu aktivitāti. Ņemot vērā šīs atziņas, skolotāju darbību ir iespējams padarīt efektīvāku, izmantojot neirozinātņu sasniegumus (Sousa, 2007; Ахутина, Пылаева, 2008; Полонская, 2007). Raksta ierobežotā apjoma dēļ, iespējamā palīdzība un atbalsta pasākumi tiks piedāvāti citā rakstā.

Empīriskā pētījuma rezultāti *The results of empirical research*

Tika veikts neliels pētījums, lai izvērtētu nepieciešamību veikt plašāku pētījumu un izveidot zinātniski pamatotu anketu. Tā mērķis noskaidrot, vai disleksijas, diskalkulijas un dispraksijas saikne tiek novērota skolēniem ar mācīšanās traucējumiem. Aptaujā piedalījās 9 skolotāji, kas strādā ar skolēniem, kam ir diagnosticēti mācīšanās traucējumi. Sākotnēji visi uzskatīja, ka skolēniem ir grūtības gan latviešu valodā, gan matemātikā, bet turpinot aptauju ar specifiskiem jautājumiem, izrādījās, ka dažiem skolēniem grūtības ir tikai vienā no šiem mācību priekšmetiem. Kustību traucējumus skolotāji praktiski nebija pamanījuši, bet jautājot, vai skolēnam nenovēro neveiklību, sliktu rokrakstu un citas kustību koordinācijas problēmu pazīmes, izrādījās, ka tomēr to novēro praktiski visiem skolēniem ar mācīšanās traucējumiem (sk. 1. tabulu).

Šādu mācīšanās traucējumu izpausmju struktūru sniedza skolotāji savā interpretācijā, jo oficiāli minētajiem skolēniem ir diagnosticēti mācīšanās traucējumi, bez sīkāka grūtību skaidrojuma. Tabulā uzskatāmi redzams, ka tikai dispraksija netiek novērota nevienam skolēnam ar mācīšanās traucējumiem un specifiski matemātikas apgūves traucējumi (diskalkulija) ir tikai vienam skolēnam. Nedaudz vairāk (6) ir to skolēnu, kam skolotāji atzīmē tikai specifiskus lasīšanas traucējumus (disleksiju), kas arī netiek saistīti ne ar disklakuliju, ne ar dispraksiju. Sākotnēji ailē, kurā bija jāatzīmē to skolēnu skaits, kam kombinējas grūtības gan lasītprasmes apgūvē, gan matemātikā, tika

ierakstīti visi atlikušie skolēni. Tikai pēc atsevišķiem jautājumiem par kustību koordināciju, neveiklību, sliktu rokrakstu un citām pazīmēm, skolotāji pārvietoja vairākus skolēnus uz pēdējo ailīti, kurā varētu domāt par visu trīs problēmu (disleksija, diskalkulija un dispraksija) kombināciju. Līdz ar to 66 skolēniem no 108 (tas ir vairāk, nekā pusei) vērojami kustību koordinācijas traucējumi līdzās citām mācīšanās traucējumu pazīmēm. Tas saskan ar atsevišķu zinātnieku apgalvojumiem, ka praktiski visiem skolēniem ar mācīšanās traucējumiem ir kustību koordinācijas traucējumi. Skolotāju atbildes liecina par to, ka ne visiem skolēniem novēro pilnu dažādo problēmu komplektu. Būtu interesanti uzzināt, kā šie skolēni izjūt savu neveiklumu, kā tas ietekmē viņu statusu vienaudžu grupā, līdzdalību dažādos pasākumos (stafetēs, grupu darbībā u.c.).

1.tab. Disleksijas, diskalkulijas un dispraksijas mīksakarības skolēniem ar mācīšanās traucējumiem

Table 1 Correlation among dyslexia, dyscalculia and dyspraxia in students with learning disabilities

Skolotājs	Kopējais skolēnu skaits	Disleksijas izpausmes	Diskalkulijas izpausmes	Dispraksijas izpausmes	Disleksijas un diskalkulijas izpausmes	Disleksijas un dispraksijas izpausmes	Diskalkulijas un dispraksijas izpausmes	Disleksijas, diskalkulijas un dispraksijas izpausmes
A1	9	1	-	-	4	-	-	4
B2	13	1	-	-	4	-	-	8
C3	15	2	-	-	5	-	-	8
D4	8	-	-	-	2	-	-	6
E5	12	-	1	-	3	-	-	8
F6	16	1	-	-	4	-	-	11
G7	9	-	-	-	3	-	-	6
H8	12	-	-	-	5	-	-	7
J9	14	1	-	-	5	-	-	8
	108	6	1	0	35	0	0	66

Vēl skolotāji atzīmē, ka ir samērā liels to skolēnu skaits, kam ir nozīmēts pedagoģiskais atbalsts, bet nav oficiāli atzīts pedagoģiski medicīniskās komisijas slēdziens – mācīšanās traucējumi. Tie šajā pētījumā netika iekļauti, bet būtu nepieciešama arī viņu grūtību analīze.

Šīs aptaujas rezultāti ir precizējami ar zinātniski pamatotas anketas izmantošanu, bet mīksakarības ir vērojamas un plašāks pētījums Latvijā būtu nepieciešams.

Secinājumi **Conclusions**

Zinātniskajā literatūrā un pētījumos konstatētās sakarības ļauj apgalvot, ka mācīšanās traucējumu neirobioloģiskā izcelsme nosaka dažādu problēmu klātbūtni skolēniem ar mācīšanās traucējumiem. Tā kā disleksijas, diskalkulijas un dispraksijas gadījumos funkcionālie centri galvas smadzenēs ir izvietoti dažādos smadzeņu garozas laukos, tad iespējams, ka vienam un tam pašam skolēnam var būt tikai viena no minētajām problēmām.

Izmēģinājuma pētījums parādīja, ka tiek novērotas arī dažādas problēmu kombinācijas, tomēr ir nepieciešami plašāki pētījumi, kas ļautu definēt situāciju Latvijā. Tas dotu iespēju precīzāk prognozēt un noteikt palīdzības iespējas un atbalstu skolēniem ar mācīšanās traucējumiem.

Teorētiskā pētījuma rezultātā tiek konstatēts, ka kritēriju grupās, kas būtu jāizvērtē skolēniem ar mācīšanās traucējumiem, noteikti ir iekļaujami jautājumi par kustību koordināciju – gan sīkās muskulatūras, gan lielās muskulatūras darbībā.

Tas attiecas arī uz akadēmiskajām prasmēm, kas skar vairākas galvenās jomas – lasīšanu, rakstīšanu un matemātiku – kur izvērtējums skatāms plašāk, iekļaujot specifiskus jautājumus par pašizjūtu, piedzīvojot neveiksmes.



Raksts tapis Valsts pētījumu programmas (VPP) “Inovātivi risinājumi sociālajā telerehabilitācijā Latvijas skolās iekļaujošās izglītības kontekstā INOSCTEREHI”

Summary

The article is devoted to evaluate the correlation among dyslexia, dyspraxia and dyscalculia in students with learning disabilities. There is a point of view that students with learning disabilities mostly have dyspraxia, but not all of them have dyscalculia or dyslexia. There is a necessity to have theoretical findings and state criteria for evaluation to carry out empirical research. Students with learning disabilities have difficulties in many areas, but it is not possible to assure that all of them meet the same problems. Taking into account the complex structure and different origin of the learning disabilities deeper understanding of the nature of difficulties faced daily by the students is needed. Understanding and advice is necessary also for teachers, what support measures every student needs.

Goal of the research: to precise and actualise the theoretical findings about dyslexia, dyscalculia and dyspraxia and to state what is the correlation among them and learning disabilities.

Methods: analysis of the scientific literature and survey.

Many scientists have devoted their research about dyslexia in books (Kauliņa, Tūbele, 2012; Tūbele, 2008; Корнев, 2003; Лалаева, 2002; Klicpera et al., 2003; Naegele, Valtin, 2003; Ott, 1997; Shaywitz, 2003; Snowling 2004) and in articles (Shastry, 2007; Reid,

Shaywitz, 2003; O'Brien et al, 2012) and dealt with diagnostics, symptoms and intervention. Most of the cases of dyslexia are as the cause of specific learning disabilities and understanding of speech therapists and teachers is needed.

Research about dyscalculia is not so wide, but researchers find these specific arithmetic difficulties as the cause of learning disabilities (Лалаева, Гермаковска, 2005; Cappelletti, Price, 2013; Wilson, Dehaene, 2007). This is characterised by specific difficulties to calculate, perform arithmetic actions, to remember mathematic issues and relevance (Turkington, Harris, 2006).

Understanding about learning disabilities is growing, there are researches about heterogeneous manifestations of learning disabilities (Turkington, Harris, 2006; Gorman, 2001; Breuer, Weuffen, 2006) and possibilities to diminish learning disabilities using neuropsychological approach (Gaddes, 1991; Herrmann, 2006; Schachl, 2006; Sousa, 2007; Ахутина, Пылаева, 2008; Полонская, 2007).

Taking into account point of view about dyspraxia (Kirby, Sugden, 2007; Gibbs et al., 2006; Langham, 2015), we can define it as partial disorder of purposeful, coordinated movement and disorder of action; it is used to indicate on status, when it is hard to perform learned movements or there are difficulties of coordination without the damage of muscles or nerves. This statement is very important to avoid speaking about such problems as Cerebral palsy or similar. Some authors define the overlapping symptoms, which are correlated not only with dyslexia or dyscalculia, but also attention deficit syndrome (ADS), attention deficite and hyperactivity syndrome (ADHS) and Asperger's syndrome (Cowen, 2010).

Most of psychic functions as complicated functional systems are located in different brain areas (Лурия, 2008) and it is possible that a child has only one of deficits (mathematic, reading, movement), but there is a functional connection between these fields and one functional system is formed (Леонтьев, 2001; Выготский, 2005). Especially it is in the development of movements (Бернштейн, 1990; 1991). This must be said also about the neuroplasticity and it would be great to take it into account in intervention tasks and activities (Sousa, 2007; Ахутина, Пылаева, 2008; Полонская, 2007).

Small empirical research was carried out to find the correlations among dyslexia, dyscalculia and dyspraxia in students with learning disabilities. Nine teachers working with students with diagnosed learning disabilities participated in survey. At the beginning all teachers considered that there are difficulties in Latvian and Mathematics, but continuing the survey with specific questions it turned out that some students have difficulties only in one subject. Motor problems were not mentioned, but after the questions about clumsiness, bad hand-writing and other motor coordination problems, teachers said, that it is obvious almost in all students with learning disabilities. After evaluating all students, 66 from total 108 (it is more than a half) had difficulties in all areas reading, mathematics and movements, this means – they have motor coordination problems alongside other features of learning disabilities.

Conclusions. Neurobiological origin of learning disabilities define the presence of different problems in these students. Due to the location of functional systems of dyslexia, dyscalculia and dyspraxia in the brain, it is possible that one student has only one of mentioned problems.

Pilot study revealed the possibility of various combinations, but wider research is needed to define the situation in Latvia. It would give the opportunity to specify the support measures for students with learning disabilities.

Groups of evaluation criteria would include the questions about motor coordination both fine and gross motor skills.

This refers also on academic skills in main areas – reading, writing and mathematics – where evaluation must be wider including specific questions about self-evaluation and self-confidence when experiencing failure.

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SPĒLE – PIRMSSKOLAS VECUMA BĒRNU FONEMĀTISKĀS UZTVERES SEKMĒTĀJA

Game as Facilitator in Development of Phonological Perception for Preschool Children

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Abstract. *Language is the highest form of communication, it's given only to people and it is very important for children's psychological development. In 5 – 6 years most of the children all native language's sounds pronounce correctly, phonological perception is formed, however, not all children have reached an appropriate level of development, therefore compulsory preparatory school program of language acquisition in children creates an aversion to learning.*

Disorders of fonological perception are very complicated and require a lot of serious and patient work in the intervention.

In 5 – 6 years of age, children are active, open, spontaneous, curious and very persistent. At this age closest activities for children are plays and games and in these activities they acquires their own life experience.

Keywords: *games, phonological perception, plays, preschool, promote.*

Ievads

Introduction

Valoda ir primārais sazināšanās veids un tā dota tikai cilvēkiem, tomēr, valoda nav iedzimta, tāpat kā viss pārējais tā bērnam jāapgūst relatīvi neilgā laika posmā. Bērnu runas un valodas attīstību ietekmē daudz faktoru: fiziskā, sociālā, emocionālā, kognitīvā attīstība, kā arī konkrētās valsts nacionālās īpatnības un sabiedrībā valdošie uzskati un principi. Valoda pilda vispārinošo, regulējošo un komunikatīvo funkciju, līdz ar to tai ir ļoti liela nozīme bērnu psiholoģiskajā attīstībā.

Visā pasaulē, tai skaitā arī Latvijā, strauji palielinās to bērnu skaits, kuriem ir runas un valodas traucējumi. Šo apgalvojumu apstiprina Valsts statistikas pārskats „Par bērnu veselības stāvokli” bērnu profilaktisko apskaušu rezultāti (3 – 14 gadi) – 2013. gadā 11192 bērni ar valodas traucējumiem, bet 2014. gadā

11414 bērni (Veselības ekonomikas centrs, 2015.) Ar katru gadu, traucējumu struktūra kļūst sarežģītāka un komplicētāka.

Valsts Izglītības Satura Centra mājas lapā ([http:// www.visc.gov.lv](http://www.visc.gov.lv)) ievietoti materiāli: *Metodiskie ieteikumi par bērna sasniegumu vērtēšanu pirmsskolā* (Valsts izglītības satura centrs, 2011) un *Bērns sešu gadu vecumā: no rotaļām līdz mācībām* (Valsts izglītības satura centrs, 2011) kuros norādīts, ka bērnam līdz skolas vecumam jāapgūst prasme sadarboties, runāt, prasme klausīties, saklausīt dažādas skaņas runā un dabas pasaulē. Prasme sadarboties, sazināties un saprast cita teikto ir nozīmīga, lai bērns varētu iekļauties mācību procesā, apgūt jaunas zināšanas, paust savu attieksmi pret notiekošo, kā arī spētu pastāstīt par to. Visas šīs darbības vistiešākā mērā ietekmē runas un valodas attīstību. „Viena no būtiskākajām prasmēm, ko mācās sešus gadus vecs bērns, ir vārdu un īsu tekstu (4 – 7 teikumi) lasīšana. Bērns mācās arī rakstīt burtus, vārdus un īsus tekstus (2 – 4 teikumi) (Valsts izglītības satura centrs, 2011). Tas nozīmē, ka bērnam aizejot uz skolu ir jābūt iemaņām rakstītprasmē un lasītprasmē, un, svarīgākais priekšnoteikums šo prasmju attīstīšanā ir bērna fonemātiskās uztveres attīstības līmenis, kas būtiski ietekmē bērna sekmīgu mācību procesu skolā. T. Aleksandrova atzīmē, ka bērni ar nepietiekami attīstītu fonemātisko uztveri nav gatavi kvalitatīvi apgūt skolas programmu (Александрова, 2005).

Rakstā teorētiski apskatītas un analizētas spēļu izmantošanas iespējas fonemātiskās uztveres pilnveidei 5 – 6 gadīgiem bērniem.

Pētījuma mērķis. Teorētiski un praktiski analizēt, izvērtēt un aktualizēt spēļu nozīmi vecākā pirmsskolas vecuma bērnu fonemātiskās uztveres sekmēšanā.

Pētīšanas metodes. Teorētiskā – zinātniskās literatūras un avotu analīze, empīriskā – bērnu logopēdiskā izpēte (akcentējot fonemātiskās uztveres pārbaudi), novērošana, praktiskā darbība ar bērniem.

Fonemātiskās uztveres nozīmīgums runas un valodas attīstībā *Importance of fonological perception in speech and language development*

Bērniība ir īpašs periods, kuram piemīt savdabīgas darbības, vērtības, jūtas, domāšana un valoda. Agrā bērniībā, kad bērns tikai uzsācis runas apguvi, viens no svarīgākajiem uzdevumiem ir dzirdes un runas attīstīšana. Dzirdes uzmanība ir spēja reaģēt un koncentrēties uz dažādiem apkārtējās pasaules trokšņiem un skaņām, spēja izšķirt, no kuras puses tās skan. Paplašinoties pieredzei, tā ir spēja izšķirt skaņu un trokšņu avotus (Šēnveilērs & Ptoks, 2000). Pie apkārtējās pasaules skaņām pieder arī cilvēka runa. Izdzirdot cilvēka runu, bērns ar normāli attīstītu dzirdes uzmanību pievēršas runātājam un koncentrējas uz runas saturu. Tieši runas dzirde nodrošina spēju – no visām apkārtējām skaņām un trokšņiem

atšķirt cilvēka runu, kā arī uztvert un saprast runātā jēgu. Dzirdes uzmanība un runas dzirdes attīstība ir cieši saistītas ar fonemātiskās uztveres attīstību.

Fonemātiskās dzirde attīstās reizē ar valodu un runu, tās savā starpā ir cieši saistītas. Fonemātiskā dzirde, vēlāk arī fonemātiskā uztvere veidojas un attīstās pirmsskolas vecumā, kad visstraujāk attīstās pareiza runa un skaņu izruna (Tūbele, 2008). V. Kalniņa un Dz. Skrube norāda, ka bērnam attīstoties, pakāpeniski attīstās viņa dzirdes uzmanība, runas skaņu un trokšņu uztvere. Dzirdes galvenie komponenti attīstās nevienmērīgi, līdz ar ko, sākumā uzmanība jāpievērš dzirdes uzmanības attīstīšanai. Jau pirmajos dzīves mēnešos bērns spēj atšķirt balsis intonācijas un tembrus (Kalniņa & Skrube, 1983).

Vecākais pirmsskolas vecums tiek noteikts kā optimālais vecums fonemātiskās uztveres apguvei un skaņu apguves attīstībai. Šajā vecumā lielākā daļa bērnu visas dzimtās valodas skaņas izrunā pareizi, arī fonemātiskā uztvere ir izveidojusies, tomēr ne visiem bērniem tā ir sasniegusi atbilstīgu attīstības līmeni. No nepilnvērtīgas runas attīstības cieš visi bērna psihiskie procesi – atmiņa, uzmanība, kustību koordinācija zaudē precizitāti, palēninās darba temps un spējas (Tūbele, 2002).

Latviešu valodā dažas skaņas runas plūdumā izmaina savu skanējumu un fonemātiskā uztvere palīdz skaņas atpazīt dažādās pozīcijās un variācijās. Pilnvērtīgi attīstīta fonemātiskā uztvere ir svarīga bērna runas un valodas attīstībā. Pamatojoties uz pilnvērtīgi attīstītu fonemātisko uztveri, bērns bez raizēm spēs pilnvērtīgi iesaistīties mācību procesā. S. Tūbele atzīmē, ka, ja fonemātiskā uztvere nav izveidojusies vai tā nav pietiekami attīstījusies, bērnam sākas grūtības burtu apgūvē. Bērnam jūk burti, kas apzīmē līdzīgi skanošas skaņas (Tūbele, 2008).

Fonemātiskās uztveres traucējumi ir komplicēts traucējums un koriģējoši attīstošais darbs prasa nopietnu un pacietīgu darbu. Fonemātiskās uztveres mazattīstības gadījumā it īpaši apgrūtināta ir to skaņu diferencēšana, kuru artikulācija un akustiskās iezīmes ir tuvas, proti, bērns jauc balsīgos un nebalsīgos, cietos un mīkstos līdzskaņus, svelpeņus un šņāceņus, garos un īsos patskaņus (Miltiņa & Pastare, 1995). Bērniem fonemātiskā uztvere veidojas pamazām runas attīstības procesā (Правдина, 1973). Bērniem ar fonemātiskās uztveres mazattīstību obligātās sagatavošanas skolai programmas prasības valodas apgūvē ir pārāk straujas, nepieciešamām prasmēm pārsātinātas, līdz ar ko, rada nepatiku pret mācību procesu.

5 – 6 gadu vecumā pirmsskolas izglītības iestāde īsteno obligāto sagatavošanas skolai programmu. Šajā vecumā bērni sāk mācīties lasīt un rakstīt, un šo procesu sekmīgas apguves svarīgākais priekšnosacījums ir pilnvērtīga runas un valodas attīstība, un viens no būtiskākajiem pareizas runas attīstības priekšnoteikumiem ir fonemātiskās uztveres attīstība.

Spēles būtība un tās loma fonemātiskās uztveres pilnveidošanas procesā *The content and the role of game/play in the improvement process of fonological perception*

Pirmsskolas vecumā bērni ir aktīvi, atklāti, spontāni, zinātkāri un ļoti neatlaidīgi, šajā vecumā bērns pieredzi iegūst dažādās aktivitātēs no kurām vistuvākās viņam ir rotaļas un spēles. Bērniības pavadonis ir rotaļa. Bērns un rotaļa ir saistīti, jo tā bērniībā rada prieku, enerģiju, kā arī attīsta viņu (Elisone & Greja, 1996). Rotaļājoties, klausoties pieaugušo runā un iepazīstot apkārtējo pasauli, bērns, pamatojoties uz atdarināšanas principu, apgūst un pilnveido vārdu krājumu un veido aktīvo runu. Spēle pilda svarīgu lomu bērnu sociālajā un psihiskajā attīstībā. Spēle stiprina ne tikai bērnu garīgo un fizisko attīstību, tā māca bērniem riskēt, uzdrīkstēties, risināt problēmas, veicina iztēli, radošumu un neatkarību.

Bērniem spēlēties ir tikpat dabīgi kā elpot. Tā ir universāla bērnu izpausme, kura ļauj pārvarēt tautību, valodu un citu kultūras aspektu atšķirību (Drewes, 2010). Spēle ir pakāpeniska un savdabīga pāreja no rotaļu darbības uz mācību darbību, kas sevī ietver jaunus un interesantus elementus un risinājumus. Par spēles nozīmīgumu bērnu attīstībā runā pedagogi, psihologi, filozofi.

Frīdrihs Šillers norāda, ka cilvēks attīstās caur spēli (Schiller, 1794).

Frīdrihs Frēbels saka, ka spēle ir bērna attīstības augstākā fāze, jo šajā cilvēka attīstības periodā spēle pārstāv bērna iekšējo vajadzību un stimulus (Froebel, 1887, 54).

Vārds „spēle” nav zinātnisks jēdziens, precīzāk – tas nav zinātniski pietiekami pamatots.

Jau pagājušajā gadsimtā dažādu zinātnes nozaru pārstāvji ir centušies izpētīt, noteikt un aprakstīt jēdziens „spēle”, tomēr atzinuši, ka precīzs skaidrojums terminam „spēle” nav iespējams. O. Duns norāda, ka spēle ir rotaļa ar noteikumiem, kuri nosaka spēles sākumu un spēles beigas, kā arī nosaka, vai spēles gaita būs mainīga. Spēles paredzamība atvieglo tās uztveršanu un saprašanu, jo bērns zina, kas to sagaida (Dunn, 1991).

Spēle – ar īpašiem paņēmieniem un noteikumiem saistīta radoša nodarbe, kurai ir attīstošs un izklaidējošs raksturs (Skujiņa, u.c., 2000, 162).

Spēle – nemateriāla darbība ar apmācošu, izklaidējošu saturu, kurai piemīt attīstošs raksturs. Spēle ir intelektuāli virzīta, tai nepieciešama zināma sagatavotības pakāpe (Golubina, 2007).

Spēle – viena no svarīgākajām dzīves parādībām, vienlaikus bezjēdzīga un nepieciešama (Рубинштейн, 1999).

Spēle ir svarīga sastāvdaļa bērna attīstībā. Darbošanās spēles laikā nodrošina bērna fizisko, intelektuālo, emocionālo un sociālo attīstību. Katru reizi bērns iesaistās darbībā tiek stimulētas smadzeņu nervu šūnas. Spēlēšanās

process vecina bērna smalkās un lielā motorikas, valodas un runas attīstību, klausīšanās prasmi un uzmanību, izpratni, emocionālo labsajūtu, radošumu, vērš bērna uzmanību problēmu atrisināšanai. Ar spēles palīdzību, praktizējoties dažādās, atkārtotojās darbībās bērni mācās apgūt savu vidi.

Spēle – ar īpašiem noteikumiem, paņēmieniem saistīta nodarbība, noteiktu darbību kopums, ar kuru cenšas sasniegt vēlamu rezultātu. Rezultātu sasniegšanai tiek izmantotas konkrētas zināšanas, prasmes vai apstākļu sakritības. Valodas mācību procesā spēli izmanto valodas, runas un radošo spēju attīstībai (Skujiņa, u.c., 2011, 84).

Ir daudzas vienkāršas spēles kuras var spēlēt un netiešā veidā attīstīt runu un valodu. Tās var spēlēt automašīnā braucot uz bērnudārzu, kad esat parkā, vai lielveikalā. Lai attīstītu un pilnveidotu runas un valodas prasmes nav nepieciešama speciāli iekārtota vide. Bērnam ir nepieciešama mīloša un saprotoša sabiedrība, kurai ir skaidra un pareiza valoda. Ļ. Vigotskis norāda, ka pirmsskolas vecumā rodas īpašas vajadzības un stimuli un šie stimuli tiek spontāni izteikti spēlē (Vygotsky, 1966).

1.tab. **Bērnu fonemātiskās uztveres pārbaudes kritēriji un rādītāji**

Table 1 Testing criteria and indicators of phonematic perception in children

Kritēriji	Rādītāji
Fonemātiskie priekšstati	1. Zilbju rindu atkārtošana
	2. Nosaukt vārdu ar konkrētu skaņu
	3. Akustiski līdzīgi skanošo vārdu nosaukšana
	4. Nosaukt vārdus ar konkrētu skaņu skaitu
Fonemātiskā analīze	1. Vārdu dalīšana zilbēs
	2. Īso un garo patskaņu atšķiršana
	3. Pirmās un pēdējās skaņas izdalīšana
	4. Skaņu secības noteikšana vārdā
Fonemātiskā sintēze	1. Skaņu sapludināšana zilbē
	2. Zilbju sapludināšana vārdā
	3. Salikteņu veidošana
	4. Vispārinājumu nosaukšana

Vērtējuma līmeņi:

- 4 balles – uzdevumu veic patstāvīgi;
- 3 balles – uzdevumu veic ar palīdzību;
- 2 balles – uzdevumu veic ar grūtībām;
- 1 balle – uzdevumu nespēj veikt.

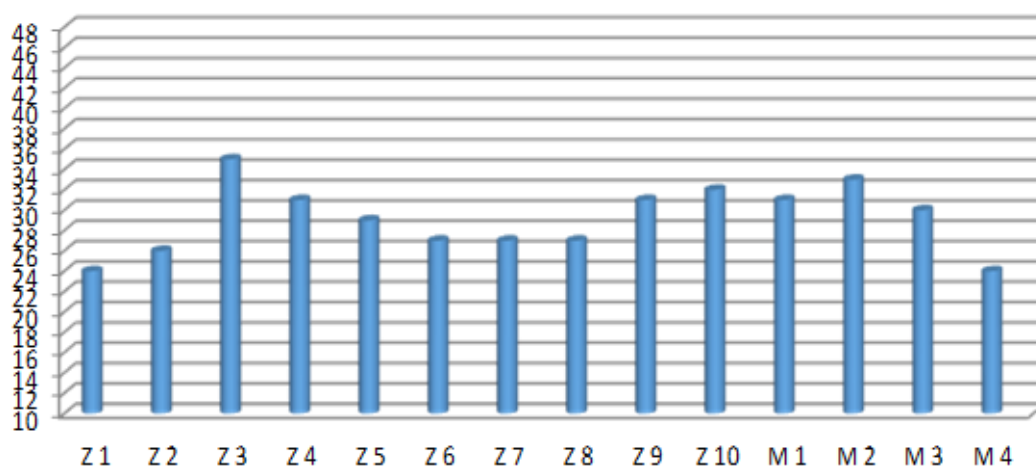
Vērtējuma rādītāji:

- 45 – 48 punkti par visiem uzdevumiem – fonemātiskās uztveres traucējumi nav konstatēti;
- 37 – 44 punkti – fonemātisko traucējumu viegla pakāpe;
- 27 – 36 punkti – fonemātisko traucējumu vidēji smaga pakāpe;
- 26 punkti – fonemātisko traucējumu smaga pakāpe.

Lai uzsāktu koriģējoši attīstošo darbību, tika veikta bērnu fonemātiskās uztveres attīstības pārbaude, noteikti fonemātiskās uztveres pārbaudes kritēriji un rādītāji, noteikti vērtējuma līmeņi un izskaidroti vērtējuma rādītāji (tabula 1).

Pētījumā tika iesaistīti X iestādes četrpadsmit 5 – 6 gadīgie bērni ar fonētiski fonemātiskiem traucējumiem. Pētījuma laikā koriģējoši attīstošā darbība tika īstenota trīs virzienos – fonemātisko priekšstatu, fonemātiskās analīzes un sintēzes sekmēšanai. Praktiskā darbībā tika pārbaudīta spēles ietekme uz bērnu fonemātiskās uztveres attīstību.

Uzsākot fonemātiskās uztveres attīstoši koriģējošo procesu pēc pētījuma autoru izstrādātajiem kritērijiem, tika apzināta un noteikta bērnu fonemātiskās uztveres traucējumu smaguma pakāpe, skatīt 1. attēlu.



1.attēls. **Bērnu fonemātiskās uztveres attīstības līmenis 2015.gada septembrī**
Figure 1 Development of phonematic perception in children in September 2015

1. attēlā uzskatāmi atspoguļots pētījumā iesaistīto bērnu fonemātiskās uztveres attīstības līmenis 2015. gada septembrī. Sākotnējās fonemātiskās uztveres pārbaudes rezultāti parāda, ka 4 bērniem fonemātiskās uztveres traucējumi atbilst smagai traucējumu pakāpei, 10 bērniem fonemātiskās uztveres traucējumi atbilst vidēji smagai traucējumu pakāpei.

Lai īstenotu pētījuma mērķi, tika piemeklētas 18 spēles fonemātiskās uztveres sekmēšanai, skatīt 2. tabulu. Raksta apjoma dēļ spēļu apraksti nav iekļauti darbā. Spēles tika izveidotas pakāpeniskā, pieaugošā grūtības secībā.

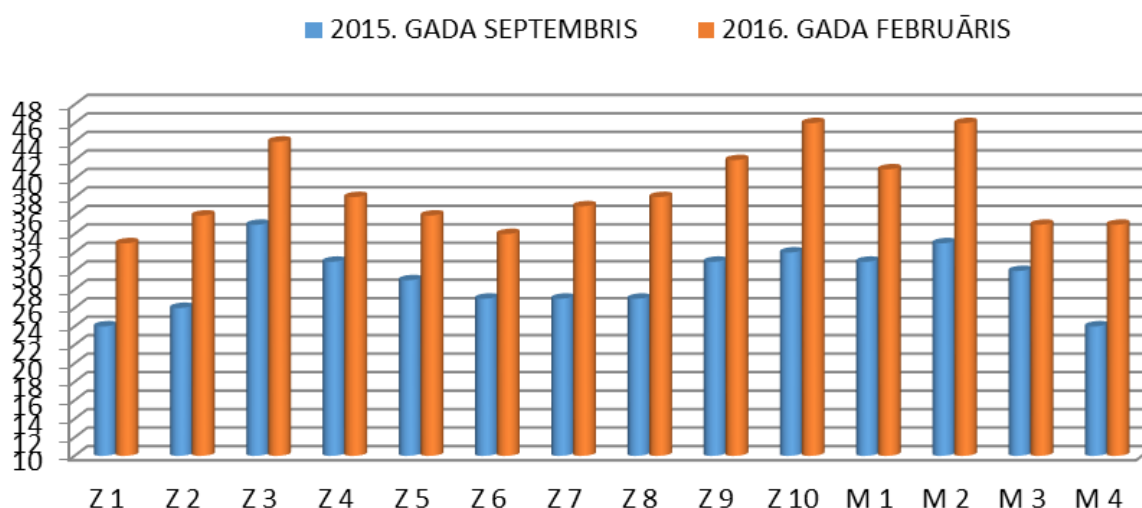
Veidojot attīstošus uzdevumus pirmsskolas vecuma bērniem, svarīgi ir iekļaut rotaļu un spēļu elementus. Pilnveidojot bērna runas un valodas attīstību, šajā gadījumā fonemātiskās uztveres attīstību, nevar aprobežoties tikai ar logopēdisko kabinetu vai ar noteiktiem logopēdiskiem vingrinājumiem. Vingrinājumiem jābūt interesantiem un motivāciju radošiem. Spēles elementu izmantošana logopēdiskajās nodarbībās nodrošina pozitīvu gaisotni, ļauj bērniem emocionāli atbrīvoties un uzņemties iniciatīvu spēles laikā.

Katrai izvēlētajai spēlei ir noteikts mērķis un konkrēti izvirzīti uzdevumi, kuri bērnam ir jāievēro, līdz ar ko, spēle liek bērnam koncentrēties un mobilizēties. Lai gan ikvienam bērnam ir potenciāls spēlēties, atsevišķiem bērniem nepieciešama pedagoga palīdzība spēļu uzdevumu un noteikumu izskaidrošanā.

2.tab. Spēles fonemātiskās uztveres sekmēšanai
Table 2 Games for improvement of fonological perception

Spēles	
Fonemātiskie priekšstati	<ul style="list-style-type: none"> • Esi uzmanīgs! / • Atceries kārtību! • Saklausī vārdu! • Klausies, atrodi, paņem! • Noķer kamoliņu! / • Kuram ko dāvināsim!
Fonemātiskā analīze	<ul style="list-style-type: none"> • Klausies plaukstu sitienus! / • Ceļojums. • Kas skanēja? / • Patskaņu bērni. • Kas maisījā? / • Kurš labāk klausās? • Kura bija? 1., 2. vai 3. skaņa / • Veikals.
Fonemātiskā sintēze	<ul style="list-style-type: none"> • Sameklē draugu! • Jaunu vārdu veidošana. • 1+1=2 • Pasaki, kas tas (tie) ir!

Pētījuma mērķis bija pārbaudīt un izanalizēt spēles iespējas fonemātiskās uztveres pilnveidošanas procesā.



2.attēls. Bērnu fonemātiskās uztveres attīstības līmeņa salīdzinājums
2015.gada septembrī un 2016.gada februārī
Figure 2 The Comparison of level of phonological Perception in Children in
September 2015 and February 2016

2. attēlā atspoguļots pētījumā iesaistīto bērnu fonemātiskās uztveres attīstības līmenis 2016. gada februārī, pēc spēļu izmantošanas koriģējoši attīstošajā darbībā. Rezultāti liecina, ka 5 bērniem fonemātiskās uztveres traucējumi atbilst vidēji smagai traucējumu pakāpei, 7 bērniem fonemātiskās uztveres traucējumi atbilst vieglai traucējumu pakāpei, 2 bērniem fonemātiskās uztveres traucējumi nav konstatēti.

Secinājumi **Conclusions**

Uzsākot fonemātiskās uztveres attīstoši koriģējošo procesu pēc pētījuma autoru izstrādātajiem kritērijiem, tika apzināta un noteikta bērnu fonemātiskās uztveres traucējumu smaguma pakāpe.

Sākotnējās fonemātiskās uztveres pārbaudes rezultāti 2015. gada septembrī parāda, ka 4 bērniem fonemātiskās uztveres traucējumi atbilst smagai traucējumu pakāpei, 10 bērniem fonemātiskās uztveres traucējumi atbilst vidēji smagai traucējumu pakāpei.

Atkārtotās fonemātiskās uztveres pārbaudes rezultāti 2016. gada februārī liecina, ka visiem pētījumā iesaistītajiem bērniem ir fonemātiskās uztveres attīstības izaugsme, līdz ar ko ir gūts apstiprinājums, ka spēle ir efektīvs līdzeklis fonemātiskās uztveres sekmēšanas procesā.

Katrā dzīves posmā attieksme pret spēli ir atšķirīga, tomēr, bērībā:

- spēle ir nopietns darbs kura laikā bērns dzīvo pēc saviem noteikumiem, ir noteicējs par savu darbību un rīcību;
- spēle ir izaicinājums, jo var spēlēties kopā ar draugiem, izvēlēties kādas spēles spēlēt; kur un kā spēlēties – telpā vai laukā, klusi vai skaļi, nopietni vai smieklīgi, ar piepūli vai bez piepūles;
- spēles mainās bērniem augot, tās kļūst nopietnākas, ilgākas, sarežģītākas, jēgpilnākas;
- fonemātiskās uztveres pilnveidošana ir ļoti nozīmīga bērna attīstībai veselumā;
- spēles elementi sekmē fonemātiskās uztveres pilnveidi – rada emocionāli labvēlīgu vidi, attīsta iztēli, veicina pārliecību saviem spēkiem un spējām, ļauj bērniem uzņemties iniciatīvu;
- fonemātiskās uztveres pilnveide, būtiski ietekmē sekmīgu bērna mācīšanās procesu skolā;
- spēles laikā bērns praktizē savas iemaņas, nostiprina un pilnveido apgūtās prasmes, apgūst jaunas prasmes, bagātina priekšstatus par dzīvi un tās likumībām, bagātina pieredzi, analizē un interpretē situācijas un notikumus.

Spēle ir instruments kuram piemīt audzinošs, izglītojošs un attīstoši koriģējošs raksturs. Cilvēkam piemīt darbības veidi: rotaļas / spēles – kas atbilst bērnībai, mācības – kas atbilst skolas gadiem un darbs – kas atbilst pieaugušo dzīvei. Visi minētie darbības veidi atbilstīgā vecumposmā ir svarīgi, tomēr noteicošā darbība pirmsskolas vecumā ir rotaļa / spēle, šīs darbības rezultāts ir bērna attīstība.

Summary

During the research intervention was carried out in three directions – to develop phonemtic concepts, phonematic analysis and phonematic synthesis. The impact of game towards the phonological awareness of a child was verified. Fourteen 5 – 6 year-old children with phonological impairment were involved in the research.

During the research process of the speech therapy initial intervention was organized as individual occupations. When children acquired tasks and conditions of games, intervention was organized as pair or group work but a leader of the game was child not speech therapist.

At the beginning of the intervention process the phonological awareness in children was evaluated and stated by the criteria worked out by researchers. Evaluation in the September of 2015 showed that in four children impairment of phonological awareness was on the low stage; in ten children impairment of phonological impairment was on a middle stage.

Repeated evaluation in February 2016 revealed the situation that all children have developed their phonological awareness and this means that game is an effective instrument to improve the phonological awareness.

Underdeveloped phonological awareness may promote impairment of speech sound pronunciation, influence the possibility to realise sound analysis and later hinder acquisition of writing and reading.

Games and plays promote the desire to act for children, they find self-belief and satisfaction with done work, there is a development of cognitive processes and mechanisms.

There are more than one function of the play and game – communicative, developmental, and educational. Attitude toward the game in different ages is different; but in childhood game is serious work when child lives with his own rules and governs his action. In childhood the game is a challenge – it is possible to play together with friends, you can choose the games to play, you can choose – when and where to play – in-doors or out-doors, loud or silent, serious or ridiculous, with or without effort.

Process of playing games is changing while child is growing, it becomes more serious, longer, complicated, meaningful. During the game child is practising his skills, fortify and develop existing abilities, acquire new skills and enrich his life experience, analyse and interpret situations and events.

Analysing the statements of psychologists and pedagogues about the game, we can say that game has very important role in the development of a child. Games are different – active, risky, full of adventures, communicative, exciting, involving, meaningful, social, imaginary, voluntary.

We can't forget that game is an instrument with educational, developmental and correctional character. Types of action in human being are games/plays in childhood; learning in school years and work in adulthood. They are typical in appropriate age, but for pre-school children the main activity is the game/play and the result of this activity is the development.

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THE STRUCTURE AND GUIDELINES OF PRE-VOCATIONAL EDUCATION AND ASSISTANCE FOR PUPILS WITH MILD INTELLECTUAL DISABILITIES

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***Abstract.** The research aims to disclose the structure and guidelines of pre-vocational education and assistance for pupils with mild intellectual disabilities. In order to achieve the research aim, the qualitative research was chosen. It was conducted using modified elements of Delphi group discussion method. The study participants were highly qualified specialists (13 experts) with 5 to 25 years' experience of educating pupils with special educational needs or providing educational assistance to them. The authors of the research systematized specialists' approaches towards pre-vocational education of pupils with mild intellectual disabilities, discussed possibilities of improving early preparation of these pupils for the world of labour.*

***Keywords:** pre-vocational education, pupils with mild intellectual disabilities.*

Introduction

Significance of the problem. Today's labour market poses particular adaptation difficulties for disabled people. Only a small share of people with disabilities participate in work activities; more often these are people with mild disabilities. People with intellectual disabilities find it especially difficult to find employment and stay in the workplace. The number of available jobs for young people with intellectual disabilities is very low. They are more often dismissed from work compared with others and belong to the only group of the disabled that does not receive wages higher than the minimum (Colella 1996). Persons with mild intellectual disabilities belong to a particularly high-risk group; even acquisition of vocational preparation does not remove a risk of social exclusion, long-term unemployment and falling below the poverty line. People with disabilities are the poorest, the least educated and the least employed part of people (King 1993). As researches conducted by R.M. Baer, A.W. Daviso, R.W. Flexer, R.M. Queen & R.S. Meindl (2011) demonstrate, career and technical education study programs did not reach significance as predictors of

post-school employment of students with intellectual disabilities. These findings point to the need for more holistic career education and work study models for students with intellectual disabilities (Baer et al. 2011).

Although in 2014 *The Career Guidance Program*¹ was approved in Lithuania, this program is an insufficient precondition for successful professional integration of persons with mild intellectual disabilities. People with the mild intellectual disabilities often experience difficulties of social adjustment and cognitive skills in work and life situations; as a result, failures may influence their self-esteem and enhance lack of confidence in one's own abilities (Baranauskienė, Radzevičienė & Valaikiene 2012).

Career guidance and preparation for professional integration of pupils with mild intellectual disabilities is a complex problem requiring complex decisions at the level of the state, employers and school. Solution of this problem at the school level first of all necessitates teachers' special preparation and particularly their ability to individualise the content and teaching methods of career guidance. Besides, pupils with MID need assistance not only acquiring a profession but also finding employment and working. It is likely that theoretical and practical justification of pre-vocational education of pupils with MID could create preconditions for more successful integration of those persons into the labour market. However, there are few studies in Lithuania disclosing the specificity of pre-vocational education of pupils with MID in a reasoned way.

The aim of the research presented in this article is to disclose the structure and guidelines of pre-vocational education and assistance for pupils with mild intellectual disabilities.

Relevant Issues of Professional Integration of Persons with Mild Intellectual Disabilities

Participation of persons with MID in the labour market is complicated in all stages of professional integration (employment, adaptation at the workplace, the ability to adapt to changing labour market requirements). Many researches focus on the lack of social skills of persons with intellectual disabilities (Baranauskienė & Ruškus 2004; Hallahan & Kauffman 2003; Kaffemaniene & Jurevičienė 2012; Rivera & Pellitteri 2007; etc.). As noted by Rivera & Pellitteri (2007), reasons of failures at work of persons with MID are most often their own socially maladaptive behaviour, lack of social skills and intrinsic motivation to work. They are characterised by unrealistic assessment of their possibilities, inadequate reaction to criticism (Baranauskienė & Ruškus 2004);

¹ *The Career Guidance Program* (2014). Register of legal acts, 2014-04-29, No. 2014-04888

they encounter difficulties in social interaction with co-workers and employers (Hallahan & Kauffman 2003). Employers doubt that people with disabilities can work effectively (King 1993); they expect knowledge, skills and intrinsic motivation from their employees, however, vocational guidance at schools does not meet these expectations (Kuijpers, Meijers & Gundy 2011). It was found that professional integration of young people with MID is hindered by insufficient literacy, mathematical skills; often their choice of the profession is determined not by knowledge of the profession but by coincidence or influence of other persons (Baranauskienė & Ruškus 2004). According to Rivera & Pellitteri (2007), it is necessary to help pupils with MID to construct realistic goals so that they can have possibilities to entrench in the labour market.

The review of scientific researches shows that in many countries persons with intellectual disabilities face similar professional integration problems and this suggests that the problem of employability of these persons requires complex solutions. Pre-vocational education could be one of many ways of solving the professional integration problem. However, so far pre-vocational education of pupils with MID has been hardly analyzed systematically; there is no scientifically grounded curriculum of pre-vocational education of pupils with MID, strategies and structure of assistance provision to the pupil.

The scientific problem of this research is concretized by the problem question: *What should be the structural elements of pre-vocational education and assistance for pupils with mild intellectual disorders?*

Research methodology and methods. In order to achieve the aim of the research, the qualitative research was chosen. The study was conducted using elements of *Delphi* group discussion method described by Hsu & Sandford (2007), Linstone & Turoff (2002), Sackman (1974) and other authors. The *Delphi* method was chosen “as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem” (Linstone & Turoff 2002: 3). The essence of the method is by eliminating conformism possibilities, to get as many and as various opinions and statements from experts participating in the group as possible. Imparting the opinion, feedback is emphasized while the conversation is directed not only to the identification of the problem but also to its solution, concrete recommendations, proposals or ideas. The focus of group discussion was on getting experts’ practical experience about possibilities of pre-vocational education of pupils with MID. During the research, the open-ended questions were given; *Delfi* group participants (experts) expressed their views on pre-vocational education of pupils with MID: goals, forms, methods of education, activity areas, influence of traditions on successful pre-vocational education of pupils with MID, etc.

Data analysis methods. *Delphi* research data were processed combining qualitative and quantitative methodology of the social research (Linstone & Turoff 2002; Hsu & Sandford 2007, etc.). Results of *Delphi* group research were analyzed using qualitative method of content analysis; sub-categories that were given for experts' evaluation were distinguished and ratings of experts' opinions were identified. The spectrum of received opinions reflecting experts' professional experience was systematised and grouped according to similar meanings. Experts' assistance was used to conduct control of distinguishing meaningful units of the content of nomination. Seeking to better understand the spread of experts' opinions, the means and standard deviations of subcategories of research data were calculated.

The research sample. The study was attended by highly qualified specialists with higher education with 5 to 25 years' experience educating pupils with special educational needs or providing educational assistance to them. Study participants were 13 experts (2 men and 11 women): 4 special education teachers, 3 social workers, 2 psychologists, 4 vocational education teachers working in general education and vocational schools.

Ethical considerations. The participants were informed about the research aims, methods, confidentiality of their personalities, their free choice to participate in the study and the use of the results before starting the research.

Results

Content analysis of *Delphi* discussions highlighted experts' opinion about: 1) pre-vocational education strategies of pupils with mild intellectual disabilities, and 2) trends of these pupils' pre-vocational curriculum.

In the opinion of research participants, key **pre-vocational education strategies** are: *socio-educational assistance to the pupil; school-family cooperation; parent information and counselling.*

Socio-educational assistance to the pupil. According to experts, pupils with MID need *team assistance of all education assistance specialists* (M=4,8; SD=0,45). Perhaps the most important aims of socio-educational assistance to the pupil, as experts say, should be *preparation of the individual plan for the transition from school to professional activities* (M=4,4; SD=0,89); *assistance finding appropriate problem solution ways* (M=4,2; SD=0,83), etc. Experts' findings are confirmed by conclusions of other researches. Wagner, Davis (2006) distinguish effective school assistance to the pupil as one of the principles of pre-vocational education (introduction of mentoring programs at schools, provision of support for pupils with SEN, provision of services, etc.).

School-family cooperation. Parents of the pupil with MID should participate in his / her pre-vocational education process. *Delfi* group experts

almost unanimously emphasised family involvement not only in the child's pre-vocational education at school but also in inter-institutional cooperation (*parental involvement in cooperation at the inter-institutional and school community level*, M=4,8; SD=0,45; *close relations between the school, family and vocational guidance services*, M=4,6; SD=0,55; *organisation of meetings with education assistance professionals, the career counsellor, pre-vocational education coordinator during parents' meetings*, M=4,4; SD=0,49). Research participants stated that parents should take part both assessing the child's possibilities choosing the profession (M=4,2; SD=0,83) and in other school activities.

Parent information and counselling. The school should provide parents with educational services related to their child's professional integration prospects (M=4,6; SD=0,55): inform about *the news and changes in the labour market*; about *educational institutions* in which their children can acquire a profession; about *requirements for specific professions*. It is necessary to *counsel parents* so that they can *realistically evaluate their child's possibilities* (M=4,4, SD=0,54) and correctly advise the child choosing the profession and vocational school (*parents' purposeful guidance*, M=4,4; SD=0,54).

Delphi survey results highlighted relevance of cooperation between the learner with MID, his / her family, schools and other social institutions as a precondition for successful pre-vocational education. According to experts, factors, enhancing cooperation between the learner, his/her family and the school are socio-educational assistance to the pupil with MID; parent information and counselling services on issues related to the choice of the profession; purposeful involvement of the family in inter-institutional cooperation, etc.

Trends of pupils' pre-vocational education. Content analysis of discussions disclosed key trends of pre-vocational education of pupils with MID: 1) *vocational guidance*, 2) *vocational counselling*, 3) *preparation of the world of work*; 4) *career planning*.

Vocational guidance. Experts first of all relate pre-vocational education to vocational informing; knowledge of inclinations and abilities of the pupil with MID; assistance choosing the profession; drawing up the life plan, guidance to study at concrete vocational schools. The school must both provide the pupil with *knowledge about professions* (M=4,8; SD=0,45) and inform about *personality traits and physical characteristics required for the profession* (M=4,6; SD=0,89), *the professions in demand that are available for the pupil with MID*, advise on where they could acquire an appropriate profession (*provide knowledge about acquisition of the profession* (M=4,6; SD=0,55).

Vocational counselling. Perhaps the most important feature of pre-vocational education of pupils with MID is reconciliation of the pupil's wishes

and his / her possibilities. According to experts, this is one of the key factors choosing the professional activity. It is necessary to find such activity for the pupil with MID which would be accessible for him / her and provide satisfaction. According to experts, already at the early stage of pre-vocational self-education the school must help the pupil with MID *to understand his / her possibilities, realisticness of the choice* (M=4,8; SD=0,44) and provide assistance looking for the professional activity field in which he / she could participate (*for each child to help to discover and acquire a profession, corresponding to his / her wishes and possibilities*, M=4,8; SD=0,44; *evaluation of abilities and possibilities of the pupil with MID*, M=4,6; SD=0,56). Thus, according to experts, choosing the profession, the pupil with MID has to know his / her physical characteristics, the health status; it is necessary to help the pupil to understand suitability of the profession on time. The opinions of the participants of *Delphi* survey are confirmed by Eisenman (2007). According to the author, the successful choice of the profession is based on the pupil's self-knowledge; it is necessary to help pupils to identify not only their professional interests but also their personality traits and abilities. Field, Martin, Miller, Ward & Wehmeyer (1998) stated that understanding of their strengths and limitations together with faith in oneself as being able and efficient are essential components of self-determination and enable the person to better control his / her life and become a successful adult.

Preparation for the world of work. Pre-vocational education is not so much preparation for a particular profession but preparation for work in a broad sense (Laužackas 2005). As it was mentioned, people with MID both find it more difficult to adapt in the workplace and lack independent living skills (Baranauskienė & Ruškus 2004; Hallahan & Kauffman 2003, etc.). Therefore, experts relate preparation of pupils with MID for the world of work to *the development of independent living skills* (M=4,8; SD=0,43), *development of practical and social skills* (M=4,8; SD=0,44), *creation of conditions to try out the profession practically* (M=4,8; SD=0,46).

Career planning. In the experts' opinion, the key objective of this pre-vocational education field should be assistance to the pupil purposely choosing the profession that would correspond to his / her abilities. Because persons with mild intellectual disabilities lack the ability to critically self-evaluate their abilities and possibilities, in the career planning stage the school should help the pupil to reconcile the image of the future work with self-evaluation of his / her their real possibilities (*naming and adequate evaluation of one's wishes and possibilities* M=4,8; SD=0,45) and only then to plan one's actions seeking professional integration (*planning the prospects of choosing life and profession*, M=4,4; SD=0,56) and to choose the vocational education school (*guidance to study in vocational schools*, M=4,4; SD=0,89).

According to experts, the **curriculum of pre-vocational education** should consist of *development of personality traits, social skills, general literacy and activity abilities and the lifelong learning approach*. According to research participants, these are the most important *factors of career education and professional integration*. In the experts' opinion, pre-vocational education will be effective if it ensures holistic self-development of personality traits and value approaches. Experts accentuated development of the following **personality traits**, necessary for the professional career and independent life of pupils with MID: accuracy, diligence, responsibility, dutifulness, honesty (M=4,6; SD=0,55); communicability (M=4,4; SD=0,89); activeness, persistence, proactiveness, emotionality, sensitivity (M=4,2; SD=0,44-0,83), etc. Experts also mentioned the importance of developing value approaches for professional integration, particularly the approach of quality work, respect for work (M=4,6; SD=0,54-0,55), etc. Statements of research participants about the importance of developing personality traits of pupils with mild intellectual disabilities are also confirmed by Heller & Gitterman (2011); Leffert, Siperstein & Millikan (2000) and other authors.

According to *Delphi* study participants, seeking professional integration of pupils with MID, it is particularly relevant to develop their **social skills**: *communication, social participation, decision-making, self-control and emotional management skills*.

According to experts, the priority aim of self-development of **communication and social participation skills** is *creation of relations with other people and the society* (M=4,6; SD=0,55), therefore, according to experts, it is necessary to purposefully organize pupils' *communication and collaboration with peers* (M=4,6; SD=0,56); help the pupil with MID to acquire social participation skills so that the person can *feel full-fledged and necessary for the society* (M=4,6, SD=0,47), integrate in the society (M=4,6, SD=0,55). It is relevant for these pupils' professional integration *to provide assistance to another person and ask for assistance* (M=4,6, SD=0,89), *work in a team* (M=4,2, SD=0,84).

Decision-making skills are a constituent of social cognition skills (Kaffemaniene & Jurevičienė 2012). According to the authors, social cognition skills undoubtedly determine the quality of the person's social functioning. According to research participants, *decision-making abilities* (M=4,6, SD=0,55), *the ability to plan, predict consequences, formulate goals and achieve them, independently solve problems* (M=4,4, SD=0,85), etc. are important for professional integration of persons with mild intellectual disabilities. Experts' opinion is confirmed by Lefferts et al., (2000). According to the authors, persons with MID can be characterized by excessive conformity, obedience, strong dependence on other people; due to the lack of criticism they are at higher risk

of becoming victims of manipulation. Therefore, at schools they have to be taught to recognize problems (related to work, interpersonal relations, etc.), respond to them appropriately and solve them. It should be noted that problem-solving skills are closely linked with the person's professional self-determination abilities. Field, Martin, Miller, Ward & Wehmeyer (1998) described self-determination as a combination of knowledge, skills and beliefs directing the person to goal-oriented, self-regulated behaviour. Wehmeyer, Schwartz (1997; qtd. in Field et al., 1998) proved that persons with intellectual disabilities who had resolve skills were better assessed in employment situations and were able to achieve more than those without resolve skills.

Development of *self-control, emotional management skills* is a relevant and challenging part of preparation for integration of pupils with intellectual disabilities. *Delfi* group participants paid a lot of attention to the development of these skills. According to them, the aim of developing self-control and emotional management skills is *development of emotions and will* (M=4,6; SD=0,53); and that requires the pupil's *self-awareness* abilities (M=4,6; SD=0,54), abilities of *behavioural and emotional control; perception of responsibility for one's behaviour* (M=4,6; SD=0,55), *self-control* (M=4,4; SD=0,89), *psychological resistance* (M=4,2, SD=0,83). Pupils must learn to resolve conflicts by means of appropriate behaviour (M=4,2; SD=0,84).

Besides, experts emphasized relevance of *general literacy and independent living abilities* (*teaching to calculate, write and communicate should be related to experience needed for life*, M=4,6, SD=0,55). *Delfi* group participants closely linked *development of the lifelong learning approach* to pupils' preparation for the modern world of work and career planning. Experts stated that more attention should be paid to learning motivation (*to promote the wish to learn and continuously improve*, M=4,8, SD=0,45) and development of abilities of flexibility with regard to novelties that are important in today's life (*to be able to adapt to changing environmental conditions*, M=4,6, SD=0,55). Development of lifelong learning approaches in the prevocational education process should help the pupil to understand that seeking better professional integration and personal life results, he / she will have to continuously learn and acquire new ways of work activities.

Discussion

Relevance of pre-vocational education for pupils with mild intellectual disabilities is grounded on these persons' particular educational needs and the analysis of their situation in the labour market. Scientific researches have demonstrated that children mild intellectual disabilities distinguish themselves by cognitive and personality peculiarities, which determine poorer academic

performance at school and limit possibilities of choosing the profession. Therefore, pre-vocational self-education of pupils with MID necessitates individualized socio-educational assistance, based on the potential (strengths) of pupils with MID and taking into account peculiarities of their self-education: a slower learning pace, limited abilities of mastering information and practical application (Friend & Bursuck 2012; etc.).

The multidisciplinary socio-educational assistance, grounded on individualised interaction, encompasses the very pupil's active self-education, teamwork of teachers and career counsellors, cooperation with the family and inter-institutional cooperation.

The choice of the profession corresponding to the areas of interest, possibilities and possessed abilities is a very important precondition for successful professional integration of pupils with MID. The best prevention of drop-out from the labour market is the right choice of the profession. The pupil with MID must be provided with individualized socio-educational assistance recognising one's strengths, self-evaluating one's possibilities and their coherence with work requirements and developing features needed for work.

According to Saleebey (1996) and other authors, the strengths perspective is successfully applied educating persons with various disabilities, including pupils with intellectual disabilities. The strengths perspective is closely related to promotion of the person's social participation and his / her empowerment, treating them as strategies in order to enhance individuals' social functioning possibilities. Pre-vocational education is seen as a precondition for active participation in the labour market.

From the pragmatism standpoint, self-development of social skills, prosocial behaviour and life skills in the pre-vocational stage are the most important curriculum guidelines preparing pupils with MID for independent life. Their education is possible through practical type activities and tasks, focusing on special educational needs so that they can give the greatest benefit for the pupil's preparation for professional integration. The idea of pre-vocational education would be unjustified without a deeper analysis of its links with the labour market requirements and these pupils' professional integration opportunities. There should be a particular focus on the formation of these pupils' value system, enhancement of positive attitude to work and motivation of self-education for the profession, assistance realising one's life prospects and goals.

Changes in pre-vocational education are necessary both at school and beyond it. Readiness of schools to educate pupils with MID encompasses both improvement of pre-vocational curricula, process and the increase of activeness of the pupil, his / her family, assurance of inter-institutional cooperation and continuity of the socio-educational assistance for the person.

Conclusions

1. Pre-vocational education of pupils with MID must be based on a holistic concept: long-term multi-disciplinary socio-educational assistance strategies, oriented to the person's individuality, and the system of complex pre-vocational education objectives.
2. The key pre-vocational education strategies of pupils with mild intellectual disabilities are: 1) the strengths perspective; 2) the individualized multidisciplinary socio-educational assistance based on the interaction of the pupil, his / her parents, teachers, career guidance specialists.
3. In the stage of pre-vocational education, the pupil must receive assistance recognizing his / her strengths and limitations of possibilities, solving problems related to coping with personal professional integration barriers. Pre-vocational education must correspond to pupils' special educational needs and help to achieve quality of professional and personal life.
4. Pre-vocational education of pupils with MID must focus on the learner's experience, be based on the pupil's experience and develop experience at the level accessible to him / her. Practicality and usefulness in life are essential pre-vocational education principles of pupils with mild intellectual disabilities.

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TEACHERS' TRAINING AND INCLUSIVE METACOGNITIVE TOOLS

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Abstract. *A Research&Training project has been set up involving people attending courses for teaching qualification; the aim was to develop metacognitive tools to create inclusive reflection methodologies aimed at enhancing mental skills dealing with inclusive education. The theoretical framework combines the studies in professional Education and Teachers' Thinking with reflection-based and metacognitive training paradigms. By means of workshops, a reflective-oriented metacognitive tool for inclusive training has been created; four individual writing activities were carried out, including professional writing, maps and case studies, together with a group project. The results showed the need to develop new educational devices and a shared language of teachers' professional knowledge that can be useful to adapt any context in the inclusive perspective of the so-called Education for all.*

Keywords: *inclusion; metacognition; training; teachers' professional knowledge; reflection methodologies; Education for all; professional writing, maps; case studies.*

Introduction

Inclusive school is designed and structured in order to overcome any education-related barrier and to support an all-inclusive participation (intentionally and *a priori*) (Booth, Ainscow 2002; Florian 2012; Perla, 2013). It requires training methods that support teachers in the redevelopment of educational contexts, so that they could be aware of their way of thinking in order to implement inclusive practices, thus dispelling some misconceptions that prevent classrooms to be an inclusive setting. This study shows the results of a Research&Training project that has involved 300 educators in the making (attending courses for teaching qualifications, internships and courses for Special Needs at University of Bari Aldo Moro, Italy, academic years 2013-14 and 2014-15). The final aim was the creation of metacognitive devices (projects, maps, reflective writing activities) to develop inclusive thinking in order to support the metacognitive enhancement of mental skills focused on inclusive education. The theoretical framework refers to professional Education (Lenoir, Vanhulle 2006) and studies known as *Teachers' Thinking* (Shulman 1986), focused on pre-reflective concepts and educational implicit knowledge of teachers in the making (Perla 2010).

The aim of the article is to understand what kind of competence and awareness teachers should acquire to make his/her classroom an inclusive setting, what kind of beliefs and representations may influence classrooms' management and the devices that can be used to carry out inclusive training procedures. In 2013 a Research&Training project was carried out has involved 300 educators attending courses for teaching qualifications and courses for Special Needs at University of Bari Aldo Moro, Italy, in the academic years 2013/14 and 2014/15. The Research&Training project was developed in four workshops aiming at creating metacognitive devices to develop inclusive thinking and supporting self-reflective implicit, motivational, ideological, cultural and experiential features that are the core of teaching, representing both a resource or a barrier in the development of inclusive practices and cultures. The reflective metacognitive device was developed using four different writing sessions (individual sessions) and a final group project. The papers (projects and individual writings) have been read and analysed by means of quality-based data analysis using NVivo software. Results from this research showed the complexity to put inclusion into practice and to think of its fundamental variables: the educational differentiation achieved by means of a different management of space, the decentralisation of teachers' desks, a different arrangement of students' desks in order to involve the whole class, the central role of workshops and differentiated educational mediators (pictures, drawings, diagrams, concept maps and all devices based on different communication codes), the active role and the participation of all stakeholders in educational actions, the enhancement of environmental, aesthetic and moral education, the central role of manual work, and the evolving role of learning support teachers.

Beyond special Education: the perspective of Education for all

Inclusion, based on the *Education for all* perspective, or the need/right to provide education to all those who may be socially excluded (UNESCO, 1994), is a crucial challenge in the most recent European education policies. This is a broad perspective that does not involve only disability (Special education) but anyone who may be socially excluded (women, old people, unemployed, illiterate minors) (Perla 2013). The underlain theoretical framework deals with the social model of disability, developed in Great Britain by M. Oliver and L. Barton and opposite to the bio-medical model based on disablement in biological terms. This perspective, in which human rights, individual differences, anti-discrimination and the enhancement of education quality have to be recognised, entails the identification and the overcoming of environmental and cultural barriers as well as a global involvement; therefore, it focuses on

people rather than contexts. „Education for all” can be fostered only if educational systems are reorganised, differences are valorised, barriers that hamper participation are cut down, thus providing an answer to the rights and needs of everyone. Inclusive school considers some fundamental aims, not only the override of learning and participation barriers:

- reducing and avoiding any possible disadvantage;
- promoting diversity as a quality;
- using didactic programming with a „global” approach on the basis of responsibility, community and hospitality;
- promoting collaborative and shared working methods and relations;
- investing on quality human relations, on environment modelling, on strategic, methodological and content-based choices (Perla 2013).

Modelling learning environments inclusively means overcoming the perspective of a simple integration of people with disability or Special Educational Needs (Thomas, Loxley 2007), in favour of a new organisation of social contexts and educational settings, the remodelling of didactic programming and the override of education-related barriers (Booth, Ainscow 2008; Thomas, Loxley 2007; Florian 2012; Perla 2013). It is not a simple „integration” of students with disability or with Special Educational Needs in conventional contexts, but the development of suitable conditions to enhance individual potentialities, thus overcoming the perspective based on needs and favouring an intentional, *a priori* intervention. Educators should be able to make sure that school contexts may be fruitful for everybody, enhancing people's participation, reorganising the school framework and organising time, space, educational tools and mediators (Damiano 2013; Perla 2013). The *European Agency for Development in Special Needs Education* (2011) has also underlined the need of training for educators' competence in the spreading of inclusive practices in all European countries. In order to achieve this cultural change, training methods that support teachers in the redevelopment of educational contexts are required. This entails two perspectives: one deals with the redeveloping of educational contexts and in the understanding of all variables involving school spaces and education mediation (Damiano 2013); on the other hand, they could be aware of their way of thinking in order to implement inclusive practices, thus dispelling some misconceptions that prevent classrooms to be an inclusive setting. Considering this framework, in 2013 a Research&Training project was carried out in order to understand what kind of competence and awareness teachers should acquire to make his/her classroom an inclusive setting, what kind of beliefs and representations may influence classrooms' management and the devices that can be used to carry out inclusive training procedures.

Theoretical framework of the Research&Training project

The Research&Training project is part of a theoretical framework that intertwines studies on professional Education (Lenoir, Vanhulle 2006) and *Teachers' Thinking* (Shulman 1986, 1987) - the development of teachers' professional competence by means of their work and on the impact of pre-reflective concepts, their beliefs and the educational implicit knowledge of teachers in the making (Perla 2010) - with educational and metacognitive reflective paradigms (Altet et al. 1996; Dewey 1965; Striano 2001; Mortari 2007; Perla 2010) that may overcome the meaning of unaware actions, learning from experience and explaining implicit education actions (Perla 2010). Research on *Teachers' Thinking* showed the importance of pre-reflective knowledge that is embedded into the apprenticeship period of educators-to-be (Clark, Peterson 1986; Calderhead 1987; Day, Popoe, Denicolo 2013) that is all those elements that typify educators: beliefs, implicit theories, intentions, desires, feelings, memories. These elements, though not made explicit, play a decisive role in the creation of relationships, decisions, rules and management of class activities (Reber 1993; Goodman 1988; Stadler, Frensch 1998; Nespor 1987; Olson, Osborne 1991; Calderhead, Robson 1991; Cabaroglu, Roberts 2000). This is what L. Perla (2010) defined as „implicit” in Education. In particular, some metacognition studies have been reinterpreted (Cross & Paris 1988; Flavell 1979; Paris, Winograd 1990; Schraw, Moshman 1995; Schraw et al. 2006), that is „thinking about thinking” methods focused on students, since metacognition was used in this research as a training device of teachers' inclusive thinking. Considering this research framework, this study aimed at understanding and enhancing the point of view of educators in the making about education methodologies, inclusion and competence needed in order to manage students, acknowledging implicit and pre-reflective knowledge of educators in the making as professional knowledge.

Methodology

The Research&Training project has involved 300 educators attending courses for teaching qualifications and courses for Special Needs at University of Bari Aldo Moro, Italy, in the academic years 2013/14 and 2014/15.

It was developed aiming at:

- creating metacognitive devices to develop inclusive thinking in order to support the metacognitive enhancement of mental skills focused on inclusive education.
- supporting self-reflective implicit, emotive, motivational, ideological, cultural and experiential features that are the core of teaching,

- representing both a resource or a barrier in the development of inclusive practices and cultures;
- supporting a reflective, metacognitive and self-evaluative attitude that teachers in the making may use to be aware of their role (tutoring, supporting, managing educational and mediation strategies);
- supporting the awareness of issues and risks that are part of the teacher's role, which are implicit in any assistance and education relationships (assistance, victimism, a redeeming role towards those in need).

The Research&Training project was developed in four workshops. The first step dealt with the theoretical framework and the project's aims; then, the reflective/metacognitive device (personal writing sessions and a group project) was described. Working groups were created and writing sessions were carried out; lastly, the participants explained their writings and a final plenary session aimed at discussing and sharing different metacognitive issues.

The reflective metacognitive device was developed using four different writing sessions (individual sessions) and a final group project (three participants in each group).

The individual writing sessions were the following:

- describe a person you consider a model, an example of educational care and try to explain why you consider him/her like this: describe his/her gestures, modes, actions, words, traits that make him/her your „Madame Guerin” (chosen as the most representative example of educational care: she was Victor of Aveyron's housekeeper);
- describe your relationship with problems or obstacles;
- describe your relationship with the idea of diversity;
- describe the features that define teachers' professionalism: together with their actions, try to describe how these actions are carried out (unlike other professionals in domains such as psychology, sociology, medicine, etc.). What are the distinctive features of your profession?;
- Using a mind map, try to represent the idea of „inclusion”;

The group writing task was the following: „Try to outline an inclusive educational project in its essential features”.

Here are some examples of reflective and metacognitive questions:

- Considering the project you have outlined, what issues did you encounter in conceiving an inclusive-oriented project? What was it needed for? What are the core features in conceiving (and developing) an inclusive project?
- Considering the plenary session, are there any recurrent features in your representations? What are the elements that created the most

marked disagreement? Have you changed your mind after discussing with your colleagues?

- Is there any new question/issue arisen after using this device? Have these reflection activities caused any emotions, feelings, behaviours? What beliefs, thoughts and assumptions may create a barrier to the implementation of an inclusive setting?
- What kind of change does inclusion require?

The papers (projects and individual writings) have been read and analysed by means of quality-based data analysis (Richards, Morse 2009; Perla 2010; 2011; Mortari 2007) using NVivo software (Lewins, Silver 2007; Pacifico, Coppola 2010). The quality-based analysis of text corpora was carried out by identifying categories or conceptual cores, or grouped research materials that represented the main categories drawn from text analyses. The aim of this quality-based analysis was the development of flexible, data-driven local theories. Data coding (open approach) was carried out by conceptualising data; the corpus of texts has been transcribed in „text units”, that is short text strings that could allow the labelling of analysed information. Data was then classified according to its level of abstraction and generalisation, thus making data retrieval easier according to the label to be analysed. The language analysis was carried out using the feature *Queries* in NVivo software (Word Frequency and Text Search Queries); using some specific selection criteria, any query shows textual data by means of diagrams or tables. Here, only some of the results will be analysed (overall results will be published in a forthcoming volume).

Conclusion

Results from this research showed the complexity to put inclusion into practice and to think of its fundamental variables.

The main issue deals with its sustainability; an inclusive school system and effective methods to manage classes are possible, but it is really difficult to consider inclusion in didactic school programming. Managing schools and classes as inclusive settings and contexts requires more time and resources to be invested, as well as it implies a cultural, structural, organisational and political change. Considering this need, a common feeling is to be powerless towards this kind of change, and many people feel distant from teachers' actions. The most practical complexity deals with the development of inclusive settings in small and overcrowded classrooms; what is more, temporary teachers do not guarantee continuity of action.

Another element deals with the development of inclusion in secondary schools: inclusive projects are mostly based on workshop activities (theatre, art, environment, music) carried out in extracurricular hours and conceived

especially in other levels of education. Inclusive education is more likely to be associated with earliest school levels (pre-schools, primary schools), therefore it is more difficult to be conceived at other levels (University, for instance). An issue to be analysed is the relationship between inclusive education and disciplinary education, even if we think that a proper general Education is also a „special” Education, and vice versa. Conceiving inclusion seems to help to focus on some overlooked dimensions such as the unavoidable presence of interdisciplinarity, of sensory education, the participation of family in school life, workshop activities, the development of common good and community, the tight connection between inclusive education and environment, peace, art.

There are some other variables considered as key elements of an inclusive setting: the educational differentiation achieved by means of a different management of space, the decentralisation of teachers' desks (and the resulting teachers' role, now considered an „invisible director”), a different arrangement of students' desks in order to involve the whole class, the central role of workshops and differentiated educational mediators (pictures, drawings, diagrams, concept maps and all devices based on different communication codes), the active role and the participation of all stakeholders in educational actions (not only teachers but also students, supervisors, families, professionals), the enhancement of environmental, aesthetic and moral education, the central role of manual work, and the evolving role of learning support teachers (providing support to the whole class and not to a single student).

Another aspect deals with the importance of mental health by those who have an education-related role, since they continuously experience psychic, frustration events and defence mechanisms. There is the need to shift from a „missionary, redeeming or helpful” approach - an attitude often present in individual writings especially when referring to students with disability or difficulty - to the awareness of one's professional role (and the resulting limits) by enhancing features such as tutoring and educational encouraging. This condition can be developed during one's professional experience, and for some teachers this is still an ongoing process. Results show a shift throughout time from a „missionary” attitude to a different awareness of one's professional role. There is also the need to reflect on one's own profession, cultural and educational models, but mainly on family educational care models, the latter being more effective than teachers' recollections (there is a clear difficulty in describing teachers' professional traits).

The analysis of writings also shows difficulties connected with personal life (family life, or the ability to cope with disease) and professional events (all teachers feel their job-related insecurity, even for more than ten years). The idea of diversity has a more complex representation, as it is associated with many cultural, sexual, religious, identity-related experiences. Working with teachers in

„de-constructing diversity” - and the resulting daily educational dilemmas - becomes a key device in order to understand and identify the causes for isolation, exclusion, non-recognition of the „Other” from oneself („diversity is in other's eyes”). The Research&Training project showed the need to develop a new (and shared) lexis of knowledge and of teachers' professional actions, as well as the resources needed to develop inclusive contexts. The device used proved to be a useful training tool for metacognitive development of enhanced mental skills focused on inclusive education and on the awareness of educational differentiation and mediation (Damiano 2013) as the core ideas of inclusion. There is the need to re-evaluate some inclusive experiences in Italy in order to develop a full-fledged inclusive culture. Some examples are represented by M. Montessori's „Casa dei bambini”; M. Orsi's „Senza Zaino” school; R. Malaguzzi's „Reggio Emilia Approach”; „G. Pizzigoni's „Scuola rinnovata”; V. De Lillo's „Globalismo affettivo”. All these examples have a common element: as L. Perla suggests, the common educational approach is „global”, as well as the conception of school itself, with some precise spaces and times. Here, the focus is not on students with problems or disability (this would create discrimination and a borderline situation), but on the educational conditions that make classrooms warm, welcoming environments for everyone, therefore they become a tool to support education with a distinguished approach, aiming at enhancing the potential of every single student (Perla 2013).

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THE EARLY INTERVENTION TENDENCY OF CHINESE CHILDREN WITH COCHLEAR IMPLANTS

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Abstract. *From the change of adult unilateral cochlear implantation into young children even under the age of six implant cochlear, sequential bilateral cochlear implantation, which benefit by early hearing screening and technological development of cochlear implants. It is a worldwide trend that simultaneous bilateral cochlear implantation for hearing impaired children under the age of three. Cochlear implants bring changes of education opportunities and choices for children with hearing impairment. Family-centered postoperative early intervention is important, at the same time, hearing impaired children group characteristics tend to be diversified. A growing number of children with cochlear implants study in regular school, consequently, the number of deaf student is decreasing in deaf school. Regular school faces the challenge of lacking of professional teaching staff.*

Keywords: *cochlear implants, early intervention, family-centered, school.*

Introduction

China is a country with huge population with hearing impairment, since Chinese domestic cochlear implants came into the market, more and more children accept cochlear implants surgery in earlier ages than before. To focus on the assessment and monitoring of hearing, speech and language, cognitive and social emotional development is required to meet a real need. Especially, early intervention team building and cooperation of multidisciplinary are really important. Family-centered early intervention plays an irreplaceable important role, meanwhile, parents are faced with a series of problems to be solved listed as group characteristics of children with cochlear implants tend towards diversification. To demonstrate early intervention tendency of children with cochlear implants, though literature review the author summarize three main tendencies of early intervention.

The text of the paper

With unceasing development of modern science and technology, life of the deaf is hugely impacted by hearing compensation device. Cochlear implant is the most obviously one, which is intended for completely deaf individuals and

individuals with the practically non-utilizable remainder of the hearing. In 2011, Chinese domestic cochlear implants came into the market, which break monopoly situation of three companies, namely, the Australia Cochlear, the United States Advanced Bionics and Austrian MED-EL. Soon the first domestic cochlear implant surgery was successfully completed. It is noteworthy that the price is only half or even one third of the imported cochlear implants. Another data which we should pay attention to, the number of population with hearing impairment reaches 27.8 million in the mainland of China. And about 578000 children (0-17 years old), about 137000 children aged from 0 to 6 years old, 74 % of them with moderate or severe hearing impairment (Liu & Sun, 2012). Such set of data means that hypothesis of more children choose cochlear implants. Since appearance of cochlear implants, several huge changes exist: first of all, parents of children with hearing impairment no longer struggle with whether implant cochlear, in generally, most of them choose cochlear implants as early as possible once after hearing screening diagnosis; the second, the popularity of newborn hearing screening, which support the implement of early intervention; the third, deaf education achievement (Liu, 2009) is more focused than before, multidisciplinary collaboration related areas such as cognitive psychology, neuroscience, linguistics and other disciplines, which support comprehensive understanding of learning process of those children with cochlear implants. Last but not the least, children with cochlear implants and their parents have more consciousness of rights to choose mainstream education. Actually, some studies (Wu, 2014) indicate that the main purpose for them to choose cochlear implants is promoting listening and oral communication. In generally, parents hold highly education expectation, although phenomena of some children with cochlear implants moved from regular school to deaf school were found, however, on the whole, parents tend to regular school educational placement.

According to the age, children with cochlear implants include different three age levels: older children with cochlear implants who are studying in middle or high school; children with early cochlear implants before 6 years old, now they are studying in elementary school; experienced early hearing screening diagnosis, preschool children who had cochlear implants before 2 years old. Era of unilateral cochlear implant could become a thing of the past. Recent years, increasing number of bilateral cochlear implants happens in the worldwide, which has becoming an international trend. Robert Peters and colleagues (Peters et al., 2010) investigated a total of 35 well-known large scale (cochlear implants number>250) cochlear implants in the range of Canada, the United States, Europe and Australia, which found that a number of 23200 users from all over the world, bilateral cochlear implant accounted for 36 %, and the proportion will be greatly increased. 70 % of them are children, and 33 % of children aged 3 to 10 years old, 30 % of adult, children younger than 3 years old accounted for

26 %, and 11 % children aged 11 to 18 years old. The number of children younger than 3 years old with bilateral cochlear implants is increasing obviously, more and more children simultaneously implant bilaterally instead of successively implantation. Advantages of bilateral cochlear implants are obvious, which improve the ability of sound positioning and speech discrimination in noise environment (Sparreboom et al., 2010). Especially, in regular school, large class size even reaches 45 students. Children are often studying in a noisy classroom, or working in a large group. Sound position and speech recognition should not be ignored. Bilateral cochlear implants give promotion of auditory information attainment for children in different types of educational placements especially in regular school.

After surgery of cochlear implants, long term of language and speech rehabilitation is necessary, otherwise, cochlear implant is meaningless, will only inevitably become a risk investment. Listening ability is also need to be tested periodically as well as some others involving speech, language and the development of aural skills, regularly check cochlear performance etc. Family-centered early intervention plays an irreplaceable important role, meanwhile, parents are faced with a series of problems to be solved listed as group characteristics of children with cochlear implants tend towards diversification; a growing number of children with cochlear implants choose regular school; a decreasing number of deaf school students and; the lack of specialized teacher in regular schools.

Family-centered early intervention

In daily life, children depend on parents for everything, including diet, sleep, games and so on. After cochlear implantation surgery, the whole family requires a great deal of professional and technical support. Parents should intensively observe children and focus on the following aspects:

Check whether children's response frequency to sound stimulus decrease; Check whether sound and speech is abnormal; Check whether children physically discomfort; Check cochlear device regularly;

Some universal positive changes in behavior:

Audio and visual attention increase; Rapid detection of sound; More sound involving games appear; Reduce the dependence of sign language or gestures; Voice frequency matching the sign language and gestures increases.

Study (Wu, 2014) indicates that several main influencing factors including age of cochlear implants surgery, multiple disabilities, cochlear using time and family factors involving family financial situation, parents' educational level. Ability of independent implement guiding rehabilitation, integrating all sources of early intervention etc. is affected directly by their educational level. Parents

actively participate in early intervention after the surgery of cochlear implants, which is the key factor improving ideal language development of children. Family function (Wang et al., 2011) works effectively depends on several main aspects: the knowledge of hearing impairment and cochlear implants; the cope strategies of the family facing of challenges; the mutual support between family members; the environment of raising children; the communication between children and family members; the social communication of children beyond the family; the ability of the family to independent solving problems; the ability of the family to make a decision and; the family expectation for children.

Family-centered early intervention emphasizes strong relationship among children, parents and the family. Children are unique in each family, only deeply understand the whole of family culture, values, family structure, even the daily life can meet the needs of the children. Relationship between parents and children even their common experiences also influence early intervention. Style of interaction and quality between them reflects their common experiences and knowledge, which is also the carrier of early intervention. For the family, strength and resource of every family member are united to meet the needs of the whole family. Support network is formed among family members, providing the best language learning environment and keep a warm and nurturing environment.

Statistics show that about 95 % of children with hearing impairment are born in the family with hearing parents. Those hearing parents generally do not have sign language skills, communication barriers with children exist commonly. At the beginning of cochlear implants surgery, it is difficult to predict that how well develop of the language, in that case, it is important to give priority to oral communication, and supplement by sign language. In the newborn period, communication between adults and children is mainly based on the effective communication mode that has already built by the interaction between themselves. Such mode positively impacts the language development of children. Researches of the past ten years (Preisler & Tvingstedtand, 2008) clearly demonstrated that sign language is beneficial for children in communication, language learning, social-emotional and cognitive development. However, it is easy to be ignored by parents or even rejected curtly.

Children mainly learn from and imitate the communication between themselves and parents. Main care-givers provide a vivid auditory learning environment to stimulate the production of dialogue. It is also an effective way to identify the extent of the voice recognition. If children cannot recognize mostly, which implies that more visual input, namely sign language or gestures are necessary. In bilingual environment, if children can identify most language, it will be a good choice to treat sign language as the second language. When

some children decide to communicate only in sign language, professional sign language teachers could build good examples for them.

Due to the lack of knowledge about how does hearing impairment influence the development of language, some parents often control the interaction between them and the children, but such kind of way is extremely disadvantageous for the development of children. On the contrary, interaction model associated with children's intention which focuses on the content of the dialogue with children instead of dull linguistic form to promote speech and language acquisition. Establishing comprehensive hearing system to promote self-monitoring of speech and response actively to the environment, comply with natural sequential patterns of hearing, perception, speech, and cognitive stimulation. Children with hearing impairment do not understand words, sentences or be unable to use, mutual interaction with peers will be limited. Further, amount of vocabulary and sentences is very important for subsequent development of reading and writing skills.

Early intervention team building

After cochlear implantation surgery, the cochlear implants center provides long term postoperation technical supports. Traditionally, clinical effects are tested by speech perception, speech generation and language ability. For children who do not have multiple disabilities, three main factors to predict their performance related with listening which including dominating oral communication both at home and in school, rich effective auditory learning environment and parents' knowledge of cochlear implants. Other influencing factors involve with cochlear implants continuous using time and auditory rehabilitation (Wang et al., 2011).

Early intervention completely link with the daily life of children, based on natural situation such as dieting time, games, dressing etc. Early intervention team should implement parents consulting, provide a rich language environment, strengthen daily communication frequency, and promote children to listen and to speak. Early implantation and early family intervention raises the possibility of children reach the universal language development level till 5 years old (Moog & Geers, 2010), which also improve language expression, listening and reading skills, and social emotion.

Speech and language therapist provide technical supports for the development of listening, communication and cognitive skills, in the form of individual or group intervention. Intervention should be focused on the communication and transition for preschool education. Furthermore, it is important to offer educational placement information for parents, through which parents may recognize that environment in regular school, is beneficial for

children to practice listening and speaking. Educational placement should be decided according to the individual characteristics of children rather than the ideal irrational choice of the parents. Social networking of parents is also a part of the intervention team, which is a stage for parents to share and communicate their personal experiences with each other. In a word, all kinds of services are provided to create appropriate environment for children.

Early intervention team building, psychological consultants are included. It is a long way that from the diagnosis to cochlear implants, parents felt anxious, sad, angry, even despairing at the beginning of diagnosis, they struggled with whether implant cochlear, once they had cochlear implants, subsequently, they doubted about the listening development of children and their future. All of such factors could damage the family functions. Psychological consultants could help family members in psychological, finding appropriate coping strategies to solve problems.

Multidisciplinary team may include social workers, daily care center staff and nursing staff in hospital. Teachers for children with hearing impairment face new challenges in implement of family centered intervention. In the past, they only focused on educating the children, but now they should also provide family consultation and supports, and even visit family regularly and guide parents solve most problems properly. In general, early intervention team should be sensitive and clear of children's individual characteristics, intension of intervention, and prior items of early intervention. For those families with situations of bad financial status, damaged family structure, or incomplete family function, early intervention team should especially pay attention to.

Reform of deaf school

The fate of children with hearing impairment over the past half century has experienced a great change, from electronic hearing aids to extensive hearing screening and early cochlear implantation. On one hand, cochlear implants is a good opportunity for children with hearing impairment to listen to the world, on another hand, most children with cochlear implants can speak and communicate orally, they tend to be educated in regular school. More students with cochlear implants study in regular school, and fewer students study in deaf school, those changes pose challenges for teachers both from regular and deaf school. Some deaf education scholars propose that in the 21st century, deaf school should reform to meet the needs of students.

To meet the needs of children with special needs, at least one special school should be built in every county in the mainland of China. In the background of inclusive education, many special schools set up resource centers to offer individual educational support for students with special needs but study

in regular schools. In special school, professional special education teachers educate students with different special needs, such as students with autistic spectrum disorder, with mental retardation, with cerebral palsy, and so on. Even though there are resource center, teachers are busy in educating in special school. As for the students with cochlear implants and hearing aids who study in regular school, they do not get enough appropriate attention or technical support. In addition, around 30 to 40 percent of students with hearing impairment, they may also have learning disorders, autistic spectrum disorder, or serious behavioral disorders, attention deficit hyperactive disorders etc. usually they are educated in special school with limited individual support.

There are fewer deaf schools than special schools, partially deaf schools should reform, change the only educational function into comprehensive functional service center, which includes early intervention, child-care center, preschool education, primary school education, secondary vocational education, inclusive education center, hearing test and rehabilitation. Comprehensive functional service center provides support for both regular and special schools. Comprehensive service center could offer technical support and recommend educational placement transition for students with hearing impairment. Regular school and resource center in special school serve students with hearing impairment after their transition. Once some difficult problems appear but they cannot solve, they could transit students to comprehensive service center or consult them directly. As a result, special school resource center, regular school and comprehensive service center, those three constitute a coherent dynamic system, professional team guidance cover all.

Reform of the deaf school challenges the staff, which is also a challenge for the teachers in regular school. Despite of family consultation and information support, periodical on-the-job training is also necessary which including cochlear implants simple troubleshooting, regularly inspection of the hearing aids to meet timely needs of students in school. The teacher may consider study situation of students from five aspects: attention, communication, class participation, behaviors and academic achievement, to discover and solve possible problems. Whatever educational placement, effective listening environment is very important for students with cochlear implants. Imagine that even hearing children would be interfered in a noisy environment. Noise and reverberation influence the speech recognition of children with cochlear implants. Some recommendations are listed here such as equipped with FM radio system, electromagnetic induction coil to improve the sound quality and help children with hearing impairment receive acoustic signal.

In order to provide appropriate education, suitable courses are also needed. As far as possible to carry out group teaching and multidisciplinary (Leo et al.,

2012) team support, to meet the needs of students, adaptation of school courses may include:

Introduction of cochlear implants to the students. Help students get to know the cochlear implants and some simple hearing equipment debugging;

Oral language input. After the cochlear implantation surgery, children are able to listen to the world, listening practice is necessary, especially in the early years after surgery, daily speech and language therapy is very important;

Reading practice. Reading practice should be particularly focused on some vocabulary and syntax which are used with high frequency;

Additionally, students with cochlear implants in regular school, they feel lonely, which intensify the possibility that the social-emotional problem, regular school should consider place children with cochlear implants in the same school or class. Actively rich and colorful activities could be carried out, such as organizations for children with cochlear implants, weekend study groups, summer camps and so on. During activities, children and their parents both have opportunities to freely share experiences.

Conclusion

On one hand, children with hearing impairment have more educational choices when cochlear implants bring them hearing ability. Group characteristics of children with hearing impairment tend to be diversified because of hearing aids and cochlear implants. On another hand, more and more children with cochlear implants choose to study in regular schools, this new situation pose challenges for teachers in both deaf schools and regular schools. In regular schools, professional special education teachers obviously are insufficient. On the contrary, fewer students are educated in deaf school.

To provide the least restrictive educational environment, school reform is imperative. To meet the needs of students, teachers' specified knowledge should be strengthened.

Regular school teachers have great concern with children with cochlear implants, such kind of unnecessary worry comes from they do not know well about what is hearing impairment or cochlear implants. Additionally, parents usually underestimated the demands of special needs once they hold high expectation for the development of children after cochlear implants surgery either despite of intensive postoperative rehabilitation.

More and more children accept cochlear implants surgery in earlier ages, to focus on the assessment and monitoring of hearing, speech and language, cognitive and social emotional development. Especially, the early intervention team building and cooperation of multidisciplinary are really important.

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SOCIĀLĀ PEDAGOĢIJA
SOCIAL PEDAGOGY

MANIFESTATION OF STRESS AND COPING CONCERNING PROFESSIONAL EXPERIENCE

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Abstract. *The paper focuses on the stress and coping exercised by pedagogues at mainstream schools in Lithuania. The main goal of the paper was to reveal significant contrast in manifestation of coping among different actors of educational process with regard to the diversity of their professional experience and spheres of activities. Quantitative empirical data were analysed by using descriptive and nonparametric statistical analysis (Mann-Whitney, Kruskal-Wallis tests). The empirical data (N=478) has shown that specialists of educational support tend to apply avoidance-oriented strategies with retreat more often than subject teachers. In addition, stress coping techniques applied by pedagogues are discussed with regard to their professional qualification.*

Keywords: *Stress, coping, pedagogues, specialists of educational support; professional experience and qualification.*

Introduction

Stress (*stress* en., *cmpecc* rus. – strain, tension) is considered as psychological and physical strain or tension generated by physical, emotional, social, economic, or occupational circumstances, events (Colman, 2015). It may be defined as interaction between a person and the environment when environmental impact is regarded as a threat to inner coherence and welfare of a person as well as one's psychophysical balance. The notion of stress is applied to depict physical and psychological anxiety, i.e. a situation with rising physical and emotional tension and incapability to cope with problems encountered when customary behavioural patterns are insufficient and new situation management strategies cannot be initiated efficiently (Bandziene, 2009; Gostautas, 1999; Pikunas & Palujanskiene, 2005).

Nine out of ten Lithuanian inhabitants occasionally suffer from physical or psychological tension whereas every fifth Lithuanian claims to suffer from stress rather frequently. Recently, this phenomenon has become rather common and requires certain actions as it disturbs daily routine of a person considerably and

affects efficiency of work. The majority of the interviewed (90%) indicated that they encounter stressful situation from time to time and almost half of the respondents (45%) stated that this happens mostly at work or educational environment. The analysis of the research has revealed that the level of stress and anxiety experienced by Lithuanians indicates the seriousness of the situation human resources is facing now (European Foundation for the Improvement of Living and Working Conditions, 2010; Keturakis, 1998).

The analysis of the data has shown that stress is most frequently experienced by the employees working in the following fields: public services, creative industries (artists, actors, writers), system of education (teachers, social workers) as well as those rendering foster and care services. Persons whose work involves human interaction (including teachers, pedagogues and specialists of educational support) obviously encounter rather stressful and tensed situations. Stress experienced by pedagogues is defined as high level stress; moreover, from 31% to 37% of the pedagogues living in the Baltic States suffer from it and this exceeds the common average of professional stress undergone by European pedagogues by 22% (Report of European Trade Union Committee for Education, ETUCE, 2011). The researchers state that undergone stress affects health of pedagogues and lessens their job satisfaction. Stress on the institutional level may be caused by unsafe working environment and responsibility they bear for the children (Bandziene, 2009; Bulotaite & Lepeskiene, 2006; Kepalaite, 2013a; Alifanoviene & Vaitkeviciene, 2012); whereas publicly most often teachers suffer from lack of prestige, insufficient payment, unsafe working position and rivalry among schools including “boss-imposed” precipitate reforms (Bubeliene & Merkys, 2012, p.107).

Stress experienced by professionals has been investigated by scientists from different fields such as pedagogics, psychology, biomedicine or management. Due to new technologies of information and communication as well as intense way of life in all spheres (including educational system) dramatic changes of events have emerged. The reorganization of Lithuanian educational system throughout the last decade has introduced many changes, uncertainty, anxiety, frustration and stress which can hardly be counterbalanced by social welfare among the participants of the educational processes. Researchers (Bulotaite & Lepeskiene, 2006, Bulotaite, Pociute, & Bliumas, 2008; Kepalaite 2013a, 2013b; Alifanoviene & Vaitkeviciene, 2012) have noted that educators suffer from professional stress rather frequently as they often have to encounter unforeseen circumstances and address them properly. In the context of social change and educational reforms, educators have to work under pressure of constant instability (Klizas & Sulniene, 2012), which as well as perpetual challenging affects working results, quality and efficiency of professional educators.

In the context of social tension, the analysis of stress as a notion, its peculiarities and management strategies has gained their relevancy (Grakauskas, 2004; Grakauskas & Valickas, 2006; Valickas, Grakauskas, & Zelviene, 2010). Despite the interest in manifestation of professional stress and its management strategies studied by various researchers, the analysis of stress experienced by Lithuanian educators have not encountered a proper investigation yet and the following questions have not been answered: *how do pedagogues and specialists of educational support manage stressful situations? What circumstances cause most stress and anxiety? What is the origin and possible manifestation of professional stress in the cases of these professionals? How different is manifestation of stress experienced by pedagogues?* These **questions** and other **issues** have structured the basis of the current paper.

The aim of the research is to reveal manifestation of stress and coping practised by teachers and specialists of educational support with regard to their professional experience.

The object of the research is manifestation of stress and coping in regard to professional experience.

Methods and scope of the research

In order to depict the peculiarities of stress experienced by pedagogues and specialists of educational support at work as well as its management strategies, an electronic questionnaire constituting from blocks of demographical questions and statements about possible educational situations has been created. Furthermore, the measurement scale by Lazarus (2006) CISS (Coping Inventory for Stressful Situations), adopted by Kriukova (2010) has been applied in the research. Its 48 statements have been divided regarding three factors: emotion-oriented coping (EOC) with stress, task-oriented coping (TOC) with stress and avoidance-oriented (AOC) coping. The inner coherence of statements has been assessed at 0.081.

The empirical data has been processed with SPSS-19 version applying descriptive analysis, Chi-square test and nonparametric tests (*Mann-Whitney; Kruskal-Wallis*) in order to actuate the management strategies with regard to professional experience of the recipients. Whilst examining hypothesis, statistically relevant coherence has been indicated in cases of assessment at 0.05 sharply or less.

The scope of the research was determined by target selection. 478 respondents (social, special and speech therapists and teachers from different regions of Lithuania) participated in the research. The scope of the research (N=478) is based on the data about the population of pedagogues provided by

the Department of Statistics to the Government of Republic of Lithuania¹ as well as scope calculator² with bias of 5% (Cekanavicius & Murauskas, 2001; Kardelis, 2002).

Manifestation of stress among pedagogues: analysis of research data

The paper contains only a part of the research. It targets the stress the respondents encounter and the coping in respect to professional experience of the educators (record of service, category of qualification and professional field they work in).

Difference in rates of encountered stressful situations in respect to record of service. In order to determine the coherence between the record of service and encountered stressful situation, Chi-square test was applied with $p < 0.05$ as a level of significance. Statistically relevant difference has been observed in statements “you encounter indifference of your colleagues while dealing with problems” $\chi^2 = 37.659$, $df = 24$, $p = 0.03$, and “you deal with children having behavioural problems” $\chi^2 = 37.717$, $df = 24$, $p = 0.03$ (Table 1).

The respondents were asked whether they often encounter indifference of their colleagues while dealing with problems. The results has shown that the majority of those with record of service shorter than 15 years encounter the indifference more often than the respondents with longer record of service ($p < 0.05$). Administration of educational institutions and other pedagogues expect a new employee to specialize in a new environment quickly and require assistance in its development quite fast. They expect new ideas and their realisation in the process of education. A conclusion may be drawn here that inexperienced teacher may not receive a proper assistance from experienced colleagues while facing a problem. Pedagogues with 20-year-record of service and longer state that they rarely or never encounter indifference of their colleagues while dealing with problems (Bubeliene, 2010; Klizas, Sulnienė, 2012).

Quite often stress may be induced by children with behavioural problems. The analysis of the empirical data has revealed that pedagogues with short record of service (less than 5 years) are more likely to deal with children having behavioural problems than more experienced colleagues with longer record of service ($p < 0.05$).

¹ Department of Statistics to the Government of Republic of Lithuania

² The Survey system. <http://www.surveysystem.com/sscalc.htm>

Table 1 Coherence between record of service and encountered stressful situations (N=478)

Statements	Record of service	Never	Rarely	Someti mes	Often	Very often	P≤0.05
You encounter indifference of your colleagues while dealing with problems	Less than 5 years	27.7	31.9	25.5	6.4	8.5	0.03
	5-10	4.4	35.3	41,2	176	1.5	
	10-15	9.5	39,2	32.4	14.9	4.1	
	15-20	1,7	30,0	41.7	13.3	3.3	
	20-25	1,2	32,4	45.6	8.8	0	
	25-30	12.7	39,4	25.2	12.7	0	
	30 and more	15.6	37,8	38.9	5.6	2.2	
You deal with children having behavioural problems	Less than 5 years	0	2,1	25.5	29.8	42.6	0.03
	5-10	1.5	5,9	22.1	48.5	22.1	
	10-15	0	9,5	21.6	37.8	31.1	
	15-20	1.7	6,7	30.0	31.7	30.00	
	20-25	0	16,2	36.8	30.9	16.2	
	25-30	0	11,3	33.8	32.4	22.5	
	30 and more	0	16,7	30.0	35.6	17.8	

Manifestation of coping with regard to qualification category. In order to actuate the coping with regard to professional experience, i.e. considering the category of qualification as well as professional field, nonparametric tests have been applied.

In Lithuania, according to the certification conduct of teachers and specialists of educational support (social and special pedagogues, speech therapists) (2008), there are four qualification categories of teachers: a teacher, a senior teacher, a supervising teacher and an expert and respectively – four qualification categories for specialists of educational support. The researchers aimed at revealing statistically relevant differences in manifestation of coping with stress considering the qualification categories of the pedagogues

Table 2 **Manifestation of coping with stress regarding categories of professional qualification (Kruskall_Wallis test)**

Variables	Pedagogues / specialists (N=119); Mean Rank	Senior teachers/ Senior specialists (N=207); Mean Rank	Supervisors and experts (N=152); Mean Rank	p³
I do shop browsing (AOC)	270.76	224.80	235.05	0.006
I recall the solutions of similar problems from the past (TOA)	277.00	222.42	233.40	0.001
I try to see into the situation (TOA)	267.94	223.85	238.55	0.008
I interact with someone I care about (AOC)	275.41	233.22	219.94	0.002
I go for a walk (AOC)	264.18	235.59	225.50	0.053
I consult somebody whose advice I take into account (AOC)	272.05	230.12	226.80	0.007
I depict priorities of the present situation (TOA)	239.28	223.79	261.07	0.022
I watch TV (AOC)	221.33	235.71	258.89	0.059

The analysis of the empirical data concerning categories of professional qualification has proven that retreat and avoidance are more common among the pedagogues with lower qualification category, in comparison to those with higher qualification. Statistically relevant difference has been noticed comparing pedagogues or specialists with lowest qualification category to supervising teachers and experts, e.g. *I interact with someone I care about* ($p = 0.002$); *I go for a walk* ($p=0.053$); *I consult somebody whose advice I take into account* ($p=0.007$). It should be emphasised that qualification category involves practical skills, knowledge and personal abilities. Therefore, the lower the qualification category, the scarcer practical skills, knowledge or personal abilities are. The lack of practical skills or knowledge in particular may decide the choice of retreat while facing difficult or stressful situations. The situation may also be influenced by scarcity of personal or social maturity. Compas, Orosan & Grant (1993) have emphasised that elder persons tend to practice strategies of copying with difficulties rather than choose emotional reaction to a particular situation or use strategy of retreat. They also are more inclined to analyse a particular situation, search for different solutions of a problem and implement the sequence of actions they decide on. Here also should be noted that in some cases

³ $p < 0.05$

less-experienced pedagogues are those that tend to practise problem-oriented coping strategies more willingly than supervising teachers (*I recall the solutions of similar problems from the past, $p= 0.001$; I try to see into the situation ($p=0.008$).*

Manifestation of coping with regards to professional field.

The way teachers and specialists of educational support cope with stressful situations has also been considered including the strategies they choose for stress management. 336 subject and class teachers as well as 142 specialists of educational support (speech therapists, social workers, special pedagogues), who are responsible for providing participants of educational process with educational support and coordination, took part in the research. Table 3 illustrates manifestation of stress management strategies with regard to professional field of the respondents.

Table 3 **Manifestation of coping**

Stress management strategies	Pedagogues (N=336) Mean Rank	Specialists of educational support (N=142), Mean Rank	Statistical data	
I do shop browsing (AOC)	226.18	271.01	19381.500	U ⁴
			75997.500	W ⁵
			-3.548	Z
			0.000	p ⁶
I recall the solutions of similar problems from the past (TOC)	224.30	275.46	18749.000	U
			75365.000	W
			-3.951	Z
			0.000	p
I convince myself that this is not happening to me (EOC)	230.93	259.79	20975.500	U
			77591.500	W
			-2.285	Z
			0.022	p
I blame myself for irrational emotionality in a given situation (EOC)	248.01	219.37	20998.000	U
			31151.000	W
			-2.173	Z
			0.030	p
I have a lunch break or a snack (AOC)	230.32	261.21	20772.500	U
			77388.500	W
			-2.353	Z
			0.019	p

⁴ Mann-Whitney U

⁵ Wilcoxon W

⁶ Asymp. Sig., $p < 0.05$

I buy something for myself (AOC)	229.37	263.48	20451.500	U
			77067.500	W
			-2.597	Z
			0.009	p
I make a plan for acting and keep to it (TOC)	231.48	258.47	21162.000	U
			77778.000	W
			-2.083	Z
			0.037	p
I go to a party, visit my friends (AOC)	230.92	259.79	20974.500	U
			77590.500	W
			-2.207	Z
			,027	p
I consult somebody whose advice I take into account (AOC)	229.54	263.07	20509.000	U
			77125.000	W
			-2.572	Z
			,010	p
I analyse the situation before reacting to it (TOC)	231.50	258.42	21169.500	U
			77785.500	W
			-2.057	Z
			,040	p
I call my friends (AOC)	225.50	272.50	19169.500	U
			75785.500	W
			-3.499	Z
			,000	p
I think of several possible solutions of the problem (TOC)	231.63	258.13	21210.500	U
			77826.500	W
			-2.060	Z
			0.039	p
I try to concentrate in order to succeed in a given situation (TOC)	230.10	261.73	20699.000	U
			77315.000	W
			-2.442	Z
			0.015	p
I watch TV (AOC)	249.66	215.46	20442.500	U
			30595.500	W
			-2.577	Z
			0.010	p

The empirical data calls for explanation of the paradox. In fact, rather contradictory trends have been noticed while trying to indicate statistically relevant diversity in strategizing stress management among different professionals (teachers and specialists of educational support in this case) which needs to be discussed. The analysis of the research data has indicated that diversity of coping may be noticed in 14 cases (48 statements each, see Table 3). For the most part, statistically relevant data may be observed on the scale of retreat. In fact, more often than teachers, specialists of educational support tend

to retreat from a stressful situation rather than see into a given problem (e.g. *I do shop browsing* ($U = 19381.500$; Wilcoxon $W = 75997.500$; $p = 0.000$); *I have a lunch break or a snack* ($U = 20772.500$; Wilcoxon $W = 77388.500$; $p = 0.019$; *I call my friends* ($U = 19169.500$; Wilcoxon $W = 75785.500$, $p = 0.000$) etc.). This may be due to the fact that work of a specialist of educational support is not defined properly, work of social pedagogues in particular. Unforeseen events and complicated circumstances (such as cases of violence, bullying at school, interaction crisis, etc.), which require a decisive mind, individual solution for a given problem in order to balance needs and expectations of those participating in educational process, are highly likely to appear on their daily schedule. Providing support for children and their environment is a prolonged process requiring both participation and cooperation of all parties involved. Constantly, parents and other educators expect instant results. Therefore, in case of uncertainty or controversy between needs and expectations, strategies of retreat or avoidance are observed at work. While investigating stress in teachers' work, Bulotaite & Lepeskiene (2006) have noted that decisions to avoid stressful situations are more common when discontent with educator's position rise on general. The paradox lies in the fact that during the process of training specialists of educational support are prepared for working in complicated circumstances requiring an integrated scheme of solutions. Specialists of educational support are expected to apply strategies of task-oriented strategies as their work involves abilities and possibilities to meet the needs of participants of educational processes and solve complicated issues encountered. The present controversy may also be confirmed by the statements related to problem-solving activities as specialists of educational support are more likely to practice them than teachers (e. g. *I think of several possible solutions of the problem* ($p = 0.039$); *I try to concentrate in order to succeed in a given situation* ($p = 0.015$). However, avoidance-oriented strategies including retreat are more often exercised by specialists of educational support.

Conclusions

- Stress experienced by professionals has been investigated by scientists from different fields such as pedagogics, psychology, biomedicine or management. Due to new technologies of information and communication as well as intense way of life in all spheres (including educational system) dramatic changes of events have emerged. The reorganization of Lithuanian educational system throughout the last decade has introduced many changes, uncertainty, anxiety, frustration and stress which can hardly be counterbalanced by social welfare among the participants of the educational processes. In the context of social change and educational

reforms, educators have to work under pressure of constant instability, which as well as perpetual challenging affects working results, quality and efficiency of professional educators.

- Indifference shown by colleagues and work with children having behavioural difficulties are regarded as inducing stress. Statistical correlation between a record of educational service and aforementioned resources of stress has been noted.
- nonparametric tests have been applied in order to actuate the coping with regard to professional experience. Considering the category of qualification, there should be noted that teachers and specialists with lower qualification category and therefore lacking practical skills and knowledge tend to apply avoidance-oriented strategies and retreat more often than pedagogues with higher professional category of qualification.
- A rather gripping and contradictory trend has to be noted regarding particularities of professional matter. Despite the fact that specialists of educational support are trained to search for rational decisions ensuring coherence in needs of all participants of the process as well as meeting their requirements, the specialists tend to apply avoidance-oriented strategies with retreat more often than subject teachers.

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DEVELOPMENT OF COMMUNICATION POSSIBILITIES BETWEEN PARTICIPANTS OF THE TEMPORARY CHILD GUARDIANSHIP SITUATION: THE RELATION OF VARIABLES

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Abstract. *Based on the quantitative research results, the article deals with communication peculiarities of the participants of the temporary child guardianship situation – children and their biological parents whose parental rights are temporarily limited – at the temporary foster care institution in the aspect of specialists working there. Using descriptive mathematical statistics and statistical analysis methods, specialists' opinion about the causes of disagreements between specialists and learners, the causes of disagreements between parents and specialists, and communication development possibilities of the participants of the temporary child guardianship situation were analysed.*

Keywords: *children's temporary guardianship, biological parents, learners of temporary childcare institutions, social educators / social workers.*

Introduction

The United Nations Convention on the Rights of the Child (1989), which Lithuania has ratified, notes that all children must be provided with appropriate conditions for their full-fledged development, protection and assurance of rights. It often happens that children's rights and development prospects to suitably grow and develop in biological parents' homes are violated. In such cases, parents lose the possibility to grow and take care of their children themselves, there appears a necessity for professionals, who can ensure children's safety and appropriate education, to intervene in the internal life of the family. The most common causes due to which children cannot grow in parental families are parents' neglect of their child, their unconcern, inappropriate upbringing, physical or psychological violence. If the child's rights and possibilities to grow

and develop in the biological family are limited, according to the Civil Code of the Republic of Lithuania, the child under the age of 14 is awarded guardianship, the child older than 14, curatorship.

Data provided by The Lithuanian Department of Statistics demonstrate that between 2010 and 2014, the number of children growing in childcare homes was gradually decreasing. The number of children who were deprived of parental care per year is also decreasing; however, comparing the data of 2010 with the data of 2014, the number of children taken into temporary guardianship increased; the number of children who returned to their parents from temporary guardianship also remains little decreased (see Table 1).

Table 1 Child Guardianship Tendencies in Lithuania

Years	2010	2011	2012	2013	2014
The number of children in foster care in families, N	6651	6289	6105	5906	5681
The number of children growing in child care homes, N	5000	4870	4611	4368	4086
Children deprived of parental care per year, N	2145	2305	2055	2112	1871
The number of children who returned to their parents, N	768	811	801	927	754
The number of children who were taken into temporary guardianship, N	127	112	103	137	154

Source: The Lithuanian Department of Statistics <http://osp.stat.gov.lt>

The Child Welfare State Policy Concept stipulates that support provision for the child in the first place must be based on the network of the environment closest to the child, since the loss / death of both parents is attributed to catastrophic stressors (Pileckaitė-Markovienė, Lazdauskas, 2007). Therefore, designating guardianship to the child, the following priorities are followed: 1) the child's return to the biological family, 2) the child's adoption, 3) the child's long-term guardianship (The Child Welfare State Policy Concept, 2003).

In order to protect the child from danger and at the same time not to violate his / her right to grow in the family, The Child Welfare State Policy Concept (2003), The Child Wellbeing Programme (2013-2018) provide for the most important trends of creating well-being for children and their families. The key provision of these documents is to ensure the child's life and self-education possibilities in the family; in case of complicated family situations, to create conditions for children's return to their biological families; organize the support network for families at-risk; promote parents not to terminate relationships with

children; and solve arising difficulties due to which children were taken away from the family.

The modern concept of child guardianship unconditionally emphasizes the priority of non-institutional child guardianship because children who have lost parental care undergo a double trauma: they experience and perceive parents' bad behaviour with them and suffer from forced separation from the family, which almost equals to parental death. Therefore, specialists ensuring child guardianship forms should aim to minimize and mitigate such a painful loss as much as possible. This aim can be achieved by projecting conditions for returning of children to their biological families, organized network of assistance for families at-risk, parents' promotion not to terminate relationships with children and solve arising difficulties due to which children were taken away from the family (Alifanovienė, Vaitkevičienė, Kauneckienė, 2015).

Vitkauskas (2010) states that the child's temporary guardianship should not continue without restriction because in such case the child's right to be cared for in the family and to grow in the closest people's environment is violated. Therefore, it is important that specialists organising temporary guardianship of children should develop communication between children in the temporary guardianship situation and their biological parents, seek that parents, whose rights to foster and take care of their children are temporarily limited, change their lifestyle and children can return to the family of their biological parents.

Although Radzevičienė (1999) emphasized that one of the key tasks of the social educator or social worker working in the care institution was to help parents to overcome the crisis situation due to which the child was taken to the care institution. However, the research conducted by Sivec (2005) indirectly discloses that the weakest field of social educators' activity remains the same – work with learners' parents.

Data of the research conducted by Rimkevičienė (2007) also demonstrate that social educators working in child care homes pay too little attention to work with biological families of children in care although they know and agree that this area of work is important. Too little attention of specialists for parents of children in temporary guardianship may be one of the reasons why so few children are returned to their biological families and why such large number of children are designated permanent guardianship or curatorship in institutions or families, large families.

Thus, the problem field of this article is defined by questions: What are the peculiarities of communication between the participants of the temporary child guardianship situation? What conflicts arise between social educators, social workers and the participants of the temporary child care situation? What are the possibilities of developing communication between children who have the status of temporary guardianship and their biological parents?

The research object: peculiarities of communication between social educators / social workers working in child care institutions and the participants of the guardianship situation (parents and their biological parents).

The research aim: to analyze peculiarities of communication between social educators / social workers working in child care institutions and the participants of the guardianship situation (parents and their biological parents).

Research objectives:

1. To identify causes of conflicts between children who temporarily live in care institutions, their biological parents and specialists.
2. To disclose social educators' / social workers' opinion about the possibilities of developing communication between children who temporarily live in care institutions and their biological parents.

The research sample. The search for research participants took place using the website of The Ministry of Social Security and Labour¹ of the Republic of Lithuania. From the list of child care institutions given on the website the specific institutions in which children are cared for only on a temporary basis and work with the children's biological families is carried out were selected. Such institutions where children living in them have the possibility to return to biological parent families (there are 14 such institutions in Lithuanian cities and districts, and they employ 98 social educators / social workers) were selected using purposive sampling. Each head of the institution or senior social educator / social worker were contacted personally requesting them to participate in the questionnaire survey and asked to urge their colleagues to fill in the e-questionnaire². Conducting the questionnaire survey, the following difficulties of research data collection were observed: a share of heads of temporary care institutions accepted the request to urge their staff to fill in sent electronic questionnaires unsympathetically, stating that they "*had no time*" for that, that they get similar questionnaires "*every day and more than one of them*", that other researchers who want to get answers to the questions in the questionnaire "*compensate for that considerably*". Thus, due to these difficulties, only 59 out of 98 social educators / social workers filled in the questionnaires.

The majority of respondents were female (N=53), compared with the number of male respondents (N=6). The data show that women prevail in care institutions. The age of the majority of respondents N=26 is 41-45 years, fewer respondents (N=12) are between 25 and 30 years old. Specialists aged between 36 and 40 and between 31 and 35 constituted the smallest share of respondents

¹ <http://www.socmin.lt/lt/seima-ir-vaikai/vaiko-teisiu-apsaugos-istaigos/vaiku-globos-istaigos/vaiku-globos-namai.html>

² <http://apklausa.lt/f/anketa-skirta-socialiniams-pedagogams-socialiniams-darbuotojams-dirbantiems-befzy17.fullpage>

(N=2). The obtained data show that usually middle-aged staff is employed in temporary care institutions.

According to education, the largest group of respondents (N=52) consisted of the ones who had a university degree, the smallest group (N=7), higher college education. It can be reasonably stated that care institutions employ qualified social educators and social workers. Their distribution in these institutions is very similar: social educators, N=29, social workers, N=30.

The analysis of seniority of specialists working in care institutions shows that the largest group of respondents (N=27) has worked in such institutions from 5 to 10 years and up to 5 years (N=19). There were least respondents (N=11 and N=2) who have worked in care institutions 11-15 and 16-20 years.

Research methods. The research employed the quantitative research instrument – the questionnaire consisting of 4 demographic questions, 12 factual type questions about peculiarities of meetings and communication of children and their biological parents and 12 diagnostic areas, each of which is defined by statements. In this article we will present only such diagnostic areas which enable to disclose causes of conflict situations between children, biological parents and social educators / social workers working in child care institutions and possibilities of developing parent-child communication.

Respondents were asked to evaluate statements of diagnostic areas using a five-point rating scale (1 point – “strongly disagree”; 2 points - “partially disagree”; 3 points – “a neutral position”; 4 points – “partially agree”, 5 points – “strongly agree”). Diagnostic areas were defined on the basis of researches (Butvilas, 2004; Kondrotaitė, 2006; Samašonok, Žukauskienė, Gudonis, 2006). Statements of diagnostic areas were selected from interviews with children who were designated temporary guardianship and with their biological parents (Kauneckienė, 2014).

Reliability of statements constituting diagnostic areas was tested using Cronbach’s alpha coefficient. Cronbach’s alpha of the scale of *causes of conflict situations between parents and children* is 0.986; of *causes of conflicts between children and specialists of temporary care homes*, 0.963; of *causes of conflicts between parents and specialists of temporary care homes*, 0,977; of *development of communication possibilities between children and biological parents*, 0.697. High coefficients of three scales indicate that they are suitable for group researches for determining causes of conflict situations between children experiencing exclusion and parents, causes of conflicts between children experiencing exclusion and specialists providing social assistance, and causes of conflicts between parents whose parental rights are limited and specialists providing social assistance (Pakalniškienė, 2012:11).

The factor analysis method with Varimax rotation was applied for the said scales. The KMO coefficient value of the scale *causes of conflict situations*

between children experiencing exclusion and parents equals 0,923, Bartlett sphericity test: $p = 0,000$. No statement was eliminated because for all statements of the scale Anti-image Correlation $MSA > 0,5$. Using the principal component analysis method, only one factor was obtained, therefore it did not make sense to continue the factor analysis although this only factor explains a quite high (83,7%) dispersion of *causes of conflict situations between parents and children*.

The KMO coefficient value of the scale *causes of conflicts between children and specialists of temporary care homes* equals 0,887, Bartlett sphericity test: $p = 0,000$. No statement was eliminated because for all statements of the scale Anti-image Correlation $MSA > 0,5$. The principal component analysis method resulted in two factors, which explain 84,87% of dispersion of *causes of conflicts between children and specialists of temporary care homes* in the context of this research.

The KMO coefficient value of the scale *causes of conflicts between parents and specialists of temporary care homes* equals 0,901, Bartlett sphericity test: $p = 0,000$. No statement was eliminated because for all statements of the scale Anti-image Correlation $MSA > 0,5$. The principal component analysis method resulted in two factors, which explain 85,02% of dispersion of *causes of conflicts between parents and specialists of temporary care homes* in the context of this research.

The KMO coefficient value of the scale *development of communication possibilities between children and biological parents* equals 0,677, Bartlett sphericity test: $p = 0,000$. The principal component analysis method resulted in 7 factors, which after Varimax rotation reduced to 4. These remaining 4 factors explain 75,12% of dispersion of *development of communication possibilities between children and biological parents* in the context of this research.

Analysis of Research Results

Communication with biological parents and seeing them are important for every child. Social educators and social workers involved in the research disclosed that children temporarily living in care institutions were most often visited by the mother (94,9%), grandmother or grandfather (81,4%) and sister / brother (52,5%). Most rarely children are visited by both parents (6,8%) and godparents (6,8%). These data show that persons who are the closest and most caring for the child are his / her mother, grandparents and senior brothers / sisters. Meanwhile, the father turns up at the care institution less often than the mother, grandparents and brothers / sisters. It can therefore be assumed that child-father ties are often broken still before minors are taken to the care

institution. This can be determined by parental divorces, conflicts, disagreements between parents.

No matter how important communication with biological parents for the child is, specialists working in as many as 49 temporary care homes disclosed that they often saw conflict situations between children and the staff visiting them. They also acknowledged that there were conflicts between themselves and children who were temporarily deprived of parental care, between themselves and children's biological parents. The means of data collected during the questionnaire survey enabled to disclose causes of the most common conflicts between children and their biological parents. They are illustrated in Figure 1.

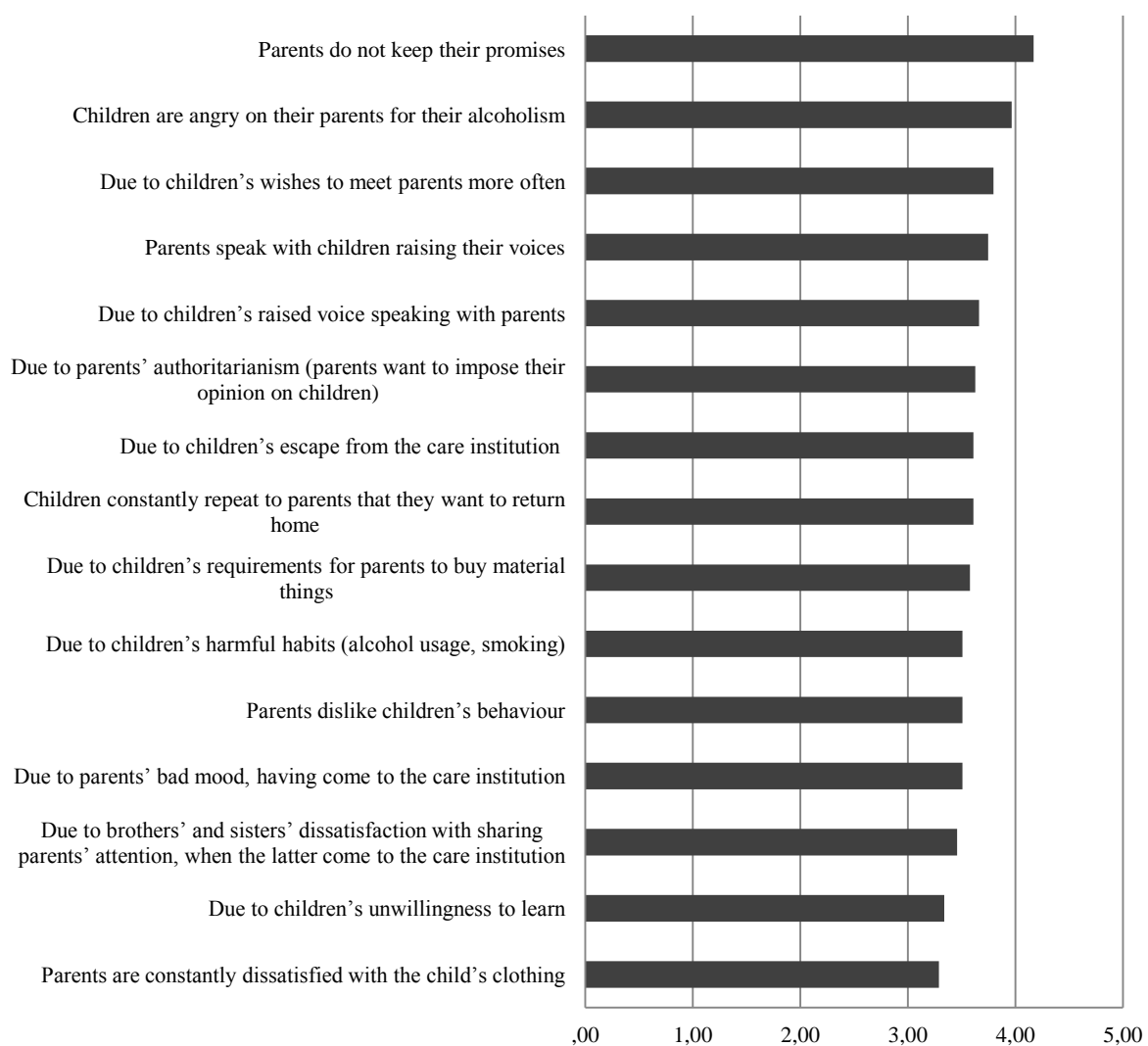


Fig. 1 Causes of Conflicts between Children Living in Temporary Child Care Homes and their Biological Parents

The data of the diagram show that the most important cause of conflicts between children who are designated temporary guardianship and biological parents from social educators' and social workers' standpoint is parents' unfulfilled promises ($M=4,17$; $SD=1,375$). In specialists' opinion, children's anger towards parents is provoked by disappointment in the dearest people. Children are also angry due to parental alcoholism ($M=3,97$; $SD=1,389$) and rare visits. Evaluation of causes of parent-child conflict situations identified by social educators and social workers enables to assume that *non-fulfilment of parental promises* is related to their rare visits to the care institution and *children's wish to see parents more often* ($M=3,80$; $SD=1,336$). It may be that namely this is the reason of children's reproaches to parents, while parents who defend themselves from children's reproaches *speak with a raised voice* ($M=3,75$; $SD=1,372$), which further irritates children and they also respond to parents with the same *raised tone of voice* ($M=3,66$; $SD=1,321$). Meanwhile, parents, wishing to maintain a "sliding" authority in the children's eyes, *behave in the authoritarian way* ($M=3,623$; $SD=1,23$). It is likely that this way the chain of conflictual parent-child communication, originating from parents' inappropriate lifestyle, is formed. Parents who have lost the right to the child care are not wise enough to discontinue the formed parent-child conflictual communication chain, while children are also not able to change anything in such situation due to their age and lack of life experience.

Children who live in the temporary child care home experience the confusion of feelings: on the one hand, like all children, they love their parents and want them to be with them as often as possible; on the other hand, living in temporary child care homes, they experience the prosocial life agenda, different routine compared to the one in the biological family and perceive that their parents' way of life differs from the socially desirable way of life. For this reason they are angry on their parents that they are forced to suffer consequences of their inappropriate lifestyle (*children keep repeating to their parents that they want to get home* $M=3,61$; $SD=1,218$). However, children do not want to accept the order prevailing in child care homes as well (parents conflict with children due to their escape from the care institution $M=3,61$; $SD=1,232$) because it is alien; its acceptance would equal betrayal of parents.

Social educators, social workers working in child care homes do not notice (see estimators of statements) conflicts arousing between children deprived of parental care and their biological parents *due to children's reluctance to learn* ($M=3,34$; $SD=1,198$) or due to *parents' dissatisfaction with the child's clothing* ($M=3,29$; $SD=1,218$). A large standard deviation shows that social educators, social workers are more inclined not to approve rather than approve of causes of these conflict situations. It can therefore be assumed that social educators and

social workers are more likely not to believe that parents who have lost the right of the child’s care bother about their biological children or their future.

The factor analysis disclosed two groups of causes of conflicts between specialists working in temporary child care homes and learners; weight of factors of statements and mean values of estimators of statements enable to see which causes of conflicts specialists observe and acknowledge and which they are inclined not to notice. They are illustrated in Figure 2:

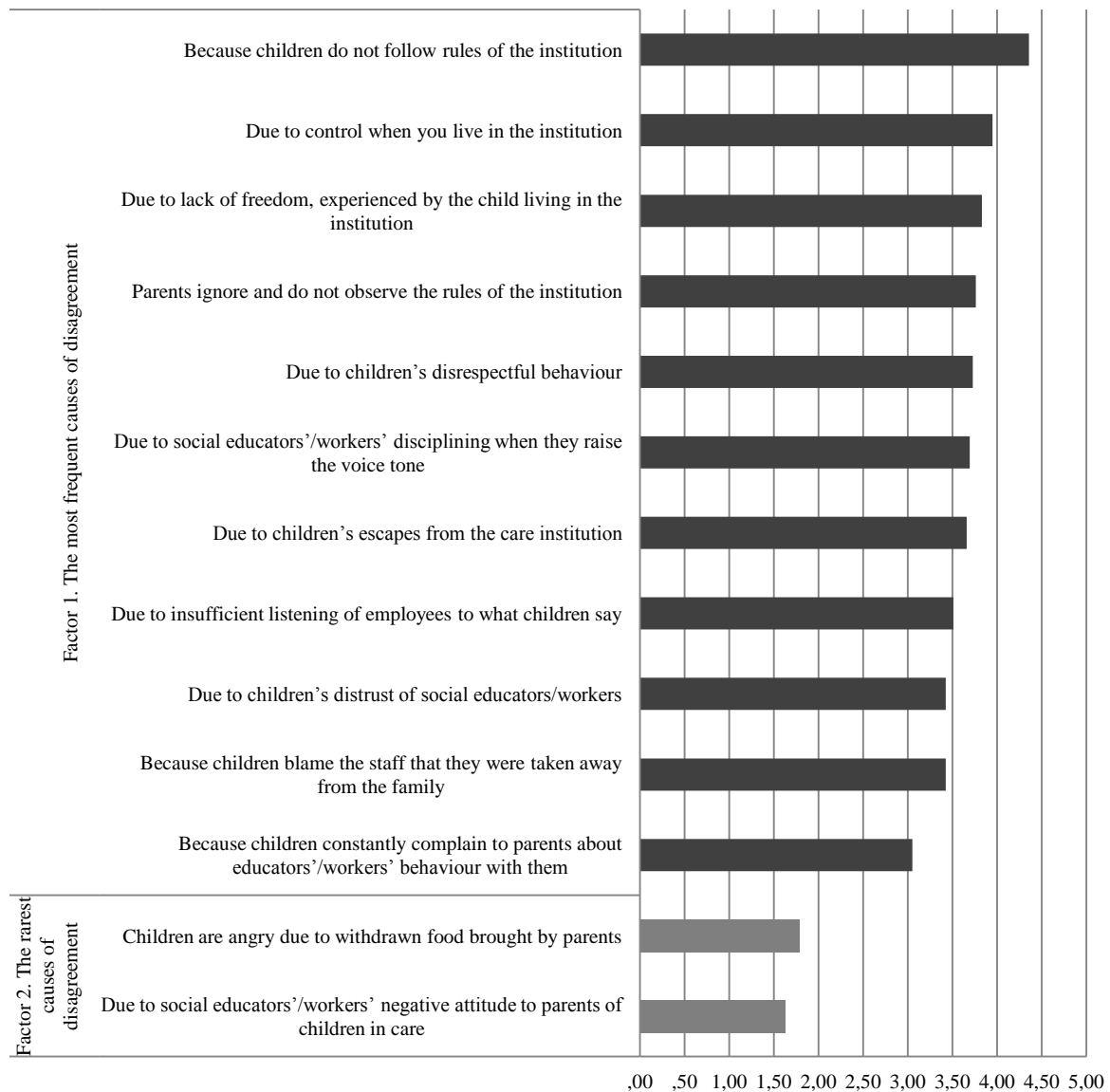


Fig. 2. Causes of Disagreements between Specialists and Learners

Specialists’ and learners’ research data disclose that presented statements semantically distributed into two factors. The means of responses to statements of the first factor, *the most common causes of child-specialist disagreements*

reveal (see Fig. 2) that respondents strongly agreed that the most common conflicts between the staff and children in care stemmed from *non-observance of rules of the institution* (M=4,36, SD=1,39), partially agreed that there were disagreements due to *control of living in the institution, experienced by the child* (M=3,85, SD=1,30), *the lack of freedom* (M=3,83, SD=1,24), *children's disrespectful behaviour with the staff* (M=3,73, SD=1,20), *disciplining when the staff raise the tone of voice* (M=3,69, SD=1,26), *children's escapes from the institution* (M=3,66, SD=1,29), *lack of listening of the staff to what the child says* (M=3,51, SD=1,19). Specialists who took part in the research also partially agree that *children do not trust social educators / social workers* (M=3,42, SD=1,19) and *blame the staff for taking them away from the family* (M=3,42, SD=1,31). Respondents doubt whether disagreements between them and children arise due to *children's complaints to parents about behaviour of the staff with them* (M=3,05, SD=1,31). These data disclose that children often find it difficult to accept that they cannot live in their own family. Due to such defiance with the existing situation children do not observe the rules of the institution, accuse the staff of separation from parents, display disrespectful behaviour directed towards the staff, resolve to escape from the care institution, all of it resulting in conflict situations. Meanwhile, the lack of listening of the staff to learners can promote learners' hostility, negative attitude towards the staff. This results in tense and unkind child-staff relationships.

The means of evaluations of the second factor statements, *the rarest causes of child-staff conflicts*, show that respondents do not agree with the statements about causes of conflicts: *children are angry due to withdrawal of food brought by parents* (M=1,78, SD=1,23) and due to *social educators' / social worker's negative attitude towards parents of children in care* (M=1,63, SD=1,31). These data suggest that professionals do not have prejudices directed against biological parents and learners, they often do not even know why the child in the institution is angry, annoyed, which indicates absence of a close relations between the staff and children.

Data analysis showed that estimators of causes of conflicts between parents who have temporarily lost the right to the child's care and the staff fluctuated from 1,68 to 4,41. In most cases, respondents chose the answer "partly agree" for statements: *parents do not fulfil agreements* (M=4,41, SD=1,40), *parents themselves spark conflicts* (M=3,86, SD=1,30), *parents are angry on social educators / social workers due to taken away children* (M=3,78, SD=1,37), *parents ignore and do not comply with the rules of the institution* (M=3,76, SD=1,25), *parents' negative approach to social educators / social workers working in the institution* (M=3,71, SD=1,25). It can also be noticed that evaluating these statements, respondents' opinion was more heterogeneous (SD ranges from 1,25 to 1,40). These research data enable to presume that parents of

children who temporarily live in care institutions come to the institution with preconceived negative attitudes to working specialists, blame them for taking away their children and for this reason, they often do not fulfil agreements and do not observe the rules of the institution. This leads to children's longer stay in care institutions than it is sometimes planned.

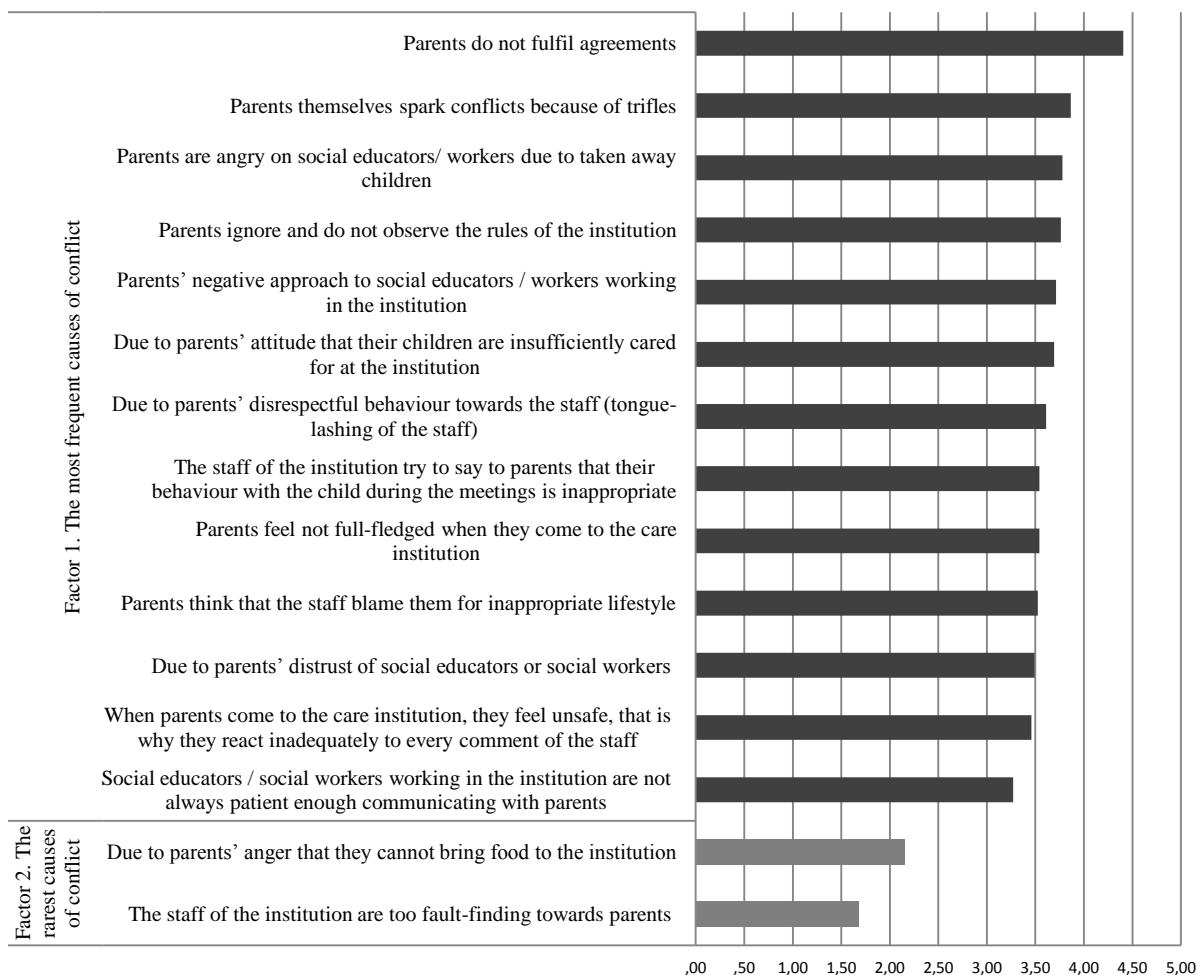


Fig. 3 Causes of Disagreements between Specialists and Biological Parents

In the course of the research we sought to find out how social educators / social workers contributed to the development of child-parent communication. The results of the factor analysis are presented in Figure 4:

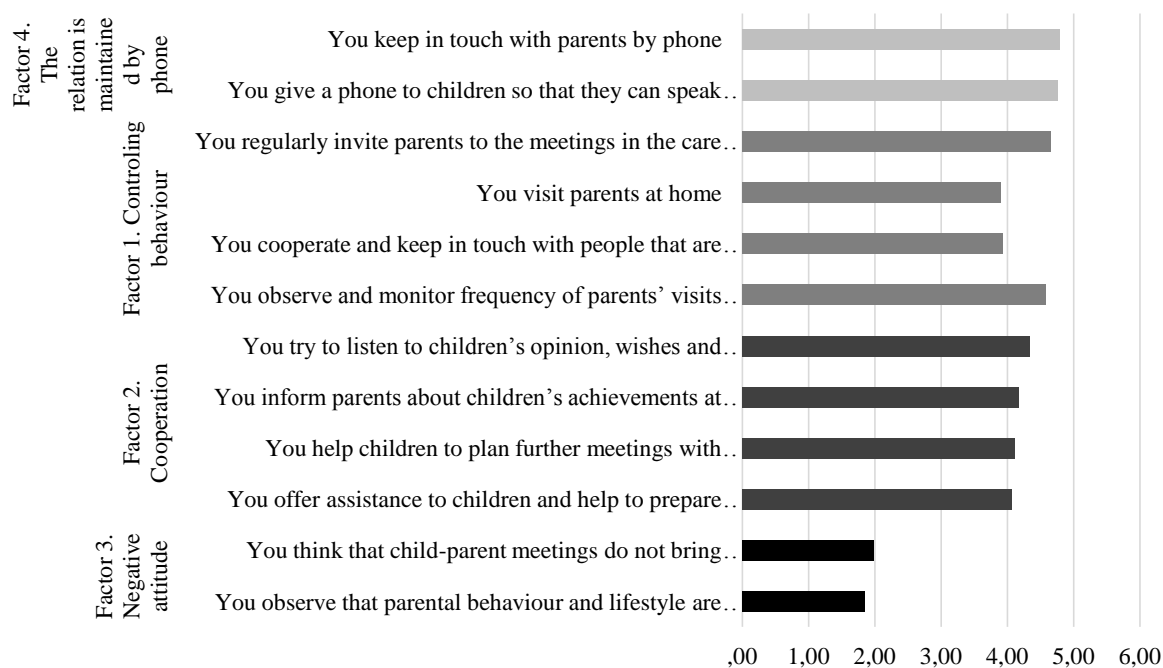


Fig. 4 Possibilities of Developing Communication between Participants of the Temporary Child Care Situation

The mean values evaluating statements of the first factor, *controlling behaviour*, show that the respondents completely agree that their assistance developing child-parent communication most often manifests itself in two ways: the staff *regularly invite parents to the care institution* ($M=4,66$, $SD=0,68$) and *observe and monitor frequency of parents' visits to their children* ($M=4,58$, $SD=1,00$). Research participants partially agree that in order to develop communication between learners and their parents, they *cooperate and keep in touch with people that are close to the child and his / her parents* ($M=3,93$, $SD=0,69$) and *visit parents at home* ($M=3,90$, $SD=0,78$). The obtained data reveal that social educators / social workers monitor visits to children, actively observe whether parents' lives are changing and how they are changing. In order to obtain sufficient information about the life of the family with which social educators / social workers work, they keep in touch with people from parents' environment. It can be assumed that this control is necessary seeking to achieve positive changes in parents' life and more frequent visits to their children. However, research results disclosed that specialists working in temporary care institutions little cooperate with other institutions and colleagues in order to share the good practice of developing communication between parents and children.

The means evaluating statements of the second factor, *cooperation*, show that the staff *is trying to listen to children's opinion* ($M=4,38$, $SD=0,95$), *invites parents to the care institution on festive occasions* ($M=4,27$, $SD=0,52$) and

informs parents about children's achievements at school, in after-school activities (M=4,17, SD=0,67). These data suggest that in order to intensify communication between children and their biological parents and increase its quality, it is important that specialists should cooperate both with children and their biological parents. Listening to children, provision of information on children's progress to parents and efforts to invite parents to the festivals of the institution show that children and their parents are important and significant for specialists. It can be assumed that such strategy of specialists' communication with parents who have lost the right to the child's care would be effective and acceptable to parents, if they had serious reasons to change. On the other hand, it would be emotionally extremely difficult for the specialists to maintain such strategy for a long time, observing fruitlessness of their efforts.

The means evaluating the third factor statements, *negative attitude*, show that social educators / social workers working in temporary care institutions are willing to help, cooperate with biological parents. This statement is proved by respondents' strong disagreement on the following statements: *believe that child-parent meetings do not bring anything good* (M=1,98, SD=0,95) and *observe that parental behaviour is not improving and see no sense to help them* (M=1,85, SD=1,08). These data suggest that social educators / social workers working in care institutions are benevolent-minded with regard to biological parents of children in care and often seek to develop their mutual communication.

The means of evaluations of the fourth factor statements, *promotion of communication by phone*, show that the respondents completely agree with statements that *the very staff keep in touch with parents, communicate by phone* (M=4,80, SD=0,44) and *give the phone to children so that they can communicate with parents* (M=4,76, SD=0,46). These data enable to assume that both children and specialists working in care institutions often communicate with parents by the most accessible technological means, the telephone. It is evident that modern technologies facilitate the possibility of contacting parents and at least keeping in touch with them but it is likely that the personal contact and direct meeting would be more efficient.

Conclusions

1. Children living in the temporary care situation go through a painful separation from their parents. This indicates the importance of communication, relation with parents for the child, which is possible only promoting constant, continuous communication between children and their biological parents. Social educators / social workers working in temporary care institutions and namely these specialists who should promote parents

- to visit their children and perform the roles of the mediator, promoter, developing communication between children and their biological parents.
2. The research data disclosed that social educators / social workers working in temporary care institutions observe conflicts between children in care and their parents, disclose causes of conflicts between them and parents who have lost the right to the child's care. In social educators' and social workers' opinion, the main causes of conflicts between children in care and their parents are: *parents' unfulfilled promises, parental alcoholism and parent's rare visits*. These causes stem from parents' inappropriate lifestyle, which actually is the cause of their children's care restriction. It is evident that conflicting with their parents, children cannot accept their behaviour and object. The most common conflicts between the staff and children in care are caused by *non-observance of the rules of the institution; children's experienced control, living in the institution; the lack of freedom; the children's disrespectful behaviour with the staff; disciplining of the staff when they raise the voice tone; children's escapes from the institution; inadequate listening of the staff to what the child says*. Most often conflicts between social educators, social workers and parents who have lost the right to the child's care arouse due to *parents' unfulfilled agreements; parents' anger on social educators / social workers for taken away children; parents' disregard and non-observance of the rules of the institution; parents' negative attitude towards social educators / social workers working in the institution*.
 3. The research data analysis shows that the participants of the temporary child care have considerable communication development resources. Specialists tend to goodwillingly keep in touch, mediate between learners and biological parents, inviting them to come to care institutions for talks, to attend festivals, visiting them at home and watching the changing social situation so that in the event of positive changes children have a possibility to return to their biological families. The factor analysis disclosed a 4-way structure of developing communication between specialists and parents who have temporarily lost their right to child care. Social educators / social workers of children's care homes most effectively use *the controlling communication strategy* (Factor 1), although it is quite sensitively perceived and accepted by parents who have lost their right to child care. Slightly less significant is *the cooperation strategy* (Factor 2), although it would be most acceptable for parents with a strong motivation to change and would least violate their dignity. Means and standard deviation witness that social educators / social workers of children's care homes do not use the *negative attitude communication strategy* (Factor 3). It may be that this strategy emerged due to reluctance of the staff of children's care homes to

openly disclose peculiarities of their work. According to the means of estimators of social educators / social workers of children's care homes, the *telephone communication* strategy (Factor 4) remains the most popular but using solely this strategy, important actual details in the behaviour of parents who have lost the right to the child's care and in their living environment would be missed.

4. Research results disclosed that specialists working in temporary care institutions little cooperated with other institutions and colleagues in order to better share the good practice of developing communication between children and parents, poorly promoted parents to solve problems, poorly encouraged children to speak in order to find out problems of communication with parents, did not try to talk with parents after meetings with children, did not listen to their complaints. It can be assumed that the development of *the cooperation strategy* of social educators / social workers of child care institutions combined with *the controlling communication strategy* would be those trends of specialists' activities which would promote development of communication between children who are temporarily deprived of parental care and their biological parents, enable parents to change their way of life and accelerate children's return to their native families.

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THE SOCIAL EDUCATOR'S ABILITIES OF REFLECTION ON PROFESSIONAL EXPERIENCE IN DIFFERENT STAGES OF ACTION

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Abstract. *The article presents tendencies of manifestation of skills forming social educators' abilities of reflection on professional experience and trends of their adaptability in different stages of action: reflection for action, reflection in action and reflection on action. Empirical data were collected employing a written survey method (using a structured closed type questionnaire). The data are analysed on the basis of the results of questionnaires filled in by 218 social educators. Descriptive statistics and multidimensional statistical methods (factor analysis) were applied. Research results disclose social educators' opinion about application of skills forming reflective abilities in professional activities in different stages of action (reflection for action, reflection in action and reflection on action), when the main element of the analysis is cognitive-evaluative aspect of reflection, evaluating possibilities and conditions of applying abilities in practical activities.*

Keywords: *experience, reflection, reflection skills, social educator, stages of action.*

Introduction

In recent years, the problem of reflection/reflecting in the context of professional activity is becoming increasingly more relevant. Perception of reflection in professional activities, including the social educator's profession, starts with the understanding of what you are doing and is related to the ideas of learning from experience and lifelong learning. The ability to reflect in professional activities and creation of conditions for reflection enable to go deep into such areas as the analysis of personal professional experience, its improvement and justification, update and re-evaluation of knowledge, better cognising and managing oneself (Boud et al., 2005; Yip, 2006; Bolton, 2010 et al.). Reflection allows to diagnose personal mistakes, forming and improving effective experience analysis skills in action, for action and on action.

Developing Dewey's (1933, 1938) ideas, Schön (1983; 1987) states that the specialist in his/her professional activity allows himself/herself to experience and cope with encountered challenges, novelties, confusion in situations, etc. While reflecting, professionals better know themselves, are able to look at the same problem from different perspectives, reflect both on positive and negative

experiences, being able to choose suitable strategies, make adequate decisions both in professional activities and other life situations. Reflection abilities and their constituent skills are active efforts to create generalised knowledge of *the self* and the profession, encountering the dynamic environment of professional activities (Lam et al., 2007). No action in the professional activity gains its meaning if it is applied mechanically without consideration of previously accumulated experience and its interpretation. Therefore, it is relevant to create conditions for reflection, the essential elements of which are theoretical knowledge, experience, thinking, emotions, actions and values in the social context in which the person lives.

In the article, reflection on professional experience in professional activities is presented as a set of abilities and their constituent skills. Being a reflective social educator in professional activities means conditions to have and apply different abilities and skills forming the competence of reflection, constantly thinking of concerns, exploring them, giving a sense to them and interpreting one's experience, looking at the same problem from different perspectives, (Bradbury, 2010). The social educator's reflection in professional activities can be perceived as learning from experience, when the role and responsibility are changing in retrospect, thinking about the present and the future. Reflection on experience acquired in professional activities, including *reflection for action*, *reflection in action* and *reflection on action*, are presented in scientific literature (Schön, 1987; Cowan, 1998; Coulson & Harvey, 2013; Comer, 2016 et al.) among basic abilities and constituent skills ensuring professional and personal development. Reflection for action, in action and reflection on action encompass epistemology of professional practice, grounded on cognition of activities and knowledge of actions. Reflection on various aspects of professional activities is effective, seeking quality of activities and knowledge update, solving difficulties (Hilden & Tikkamäki, 2013). While reflecting social educators focus on practice, creation of new knowledge, cooperation with other people. It provides an advantage to disclose experiences, express one's thoughts, which often remain unnoticed in the immediate environment (Raelin, 2002). This way creating preconditions to better understand the identity of oneself as a professional, forming effective analytical skills in action, for action and on action. Based on given assumptions for importance of reflection abilities in professional activities, the following *problem question of the research* is formulated: which reflection skills are applied in different stages of social educators' professional activities (in action, for action and on action)?

The research object: manifestation of applicability of the social educator's professional experience reflection skills in different stages of activities.

Research aim: to disclose applicability of the social educator's professional experience reflection abilities and their constituent skills in different stages of activities (reflection for action, in action and after action).

Research Methodology

The research sample. During the research 330 questionnaires were distributed; they were filled in by and the data were based on 218 (100 percent) social educators working in educational institutions in the whole Lithuania, of which 212 (97,2 percent) were females and 6 (2,8 percent), males. The selection of the sample is targeted, convenient.

Research methods. *Data collection method:* written survey, using a structured closed type questionnaire. *Data processing method:* statistical analysis of research data, applying descriptive statistics and multidimensional statistical methods (quantitative descriptive statistics of research data; multidimensional statistical method – factor analysis), using statistical data processing software SPSS 17.0 for Windows. Data processing was conducted applying *exploratory* factor analysis, which enables to identify the number of factors and their variables, seeking to understand from the latter what factors mean.

The research instrument. Research participants evaluated statements of the questionnaire (reflection skills in different stages of reflection: before, during and after action), selecting possible variants of answers: I did not experience; I experienced rarely; I experienced often, evaluating their practical work; i.e., how many possibilities they had to use their reflection abilities and their constituent skills in real-life professional activity situations.

Research Results and their Discussion

Conducted factor analysis of social educators' reflection skills enabled to distinguish factors representing separate groups of abilities with their constituent skills. Further, the results obtained in different stages of action – for action, in action and after action – are presented.

The pedagogue's abilities of reflection on professional experience for action. Having conducted factor analysis of statements, one factor – *manifestation of abilities of reflection on professional experience for action* (see Table 1) – was distinguished. All variables of factors, amounting to eight, satisfy the condition $L \geq 0,5$ and from the methodological standpoint are solid. Values of factor weights (L) range from high (0,76) to moderate (0,50). The Kaiser-Meyer-Olkin (KMO) coefficient value of the scale 0,84 indicates that variables are significantly interrelated. The scale is characterised by 37,11 percent

dispersion and can be interpreted. The internal consistency coefficient of scale factors (subscales) Cronbach alpha (α) is 0,79, indicating that the scale is homogeneous, with a high internal consistency level of scale criteria.

Table 1 The Social Educator's Ability of Reflection on Professional Experience for Action, %

Skills	I did not experience		I experienced rarely		I experienced often	
	No of resp.	%	No of resp.	%	No of resp.	%
To identify information necessary for performance of effective analysis of professional experience	14	6,4	70	32,1	134	61,5
To select more of probable critically evaluated alternative activities before making a decision	3	1,4	72	33,0	143	65,6
To update one's possessed knowledge based on acquired practical experience, re-evaluating it anew	3	1,4	56	25,7	159	72,9
Planning activities, to link new information with what was previously known and experienced	-	-	47	21,6	171	78,4
To diagnose one's mistakes and limitations of competence, learning to manage one's emotions and behaviour	14	6,4	107	49,1	97	44,5
To justify how certain experience formed, considering achieved results and adapting them for the future	7	3,2	90	41,3	121	55,5
To engage in constant self-reflection on one's activities before starting activities	11	5,0	99	45,4	108	49,5
Before making decisions, to use colleagues' lived personal experience	21	9,6	101	46,3	96	44,0

The first factor reveals the reflection process, during which priorities for future activities are established by identifying needs, endeavours and goals for the future. The results disclose that the majority of social educators have possibilities and conditions to link new information with previously acquired experience while planning their activities. Social educators update their existing knowledge, re-evaluating it anew, justifying how experience formed. Almost half (49,5 percent) of social educators are engaged in permanent self-reflection on their activities before starting new activities; however, almost the same share of social educators indicate that in the stage of planning they rarely have possibilities to engage in self-reflection. A similar share of social educators

(49,1 percent) state that they can rarely diagnose their mistakes and limitations of competence, learning to manage their emotions and behaviour.

Analyzing abilities of reflection for activity, it is important to distinguish the fact that reflection in the cooperation environment, as indicated by Cady et al., (1998), enables the professional's professional development; therefore, it is important to base oneself on experienced lived by others before making decisions; however, obtained results show that a significant share (46,3 percent) of educators rarely base themselves on their colleagues' lived personal experience before making decisions.

The social educator's abilities of reflection on professional experience in action. Factor analysis of skills to reflect professional experience in action resulted in three factors comprising three different abilities of reflection in action and their constituent skills. All variables of factors, having eliminated statements that did not meet the condition $L \geq 0,5$ are solid from the methodological standpoint. The Kaiser-Meyer-Olkin (KMO) coefficient value of the scale 0,87 indicates that variables are significantly interrelated and the matrix is well-suited for factor analysis. The dispersion of 52,43 percent (from 22,87% to 13,07%) characteristic to the scale indicates that all factors explain at least 10 percent of dispersion and can be interpreted. The internal consistency coefficient of scale factors (subscales) Cronbach alpha (α) ranges from 0,69 to 0,80, indicating that the scale is homogeneous, with a high internal consistency level of scale criteria.

The content of the first factor *the ability of causal relations and managing personal changes* includes skills emphasising possibilities of identifying causal relations and factors influencing behaviour as well as personal changes in action. The results obtained during the research enable to state (see Table 2) that during reflection in action the majority (64,7 percent) of social educators have the possibility to analyze lived experience, relating it to possessed theoretical knowledge and thorough activity analysis.

Table 2 **The Ability of Causal Relations and Managing Personal Changes in Action, %**

Skills	I did not experience		I experienced rarely		I experienced often	
	No of resp.	%	No of resp.	%	No of resp.	%
To analyze lived experience, discovering links with possessed theoretical knowledge, concepts	10	4,6	67	30,7	141	64,7
To find causal relations and factors influencing behaviour during the analysis of experience	5	2,3	90	41,3	123	56,4

To engage in constant self-reflection of one's activity in action	7	3,2	85	39,0	125	57,3
To change personal beliefs and assumptions, which directly influence performed actions during the activity	21	9,6	105	48,2	92	42,2

In their professional activities, social educators have least possibilities to change such personal beliefs and assumptions that directly affect performed actions in action. 41,3 percent of educators rarely have conditions to apply the skill during the analysis of experience in order to discover causal relations and factors influencing behaviour.

The content of the second factor *the ability of activity evaluation and sharing personal experience in action* includes experiences of applying acquired experience, skills of critical reflection and analysis of one's ideas in action. High results obtained during the research (see Table 3) disclose possibilities of applying abilities of performance evaluation and sharing personal experience in action in social educators' professional activities.

Table 3 The Ability of Performance Evaluation and Sharing Personal Experience in Action, %

Skills	I did not experience		I experienced rarely		I experienced often	
	No of resp.	%	No of resp.	%	No of resp.	%
To reflect on exiting experience, sharing it with colleagues	2	0,9	41	18,8	175	80,3
To reflect on and analyze possible consequences of one's performed actions during the activity	4	1,8	50	22,9	164	75,2
To make complex decisions in action	2	0,9	40	18,3	176	80,7
To constantly purposefully update knowledge, using various information sources	3	1,4	41	18,8	176	79,8

The majority of social educators in their professional activities often have possibilities to make complex decisions (80,7 percent), reflect on and analyze current experience together with their colleagues (80,3 percent) and using various information sources, update their possessed knowledge (79,8 percent), because, as indicated by Pollard (2006), reflective activities are almost always more valuable if they are performed, thought over and analyzed together with colleagues.

The ability of recognising attitudes and feelings in action of the third factor includes skills of recognising feelings, analysis of causes and dissociating oneself from prejudices (see Table 4).

Table 4 **The Ability of Recognising Attitudes and Feelings in Action, %**

Skills	I did not experience		I experienced rarely		I experienced often	
	No of resp.	%	No of resp.	%	No of resp.	%
To recognize feelings arising during professional experience	7	3,2	83	38,1	128	58,7
To dissociate oneself from prejudices and decisions in action	9	4,1	96	44,0	113	51,8
To explain reasons of decisions made in action	6	2,8	89	40,8	123	56,4

The results demonstrate that the majority of social educators often find themselves in situations in action, when they can recognize feelings arising during professional experience (58,7 percent) and explain reasons of decisions made (56,4 percent). This fact is also verified by the analysis of scientific sources, as the ability to perceive emotions, cognize and analyze one's feelings is one of the main constituents of the reflection process (Salzberger-Wittenberg et al., 1999). It should be noted that a significant share (44,0 percent) of educators rarely manage to dissociate themselves from prejudices and decisions in action.

The social educator's abilities of reflection on professional experience after performed action. Having performed factor analysis of statements, two factors were distinguished. Values of factor weights (L) in factors range from high (0,81) to moderate (0,51). The Kaiser-Meyer-Olkin (KMO) coefficient value of the scale 0,90 indicates that variables are very significantly interrelated and the matrix is well-suited for factor analysis. The scale is characterized by 50,55 percent (from 25,96 to 24,59 percent) dispersion indicating that all factors explain at least 10 percent of dispersion and can be interpreted. The internal consistency coefficient of scale factors (subscales) Cronbach alpha (α) ranges from 0,82 to 0,84, indicating that the scale is homogeneous, with a high internal consistency level of scale criteria.

The content of *the ability of applying acquired experience, updating of and giving a sense to knowledge* of the first factor includes skills of giving a sense to performed activities, planning of actions and reflection on results (see Table 5).

Table 5 The Ability of Application of Acquired Experience, of Updating of and Giving a Sense to Knowledge, %

Skills	I did not experience		I experienced rarely		I experienced often	
	No of resp.	%	No of resp.	%	No of resp.	%
Having solved the problem, to integrate and reflect on knowledge and experience, creating personal theories and understanding	4	1,8	70	32,1	144	66,1
To use results of the analysis of lived professional experience planning future actions	3	1,4	57	26,1	158	72,5
To constantly purposefully update knowledge, using various information sources after the activity	2	0,9	45	20,6	171	78,4
To analyze one's behaviour after performed activities, evaluating quality of achieved performance results	2	0,9	46	21,1	170	78,0
To give a sense to one's professional experience, transforming it into knowledge, skills, attitudes and values	6	2,8	49	22,5	163	74,8
To set priorities for future activities, identifying needs, endeavours and goals	3	1,4	39	17,9	176	80,7

Research results demonstrate that social educators are provided with conditions in their professional activities to successfully implement their skills of reflection for action. Based on the results of the performed activity, the majority (80,7 percent) of social educators establish priorities for future activities, identifying needs, endeavours and goals. 78,4 percent of respondents often purposefully update their possessed knowledge after performed activities, using various information sources after activities. Slightly less (72,5 percent) social educators have possibilities to plan their future actions on the basis of the already lived professional experience. Social educators have least possibilities in their professional activities to integrate and reflect on knowledge and experience upon solving the problem, creating personal theories and understanding.

The content of *the ability of improvement of professional activities and implementation of novelties* of the second factor includes skills of professional performance evaluation, justification, improvement and of implementation of novelties (see Table 6).

Table 6 The Ability of Professional Performance Improvement and Implementation of Novelties, %

Skills	I did not experience		I experienced rarely		I experienced often	
	No of resp.	%	No of resp.	%	No of resp.	%
To evaluate advantages and shortcomings of professional activities, foreseeing professional development perspectives	4	1,8	58	26,6	156	71,6
To diagnose one's mistakes and limitations of competence after performed activities	5	2,3	73	33,5	139	63,8
To justify how certain experiences formed, having evaluated achieved results	8	3,7	80	36,7	130	59,6
To look for information necessary for planning one's new professional activities	2	0,9	33	15,1	183	83,9
To reflect on one's professional activity in the past, transferring skills or avoiding repetition of mistakes in the future	3	1,4	64	29,4	151	69,3
To identify activity problems, choosing adequate ways and techniques of solutions in the future	1	0,5	66	30,3	151	69,3
To improve one's professional life, based on the results of the analysis of lived practical experience	2	0,9	44	20,2	172	78,9

The majority of social educators often (83,9 percent) in their professional activities are looking for information necessary for planning their new activities in the future. Foreseeing their professional development prospects, social educators often evaluate advantages and drawbacks of their professional activities (71,6 percent) and reflecting on their performed professional activities in the past, use acquired experience in order to avoid repetition of mistakes in the future (69,3 percent). Attention should be drawn to the fact that more than one third of social educators in their professional activities rarely apply skills to diagnose their mistakes and limitations of competence after performed activities, to justify how certain experiences formed, having considered achieved results, and to identify performance problems, choosing adequate ways and techniques of solving them in the future.

Conclusions

The analysis of tendencies of social educators' reflection abilities for action enables to conclude that planning and foreseeing new activities, in their professional activities social educators implement their abilities of reflection on action, emphasizing the importance of acquired practical experience, which is significant updating and re-evaluating possessed knowledge, relating new information to previously lived experience. During their professional activities social educators have possibilities to use abilities of reflection in action and reflection for action but they lack situations in which they have to change their personal beliefs and assumptions that directly affect actions in action and to critically evaluate their performed activities, justifying how certain experiences formed, having considered achieved results.

Social educators have real possibilities and conditions for using their abilities of reflecting in different stages of action in their professional activities; however, they often lack time, efforts or situations enabling to diagnose their mistakes and limitations of competence in order to reflect on their activities and behaviour. Presented research results disclose limitations of applying skills forming reflection abilities in practice as an assumption for further improvement of conditions and possibilities of professional activities. It is relevant to pay more attention to such possibilities of practical activities which would enable simulation of situations, in which the social educator could re-evaluate personal attitudes and values, justify acquired experience, considering achieved results, identifying performance problems, diagnose his/her mistakes and limitations of competence, learning to manage his/her emotions and behaviour.

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SOCIAL PEDAGOGICAL ASSISTANCE AT SCHOOL: PERFORMANCE ANALYSIS

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Abstract. *This article analyzes the peculiarities of the social pedagogical assistance at school. The purpose of social pedagogical assistance is defined in the education governing documents. These documents indicate that it is necessary to help the child to implement his right to education and to guarantee his safety at school. Thus, effective social pedagogical assistance helps to solve the problems at school: the abuse of psychotropic substances, juvenile delinquency growth, increase of emotional and physical violence, dropping out of school. Effective aid can be achieved through teamwork principles, which require different areas of information, knowledge and skills. The article presents a review of scientific literature and research data which can be applied for improving of social pedagogical assistance at school in order to help students and families by involving various specialists. The study revealed essential factors that affect the social pedagogical assistance organization and real assistance to the student at school.*

Keywords: *help the student, social pedagogical support, teamwork.*

Introduction

European Union countries recognize that the school environment is the most important determinant of a children's well-being, children's health, physical, mental, social security. Ministry of Education in its order defined that parents (guardians) while dealing with the child's educational issues must cooperate with the school counselor or another education provider, teachers, health professionals who provide special psychological, social, educational or other assistance, health care. Teachers must not only ensure learners 'safety and good quality of education, to develop the students' strong moral, civic, ethnic and patriotic features and guarantee their personal growth, but also to regularly inform the parents (guardians) of their children's educational needs and achievements. Thus, the law stipulates that parents and teachers cooperate to provide and receive information, and are responsible for the child's education quality. The goal of education is to develop the spiritual, intellectual and physical person's abilities, to develop an active, creative, responsible citizen who will acquire competencies necessary for successful social integration and

lifelong learning (primary and basic education Framework Programmes). Thus, the school as the main child socialization authority must respond to the changing needs of society, in order to allow each child to gain an education and to provide social pedagogical assistance in cooperation with appropriate institutions, the student's parents and teachers. Therefore, in order to ensure school social pedagogical assistance it is essential to provide the forms, methods and techniques of organization of comprehensive assistance at school. The concept of social pedagogical assistance and its importance were examined by (Kučinskas&Kučinskienė, 2000; Kvieskienė, 2005). Galkienė (2005) analyses the special pedagogical assistance at school, teachers approach to children with special educational needs (Ališauskas, 2004; Ambrukaitis, 2004; Miltenienė, 2004). Influence of preventive programs for school was examined by (Auškelis et al., 2010; Čižienė, 2015).

Purpose of the article is an overview of the social pedagogical assistance specific features at school as well as to analyze the key factors that affect the organization of social pedagogical assistance and a real assistance to pupils of the school.

Peculiarities of social pedagogical assistance at school

Progress Strategy "Lithuania 2030" sets out the fundamental Lithuania's ambition to become a smart country: a modern, expansive, open to world, safeguarding the national identity. The expected role of education is the development of an intelligent society, to help the society to become a productive, loyal and learning continuously. Envisaged goals for schools are as following: to shift from traditional education towards thinking, creativity-stimulating education, leadership development, raising role of community self-governing, continuous learning promoting systems. However, various studies show students' deteriorating physical and mental health, increased alcohol consumption, drug abuse, smoking, juvenile delinquency, bullying in schools. In 2013, the United Nations Foundation, UNICEF issued the data of study about child welfare in rich countries. The study evaluated five aspects of children's lives: material well-being, health and security, behavior and risk, housing and the environment. It was found that in Romania, Latvia, Lithuania, the United States and Greece the child's well-being is at the bottom of the list of countries (Lithuania is 27 out of 29 countries). According to the children's behavior and the risk field indicators Lithuania is at bottom of the list (29 out of 29 countries). According to Health Behaviour in School-Aged Children (HBSC) 2013/2014 data, number of Lithuania's 11-15 year old pupils, often suffering bullying, amounted to 29 percent and was the highest among the surveyed countries. According to European School Survey Project on Alcohol and Other Drugs

(ESPAD) 2011 data, only 3 per cent of 15-16 years old Lithuanian pupils said never smoke, drink alcohol, use inhalants, tranquilizers and sleeping pills or illegal drugs. The average of countries included in study was 11 per cent, while in Iceland number of such pupils amounted even up to 40 per cent, in Norway - 26 percent, in Sweden - 20 percent. The area of concern is the high number of teens, constantly consuming psychoactive substances. In 2011, about 29 percent of 15-16 year-old students said they smoked cigarettes 40 or more times, 25 percent used alcohol, 2 percent used illegal drugs. In particular, there is an increased share of at least once illegal drugs taking pupils (from 3 to 21 percent.). According to alarming data of Lithuanian Department of Statistics, the number of school-age children not attending school in 2014 amounted to 3 778 and in more than half of non-attendance cases of these pupils the reasons were of social, psychological, and similar nature. A juvenile delinquency is a complex social problem. In 2014, the number of minors (14-17 years), suspected of (charged with) criminal offenses, amounted to 3.9 percent. Children and youth suicides is a major problem in Lithuania with suicide rates among the highest in Europe. In 2012, the suicide rate (per 100 000 inhabitants) of youth of 15-19 years age group was 15.4 and it was the highest among the European Union countries (according to Eurostat). In summary, it can be said that the social risk factors are sufficiently important and they need to be dealt effectively by development of a safe school, which would ensure for the student complex support of all school community members to help students seek to be better and feel safe. After analysis of the social risk factors in schools, it can be seen that school children have the following social problems: inappropriate behavior during lessons and breaks, homework not performed, coming too late to the lessons, violence, criminal behavior, school absenteeism, alcohol consumption, smoking and so on.

According to (Valeckienė, 2007) study, school professionals list the following problems: children's mental health and personal development; inadequate self-esteem; problems in the family; inadequate and deviant behavior; children and adolescents adaptation problems; conflicts and psychological climate in the school. (Atutienė, 1997) refers to the social problems, some of which are associated with antisocial behavior, the others with the psychological-social problems. Antisocial behavior problems are as following: destructive behavior, negative reaction to the control, absenteeism in lessons, running away from school, deliberate self-harm, verbal aggression, physical aggression, sexual disharmony, spiritual downfall, a positive approach to antisocial behavior. (Giedrienė, 1999) indicates that parents and educators are routinely exposed to a variety of child and adolescent behavior, communication disorder expressions. The most common complaints are: non-adaptive, situation inadequate communication with parents, teachers and peers, aggressive and

delinquent behavior, emotional disorders (anxiety, oppressive mood, fear, etc.), impaired learning motivation (unwillingness and inability to learn, for reasons not related to intelligence or specific cognitive disorders), common behavior norms ignored, relaxation tendencies seeking pleasure and new impressions in alcohol, drugs, orgies and so on. (Bulotaitė, 1994) refers to these students' psychological problems: tensioned relationship with parents, communication problems with teachers, classmates, friends, self-doubt, sleep disorders, mood swings for no reason, tension. For many students it is uncomfortable school environment, they are worried about grades, have difficulties to overcome curriculum, feel the fear and tension. Reluctance to learn is a social phenomenon which causes the student's negative attitude towards science. The reluctance to learn at schools could be because of deficiencies of a lesson as a form of education, assessment by grades system problems, poor school or class microclimate, teachers and students relationship problems, lack of family and school cooperation (Civinskas et al., 2006). A review of the above-mentioned authors' research data suggests that children's social, psychological and educational problems are very much inter-related and they concern the family, the children themselves ill-treatment and communication features. Therefore, on the basis of indentified groups of social educational problems it can be distinguished following social pedagogical assistance activity fields: social pedagogical assistance organization; work in pupil groups; creating a safe environment; cooperation with the educators and institutions affecting education. From the analysis of social assistance for children it can be concluded that the main component of this assistance is an educational assistance in connection with the child's education and training and based on child's development and successful socialization. (Kvieskienė, 2005), by providing the social pedagogical assistance concept, emphasizes the purposefulness of social pedagogical activities, orientation towards certain groups and importance of professionals who provide social pedagogical assistance and seek to operate in practice in the field of child welfare. Valeckienė (2007) argues that the destination of social pedagogical assistance for children includes pedagogical, psychological and special pedagogical assistance. Pedagogical assistance is related to the child's education and training and based on its development and successful socialization. Psychological assistance is the assessment of student's personality and developmental problems and solving of them by psychological assistance providers in collaboration with the student's parents or guardians and teachers, advising them. Žemaitytė (2004), by reviewing social pedagogical assistance, indicates those areas where you can help: students' self-esteem building, improvement of academic achievement, social skills training and performance improvement. Merfeldaitė (2005) describes the social pedagogical assistance concept as a purposeful, organized, time-limited prevention activities

for children for solving specific social pedagogical problems. In conclusion, the assistance at school includes the following areas: security of children at school; social and legal analysis of the situation; children, teachers and parents' education; prevention of violence, crime, smoking, alcohol use and drug abuse; cooperation and institutions. In education governing documents assistance is defined as activity carried out by professionals, school staff and related to the students' social and educational needs, allowing to increase the child's educational abilities. The goal of social pedagogical assistance is to help to implement all students right to education by ensuring the efficient development of students and their learning. Social pedagogical assistance is provided according to the Law of Republic of Lithuania (hereinafter - LR) amending education law (2011), LR law amending child minimum and medium supervision law (2011), Government acts, the Minister of Education orders, other legislation and social pedagogical assistance arrangements (2011). In Social pedagogical assistance order (2011) and Law on Education (2011), social pedagogical assistance is defined as the activity of social pedagogues, class educators, teachers, administration and other staff related to meeting of children and students social educational needs, ensuring child's compulsory education, quality of education, increasing the effectiveness of education. In summary, it can be said that the social pedagogical assistance is purposefully organized activity intended to effectively address the problems of student according to student's needs, opportunities and abilities, and reduce the prevalence of those problems or completely prevent from their occurring. Social pedagogical assistance combines different professionals with various abilities, skills and knowledge, learners, their parents (guardians), peers, other persons involved in training (SI), and socialization process. An effective social pedagogical assistance organization is ensured by common work of different specialists, which requires a variety of information, knowledge and skills. One of the most important social pedagogical assistance provision conditions is a teamwork because this is the only way to coordinate the work of specialists, to optimize the set of social pedagogical assistance needs. Therefore, the goal of each school is to find means and ways to mobilize members of the organization energy and talents in order to achieve the main goal, which is to provide comprehensive child welfare training and socialization process. According to the Lithuanian Minister of Education Order of 11/04/2011 on approval of school children's welfare commission and its work organization procedure, in each educational institution assistance for students is organized and provided by the child welfare commission. School Child Welfare Commission is the connecting link between school staff, parents, local communities and wards to mobilize professionals for educational assistance, work with children for which the minimum and medium care measures are prescribed, and other statutory activities related to child

welfare. This commission has the task to create and maintain a safe and healthy school environment, fostering respectful relationships, namely to eliminate bullying and harmful habits, to prevent smoking, alcohol and drug abuse, apply prevention programs and to develop a healthy lifestyle skills. Each school has to choose its most urgent, priority activities. Child welfare commission is formed in each pre-school, school of general education and vocational training institution providing initial vocational training. Members of the Commission may be school managers, social pedagogues, psychologists, special pedagogues, health care professionals, class educators and teachers. The composition of the commission may include parents, the local community, ward representatives. The purpose of School Child Welfare Commission is to organize and coordinate preventive work, educational assistance, and create a safe and supportive environment for the child's education, adapted education programs for students with special educational needs and others. Commission competence is to examine the failure of the learning, reluctance or fear of pupils of going to school and taking concrete steps to help solve these problems, to analyze the infringements of rules of behavior, cases of violence, bullying, addiction, law violation cases and to assist teachers. Commission members help to solve a variety of teacher-child relationship problems, advise parents. In case of a dangerous situation in the school, members of the commission must organize crisis management activities and provide information to the school community and the relevant authorities.

Research methodology

The research problem is the following: for providing social pedagogical assistance it is important to clarify the reasons sufficiently precisely by involving professionals and to offer appropriate assistance to the student and his family. An object of research is the social pedagogical assistance at school. Aim of research is to reveal the opportunities of providing of social pedagogic assistance and challenges in schools. Empirical research objectives: 1) to carry out an expert opinion survey to help to identify the social pedagogical assistance provision problems; 2) to suggest ways and means for further improvement of social pedagogical assistance in schools and how to make it appropriate and effective for students and their parents. For empirical investigation it was chosen a qualitative research method, namely, an expert opinion survey using structured questionnaire (interview). In scientific methodological literature a qualitative research is often described as naturalistic. They include long-term object (person, group, organization) study, which aims to understand a person's behavior and feelings, and physical, social and psychological environment of person (Bitinas et al., 2008). The study was carried out as a formal interview, i.

e. interview according to pre-formulated questions that all respondents were asked using the same procedure. This interview was chosen in order to find out the opinion of experts on the current situation and by comparing the answers to reveal the experts' views about the place of social pedagogical assistance in the activities of the school. The predefined profile consists of a group of interrelated questions to which experts need to answer. Problematic issues were the following: What are the most frequently encountered problems of the school? How do you assess the effectiveness of the work of professionals working? What can distinguish strengths and weaknesses of assistance provided for the student? What do you think what are the perspectives of social pedagogical assistance activities in modern school? Reply to the expert survey requires special expertise and experience which have the professionals of field to be investigated. During the study there were interviewed 7 experts from Lithuanian educational institutions.

The research data analysis

The experts were asked to express their observations about the school community's specific characteristics and the role of social pedagogic assistance at school. Respondents stressed that for the school it is not typical to distinguish any exceptional students features that require special attention to students 'assistance: *“school does not have a large number of students who come from disadvantaged backgrounds or children's home”, “our school has not recorded any suicide case”, “not notice the students dropping out of the education system trends”*. Respondents note that after setting up the posts of specialists for assisting students and assistance organized in accordance with the general provisions of social pedagogical assistance at school: *“the process of identifying of students' practical needs has become much more efficient”, “we were able to quickly solve the problems arising”, “microclimate at school became more favorable” “students' employment has improved”*. To sum up, the assistance at school gave a lot of positive things, especially teamwork, which encouraged the school's staff training in areas that are associated not only with the how training programs are set up, but also with the development of personality and of different skills. Administration representatives observe: *“that for school the post of social pedagogue is very important”, “with increasing workload and students continuing to confront the more complex problems, there is a need for various services provided by a psychologist”, “after launched integration into mainstream schools of children with special needs, the established posts of a special pedagogue and speech therapist become important”*.

For organizing of social pedagogic assistance it is important: *“meet the needs of the students ,, “to solve all social pedagogical problems”, “to create a*

safe learning environment that will enhance the effectiveness of education". The aim was to find out the problems commonly faced by the students and what kind of assistance is provided: *"conflicts with other students", "students' reluctance to learn", "other behavioral problems during the lessons", "running away from school is our problem", "astounding indifference of parents to pupils problems"*. However, as quite important respondents named also other problems: *"increasing emotional abuse ,,", "still fighting bullying stemming from other students", "noticing pupils fatigue due to severe learning workloads", "physical abuse caused by other students", "conflicts with teachers ,smoking, alcohol consumption and exposure to toxic substances", "boring leisure", "noticing teacher indifference to the problems of the students"*.

Respondents were asked to assess the functions carried out by school's specialists: *"functions performed by the members are not duplicated, although the same problem is not solved by one specialist", "every problem has different aspects, so for one employee would be too difficult to see things", "when there is a team work it is easier to fit to provide assistance quickly and effectively"*. Administration representatives especially highlighted several functions performed by social pedagogue: *"representation of rights of the child ,,", "parents' representation", "relations with various state institutions, NGO support ,,"*. Respondents indicated that the methods of individual work with the child at school most actively are applied by a psychologist and a speech therapist. Other methods specialists choose themselves depending on the situation.

During the interview with representatives of the administration it has been shown that the school community expectations are justified by all team members: *"special pedagogue helps to integrate students with special needs in the educational process", "helps teachers to prepare modified and adapted programs, use a variety of teaching methods that help to absorb content of the curriculum and encourage students to learn", "psychologist helps to effectively address the problems of students"*. The study found that the majority of respondents are satisfied with the provision of assistance to pupils by specialists: *"last school year, none of the student left the educational system", "decreased significantly a number uncertified students", "not learning going to decline", "it remains, however, the ongoing problems as school non-attendance, non-attending lessons", "try to change behavior in the classroom", "ongoing constantly addiction prevention"*.

The informants noted that solving of these problems requires that the student himself would like to change, makes changes in their environment and that their close environment would like to support problem solving process. Interviews show that professionals have adequate opportunities to exercise effective assistance to students: all professionals *"not missing essential working*

tools”, “have private rooms”, “are given the opportunity to improve their professional knowledge in various trainings”, “encourage participation in seminars”, “organize their work in accordance with the essence of the situation”. Respondents were asked to indicate what kind of help the school community is missing: “the main problems are financial or related to them”, “lack of time or heavy workload”. There were listed the following difficulties: “a large paper work”, “a significant number of problematic children”, “the classes have more and more children with modified education process”, “many students have psychological and speech disorders problems”, “teachers working in various jobs unrelated to direct his work”, “psychological assistance is needed not only for students but also for teachers”. Almost all the experts pointed out the cooperation with the students' parents problems: “students and their parents do not really want to go and seek help together, parents are not worried about their children”, “lack of feedback from parents”, “often parents do not want to change anything”, “it is difficult to persuade parents come the school”. For improving the assistance at school respondents suggest: “to organize more workshops for teachers on social pedagogical assistance issues”, “lack of assistance from governmental organizations”, “we are satisfied with the way the school is organized help for the student”, “noticeable specialists initiative to change approach to students' problems they encounter”, “obvious division of responsibility for different stages of the provision of assistance to learners”, “school teachers collect information about their pupils, monitor changes in behavior in everyday school activities”, “in case of a problem it can be referred to a school professionals who carry out an analysis of each case and provide appropriate assistance ..

While assistance is provided at schools, but respondents agree: “that does not always succeed in everything according to plan”, “try to all help to solve their problems, which are themselves turning to us”, “sometimes the most students, especially adolescents do not want to cooperate”, “whole team is trying to cooperate with the student, and he even did not come to the meetings provided”, “all of the aid is a mutual process”.

Conclusions

Social pedagogical assistance at schools is based on the principles of cooperation, understanding of the student's situation and his problems, involving parents (guardians), teachers and other professionals to the process. Child welfare commission is the team of assistance professionals at school who have a duty to organize and coordinate preventive work, educational assistance, and create a safe and child-friendly education environment, adapt educational programs for pupils with special educational needs, examine the problems of

students and in case of a dangerous situation members must organize and coordinate crisis management measures and actions to ensure a safe environment for the student. The study revealed that an effectiveness of social pedagogical assistance organization is influenced by the students 'and parents' reluctance to deal with the problems together and to cooperate with the institutions in providing assistance to the child, increasing number of students having social adaptation problems. Properly organized social pedagogical assistance is effective, thereby decreasing number of uncertified pupils, number of students not going out from education system and number of students who not attend the lessons without reason, ensuring that integration of students with special needs is ongoing and safe environment for the student is being created.

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ANALYSIS OF THE AXIOLOGICAL-SOCIAL, INSTITUTIONAL AND LEGAL SPHERE OF THE FAMILY POLICY IN SELECTED EU COUNTRIES

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Abstract. *The article presents the European models of family policy divided into 5 models - the Scandinavian model, southern European model, conservative, liberal and post-socialist. In each of these the characteristics of policy for families are presented and divided into: axiological conditions, demographic, institutional family support, legal and family policy instruments. An overview of the various issues in the field of family policy is so important that the implementation of the effective family policy contributes to increased fertility, and thus of human capital, social and creative of the country. The article concludes with a summary and recommendations by individual models.*

Keywords: *family, institutional and legal analysis, family policy models, instruments of family policy, socio-axiological.*

Introduction

An extremely important issue for each country seems to be the implementation of effective family policy. Social interest in children stems from the fact that they represent the potential future labor resources. It is an essential factor of economic development of each country. The role of the family in the processes of development has a dimension of quantitative and qualitative results, and the exercise of its social functions: procreation - crucial for the development of quantitative and population structure; educational and socialization with significance for the creation and development of human capital. This justifies the need for a population policy that will ensure at least a simple reproduction of the population. It is important to show which state instruments (legal, economic) implement family policy. Evaluation of the effectiveness of economic instruments of family policy (including cash family benefits) is a key element of her. Effective family policy must also provide a free choice of family model, and above all a free choice of each of both parents, if he wants to continue working after starting a family and how to care for the child. That free choice embodied in the right of women to self-determination if they want to combine having children with the further development of their careers. Such a system of family support on the one hand creates an opportunity for economic and demographic dynamics of the country, on the other hand, brings evidence that

the activity of women does not have to play stopping role for reproductive decisions (Durasiewicz, 2012, 6).

In all European countries, except Iceland, birth rates will not even enable maintaining of the current population. Without a reversal of this trend, by 2050 the population of some European countries may drop by up to 30%. For the economy could mean a permanent recession. For society it can create a conflict between the younger and older generation. For Europe - marginalization in the international arena, with all the economic, political and cultural consequences. Therefore, now more clearly sets the goal of reversing the population decline. The aim of the new family policy should first be enabling people to have as many children as they want. Ideally, each woman gave birth to an average of at least 2.1 children, which would provide a simple reproduction of generations. It is not known whether it will bring the expected results. Birth rates would have to rise substantially because today in order to 50 years for Europe to maintain the size of its population. Today, more and more worrying is the increase in the number of European countries, which have a negative natural growth, which means that there is no replacement of generations and reduces the number of citizens of the country. The most important contemporary challenges of family policy are as follows:

- demographic challenges - occurring in the countries of the European Union, although on a different scale and intensity (decrease tendency to marry, the development of new forms of family life, the decline in fertility rates constitutes one of the causes of aging societies);
- socio-economic - the desire to strengthen the competitiveness of the EU economy and, therefore, the need for human capital development; the labor market situation which is characterized by unemployment, unstable employment, the development of new forms of employment, the intensity of the processes activity of women, civil society development, the pursuit of social cohesion through the elimination of poverty and social exclusion;
- axiological challenges - on the one hand, the development of values and attitudes characteristic of the post-industrial society, on the other to maintain a high-ranking of family in the hierarchy of values.

European models of family policy - general characteristics

Traditionally, family policy was oriented primarily on a family with children. Also today offspring is regarded as „the most important asset of the future” and is the criterion for determining family type - the subject of interest in politics. Today, there is more and more talk of the need for widening the circle of the recipients of the elderly. They speak for the aging population and its

implications for family functioning. you can still today expected to encounter, although less frequently, with doubts about the need for this type of policy but we can not forget the role of the family as an institution within which we come into the world and grow. Changes inside her, her, relationships with other institutions have an impact on the entire society. it is not surprising that we are interested in the fate of families in general and manifestation of this concern is the creation of family policy (Durasiewicz 2013, 134).

National family policy is influenced by demographics, economic, social and cultural characteristic of the country. It fits, as social policy, within particular model welfarestate. Therefore, the tendency applies to all EU countries, however, due to the diversity of conditions and cultural processes, countries choose blended policy mix in this situation.

This section presents solutions of family policies in different countries representing different models. The Nordic model (Finland, Sweden, Denmark), the Southern (Greece, Italy, Spain, Portugal), Central-European (Germany, France, Belgium, the Netherlands, Austria, Luxembourg), liberal (UK, Ireland) and Post-Socialist(Poland, Bulgaria Slovakia). Described countries and models developed solutions which can be used in Polish family policy.

The Scandinavian model (social democratic)– Finland, Sweden, Denmark

Axiological conditions

In the Nordic countries the family model is based on values such as: (Balcerzak-Paradowska 2004, 174; Anioł 2013, 113; Durasiewicz 2013, 141):

- Equivalence of pro-family and pro-professional orientation in social awareness. Family scores highly in the hierarchy of values of the young generation. Equally high position takes work and career, but they have not the "competitive" value.
- The gradual evolution of the relationship between the spouses in the direction of the partnership. The family is most frequently perceived as an institution, which is based on a contract between two economically independent partners. However, partnership, in providing family the economic basis of existence does not translate into equal sharing of responsibilities within the family. Most of the work related to household and childcare are carried out by women. There has been a gradual transformation of behavior, which consists of the increasing participation of men in the care of children.
- Providing children with a high level of development, mainly through the participation of fathers in the processes of education, socialization

and education.

- There has been far-reaching changes in the field of sexual morality and the formation of informal relationships (cohabitation).
- Another factor that strongly influences the formation and functioning of families and the development of family policy is the participation of women, including women with children. The high activity of women is associated with the belief that the work brings not only financial benefits, but it also has the autotelic value, a source of satisfaction and fulfillment.
- Currently, the dominant purpose in Scandinavia is the actualization of the working family model with a double breadwinner and protector. (work-family model of dual earners and dual careers)

Demographic conditions

The values for family life are manifested in the processes of formation and functioning of the family; these processes can be characterized as follows (Eurostat Yearbook 2012 & Testa 2012):

- Decreasing the number of people associated with the decrease in the birth rate.
- Extended life expectancy. 80 years for women and for males 74.3. Sweden is a country where there has been a high rate of men's life expectancy. (78.5).

In terms of fertility, the situation is as follows:

- The number of live births has remained at a similar level since 2005, but now has a growing trend (2013-2014) The fertility rate shows a downward trend and does not guarantee the replacement rate (the lowest in Denmark 1.72, the highest in Sweden, 1.90) .
- The average age of childbearing is at a level of 30.4.
- In the case of marriages and family formation attitudes in the Nordic model, the situation is as follows:
 - For several years, there is a decrease in the number of marriages.
 - There are an increasing number of partnerships (in Sweden and Finland, around 5 per 1000 inhabitants). The consequence of this is the growth of extramarital births in the total number of live births.
 - There are an increasing number of divorces (an average of a thousand marriages comes to approx. 400 divorces), which is not a high number compared to other EU countries.
 - In the structure of families they are dominated by families with fewer children, especially with one child.

- The consequence of divorce and births outside marriage is to expand the scale of single parenthood. In recent years, noticeable it is the bringing up of children by their fathers - usually caused by the death of a spouse.
- More than 1/3 of the population lives alone. Among the younger generations prevail single men, due to the fact that women often live with their children, however, men get married later than women. Moreover, among the younger generations are more men. The trend is reversed in the case of older people - this group is dominated by women living alone, who generally live longer than men.

Institutional family support

A characteristic feature of the Scandinavian family policy model is the dominant role of the state as the main subject. Instruments such as public services and welfare cash benefits Scandinavians consider as a manifestation of the positive state interference in family life.

Much of the family policy is conducted at the local level by local governments. They have become the subject of implementing family policy, although, in many cases their action is supported by the central budget (Balcerzak-Paradowska 2004, pp. 175-176; Balcerzak-Paradowska, Kołaczek, Głogosz 2009, pp. 113-120).

Legal circumstances

In the social democratic model the state has a decisive role. Universal, generous social benefits are combined with activation policies and aimed at transferring as many people, both men and women to the sphere of employment. Family policies of these countries are based on the idea of individualization of civil rights, including the individual rights of the child, regardless to their family of origin, the rights of the elderly and disabled, consider providing equal opportunities to women and men by the dominant role of the state and universalism. The national legal acts apply related to the benefits for families divided for various forms of support.

Family policy instruments

Family policy in Nordic countries (Finland, Sweden, Denmark) is based on the idea of individualization of civil rights, including the individual rights of the child, regardless of their origin, the rights of the elderly and disabled where

equal opportunities for women and men are taking into account. The dominant instrument of this policy are social services, rather than cash benefits.

It must be emphasized that the Scandinavian model is worth attention because of the wide range of social benefits, designed to meet the different family's and children needs and also to facilitate the reconciliation of work and family responsibilities. The characteristics of this system are (Durasiewicz 2012, pp.73-74):

- As part of supporting early childhood - parental leave for mothers and fathers of at least 158 days,
- As part of creating conditions for the development of the young generation - family allowances for all families, universal system,
- Development of social services for children and youth - 85% co-financing from the state budget for nurseries and kindergartens, allowance of a child care at home, a special allowance paid in the case of giving the child into the care of a private institution,
- Supporting families with many children through increased family benefits,
- Helping to a single-parent families - dual system of survivors' pensions, social insurance pension.

South European model (Mediterranean) – Greece, Italy, Spain, Portugal

Axiological conditions

South European model of family policy is based on the following values (Balcerzak-Paradowska 2004, 179; Chelstowska & Zarzyńska 2014, 13-14; Durasiewicz 2013, 143):

- The family occupies a high rank among the hierarchy of values, which are the source of religious codes.
- Children are very much appreciated.
- Interfamily relations are based on the traditional division of roles between men and women, and intergenerational relations - based on obligations. This is reflected in the processes of formation and functioning of the family, which is traditional, but also the dominant form of the family is marriage.
- Supporting active paternity,
- One of the characteristic features in the Mediterranean family model is its diversity of territorial division: the north - south. In both „submodels”, previously mentioned characteristics, appear but with varying degrees of intensity.

- Family models are different: the frequency of marriages, the prevalence of cohabitation, the number of children, the frequency of divorce, professional activity of women. However, changes take place much faster in the north.
- The participation of women in the labor market has increased from the beginning of the seventies. Nevertheless, the rate for women is lower than in other European countries.

Demographic conditions

Despite the widespread of sharing these values in southern European countries, we also observe changes in families (Eurostat Yearbook 2012 & Testa 2012):

- The population over the last five years has remained at a similar level (the lowest population found in Portugal (10.5 million), the highest in Italy (almost 61 million).
- The number of live births from 2008 shows a „drastic” downward trend, even a few million a year.
- As part of the fertility situation it is unfavorable and far from the level of assurance regarding replacement of generations:
- A drastic fall in fertility. The fertility rate amounting to an average of 1.32 does not provide replacement of generations and is one of the lowest in the EU.
- The average age for women giving birth to children has increased to 30 years.
- Extended life expectancy. For women it is 83.4 years and 75.3 for men.
- In terms of marriage and factors relating to the family situation it is as follows:
- The propensity to marry is declining.
- In EU countries, it is quite a common trend for quick „independence” of young people from their parents, and with the independent living, this trend is the least visible in the south of Europe. Young people from Mediterranean countries live with their parents. The opportunity to stay in the family home provides them with economic support without restricting personal freedom.
- In comparison with other countries, birth outside marriage are much less common in the south of European countries, however, here they are also increasingly popular. Patterns of family breakdown are conditioned by the late introduction of the law to divorce as well as

- the principles of rule dissolution of marriage by divorce.
- An increasing number of single-parent families, although their share in the total number of families is lower than in other Western European countries.

Institutional support for families

The immediate executor of the family policy are the local authorities. At the local level are offered: babysitting, health services, family counseling and legal, special services for families.

In pursuing these objectives, non-profit organizations and volunteers are participating.

A family associations representing their interests has not developed sufficiently, although there are various initiatives for the development of free time for children.(Balcerzak-Paradowska 2004, 182; Balcerzak-Paradowska, Kołaczek, Głogosz 2009, 126-130).

Legal conditions

In the Southern European model can be find a solution similar to that used in the conservative model, and the differences are especially connected to policy towards families and children. The model is characterized by a special feeling of family union, focusing on the protection of traditional family model and structure, to maintain family cohesion and strong family links. This reduces the liability of the State for the development of appropriate action. Social benefits are fragmented, unevenly distributed and generally at a low level. The family policy of southern European countries is dominated by the principle of subsidiarity and family solidarity. Family relatives are required to help and support (vertical and intergenerational solidarity). National laws in respect of the benefits for families divided for various forms of support are applicable.

Family Policy instruments

Family policy instrument of southern European countries which are having a universal character is the tax system with some relief including the family situation of the taxpayer. Family allowances are granted only to families who meet certain income criteria (*means tested*).

Benefits designed to facilitate the reconciliation of work and family responsibilities is the ability to take advantage of maternity and parental leave. Part-time employment of family reasons, financing costs of child care in kindergartens, additional parental leave for fathers. The characteristics of this

system are (Dragan, Krasnowolski, Tracz-Dral, Fibingier 2011, 14; Balcerzak-Paradowska, Kołaczek, Głogosz 2009, 126-130):

- As part of the early childhood - parental leave for mothers and fathers - unpaid leave.
- Supporting families with many children through increased family allowances
- Helping single-parent families – they have additional rights and it includes eg. increased benefit for a small child.
- Supporting dysfunctional families, especially children and young people in these families (orphans, youth at risk).

Central European Model (continental, conservative) – Germany, France, Belgium, Holland, Austria, Luxemburg

Axiological conditions

Central European model of family Policy based on the values as follows (Balcerzak-Paradowska 2004, 184; Anioł 2010, 41-42; Durasiewicz 2013, 145):

- The family is considered as the basis for social cohesion and a place of education of successive generations.
- The family is seen as a personal development of its members. This is not equivalent to treating the family as an institution based on a formal marriage.
- The importance of having children. There are even some trends that identifying having children with patriotic attitudes, because of the threat of disequilibrium in the mechanism of population reproduction.
- The importance of ensuring adequate living conditions and livelihoods for families corresponding to the formula of „prosperity without work”.

Demographic conditions

In addition to the mentioned values, in the continental countries changes in the families are dynamic and characterized by the following features (Eurostat Yearbook 2012 & Testa 2012):

- Population increases (the lowest populations inhabit in Luxembourg (0.5 million), the highest in Germany (81.8 million). The rising of life expectancy. For women is 83.8 years, for men 75.3. The highest rate of women across the EU was recorded in France and amounted to 83.8 years.

- In terms of fertility, the situation is better than in the case of South European model:
- In the last five years the number of live births showed a downward trend, but in 2014 started to increase
- The average number of births is reduced (eg. France 2.01). This is due to the introduction of more family-friendly public policy, which includes: the initiation of accessible and affordable childcare, more flexible forms of employment.

When it comes to marriages and shaping the attitudes of the Central European family model the situation is as follows:

- The propensity to marry is declining and decision of marriage is shifting towards later times (the average age for women giving birth to children has risen to more than 30 years).
- Growing phenomenon of family breakdown through divorce.

Regarding to the activity of women and illegitimate births in the Central European model are as follows:

- The dynamic growth of economic activity of women
- France is a country with a relatively high rate of illegitimate births, lower than in the Nordic countries.

Institutional family support

In this model, the dominant subject of a French family policy is the State, acting directly or through social security institutions (which is part of the Cash Family Allowances). Decentralization of the right of the State is to increase the share of local governments in the tasks of family policy. Public support from the State and local communities (municipalities) is associated with self-help. Non-governmental organizations representing the interests of families are involved in the discussion of family policy, and specific solutions are subject to public consultation (Balcerzak-Paradowska 2004, 185; Balcerzak-Paradowska, Kołaczek, Głogosz 2009, 97-100).

Legal conditions

The conservative system is very popular among continental part of Europe. It is a combination of family responsibility and strong regulation of the State. The social security system is based on the principle of insurance. The system maintains the traditional objective of the idea that the man is the main breadwinner and whose ability in this area should be supported. Family policies are based on the principle of subsidiarity, including - their foresight citizens

expressed through participation in the system of insurance. Public support - from the state and local communities (municipalities) is associated with self-help. Applicable national laws in respect of the benefits for families divided for various forms of support

Family Policy instruments

In the continental countries (Germany, Austria, France, Belgium, Luxembourg and some parts of Netherlands) family policies based on the principle of subsidiarity, including - foresight of the citizens which is showed through participation in the system of insurance.

Money transfers are more likely to use than benefits in kind. The system of money transfers used in the family policy (eg. France) is developed, based on different principles (universality, but also depends on family income), taking into account the different situations and needs of families. These policies are intended to support the traditional family. The characteristics of this system are (Durasiewicz, 2012, pp. 89-121):

- In the context of child care (child-raising allowance and parental benefit, sick care),
- Widely developed activity of employers (reduction of working time, individual time schedules of work, part-time employment caused by family reasons - Germany)
- Supporting families by investing in the young generation (family allowance for all families, benefits in case of death of the breadwinner, the orphan's pension, widow's pension),
- Tax benefits (regardless of other family benefits , there are tax credits for children, as well as relief related to education, training and care, and children up to the age of 14 are entitled to a tax credit if they require to employ a guardian),
- Social services for children and youths (every child from the age of three years has a right to have a place in a public kindergarten),
- Health services (family health insurance system protects against social exclusion of children by providing them an access to prevention, care and medical treatment. Moreover, children and youths under the age of 18 are exempt from fees for preventive examinations and vaccinations.

Liberal model (Anglo-Saxon) – Great Britain, Ireland

Axiological conditions

Liberal model of family policy is based on the following values (Kowalski 2010, 53):

- The family is considered as the basic unit in the education of successive generations, but having children is a private matter of parents.
- The family should take responsibility for themselves. As a result, there is a small range of support for families of universal character.

Demographic conditions

In addition to mentioned values among the family, in Anglo-Saxon countries demographic there are demographic changes which are characterized by the following features (Eurostat Yearbook 2012 & Testa 2012):

- Population levels are growing and show an increase trends for the coming years,
- United Kingdom is one of 4 EU countries, deciding on 54% of the population of the EU (Germany, France, Great Britain, Italy).
- Extended life expectancy. For women is 80 years for males 79.0.

In terms of fertility, the situation is similar to the Central European model and approaching the countries from this model to get simple replacement of generations:

- An increasing number of life births,
- Fertility rate on the level of 2.01.

Within the factors related to family and marriage:

- An increasing number of a single-parent
- The propensity to marry is declining and decision of marriage is shifting towards later times, this is due to the desire for career development of young people
- A growing universality of partnership (eg. LAT – Living Apart Together).

Regarding to the Professional activity:

- The dynamic growth of women economic activity.

Institutional family support

Liberal model is characterized by reference to the market and the family as the basic unit of prosperity guarantor. The unit is primarily responsible for overcoming social problems - can create all kinds of community.

The state is seen as an institution of last resort in providing assistance to individuals in the field of prosperity the individual – therefore, the size of the redistribution, resulting from social policy, are relatively small (Kowalski 2010, pp. 53-54).

Legal conditions

In the liberal model the responsibility of the state is kept to a limited extent. Citizens should be responsible for their situation and the market should fight against social risks through the offer activities to support individual activity of citizens and families. Whereas, the state supports active family activities (units) through an appropriate tax system and social benefits, their level is rather low. Family policy is based on the principle that the family should first takes all the responsibilities for themselves. As a result, there is little support of universal character. National laws are applicable on the ground of the benefits for families divided for various forms of support.

Family Policy instruments

Family and social policy of Anglo-Saxon countries (UK and Ireland) is based on the mentioned principle that the family should take all responsibilities for themselves. The assistance for low-income families dominates and family policy is currently focused on the fight against poverty,

Characteristic features of his system are: (Durasiewicz, 2012, pp. 108-120):

- In the context of a child care (care for pregnant women, benefits and sick leave, free antenatal and child care up to 6 weeks of age, care without parents, care for a small child)
- Supporting families by investing in the young generation (family allowance for all families regardless of income, the allowance for single-parent families, the allowance for abandoned wives, widow's pension program for poverty reduction, provision of care for families with a disabled child)
- Tax benefits (mainly for single-parent families, tax relief for families with a disabled child, family allowances for parents with young

- children)
- Social services for children and youth (financing of nurseries and kindergartens, childcare centers, playgroups, babysitters for children called. Babysitteres, care centers and environmental, educational childcare allowance, clothing and footwear, school, subsidizing the purchase of textbooks, free rides to school, education allowance for children from rural areas, school feeding)

Post-socialist model – Poland, Bulgaria, Slovenia

Axiological conditions

Post-socialist model of family policy is based on the following values:

- The family, based on marriage is in this model a long and established tradition. This involves the influence of the Catholic religion, the lifting of the sacrament of marriage to the rank and indissoluble relationship.
- Marriage and the family occupied and occupy a high position in the hierarchy of generations entering adult life.
- There are changes in the pattern of marriage, consisting of moving a decision in time, which makes the family assume people socially mature, with greater financial independence. This phenomenon carries serious negative consequences for the process of procreation, it is in fact the most common implementation of the model family with fewer children.

Demographic conditions

Compared to previous models of family policy, post-socialist model falls the least when it comes to the demographic situation and is characterized by the following features (Durasiewicz, 2012, 9-17):

- Declining population.
- Extended life expectancy. For women it is 72.7 years, 81.1 for men.

In terms of fertility, the situation is unfavorable in comparison with other models of family policy:

- Low fertility rates (Poland fertility of only 1.29 children per woman slipped in the global statistics on the thirteenth position from the end)
- Decreasing the number of live births.

In terms of factors related to marriage and the family situation is as follows:

- The propensity to marry is declining and decision of marriage is shifting towards later times (In most cases this is due to the desire to achieve stability in the labor market, financial and housing of young people).

When it comes to marriages and shaping the attitudes of family in the post-socialist model, the situation is as follows:

- Decreasing the number of marriages.
- In comparison with other countries of birth outside marriage in the countries of post-communist model are much rarer, but also their
- growth.
- Dominant model of the family is marriage with one child.
- An increasing number of single-parent families, although their share in the total number of families is low.

Institutional family support

The dominant subject of family policy is the State, acting in a direct and separating the various tasks and funding for provincial and local government units.

Legal conditions

The accession in 2004 of new EU countries of the former communist bloc has raised the need to broaden the analysis of their family policies. Ch.Saraceno notes that - generally speaking - model of these policies can be considered close to the Social Democratic (characteristic of the Nordic countries) (Saraceno 2007), based on respect for the right to help enjoyed by citizens (the part of the benefit is targeted only for employees) and taking into account the principle of gender equality. Applicable national laws in respect of the benefits for families divided for various forms of support.

Family Policy instruments

The aim of family policy model post-communist countries (Poland, Bulgaria, Slovakia) is to increase the protection of families in difficult circumstances. The dominant instrument, which was used in this model are cash benefits. This model is based primarily on: the protection of the poorest families, the selectivity of the granting of benefits (Kangas & Rostgaard 2007), equality

rights for women and men to benefits and aims to enhance the impact on the course of demographic processes through the instruments of family policy explicitly and implicitly. The characteristics family support in this system are (Durasiewicz, 2012, pp. 27-43):

- Supporting families by investing in the young generation (family allowance additives, temporary allowance, allowance having a selective nature (depending on income), lump-sum aid for childbirth, additional benefits for people who have not yet had the rights to maternity leave that is, students, people working on contract for work, the insured in KRUS or seeking work (unemployed).
- Tax credits (System of pro-family tax deductions preference for large families).
- Social services for children and youth (difficult access to care and educational institutions - insufficient number of nurseries and kindergartens and places in nurseries and kindergartens.
- Support for single-parent families (the maintenance fund for single-parent families - but just as in the case of the US mother single parents with a child without an established paternity is not entitled to any benefits).

Conclusions and recommendations for Polish

The European Model Scandinavian (social democratic)

Characteristic family policy of Scandinavian countries is understood as friendly policy towards family, women and children. Extremely important solutions used in the Nordic countries are: the parental leaves (parental). In Sweden, institutional care is preferred to parental and therefore there is developed a network of appropriate services and - most important - is offered support to use them. It is one of the most advantageous solution, which allow for free choice of the method of care. It is followed by a more flexible choice of parental leave. You can use it all at once or divide accordingly to the needs of the family (with the consent of the employer). Increasingly, there is a possibility of free distribution of leave between both parents and the child's ability to share leave parts.

Therefore, in Poland, the area where you need significant changes is still parental leave. It is all about the problem of compensation of salary for the duration of leave. A partial solution to this situation may be the implementation of the current draft of the Act of 2016 by the state aid in the education of children.

The Central European Model (continental, conservative)

In order to strengthen the role of direct financial assistance to Polish families who cover costs of education and care of the young children, it is needed to raise the income threshold for eligibility for family benefits. The transition from the current selective system of family benefits to the universal system (functioning not only in Germany but in most EU countries) would be an expression of support for all families with children. It would limit such cases where the risk of losing family benefits (after exceeding the income threshold constituting a criterion for entitlement) act as a brake on additional professional activity or moves person to black market o employment. It is worth to consider the inclusion of benefit possibility to cover estimated expenses associated with the covering of children upbringing costs (educational, cultural, recreational, etc.). Another form of family benefits could be setting them with comparison to other benefits (eg. In Germany Kinderzuschlag) - which could be compared to average costs incurred by families. Based on the pattern of Germany and France, there should be used higher level of benefits and selection of securing of social risks.

European liberal model (Anglo-Saxon)

According to OECD data from 2013, the United Kingdom is the second European country after France with regard to money spend from budget on children. It spends 3.6% of GDP on this aim. British family policy solutions create an extremely wide range of activities and forms of assistance, where in any case take into account the need to ensure that families with children material means of subsistence. Noteworthy is also the variety of life situations taken into account by the legislature - new forms benefit Working Tax Credit and Child Tax Credit (also appearing in the American model). Noticeable is also a particular concern for vulnerable groups, and the basic principle of action in this area is to equalize opportunities for children from different backgrounds. It should also be emphasized - as it seems - specific approach to the problem of combining professional duties with the care of dependent family members and the special role of employers in this area. The Polish state should model it solutions on British example with this regard. Government program aims to give every child the best start in life. It recognizes the that required for this purpose is a combination of early education, childcare, health and family benefits. Deemed necessary to increase the availability of child care for all children, improve health and emotional development of children, as well as supporting functions parental and aspirations of parents related to employment.

The European Model South European (Mediterranean)

In all the countries analyze, we can observe the development of solutions to create opportunities to care for small children. This is done also in the countries of the South European model, which are dominated by the familiarism principle. This is because of the dynamics of professional activation of women, but to an even greater extent, the treatment of institutional care as part of the education system. The actions are moving in two directions: to support the care provided within the family, mainly through solutions to reconcile professional duties mother and father and family responsibilities and to support the development of care facilities.

In countries with active family policies, the development of both courses of action occurs in parallel and can be taken as a model to adapt the Polish system. In conclusion, it should be emphasized that the implementation of the family policy of encouraging families to invest in the young generation and provide him good conditions for development, followed by the use of the best ways to care for small children.

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THE INFLUENCE OF GENDER AND FAMILY IN ONLINE PARTICIPATION OF TEENAGERS AT SOCIAL RISK

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Abstract. *Internet is a mean of mass information and fulfills the traditional functions of a public space without doubts. Participation in the virtual space is defined as a problematic use of the Internet process which damages the disadvantaged young person's personality, which is already characterized by a lack of social skills, communication, feelings of expression issues. The majority of young people are attracted by internet space, by its anonymity and availability. The aim of the research is to analyze the influence of gender and family aspects in online participation of teenagers at social risk. The research showed that the internet provides the great and additional opportunities to teenagers at social risk, something they don't get in their families. Children living with grandparents or with only one parent are more active users of Internet social networks in comparison with other children. They seldom recognize the Internet dangers and more quickly become emotionally dependent on the Internet. The adults' control or its absence determines the expression and frequency of online participation of teenagers at social risk. The girls more frequently recognize the dangers of virtual space than the boys do; but the girls use to publish more information about themselves. The research results show that the participation of teenagers at social risk in social networks is unconscious. Young people are not able to "filter" and select proper information, usually equate the virtual world with reality. Online participation of teenagers is reasoned by satisfaction of needs, parents' inattention and search for new acquaintances.*

Keywords: *children at social risk, gender, online participation, social work, self-awareness.*

Introduction

Recently the internet has become a part of children and youth's everyday life. It was noticed that young people transfer eagerly the communication with their friends to virtual space, this can stimulate the appearance of dependence on social networks. Lithuanian teens use the Internet more frequently than in Europe. Even 95% Lithuanian's 16 years-old use the internet at least once a week, to actively communicate with the Internet social networks, many have their own personal social profile (Livingstone & Ólafsson, 2011).

The authors Wells and Mitchell (2008) noticed that the teenagers at social risk are inclined to overuse the Internet and social networks in comparison with

their age-mates. These teenagers are easily involved into virtual space due to emotional, psychological and social problems.

Social networks influence negatively shut-in personalities, socially shy children and young people who inadequately accept and evaluate the experiences offered by a virtual space (Auer, 2013). The research conducted by Klanienė and Jokūbaitienė (2012) revealed that excessive use of the Internet is typical for the teenagers at social risk. Such excessive use is expressed in the problems of time control. The fact that the teenagers at social risk are inclined to use the Internet more often was also defined by the authors Wells and Mitchell (2008). Mačėnaitė et. al. (2011) analyzed the protection of children's privacy in the Internet. Fraser and Dutta (2010) wrote about the power of social networks. They revealed a new phenomenon – “competition in collecting friends”. In such a way a person seeks for recognition, status, influence and power not only in a real world, but also in a virtual one. The danger of social networks to children and youth was discussed by Glenny (2012). Ruškus et al. (2009) studied teenagers' behavior in the electronic space. The rapid widespread of electronic abuse and its prevention were reviewed by Mažionienė, et al. (2012). They noted that the consequences of online harassment are usually more complicated than the consequences of abuse in real life, because it spreads more rapidly and is difficult to control.

Young people, who are less satisfied with their lives, use the Internet as a communication environment in which they feel more self-confident, with particular emphasis on anonymous communication capabilities (Livingstone, Helsper, 2008). Teenagers who have weak relationship with parents, peers will likely look for opportunities to communicate on the Internet more (Christofides, Muise, Desmarais, 2012). Teen vulnerability in the Internet space differs by gender. Teenagers, especially girls, more likely engage in online social networks activities (Lenhart, 2009; Ruškus, Žvirdauskas, Kačėnauskaitė et al., 2009), meanwhile, boys are more likely engage in computer games, gambling, video accesses websites (Lenhart, 2009).

The aim of the research is to analyze the influence of gender and family aspects in online participation of teenagers at social risk.

Methods of the research:

Method of quantitative research. The method of partially structured questions was selected in order to reveal peculiarities and expression of online participation of teenagers at social risk. The questionnaires were given to teenagers at social risk (grades 6-10). The research results were processed with Statistical Package for Social Sciences 22.0, with the help of which the statistical and comparative data analyses were applied:

- a. The methods of descriptive statistics: average of frequencies, standard deviation

- b. Spearman correlation analysis
- c. Reliability Analysis

The study included 101 the children at social risk, most of the sample consists of 59 girls (58.4%) and 42 boys (41.6%), attending the 6th -10th grade pupils. All respondents are students who study high school - 69.3%, secondary - 15.8% and 14.9% of the school progymnasium. The study involved the city of Siauliai and Siauliai district children who attend children’s day centers and learners of Siauliai and Mazeikiai district schools in disadvantaged pupils. 55.4% of them live in the village or town, 32.7% - in the big city and 11.9% - in the city.

Most of the teens are high school students who already have a common life experience and knowledge, can self-assess what is good and what is not. So mostly teenagers participated in the survey is an eight (27.7%), 22.8% for the nine is far less of the youngest respondents, ie, sixth-graders - 21.8%, tenth consists of 17.8%, and at least 9.9% - of seventh.

Research statements to measure the composition of informants’ family (Figure 1).

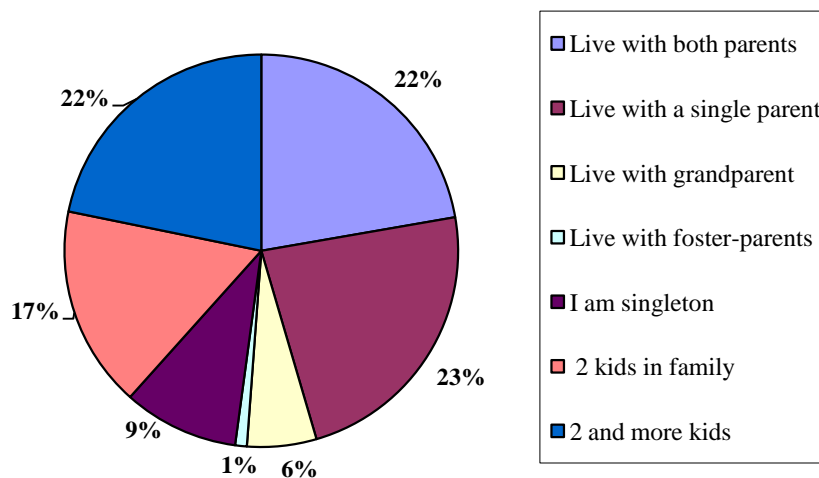


Figure 1 Family composition, %

It is expected that the situation of the family will allow to find essential differences in their participation in social networks, and to find the cause of problematic Internet use. As can be seen, most of the informants lives with a single parent (23%) and in a family where there are more than two children (22%). These results confirm the consistent trend in society that social risk family - it's the large, single-parent households. This is one of the risk factors affecting the engagement of teenagers participation in the online space.

Results

The family is the primary social factor influencing adolescent and attitudes formation. Internet usage frequency, duration and risk incurred closely related to various family characteristics. In this case, it is essential to seek for harmonious family and child relationship. Often happens that children discover the desired communication due to the fact that parents can not or are unable to devote enough attention to their children. For this reason, children tend to look for other ways of getting attention, in this case, attention can be found on the Internet. The results revealed the reasons for disadvantaged teenagers in the presence of online social networks, as far as family status affects their objectives in social networks (see. Table 1)

Table 1 Spearman correlation according family status

Proposition		live with both parents	live with only one parent	live with grandparents	live with foster parents	one kid in the family	2 children in the family	more than 2 children
A4 Find yourself a couple	r			0,247	0,221			
	p			0,01	0,02			
A5 Comment	r			0,312				
	p			0,00				
A7 Write messages on the wall	r			0,205				
	p			0,00				
A9 Monitor newsletter	r	-0,215		0,199				
	p	0,03		0,04				
A10 Relax	r		0,219		-0,207			
	p		0,02		0,03			
A11 Play games	r			0,211	-0,215			
	p			0,03	0,03			
A12.Distribute advertising	r					-0,208		
	p					0,03		

It is obvious that children who live with their grandparents ($r=0.247$) are relatively more likely find themselves participating online as also teenagers living with parents ($r=0,221$). Teens who live with their grandparents also are more likely to comment ($r=0.312$), post messages on the wall ($r=0.205$). It is noted that teens living in a family with both parents ($r=-0.215$) monitors the frequency of updates to social networks than those living with their grandparents ($r=0.199$). Social networks as a way of relaxation to name more often

adolescents living with one parent (r=0.219) than those living with guardians (r=-0.207).

It is clear that family status has an impact on teen participation in social networks motives. Teens who live with grandparents or with one parent are more likely to participate actively online, as the grandparents often lack the knowledge and competencies of modern technology, so they are not interested and do not know what their grandchildren are doing online. As well as children living with one parent, who is usually the only breadwinner, due to time constraints, employment, possibly due to the low technological excellence, devote less time to children, their leisure, free time control. As can be seen, adult control or lack of it affects teen participation in social networks motives, their frequency. This clearly shows that the parents' physical and psychological closeness reduce potential threats to becoming victims of online pairs and harmful use of the Internet.

The assessment of social risk teen awareness about the threats are analyzed separately by gender and family status (Table 2)

Table 2 **Internet use self-perception of potential threats, the risk according to family status (Spearman correalation)**

Proposition		live with bouth parents	live with only one parent	live with grandpar ents	live with foster parents	one kid in the family	2 children in the family	more than 2 children
B1 Personal data made available	r			-0,251		-,0243		
	p			0,01		0,01		
B5 Photo publicity	r							0,279
	p							0,00
B6 Threats	r						-0,202	0,220
	p						0,04	0,02
B7Cyberbullying, harassment	r		-0,206					
	p		0,03					
B8 Sexual harassment	r						-0,202	0,270
	p						0,04	0,00
B10 Meetings with strangers	r							0,203
	p							0,04
B11 Violent scenes	r							0,200
	p							0,04

Thus, family status, the composition also influences teen awareness in recognizing potential threats to social networks. Teenagers living with grandparents (r=-0.251), and one child in the family (r=-0.243) personal data publicity (p=0.01) tend to be seen as less dangerous. Children who have more

than one brother or sister (large family $r=0.279$) publicity pictures seen ($p=0.00$) as a potential danger. Also, these children ($r=-0.202$) more threats on social networks sees as a dangerous than two children in the family ($r=0.220$). Other dangers that adolescents perceived less dangerous, ie electronic bullying, harassment seems less dangerous for those, who live with one parent, and sexual harassment also seems more harmless for children, who has two or more siblings in the family ($r=0.202$) than large families ($M=0.270$). Violent scenes and encounters with stranger seem dangerous for large families.

So the teenagers more or less recognize the danger of the Internet. It is noted that children growing up among two or more siblings often sees the Internet at risk than other children who live without siblings. It is likely that their awareness is constructed by the experience of older siblings, that helps other children to be more vigilant and protect themselves from the dangers on the Internet.

Emotions, which are experienced, while the young people are being „online” is illustrated by the results (Table 3).

These results highlight the importance of the role of adult control, children who live with both parents and/or guardians tend to adequately assess the benefits of social networking, they are not dependent on the Internet, possibly related to the increased free time, increased use of parental control. Children living with their grandparents are usually not controlled, they are free of restrictions on the activities at home. These children ($r=0.245$) more often evaluate other social networks as a good way of spending leisure time ($p=0.01$), a virtual world for them ($r=0.319$) is cuter than actual ($p=0.00$). Respondents say, that online social networks are fashion because all their friends are interested in them ($p=0.03$). Again it is highlighted the need to be recognized, to be a member of the group. They also describe being online as improvement of their mood, the tool to forget the problems, relax ($r=0.329$) and ($r=0.205$).

Adolescence significantly increase frequency of risky and reckless behavior, vivid sensation of ambition in this period of age teenagers often choose the patchwork, and varying emotions obeying behavior (Žukauskienė, 2012).

Study EU Kids Online (Livingstone and Ólafsson, 2008), the children's exposure to online risks incidence is also associated with their age: 14% of 9-10 year olds have encountered one or more risks, 11-12 years of age group, risk increased to 33%, 13-14 age group - 49% and 15-16 age group - by 63% of the risks. Lekavičienė, R. Almonaitienė J., Antininė D., (2010) emphasizes that the most active virtual communication participants are teenagers and young people under 25 years of age.

Table 3 Social risk adolescent emotional state at the „online” by family status (Spearman correlation)

Teiginys		live with both parents	live with only one parent	live with grandparents	live with foster parents	one kid in the family	2 children in the family	more than 2 children
C1 Social networking sites, it's a great pastime	r			0,245	-0,240		0,210	
	p			0,01	0,01		0,03	
C2 The virtual world is nicer to me than real	r			0,319				
	p			0,00				
C3 Social networking is a necessity for me	r						0,275	
	p						0,00	
C4 Social networks are a fashion, because all her friends use them	r			0,213				
	p			0,03				
C5 Join the social network improves mood, problems left behind, relax	r	-0,214	0,205	0,329	-0,213			
	p	0,03	0,04	0,00	0,03			
C6 Unable to connect to the social network, I feel lonely	r						-0,239	
	p						0,01	

Internet use self-perception of potential threats, the risk of gender

In terms of gender, research showed the following differences: the girls are relatively more underlying the danger in cyberspace. Girls are underlying the danger of electronic bullying, harassment (M=2.61), sexual harassment (M=2.64), erotic and pornographic photos page links (M=2.58), meetings with strangers people (M=2.54), and the violent scenes often are seen more

dangerous than for the ($M=2.66$) boys. It can be seen that for the boys it is harder to understand and recognize potential dangers in the Internet.

One of the ways to combat the dangers of social networking is to protect your personal data provided. Pupils were asked about what personal data they publish online in social networks. Thus, two-thirds (64%) of teens say that they do not provide personal information about themselves in social networking sites. However, the results of analysis shows their assertion to publish personal information about themselves (see. Fig. 2).

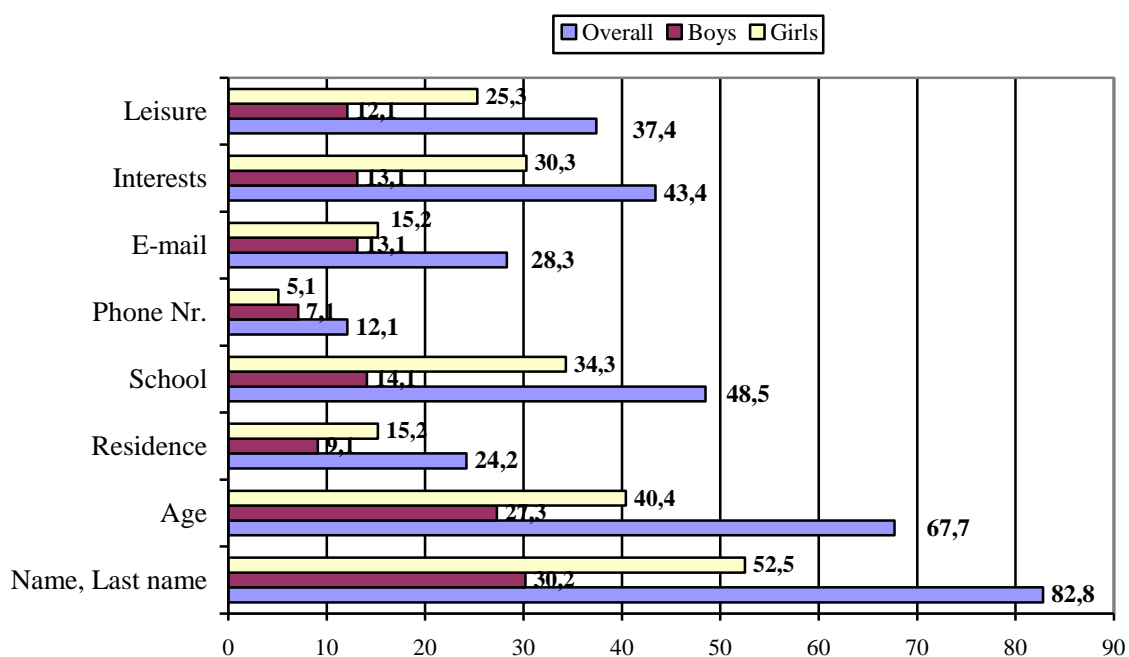


Fig.2 Personal information in the social profile, %

It can be concluded that teens do not realize what is personal information. Most of the teenagers usually indicate their name and surname (82.8% of all respondents, of which 52.5% girls, 30.2% - males), age (67.7%, girls - 40.4%, male - 27.3%), educational institution (48.5%), leisure (37.4%). Teens also do not avoid the specified phone number (12.1%), and place of residence (24.2%). This is in line with Курченко, Кочарян (2011) survey results that 46% of children aged 10-17, social networking profile indicates a personal phone number, 36% - home address.

Girls tend to give more information about themselves than boys. This can result in their desire to make new friends, love, without thinking about the risks. In assessing the significance by gender showed that girls ($M=0.90$) more often indicate real name and surname in social profiles ($p=0.03$) and boys ($M=0.58$) educational institution ($p=0.03$). In assessing the significance of the correlation

by family status revealed that children living in nuclear families ($r=-0.200$) rarely provide personal information comparing to two and more children of the family ($r=0.224$). Children living with both parents ($r=-0.213$) rarely identify their place of residence or living with a single parent ($r=0.224$). But teenagers behave unlike recommends Mačėnaitė et al. (2011), that the Internet should be kept to a minimum publish your personal information. Rough handling of the children themselves tell a lot of personal information, and even to entire strangers. Wells and Mitchell (2008) study revealed that 65%. disadvantaged teenagers provide personal information online and 40%. teens are sending information about themselves to other people. Kneidinger (2010) found that 75% of teenagers share information about hobbies, or other active operations, 66% publicize their pictures or videos of themselves.

Regardless of gender, it is clear that social risk children lack the knowledge, understanding what is personal information, what and how much you can reveal about yourself to others.

Conclusions

Participation in the virtual space is defined as a problematic use of the Internet process which damages the disadvantaged young person's personality, which is already characterized by a lack of social skills, communication, feelings of expression issues. It is therefore very important for that to be developed and applied in an effective safe use of the Internet model of working with this group of teenagers. It is likely that a very effective tool to teens organizing debates on various web topics. One thing is clear that no prohibited or moralizing measures will help a better understanding of Internet threats. Disadvantaged adolescent participation in social networks, competence development becomes the object of social work.

Summing up the results of quantitative research could exclude certain groups, which highlighted the crucial and important factors that determine the social risk problematic adolescent participation in cyberspace expression, behavior and awareness. The main factors are:

Family: The results revealed that children who live with grandparents or with one parent are more active users of online social networks than other children. The results highlight the importance of the role of adult control, children who live with both parents and / or guardians and children from large families tend to adequately assess the benefits of social networking, they are not dependent on the Internet, possibly related to their more free time, more frequent parent adult control. Children living with the grandparents and with one of the parent are usually not controlled; they are free of restrictions in the house, planning their leisure time. As can be seen, adult control or lack thereof affects

disadvantaged teen participation in the resolution of social networks and their frequency. This clearly shows that parents physical and psychological closeness reduce potential threats to becoming victims of online teens and harmful use of the Internet.

Gender: In terms of gender it was found that girls are relatively more underlying danger in cyberspace than boys. Perhaps the boys getting harder to understand and recognize potential dangers in the Internet than girls, which are more sensitive and emotional, they carefully evaluate what is dangerous. However, girls tend to give more information about themselves than boys. This may lead to their desire, the need to make new friends, expand the circle of love, by nature women are more social than men.

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THE IMPROVEMENT OF CHILDREN'S INDEPENDENT LIVING SKILLS IN THE CONTEXT OF THE RESTRUCTURING OF CHILDREN'S CARE HOMES

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Abstract. *The article analyses the improvement of children's independent living skills in the context of the restructuring of children's care homes. The concept of the restructuring of institutional care is presented. A qualitative-empirical study has been conducted by using the method of a semi-structured interview. The study data were processed by using the method of content analysis. The results of the empirical study are based on the experience of 14 social workers, who work in care institutions, which participate in the restructuring, which consists of the changeover from institutional care to the services that are provided to children, who have become destitute of parental care, in a family and community. Three directions of the improvement of children's independent living skills in the context of the restructuring of children's care homes have been highlighted: increasing independence in adolescents (the engagement of children in a practical activity and their reasoning by encouraging and stimulating them for an independent activity); the improvement of the organisation of educational process (the increase of practical exercises, the reduction of the number of nurtures in a household, the increase of an individual communication with a child); the improvement of material basis (fund raising and the redistribution of the resources available).*

Keywords: *care homes, children, independent living skills, restructuring of institutional care.*

Introduction

According to the Statistics Lithuania, 532 647 children were growing in Lithuania at the beginning of 2014. At the end of 2014, 1.82 per cent of all the children, who resided in Lithuania, were without parental care (the Report on the Activity of the State Child Rights Protection and Adoption Service of 2014). Despite the work with social risk families, a considerable number of children are still separated from their parents every year. According to the data of the State Child Rights Protection and Adoption Service, at the present time, 3562 children are taken care of in 95 care institutions.

Children leave care homes once they reach the age of majority. The studies (Leliūgienė & Djačenko, 2010) show that the beginning of an independent life

of the educatees of care institutions, having left this institution, is complicated due to different social, pedagogical, psychological factors which negatively affect the social adaptation of a young person. The transition of the adolescents in care to an independent life is very sudden: in many instances they have to leave a care home and overcome all the challenges of an adult life at once, upon reaching the age of 18 and being poorly equipped for an independent life (Hojer & Sjoblom, 2010). According to the data of the study by D. Rėklaitienė et al. (2008), half of the senior and a little younger adolescents, who reside in children's care, feel ill equipped for an independent life. Fewer than one-third of the senior educatees of children's care homes and one-fourth of the younger ones stated being well-equipped.

Although it is sought to establish conditions in care institutions that children would acquire a necessary social experience and would be able to integrate into society, however, the studies show that it is very difficult to ensure the best interests and comprehensive development of the child in such institutions (Snieškienė & Bumblauskaitė, 2005). The process of the preparation for an independent life in children's care homes is more complicated due to the specificities of educational system when a family is changed by an institutional authority, in which, not rarely, one-sided, formal work is carried out with the educatees, possibilities are not given to them to act and solve life problems independently, to try different social roles, to draw experience from life, whereas that does not create favourable conditions for the development and expression of a socially active personality, aggravates the acquisition of skills which are necessary while living independently (Samašonok, 2013).

Large systems of institutional children's care make a negative impact on child development. According to D. Pūras (2013), it should always be borne in mind that better nutrition, heating, better care and the eradication of the instances of deliberate violence will not solve the deepest problems of institutional care. The social skills of children, who have lost parental care and are put to residential institutions of social care, in which permanently from several dozens to a few hundred children reside, whose social ties with their community due to the specific features of these institutions are limited, are weak, their opportunities for the integration into society are minimal (Keymolen & Broeders, 2010). A feature of these institutions is group and not individual care of a person, institutional culture (Strolin-Goltzman, 2010). Residential care institutions are not able to ensure person-oriented services and appropriate support which is necessary for a successful integration of a person into society, limit the abilities and preparedness of the children, who grow in institutions, to participate in their community and society (Common European Guidelines on the Transition from Institutional to Community Based Care, 2012). The studies, which have been conducted in Lithuania and Europe,

showed that institutional care always determines lower quality of life than high quality services, which are provided in the community, and often determines lifelong social seclusion (The Situation of Children's Rights in Lithuanian Residential Care and Education Institutions, 2006).

In Lithuania, the aspiration to give priority to child-care in the family and to reform children's care system was set out in the implementing measures of the programme of the Government for 2001–2004 and in the Conceptual State Policy on Children's Welfare adopted by the resolution of the Seimas of 2003. The reform of children's care system was begun in 2007, having adopted the Strategy for Lithuanian Child-Care System Reorganisation, the main purpose of which is, by 2012, having taken into consideration child's interests and needs, to establish conditions for a child to grow in his biological family, whereas, for a child, who has lost parental care, to create appropriate care or adoption conditions which would correspond the best interests of the child and the need to grow in a family environment or in a family-like environment, which is suitable for the preparation for an independent life in the family and society. This reform has not been completed to this day. Based on the data of the National Audit Office of Lithuania (2013), it should be noted that the objectives set out in the Strategy for Lithuanian Child-care System Reorganisation (2007) were not attained: the fraction of children, who have lost parental care, was not reduced (in comparison with all the children of the country), the fraction of children growing up in social risk families did not decrease (in comparison with all the children of the country), the percentage of children, who are care for in care institutions, did not decrease (in comparison with all the children in care), there is a predominance of a large number of children in care institutions, not in all the care institutions an environment that is a family-like environment has been created and the necessary needs of a child are not ensured, children's abilities, which are necessary for an independent living etc., are not developed sufficiently.

The order of the Minister Social Security and Labour of December 18, 2013 adopted The Action Plan for the Transition from Institutional Care to the Family and Community Based Services to the Children with Disabilities and the Children who Have Lost Parental Care for 2014–2020. The purpose of the transition of residential institutions for children from institutional care to family and community-based provision of the services to the children, who have lost parental care, is to ensure a harmonious environment and conditions to the children, who have lost parental care, to grow in the family or household of guardians or adoptive parents and receive assistance in the community. It is important for a child to grow in a family environment which stimulates children's independence, full and complete participation in the community and social inclusion. When restructuring children's care homes, it is foreseen to

create new and expand the existing community services which are alternative to institutional care: communal children's care homes of up to 8 children when they are given residence in flats, houses; protected housing/ independent living homes to those who leave care, by providing "an accompanying assistance and care in a guardian family, care in a household etc. One of the priorities of the restructuring of children care is to prepare a child for an independent life. While the process of restructuring is underway no studies, which analyse the improvement of the preparation of children, who reside in children's care homes, for an independent life in the context of the restructuring, have been conducted. Therefore, it is relevant to conduct studies on the improvement of the development of independent life skills in children in the context of the restructuring of care homes.

The goal of the study is to reveal the directions of the improvement of the development of independent life skills in children in the context of the restructuring of children's care homes based on the experience of social workers.

Research methodology

Research methods. Qualitative research type was chosen for the study. According to J. W. Creswell (2009), the purpose of a qualitative study is to research complex phenomena with the properties that are characteristic of them and present the meanings and approaches, that were expressed by the participants of a study, on a researched phenomenon. In the study, the method of a semi-structured interview, which enables to come close to the understanding of human experiences, designation of meanings, the definition of meanings and the construction (explanation) of reality, was used. This article overviews one problematic question: what directions of the improvement of the development of independent life skills in children social workers identify. The obtained data were analyzed by the content analysis method. Qualitative content analysis was carried out in accordance with the inductive, study data based and categories composed logic. According to J.W. Creswell (2009), content analysis is a technique which, having examined the specificities of the text, allows, objectively and systematically, draw reliable conclusions. The qualitative content analysis was performed regarding the following sequence (Creswell, 2009): repeated reading of the content of transcript interview texts, distinction of meaning elements in the text analysed, grouping of the distinguished meaning elements into categories and sub-categories, integration of the categories/sub-categories into the context of the phenomenon analysed and description of their analysis.

The sample of the research. Criteria-based sample was used in the study. The informants were chosen according to the following criteria: 1) social workers who have a degree in social work, 2) social workers who work in care institutions, that take part in restructuring, which consists of the transition from institutional care to services, which are provided to children, who have lost parental care, in a family and community; 3) social workers whose length of their working time in children's care homes is at least 5 years; 4) 3 recent years of work with adolescents who are about to leave children's care homes.

The study was conducted in the September-October of 2015 in children's care homes chosen for restructuring according to "The List of Residential Social Care Institutions and the Homes of Infants with Impaired Development Selected for Restructuring" (2015). 14 social workers (all female) participated in the study.

Ethics of the research. The permission of the heads of children's care homes to conduct the research in their organisation has been obtained. Personal permission of the informants to take part in the research was sought. The researchers obliged themselves to the research participants not to divulge the information related to the organisation and the informant. The principles of anonymity, volunteerism and benevolence were followed. The social workers were acquainted with the goal of the research, the interview questions, and the importance of argumentated reflection on their experience.

Analysis of research results

Having left a care home, adolescents begin living independently. It is noted in the Programme of Child Welfare for 2013–2018 and the plan of its implementation (2012) that, in order that those children, who have lost parental care, would integrate into society successfully, it is necessary to develop their independence. Social workers take care of the development of independent life skills in children's care homes and how successful children are in their independent life after leaving care homes depends on the attention social workers allocate to the development of independent life skills.

During the study, it was sought to reveal what directions of the improvement of independent life skills in children are identified by social workers, who work in care institutions, which take part in the restructuring, which consists of the transition from institutional care to the services, that are provided to children, who have lost parental care, in a family and community. When analysing the obtained results of the study 3 directions of the improvement of the educational process of independent life skills: the improvement of the educational process is linked to the increase of the

independence of the adolescents, the organization of the educational process, the improvement of material basis.

The study results revealed that one of the directions of the improvement of the development of independent life skills is that the increase of independence in children is linked to the engagement of children in a practical activity and their motivation by encouraging and stimulating them for an independent activity (Table 1).

Table 1 The improvement of educational process linked to the increase of independence in children

Subcategory	Proving Statements
The engagement of children in a practical activity	“...all you need is only a continuous and careful work of our employees, the motivation of children, their engagement in a practical activity...” (N); “...children should be allowed to tidy up themselves. At the present time, a practice has formed that social workers do the majority of work instead of children...in order that there would only be orderliness and the director would not stumble upon it...” (B); “...you need to engage children in a practical activity: tidying up where they reside, cooking food, ironing their clothes, putting them neatly...” (G)
The motivation of children by encouraging and stimulating them for an independent activity	“...a social worker, when it comes to a child, should not be a person who does everything instead of him, but such a person who is close to him, gives a piece of advice to a child. But a child chooses...when there is a complicated situation, you teach, encourage...” (A); “...as much as it is possible of independence for the educatees themselves since their younger age...to give a piece of advice to a child, to encourage him for an action, but not to do instead of him...” (J); “It is important to encourage an adolescent himself to plan his independent life ahead, to take into consideration his interests, expectations and possibilities, to actively get engaged in the achievement of the set goals”(D).

The social workers pointed out that, in order to engage children in a practical activity, their own consistent, systematic and continuous work is very important. While expanding an independent practical activity (tidying up rooms, cooking food etc.) of children in a daily activity it is important to allow them to act themselves and to accept responsibility for the results of their activity: “... children should be allowed to tidy up themselves, because at the present time...the practice has formed that social workers do the majority of work instead of children...” (B). According to the informants, a vicious practice exists in children’s care homes that part of responsibility, which could/should lie with children is transferred on social workers, for example, a social workers receives warnings for untidiness in rooms. Developing skills of budget planning and money management, the promotion of hobbies and interests are equally

important, in order to avoid social exclusion, as well as the development of self-protection skills, the strengthening of self-confidence and personal maturity etc. The informants noted that it is important that children, before leaving the care system, would acquire healthcare knowledge and skills. Basic healthcare knowledge encompass first aid, healthy nutrition, physical activity, mental and emotional health, the use of medicaments. It should be noted that it should be avoided to plan an adolescent's independent life without engaging him himself in that process e. g. to find such a place of residence to a former educatee, which does not meet his expectations or needs, to decide instead of an adolescent himself that he is already prepared to live independently and to release to the adult world without any support and aid.

Another direction of the improvement of the development of independent life skills, which came to light during the study, is children's motivation by encouraging and stimulating them to act independently (Table 2).

Table 2 **The improvement of the organisation of educational process**

Subcategory	Proving Statements
The increase of practical trainings	<p>“In order that adolescents would acquire these skills, there is a need of a practical teaching, e. g. how to create a lunch menu, to go shopping , to cook food, to tidy up kitchen, to do the washing up, to properly keep the remaining food” (H); “...more of practical trainings, the modelling of various daily life situations (in the bank, when filling in documents, when visiting a doctor...” (M); “...the educatees lack practice, whereas daily life skills are developed only while practicing. Therefore, there is a need to increase practical trainings...” (B); “...the children in households are becoming more independent, they cook food themselves, develop skills by interacting with each other... the educational process is becoming continuous. You educate through your presence...” (C); “...That improvement, I think, is linked to the changes of the restructuring...the changes of the life at home will create natural conditions to develop independence skills. I’m waiting for the closure of that care home, I want to participate in such process” (L)</p>
The decrease of the numbers of educatees in a household	<p>“...the employees are not able to allocate enough time to the development of independent life skills in their educatees, because they have too many educatees... The fewer children are in a household, the more attention is allocated to each child...” (I); “...the fewer children is an employee responsible for, the greater possibility is that a particular child will be worked with more individually, in a more intensive way and more...” (A); “...I’m waiting for that restructuring,...there will be fewer children, it will be possible to allocate more time for each child...”(K)</p>
The increase of individual communication with a child	<p>“...due to high workload and the number of educates it is impossible to allocate more time for an individual interaction, whereas it is very important...” (N); “...it would be good to have more time to communicate with the educatees individually. It is necessary ...to cut back part of the</p>

	filling of unnecessary documents, other activities in order that a social worker would have a possibility to allocate more time for individual trainings with children...” (G); “...children in households or a guardian families are becoming more independent, they cook food themselves, develop skills by interacting with each other, their ties become much more stable...” (C)
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The informants noted that, when improving the development of independent life skills, it is important to create opportunities for children, since their childhood, to try to perform certain activities independently by encouraging, teaching and stimulating them: “...as much as it is possible of independence for the educatees themselves since their younger age...” (J). The younger an educatee is, the greater are his possibilities to absorb independent life skills and implement them in practical situations and in real life later on. The informants maintained that “... a social worker, when it comes to a child, should not be a person who does everything instead of him, but such a person who is close to him, gives a piece of advice to a child...” (A). It should be noted that the informants has high hopes of the institutional restructuring of children's care: “... maybe in the context of the restructuring when they live not in large care home, but in their own flats or houses children will naturally get engaged in a daily work activity...” (L). The informants underlined that, as a consequence of the restructuring, fundamental changes should take place in the activity of a social worker when preparing children for an independent life. When living in a household a social worker will be the model of behaviour, because there will no longer be cleaners, cooks, sweepers et al. He will get children engaged in activities both when tidying in their household and when shopping and solving problems arising in their household. A social worker will directly teach how to use different services, take care of self etc. According to the informants, “...the organisation of care in households is very favourable. A small number of children in a household and the organisation of care is oriented towards a family life model... I think that when children have an opportunity to see positive behaviour models of the adults they will accept personal responsibility for the performance of certain activities, will develop their work skills, will learn to cope with various life's problems with our assistance ” (G).

Another direction of the improvement of the development of independent life skills, which came to light during the study is the improvement of the organisation of educational process (Table 3).

Table 3 **The improvement of material basis**

Subcategory	Proving Statements
The increase of financial resources to develop independence	“...there is a lack of finances to increase the number of practical trainings and implement new methods...” (J); “To attract resources when implementing innovative projects..., to attract local businessmen...”(D)
The redistribution of the resources available	“...I personally think that when restructuring children’s care home it is possible to redistribute the resources of the care home differently, then more resources will be allocated for practical trainings...” (L); “... we hope that, while the restructuring is underway, less resources will be allocated for heating and salaries, but more for the satisfaction of children’s needs, including for the preparation for independent living...” (M); “...perhaps in the future, when the restructuring has been completed, more resources will be allocated for education, and less for the maintenance of buildings...”(E)

The improvement of organisation is linked to the increase of practical trainings, the reduction of the number of educatees in a household and the increase of individual interaction with a child. The informants pointed out that practical trainings hold an important place in the process of the development of independent life skills, therefore, it is necessary to increase them: „...*the educatees lack practice...Therefore, there is a need to increase practical trainings...*” (B). The social workers point out that during practical trainings as diverse as it is possible independence skills have to be developed by using, to that end, different forms and methods, such as the modelling of different situations, simulation games, various group trainings, counselling, discussions, roleplays, parental and hygiene skills development consultations, the solution of problematic situations, specific practical tasks during which children would develop independent life skills. According to the informants: “...*various practical tasks can be proposed to be performed, for example to take part in a modelled situation of a job interview, to go shopping when having a certain sum of money, to prepare lunch using chosen groceries, to fill in a payment account etc.*” (J). Facing everyday life situations may stimulate adolescents to more carefully ponder about the available knowledge and skills gaps in certain areas. It should be noted that it is important to be consistent and take into consideration interests and needs of a person himself when preparing children and adolescents for an independent life. Educational process can be organised very creatively by engaging an adolescent. It is likely that educatees will set out to life responsible, mature and independent as a consequence of the restructuring.

The social workers, who participated in the qualitative study, pointed out that the development of independent life skills would be more effective, if the number of educatees in a household was reduced. They maintain that “...*the fewer children are in a household, the more attention is allocated to each child...*” (A). The social workers note that when allocating more time for an individual work a child would not only be talked to, but he would be also assisted in acquiring practical skills (filling in documents in a bank, payment of invoices, going shopping and so on). It would assist in ensuring the acquisition of independent life skills by children and their better integration into society.

The participants of the study emphasised that due to high workload of social workers and large number of educatees, a significant number of documents to fill in there is no sufficient time left to an individual interaction with children. The informants underline: “*It is necessary ...to cut back part of the filling of unnecessary documents, other activities in order that a social worker would have a possibility to allocate more time for individual trainings with children*” (G).

The informants show also the strengthening of material basis as one of the directions of the improvement of the educational process of independent life skills. The participants of the study underlined that the preparation of children for an independent life requires significant financial resources, however, “...*there is a lack of finances to increase the number of practical trainings and implement new methods...*” (J). Therefore, it is important to look for additional resources when preparing projects by using the resources available to the community, attracting local businessmen etc.

It is possible to strengthen material basis not only by attracting resources, but also by redistributing available resources. The informants noted that the upkeep of large care home buildings and personnel is very expensive, whereas only a small part of the resources remains for educational process. The informants believe that “*in the future, when the restructuring has been completed, more resources will be allocated for education, and less for the maintenance of buildings...*” (E). Hence, for social workers, the restructuring, which is underway, raises hopes, that are linked to a better preparation for an independent life of children, who are growing up in care homes.

Conclusions

It is important for a child to grow in a family environment which promotes children's independence, complete participation in the community and social inclusion. The concept of the restructuring of institutional children's care relevancies the restructuring of children's care homes according to the model of a family-like environment. When implementing this model particular attention is

allocated to the preparation of the children's care homes educatees for an independent life by improving their socialisation and adaptation in the society and perfecting the (self-)development of independent life skills.

Based on the experience of the social workers, the directions of the improvement of the development of independent life skills in children have been highlighted in the context of the restructuring of children's care homes: the increase of adolescents' independence, the improvement of the organisation of educational process, the improvement of material basis. The increase of adolescents' independence is linked to the engagement of children in a practical activity and their motivation by encouraging and stimulating them for an independent activity. The improvement of the organisation of the development of independent life skills is linked to the increase of practical trainings, the reduction of the number of educatees in a household and the increase in the individual interaction with a child. It is proposed to strengthen material basis by attracting new resources and redistributing available resources.

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THE QUALIFICATION IMPROVEMENT OF SOCIAL WORKERS WORKING IN CHILDREN'S CARE HOMES IN THE CONTEXT OF THEIR RESTRUCTURING

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Abstract. *The article analyses the qualification improvement of social workers, who work in children's care homes, in the context of their restructuring. A qualitative-empirical study has been conducted by using the method of a semi-structured interview. The study data were processed by using the method of content analysis. The results of the empirical study are based on the experience of 14 social workers, who work in care institutions, which participate in the restructuring, which consists of the changeover from institutional care to the services that are provided to children, who have become destitute of parental care, in a family and community. Internal (an aspiration for a continuous qualification improvement and the desire to share professional experience) and external (changes related to the restructuring, ever higher requirements for social workers, the encouragement and support of the administration of institutions to improve their qualification) stimuli to improve qualification have been highlighted. The most relevant topics of qualification improvement for social workers are the development of personal and social skills in children, the preparation of them for an independent life, the solution of behavioural and psychological problems in children and the preparedness of social workers themselves for the restructuring and the need for supervisions. The topics, which meet their needs, are: the development of social skills, the communication with children and the preparation of them for a family. According to the informants, there is a lack of trainings oriented towards the solution of practical problems which arise while organizing the restructuring. The following problems related to the improvement of qualification were highlighted: the mismatch between the teaching topics and the content, during the trainings for social worker, who work in children's care homes, the problems of other social groups, but not of children are analysed. During trainings, there is a lack of the detailed examination of the solution of practical problems. The social workers lack trainings related to the preparation for the restructuring.*

Keywords: *care homes, children, qualification, restructuring of institutional care, social worker.*

Introduction

According to Statistics Lithuania, in Lithuania, in 2014 1325 social workers worked in municipal children's care homes, 227 - in state (county) children's care homes, 283 - in children's care homes which belonged to civil

society organisations and parishes. The reform of the system of children's care was begun in 2007, after having adopted the Strategy on the Reorganization of Children's Custody (Care) System, however, up until now the reform has not been completed. In 2014 "The Action Plan for the Transition from Institutional Care to the Family and Community Based Services to the Children with Disabilities and the Children who Have Lost Parental Care for 2014–2020" was adopted. When restructuring children's care homes it is foreseen to create new services and expand existing municipal services which are alternative to institutional care: municipal children's care homes where up to 8 children are given residence in flats and homes; protected housing/ independent living homes to those who leave care, by providing accompanying assistance, care in a foster family, care in a household etc. In order that a social worker would be able to properly perform the functions, which are delegated to him, it is necessary to create conditions to improve professional qualifications in the area of child well-being. The quality of social services is inseparable from the competence of the specialists that provide them. According to B. Daniel (2013), continuous expansion of professional competence is a very important part of social work which can assist social workers in deepening their current knowledge and reducing difficulties which arise. C. Hilarski and J. Wodarski (2001) note that social worker, who functions in today's modern society, must be engaged in a continuous learning process. The inevitability of the qualification improvement of social workers when restructurings are underway is emphasized by S. Hojlund (2011). B. Cooper (2000) maintains that when constant changes occur appropriate professional assistance for children can be provided only by a constantly learning social worker.

Over the past years the professionalism and qualification development of social workers has been researched by quite a few Lithuanian scientists. Different aspects of the education of social workers and their professional activity (supervision, conflict resolution ability) are examined by A. Kiaunytė and I. Dirgėlienė (2005), A. Kiaunytė (2008 a,b), A. Kiaunytė and N. P. Večkienė (2011). Relevant questions of the professional activity of social workers and their qualification improvement are analysed by I. Dirgėlienė (2008). R. Bubnys, I. Jocaitė (2011) analysed the content of the professional activity of social workers. V. Gudžinskienė (2010, 2012) revealed the key competences, knowledge, work-planning skills and attitude towards qualification improvement of social workers who work in children's care homes. The problematicity of professional competences is emphasised by S. Mačiulskytė (2013). While the restructuring is underway no studies, which analyse the qualification improvement of social workers, who work in children's care homes, in the context of the restructuring, have been conducted. The study seeks to answer the following problematic questions: 1) what are the incentives

for improvement of professional qualification of social workers, who work in children's care homes, in the context of the restructuring? 2) how the supply of the services of qualification improvement for social workers matches with their needs for qualification improvement in the context of the restructuring of care homes?

The purpose of the study is to reveal the qualification improvement of social workers, who work in children's care homes, in the context of the restructuring on the basis of their experience.

Research methodology

Research methods. Qualitative research type was chosen for the study. According to J. W. Creswell (2009), the purpose of a qualitative study is to research complex phenomena with the properties that are characteristic of them and present the meanings and approaches, that were expressed by the participants of a study, on a researched phenomenon. In the study, the method of a semi-structured interview, which enables to come close to the understanding of human experiences, designation of meanings, the definition of meanings and the construction (explanation) of reality, was used. This article overviews two problematic questions of the study: 1) what are the incentives for the improvement of professional qualification of social workers, who work in children's care homes, in the context of the restructuring? 2) how the supply of the services of qualification improvement for social workers meets their needs for qualification improvement?

The obtained data were analyzed by using the content analysis method. Qualitative content analysis was carried out in accordance with the inductive, study data based and categories composed logic. According to J. W. Creswell (2009), content analysis is a technique which, having examined the specificities of the text, allows to objectively and systematically draw reliable conclusions. The qualitative content analysis was performed in the following sequence (Creswell, 2009): the repeated reading of the content of transcribed interview texts, the distinction of meaning elements in the text analysed, the grouping of the distinguished meaning elements into categories and sub-categories, integration of the categories/sub-categories into the context of the phenomenon analysed and the description of their analysis.

The sample of the research. Criteria-based sample was used in the study. The informants were chosen according to the following criteria: 1) social workers who have a degree in social work, 2) social workers who work in care institutions, that take part in the restructuring, which consists of the transition from institutional care to services in a family and community, which are provided to children who have lost parental care; 3) social workers whose length

of their working time in children's care homes is at least 5 years; 4) 3 recent years of work with adolescents who are about to leave children's care homes.

The study was conducted in the September-October of 2015 in children's care homes chosen for restructuring according to "The List of Residential Social Care Institutions and the Homes of Infants with Impaired Development Selected for Restructuring" (2015). 14 social workers (all female) participated in the study.

Ethics of the research. The permission of the heads of children's care homes to conduct the research in their organisation has been obtained. Personal permission of the informants to take part in the research was sought. The researchers obliged themselves to the research participants not to divulge the information related to the organisation and the informant. The principles of anonymity, volunteerism and benevolence were followed. The social workers were acquainted with the goal of the research, the interview questions, and the importance of argumentated reflection on their experience.

Analysis of research results

According to S. Mačiulskytė (2013), social workers must fulfill professional competence requirements, which are very high, because their activity has a direct influence on the mental, psychological and emotional well-being of people. The Action Plan for the Transition from Institutional Care to the Family and Community Based Services to the Children with Disabilities and the Children who Have Lost Parental Care (2014) foresees the qualification and competence improvement of the employees, who work in the area of the welfare of the child, and the preparation for the restructuring of the personnel and community of institutional care.

During the study social workers, who work in the children's care homes, which participate in the reorganisation, were asked to express their opinion regarding the incentives for the improvement of their professional qualification.

When analysing the responses received from the informants the category "Internal incentives for qualification improvement" was distinguished (Table 1).

The results of the study revealed that one of the incentives for qualification improvement is internal motivation of social workers which is linked by the informants to the aspiration to continuously improve professional qualification and the desire to share professional experience. In the context of the restructuring, social workers feel an inner need for the improvement of professional qualification and draw particular attention to sharing best practices: "*...when you share your experience you see how other colleagues in children's care homes are faring, and, if you get experience abroad as well, then the incentive is really greater*" (H).

Table 1 **Internal Incentives for Qualification Improvement**

Subcategory	Confirming statements
Aspiration for continuous improvement of professional qualification	“The retention of higher level of qualification... the desire to update knowledge, to implement it in practice”(C); “...the desire to improve at work... I both want to get to know novelties and to keep abreast of what is happening...” (G); “...the desire to change, to develop, to look for novelties, to participate in all the gatherings, seminars, open workshops, methodological workshops and elsewhere as far as is practicable” (I); “...The willingness to carry out my duties as well as possible. ... To get to know the novelties in the field of social work” (A); “The most important thing during qualification improvement courses is to acquire as much of knowledge and praxis as it is possible...” (N)
The desire to share professional experience	“It is resulted by the desire to share best professional practices, to improve social, psychological and other competences...” (L); “...when you share your experience you see how other colleagues in children’s care homes are faring, and, if you get experience abroad as well, then the incentive is really greater” (H); “...it is good to share experience...Internal motivation ...” (B)

While analyzing data obtained during the research the category “ External Incentives for Qualification Improvement” was revealed as well (Table 2).

Table 2 **External Incentives for Qualification Improvement**

Subcategory	Confirming statements
The changes related to the restructuring	“Care system is developing and, whether you want it or not, you must develop...” (E); “.. The improvement of qualification is promoted by laws which change the status of social workers, including the plan for the restructuring of care system” (J); “ I choose the directions for qualification improvement, taking into consideration the priorities of the restructuring...” (F)
Ever higher requirements for social workers	“The retention of higher level of qualification during the restructuring...”; (G) “...The needs for the improvement of qualification are resulted by continuous changes, and the requirements set out for a social worker are increasingly higher”; (D) “...there are continuous challenges for social work, the existing competences are no longer sufficient for a social worker, the talk about the readiness to prepare the educatees for an independent life is getting increasingly often and loud: social skills, career education etc. It requires new professional skills...” (K)
The encouragement of the administration of an institution to improve professional qualification	“I improve qualification by taking into consideration the recommendations of the managers of the institution as well...”; (A) “...The attitudes of the administration, that a social worker must constantly improve qualification and the creation of opportunities for qualification improvement, are very important ...”; (C) “...qualification improvement to respond to the priorities of the restructuring is encouraged by the administration” (N)

External incentives are related to the effect of the environment which is linked by the informants to the changes related to the restructuring, ever higher requirements, that are set out for social workers, and the encouragement of the administration of an institution to improve professional qualification. The informants underlined that the necessity to improve qualification is conditioned by the constant changes of social system: *"...I choose the directions for qualification improvement, taking into consideration the priorities of the restructuring ..."* (F). On the other hand, increasing professional requirements for social workers encourages them to improve their qualification. According to the informants, *"the needs for the improvement of qualification are resulted by continuous changes and the increasingly higher requirements set out for a social worker"* (D); *"...there are continuous challenges for social work, the existing competences are no longer sufficient for a social worker"* (K). On the basis of the data of the study, it should be noted that the administration of the care institutions, which take part in the restructuring, understand, support and encourage the necessity of the qualification improvement of social workers. On the basis of the results of the study, it can be said that while the restructuring of children's care institutions is underway social workers are motivated to improve their professional qualification.

During the study it was sought to reveal how the supply of the services of qualification improvement for social workers meets the needs for qualification improvement in the context of the restructuring of care institutions. Based on the replies of the informants, the category „The Relevant Topics of Qualification Improvement“ was distinguished (Table 3).

The study revealed that, for social workers, who work in children's care homes, which participate in the restructuring, the topics, which are related to the preparation of children for an independent life (the development of personal and social skills), the solution of behavioural and psychological problems in children (the methods to address conflicts and aggressive behaviour and their management, work with children who have behavioural and emotional disorders, the promotion of positive behaviour, sexual education, problem solving) and the preparedness for the restructuring (how to prepare children for the restructuring, how to implement the restructuring by social workers themselves and how to get prepared for the specificities of their future work properly, how to cope with anxiety and possibly unfounded fears) are of particular relevance. Based on the experience of social workers in the context of the restructuring, the need for supervisions came to light. Experiencing changes becomes a professional test for the employees, which requires to maintain emotional balance, to change thinking and to acquire new professional skills. The participation in supervision can help social workers who experience changes. Supervision promotes the reflection of their experience. The

participation in supervision assists not only in analysing the existing expertise, but also to create new processes of their activity, to look for ideas and resolution strategies (Kianytė, 2008 a).

Table 3 **The Relevant Topics of Qualification Improvement**

Subcategory	Confirming statements
The preparation the child for an independent life	“The development of children’s independence: the improvement of personal and social skills in children... “ (H); “Due to the fact that I work with children, who are leaving the institution shortly, the topics, which are the most relevant for me, are related to the preparation of children for an independent life...” (E); “...what methods should be applied while preparing children for an independent life” (N)
The solution of of behavioural and psychological problems in children	“...the methods employed by the care homes to solve psychological problems in children... children often want to open their hearts, they ask for a piece of advice, however, I am not always able to advise or have knowledge what to do in one instance or another...” (A); “Aggressive behavior in children, learning motivation...” (L); “Work with children who have behavioural and emotional disorders...in addition, the management of aggressive behaviour ...” (G); “...I am interested in psychological themes... anger management tools for the educatees...” (M); “...the promotion of the positive behaviour in children and adolescents, the development of social skills, anger management“ (F); „Sexual education, ways to address problems“ (J)
Preparedness for the restructuring	“...how to prepare children for the processes of the restructuring... how to explain to children that they are going to live separately from their friends...” (A); “...we ourselves need trainings about the implementation of the restructuring, the specificities of the future work...” (N); “...when talking with the colleagues, who have already been restructured, a concern arises that nobody explained to them, did not help how to talk with children about the changes...” (F); “...we ourselves have loads of uncertainties, anxiety, possibly unfounded fears as well, there is the need for supervisions, in order to get a better perception...” (F); “...there is a particular need for supervisions...” (J)

When analysing the data of the study the category “Match/mismatch of the proposed topics and courses of qualification improvement for social workers with their needs” was identified as well (Table 4).

The informants identified the topics and courses which match with their needs: the development of social skills, communication with children, the preparation of them for a family life. Based on the thoughts of the informants, it should be noted that certain topics are of particular relevance in contemporary society when solving social problems (the harms of alcohol and smoking),

however, there is a lack of trainings oriented towards practical applicability and specific methodologies employed when working with children of different ages.

Table 4 **Match/mismatch of the proposed topics and courses of qualification improvement for social workers with their needs**

Subcategory	Confirming statements
Topics and courses which match or match in part with the needs	“...there is nothing better than when qualification improvement seminars are on the development of social skills, communication with children and their preparation for a family life...” (A); “...a lot of topics are proposed on the damage caused by alcohol and tobacco consumption, the topics are relevant, but I would like more trainings oriented towards practical applicability: how to work with children who have not started smoking, who have already picked up smoking...” (F); “...the majority of seminar instructors tell what to do, but there is the lack of the methodologies how to do that...” (H); “...we choose urgent topics, we have them, but there is a great need for methodological knowledge and steps how to do that in practice” (L)
The proposed topics and courses which do not match with the needs	“...I am not always able to apply knowledge in my practical activity, ... when trainings are led by theorists they are clearly not oriented towards practical problems ...” (E); “... the content of the training programmes not always match with the topic of the training, therefore, trainings not always meet expectations. Sometimes during trainings other social groups are covered, therefore, I cannot apply the knowledge in my work with children...” (B); “...the match is very rare... it is not always possible to apply theoretical knowledge in a practical activity, because there is the lack of practical advice, for example, specific experience.... A seminar, for example, on harmful habits, and statistical data and dry theory on smoking are presented ...” (D); “...It happens that the content of the topics of organised seminars does not match with the name of a seminar. Theorists discuss an urgent problem in a shallow manner without getting deep into it... “ (M)

During the study it came to light that part of organised trainings do not match with the needs of social workers in the context of the restructuring. The social workers, who participated in the study, noted that the content of training programmes not always match with the topic of a training, during the trainings, which are aimed at social workers, working in children's care homes, it is talked about other social groups, therefore, the knowledge cannot be applied to work with children, there is a lack of the examples of practical problem solving methods and the analyses and methodologies of their solutions. Based on the data of the study, it can be established that, so far, social workers, who work in children's care homes, which participate in the restructuring, are not sufficiently prepared for the restructuring. As stated in Common European Guidelines on the

Transition from Institutional to Community Based Care (2012), a systematic and coordinated training programme is a prerequisite for the creation of community services – this approach guarantees that employees would receive adequate training.

Conclusions

Based on the experience of social workers, internal and external incentives for qualification improvement, which are associated with the restructuring of children's care homes, were highlighted. Internal incentives for professional improvement are associated with the aspiration of social workers, which work in children's care homes, to constantly improve professional qualification and the desire to share professional experience. Internal incentives for professional improvement are linked to the changes during the course of the restructuring, ever higher requirements set out for social workers and the encouragement and support of the administration of institutions.

The study has established that during the course of the institutional restructuring of children's care homes the development of personal and social skills in children, the preparation of them for an independent life, the solution of behavioural and psychological problems in children and the preparedness of social workers themselves for the restructuring are qualification improvement topics of the greatest relevance to social workers. The need for supervisions came to light in the context of the restructuring.

The study revealed qualification improvement topics of the investigates which match with their needs: the development of social skills, communication with children and the preparation of them for a family life. There is a lack of trainings oriented towards a practical solution to problems arising in the course of the organisation of the restructuring. The following qualification improvement problems were highlighted: the mismatch of training topics with their content, during the trainings intended for the social workers of children's care homes not the children's problems, but those of other social groups are analysed. The trainings lack an exhaustive examination of the solution of practical problems and methodological recommendations. There is insufficient number of trainings related to the preparation for the restructuring for social workers, who work in children's care homes, which participate in the restructuring.

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SOCIO-EDUCATIONAL CONTEXTS OF THE QUALITY OF LIFE OF SENIORS

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Abstract. *One of the most important phenomena of the changing world is aging of population. With the growing number of older people it is necessary to focus on this part of population. It is also important to allow seniors active participation in social life. The aging population provides us with many interesting materials for scientific consideration and one of them is the socio-educational contexts of the seniors' quality of life. The purpose of this study is to analyse the theoretical basis of quality of life of seniors and to highlight the relevant factors affecting the quality of life in relation to older people. In this paper it is shown how education can affect the quality of life of older people not only in terms of acquiring new knowledge, but also in the context of establishing social relations and social activation. The study focuses on a theoretical study and an attempt to analyse the available data on the participation of Polish seniors in education.*

Keywords: *ageing population, education, quality of life, seniors.*

Introduction

Contemporary world is marked with a dynamic change with a move of demographic structure inscribed in its trend. In recent years one can observe an increase of the number of elderly people in the population. Statistical data implies that their share in the general population of Poland was 14.7% in 2013 (among 38 million inhabitants the elderly are 5.7 million). Demographic forecasts of the Central Statistical Office of Poland (GUS) state that until 2050 the share of elderly people in the general population will increase up to 32.7% (Rutkowska, p.35). The phenomenon of “aging” of the society is not only a consequence of the generations of “demographic heights” entering the demographic elderly age but a considerable role is played by prolonging the life span as a result of technological development, modern diagnostic methods, better access to medical health care and propagation of healthy and active life styles. According to GUS data average life expectancy in Poland in 2014 was 73.8 years for a man and 81.6 years for a woman (Central Statistical Office of Poland (GUS), 2015). Researchers predict that men born in 2050 will, on average, have 81.1 years of life ahead while an average life expectancy of a woman will reach 87.5 years. From the point of view of an elderly person’s quality of life issue the fact of the percentage increase of the elderly in the

general population or the fact of the average life expectancy being prolonged are not the only important phenomena. Polymorphism among the elderly has gained a vital role as well. The subpopulation of the elderly is internally differentiated (Pikuła, 2014, 309-316). It is demonstrated by, among other, an increase of the percentage of the elderly in particular age groups and also in a differentiated health, family or social functioning situation, etc. In recent years one can observe a fast pace of the increase of the percentage of seniors in the subpopulation of 80-year-olds and older (the percentage of the elderly in that group doubled and increased from 2% up to 4%). The dynamics of the elderly percentage increase in the younger age group (65-79) is lower and it grew from 8% to almost 11% within 25 years (Rutkowska, 2014, 35). The time of old age life has prolonged, which bears vital consequences for quality of life of the elderly. At the initial stage of the old age they are not so evident but they change together with age. That differentiation is an effect of changes caused by the man's aging process. In the old age the man encounters a lot of health problems, changes in his mental welfare, a diminishing level of fitness being a result of the aging process (and indirectly, of the lifestyle). Changing social roles, going to pension, changing the family situation often influences social relationships and activity of the elderly in a negative way. An additional factor negatively influencing the functioning of the elderly is a threat of stereotyping (negative social imaging may paralyze to such an extent that people present their abilities below their own (Trusz, 2015, 18). The presented factors have crucial influence on quality of life of the elderly so it is important from the point of view of scientific considerations to introduce such measures which will add up to bettering the life of seniors. The undertaken actions should have a long-lasting character. The evaluation of the current demographic situation, knowledge of the problems of nowadays' seniors and being acquainted with demographic forecasts and the increase of polymorphism in the subpopulation of the elderly may bring visible effects for acting towards bettering quality of life of seniors.

The aim of this paper is presenting social-educational contexts of the quality of life of seniors. The paper has a theoretical dimension but it will depict the data which show social-educational activity of seniors in Poland. The article describes the most important determiners of quality of life and stresses the role of educational and social activity of the elderly in their everyday life. Hence, according to the author, the actions conducted towards the elderly should be an answer to their needs. The main support should, therefore, be directed at inspirational activities which would encourage the elderly towards active life that is a condition of high quality of life. To influence quality of life betterment one should be educated for old age since such long-lasting activities may bring a considerable result. As Aleksander Kamiński mentions, by education for old age we help "people in acquiring interests and aspirations as well as skills and

habits, which, when the pension time comes, will help in realizing the lifestyle favoring prolonging the youthhood and give satisfaction of activity” (Kamiński, 1978, p. 359). Educational measures and social activity play an important role on each stage of human life and have a direct impact on quality of life.

Quality of life

The notion “quality of life” is a multidimensional, ambiguous and vague at the same time. It concerns lots of life fields, so when concentrating on quality of life an individual one should approach that notion holistically as particular quality of life determiners interact and have vital influence on each other, e.g. a person’s health influences social activity of an individual. So a disabled person is more endangered by social exclusion than a healthy person. There are multiple examples of mutual influence yet it is important that each change having impact on changing a particular indicator of quality of life carries certain consequences. An individual is responsible for changing particular factors so the notion of quality of life should be treated as a dynamic term, sensitive to each change, under the influence of both external and internal factors.

Reference materials give various definitions of quality of life. The research in the field was held by, among other, Farquhar (1995), Fernández-Ballesteros (1993, 1998), Abrams (1973), McCall (1975), Bowling (1995, 2005), Bowling, Seetai, Morris and Ebrahim (2002), Veenhoven (2000), Walker (2005), Campbell (1981), Michalos (1999), Michalos, Hubley, Zumbo and Hemingway (2001) etc. The concepts of those authors are different and present varied approaches to the problem of quality of life.

One of the most general definitions of quality of life is the one accepted by World Health Organization (WHO), according to which quality of life should be understood as “individuals’ perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment” (World Health Organization Quality of Life (WHOQOL), 1995, 1405). That definition outlines the meaning of the notion very clearly although quite generally taking into consideration various aspects of an individual’s life. Coping with the issue of quality of life one should be aware that its multidimensionality consists in accounting not only for chosen aspects of quality of life in its description but for all factors which have important influence on quality of life of an individual. Therefore, one should consider particular fields of human functioning: health, social, spiritual and environmental states (judged both subjectively and objectively). Those

dimensions are vital and their influence on the feeling of the quality of life will change together with an individual's aging and will depend on the cultural approach to the perception of an individual in the society and on the expectations of the individual connected to his functioning in his old age. The feeling of quality of life is also influenced by a dynamically developed world and the ability of assimilation to the changes undergoing in it.

The available literature on the subject contains quality of life described from the point view of two components which are: objective conditions and subjective feeling. Objective factors comprise, among other, economic conditions, leisure time, social security, appropriate living conditions, natural and social environment and health. The other component is, i.e. subjective feeling concerns individual, "own" evaluation and assessment of various spheres of life and life itself as a whole taken in categories of satisfaction, happiness, hope, fear, loneliness, etc. Depending on the approach of authors of the definition of quality of life who take into account objective and subjective components in their description, they will contain more or less developed structural elements creating the components. Objective indicators of quality of life contain: age, gender, place of living, social-economic status, job, unemployment, relationships with others, marital status, children, health, events in life, religion, culture, civilization, political conditions, historical changes, climate, weather and seasons, diet and stimulants (Czapiński, 1992). However, the term of quality of life in a subjective feeling has a direct relation to the mental sphere of human functioning, i.e. the system of values of an individual, his or her aspirations, expectations and with requirements of social groups the individual cooperates with (Pikuła, 2015, 29). Subjective conditions will always refer to an individual assessment of life as a whole. The author of the concept of quality of life having two components was Robert E. Lane. According to his assumptions each factor: the subjective and the objective one may be characterized by nine elements. The subjective component of quality of life comprises of nine elements, which determine high quality of life. The group includes: (1) capacity for enjoying life, (2) cognitive, complexity, (3) a sense of autonomy and effectiveness, (4) self-knowledge, (5) self-esteem, (6) ease of interpersonal relations, (7) an ethical orientation, (8) personality integration, and (9) a productivity orientation. According to Lane's assumptions those nine elements describe the psychological state of the individual and are responsible for mental health and social responsibility. Those nine elements are called "quality of man" by Lane. They are responsible for subjective good feeling of an individual and social development. Objective elements determine the quality of environment (QC). Objective conditions reflect human chances to reach QP. According to Lane objective components include: (1) adequate material support, (2) physical safety and security, (3) available friends and social support, (4)

opportunities for the expression and receipt of love, (5) opportunities for intrinsically challenging work, (6) leisure opportunities that have elements of skill, creativity, and relaxation, (7) available set of moral values that can give meaning to life, (8) opportunities for self-development, and (9) justice system that is managed by disinterested and competent parties. quality of life comprises both objective and subjective components (Lane, 1991; Lane, 1996). Therefore, one can say that while describing human quality of life one can take into consideration the fields of human activity influencing directly and indirectly his or her existence (Pikuła, 2015, 29).

From the perspective of this paper it is extremely important to present the psychological understanding of quality based on the need of updating (realisation) of oneself. The notion of realising oneself may be understood in lots of ways, as e.g.: using potential abilities hidden in the individual, more or less conscious realisation of life goals, playing social roles, such as family, professional or civic ones. In that sense the evaluation of quality of life consists in comparing expectations of an individual to reality. If our expectations are the same as reality or surpass it then we can speak about life contentment. The opposite situation, i.e. if discrepancies appear in the attitude towards expectations of an individual, we can speak about a negative life balance (Susułowska, 1986). That attitude is shared with the one presented by Veenhoven. The latter considers quality of life from the point of view of life opportunities and achieved results together with external and internal qualities, which enables him to extract four indicators of quality of life: (1) a possibly good environment for living, (2) individual's ability to live, (3) external usefulness of life and (4) internal life assessment. In his model the assessment of objective life conditions belongs to an outsider, e.g. a medical doctor, while the subjective assessment is seen as a personal assessment based on personal criteria of the individual. In that perspective there might appear a discrepancy of quality of life assessment as the objective assessment might be different from the individual's personal assessment (Veenhoven, 2000).

Defining quality of life on the basis of the theory of needs which has a vital meaning in the case of surveying quality of life in old age is a complement of understanding quality of life. According to some researchers "quality of life in old age is defined by the level of satisfying particular needs of seniors, among which such determiners of functioning as health (psychophysical fitness level), social contacts and participation in life (possibility to work and social activity, role realisation), having a family and relationships with it (loneliness and isolation levels), possibility of realising your own plans (self-management), autonomy, possibilities of self-creation and development (development of interests, passions, education)" (Fabiś, Wawrzyniak & Chabior, 2015, 115).

According to Tobiasz–Adamczyk (2009) one can enumerate three categories of quality of life indicators in old age. They include:

- functionality, which informs about the level of psycho-physical fitness,
- psychological state describing wellbeing, life happiness, satisfaction, optimism, belief in the future
- a scope of social interactions, in which a vital role is played by possessing a family, friends, satisfaction of social contacts and participation in social life (Tobiasz–Adamczyk, 2009, 69-77).

Tibitts, who took into consideration the factor of elderly people activity in his concept of quality of life, noticed a similar thing . From that perspective he claimed that the most important needs in the life of seniors are: (1) performing socially useful activities, (2) acceptance as a part of the society and a group and playing a certain role in them, (3) filling up most of the time in a satisfactory way, (4) keeping normal social contacts, (5) acceptance as a human being, (6) creating opportunities for self-expression and feeling of fulfilment, (7) a proper mental stimulation, (8) health protection and access to health care, (9) appropriately set lifestyle and keeping in touch with the family, (10) spiritual satisfaction (see Trafiałek, 2003, 107). According to the concept of quality of life in the theory of needs, satisfying all needs (both biological and social or cultural) is performed by various activities. The basic ones undertaken by seniors are:

- “recreational-hobby activity - shows in walks, sporting activities, garden work, painting, music, cinema, theatre, concerts;
- receptive activity - realised more in home conditions, e.g. watching television, listening to the radio, reading newspapers, magazines, books;
- publicly oriented activity - it is social and political activity;
- integration activity - it takes a form of meetings and various actions having a scientific-training, social meeting or charity character, i.e. meetings in old people’s clubs, taking part in the University of the Third Age, meeting friends, charity work;
- other forms of activity - single forms of actions different from the former” (Wilk, 2007, 139-140).

Undertaking various forms of activity enables an individual to play social roles, functioning in a group and in the society. The consequence of lack of activity is a loss of acceptance on the part the environment, loneliness or social exclusion. Undertaking various forms of activity is conditioned by education, home environment situation, health, fitness, gender, place of living, etc. (Szatur-Jaworska, Błędowski & Dziegielewska, 2006, 161).

The answer to the issue of old age quality of life enhancement is a concept of active aging developed by WHO, according to which “active aging is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age” (World Health Organization (WHO), 2002, 12). The concept of active aging aims at encouraging seniors to an active participation in social, educational, economic and cultural life. One of the basic pillars of the active aging concept is education. According to WHO, people who are better educated and who undertake educational activities adjust themselves better to the coming changes and are less often endangered by social exclusion. Education enables updating and supplementing knowledge, gaining and perfecting new skills, broadens awareness, fulfils therapeutic functions. Undertaking educational activity has a positive influence on functioning of a person in the society. Participation in educational classes has an impact on quality of life of seniors as, apart from equipping seniors not only with knowledge indispensable to proper organisation of everyday life and undertaking a healthy and active lifestyle, it enables them to make and keep new social relationships.

Socio-educational activity of seniors in Poland

Social and educational activity supplement each other. In the literature of the subject social activity is understood by “all socially standardised activities of individuals performed within certain social roles” (Zgliczyński, 2012, 134). Social activity of an individual is characterised by an active state of the individual which shows itself by influencing natural and social environment. That perspective has a very wide scope of meaning including activity fields connected to professional occupation, gaining knowledge, creativity, entertainment, participation in various social groups and the level of it is decided by internal and external factors of psychological, biological and social character (Zgliczyński, 2012, 134). By social activity one can understand social work, i.e. “participation in group activities surpassing the duties connected to performing professional and family functions aiming at realisation of precious social values” (Zgliczyński, 2012, 134). Social activity understood in such a way encompasses voluntary work as well. Hence, social activity may include various forms of actions: (1) cultural activity, (2) home-family activity, (3) professional activity, (4) social activity, (5) educational activity, (6) religious activity and (7) recreational activity” (Szatur-Jaworska et al., 2006, 163). Activity may be divided into: formal, informal and alone (Szatur-Jaworska et al., 2006, 161). In recent years in Poland more and more formal and informal institutions have originated where seniors can meet and undertake educational activity. They

include Third Age Universities, OAP Clubs, Day Senior Centres, Praying Circles, etc.

The analysis of available data in scientific studies presents a hardly optimistic image of a Polish senior. Research undertaken by Iwona Mandrzejewska-Smól depicts that seniors most often listen to the radio and watch television programs and mainly undertake home-family activity. Further on there were religious and recreational activity. Educational activity is the least chosen type among seniors. The reason of that state is lack of time and willingness to undertake educational activity. The surveyed pensioners “saw neither a necessity nor a need to undertake educational activity. They generally acknowledged that pension was the time for relaxation. Furthermore, women indicated that lack of time for that activity was caused by their devotion to home and the family. Some of them proved their lack of motivation by the statement that “education is for young people and elders do not learn like young people” (Mandrzejewska-Smól, 2014, 201–212). Seniors who undertook educational activity justified that choice by the will to keep good mental condition, enhancement of life satisfaction feeling and a possibility of self-realisation (Mandrzejewska-Smól, 2014, 201–212). Taking into consideration the meaning and influence of education on quality of life in old age the results of the analyses are not optimistic and confirm the results of research run within CBOS (Public Opinion Research Centre).

According to the research run by CBOS the most often undertaken activity by seniors is watching television (98%), meeting friends and acquaintances at home (87%) or outside (76%), religious activity (81%), listening to the radio or music (81%), reading books, magazines, newspapers (80%), visiting family, relatives outside the seniors’ place of living (77%), walks and hikes (73%). 55% of pensioners works in their gardens, 44% takes care of grandchildren and great-grandchildren, 34% help in running the household, 29% help in earning a living for the family, 22% take care of the ill and disabled members of the family, 44% of pensioners practise their hobbies and develop their interests, 35% of the surveyed elders practise sport. Unfortunately this research also showed that only a small group of pensioners undertake educational activity ca. 8% (to compare PolSenior research shows that only 1% of elders undertake educational activity, while according to SHARE only 2.5% of people over 54 undertakes such an activity). The results of the elderly participating in cultural life and using modern technologies are not particularly good as well. Museums, galleries, or exhibition halls are visited by ca. 23% of the surveyed people, 22% go to the cinema, theatres, opera or concerts are frequented by 22% while modern technologies are used by ca. 23% of the pensioners. Only 12% of seniors devote time to social work for other people, local community, neighbours, their parish and only 2% of the surveyed elders are engaged in voluntary work. Relatively

few people participate in an activity of some group, religious community (9%) (Public Opinion Research Center (CBOS), 2012). Survey of Health, Ageing and Retirement in Europe (SHARE) research depict that the percentage of Polish seniors who do not undertake any of the social activities enumerated in the questionnaire reaches as much as 83%. The most often undertaken activity is informal activity to the benefit of family and friends. SHARE research depict as well that social and educational activity decreases with age. "For example, the percentage of people declaring social activity drops from 21% among people between 55 and 64 to 11% among those of 65-74 and to 5% among the oldest group of respondents. The exception is participation in religious activity where such a rule was not observed" (Chłoń-Domińczak, 2014, p.30). Town dwellers undertake social activity more often than country people. The presented data show that the most rarely chosen activity of elders is educational activity. They undertake family or alone activities most often. It is an important indication for people dealing with senioral policy in Poland the main aim of which should be supporting and ensuring a possibility of active aging in healthy state and ensuring high quality of life for the elderly. The concept of quality of life implies that undertaking socio-educational activity has big influence on life satisfaction of seniors. Undertaking educational activity by taking part in classes at the University of the Third Age enables not only broadening knowledge and skills of seniors but it influences intellectual, mental, social and physical enhancement of seniors, facilitates contacts with institutions such as health care, culture or rehabilitation centres and influences keeping social networks and communication among the elderly. Participation in classes of the University of the Third Age "prevents alienation of the elders from the society, facilitates development of their interests and passions, enables networking, allows those people to see themselves as full members of their society (...) and allows the seniors to make their lives more valuable, which, subsequently, causes the enhancement of its quality" (Zgliczyński, 2012, 140).

Conclusion

Various concepts of quality of life of seniors lead to a conclusion that undertaking socio-educational activity influences the enhancement of quality of life considerably. However, the research run within the issue implies that elders are unwilling to engage in educational activity while limiting their social activity to work in the circle of acquaintances and family. Therefore, the conclusion is that one should intensify operations for education to old age so that its positive value could increase. It is necessary to shape the awarness about positive impact of education on seniors' lives and on building new social relations. They are essential for the functioning of the elderly, because they have a direct impact on

the particular components of quality of life. Educational activities have a positive influence on the skills of getting used to changes undergoing in the society including those referring to the process of aging. The process of aging of a human being does not need to destructively influence the quality of life of the elderly. Undertaking appropriate activities one can prevent diseases, smoothen the symptoms of aging and the worsening efficiency of the organism together with age. Worse functioning caused by healthy reasons does not need to impact social interactions negatively. Social interactions do not need to be limited to contacts with the closest family: children, grandchildren, who often have tight time schedules caused by, among other, professional obligations. The age and diseases which occur together with it do not necessarily need to influence our limiting each type of activity of an individual which has an important impact on the assessment of the subjective quality of life responsible for an individual assessment of life as a whole. Education only encourages to changes. Knowledge gives a wide range of possibilities of undertaking various types of activity. One can learn e.g. using modern technologies but to know how to use them one must first initiate steps leading to acquiring such competence. One can learn from each other even during organised meetings with friends. Summing up it is important not only to run education for the old age but it is crucial to educate for enhancing quality of life in old age. So far a dynamic change and technological progress contributed to adding years to life while educational activities should contribute to “adding life to years” (Farquhar, 1995, s. 1440).

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SUICIDES IN POLAND AS A SOCIAL PROBLEM AND SOCIAL PHENOMENON

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Abstract. According to police statistics in 2013 in Poland there has been a sharp increase in the number of suicides among men, compared to previous years and to the number of suicides among women. Unfortunately, this trend continues to grow each year. Hence the idea of the article is to present problem and to shed some light on the phenomenon and try to characterise it, referencing the statistics and academic studies of suicides.

Keywords: Suicides in Poland, Social Problems, Social Work.

Introduction

According to police statistics, and warnings sounded by the media (eg. Matusiak & Kinasiewicz, 2014), in 2013 there has been a sharp increase in the number of suicides among men, compared to previous years and to the number of suicides among women. “In 1989, 3657 people in Poland took their own life; and in 2013 – 6097” (Matusiak & Kinasiewicz, 2014). This is 1394 more than in 2012, when there was a total of 4703 suicides (<http://statystyka.policja.pl>). In 2013 - 5193 of the six thousand suicides were committed by men; the rest (903 suicides) by women. In 2014 the number of suicides increased – 6165 Poles killed themselves (5 237 men and 928 women). Thus suicides among men comprised 85% of the overall number. In 2012, the proportion was different: suicides among men comprised 75% (4703 suicides overall, men 3569, women 1134). Referring to the statistics, one can easily conclude that, compared to 2012, in 2013 1 624 more men attempted to take their own life. The number of men who commit suicide is therefore on the rise, while the number of suicides among women decreases. This is an alarming trend, what grows each year what should not be disregarded or played down by social politicians, police forces and social services. Hence the idea presented itself to shed some light on the phenomenon and try to characterise it, referencing the statistics and academic studies of suicides. The article bases on police statistics over the last years (after social and political transformation in Poland) to underline the scale of the problem.

The phenomenon of suicides in a sociological and cultural perspective

Criminologists defining death distinguish between three types of the phenomenon (Bednarski & Urbanek, 2012: 17): (1) “Natural death” (i.e., physiological death) – is related to the natural exploitation of the supply forces of the human system. This process, the so-called senile dementia, is relatively rare, and does not entail evident organ or system disorder; (2) Death due to illness (spontaneous / idiopathic death) – is the result of a variety of pathological processes, whether inflammatory, degenerative, growth (cancerous) or others. This type of death is the main object of interest to medicine and doctors; the majority of such deaths occur after a prolonged illness; (3) Sudden death – the result of a variety of external factors that have led to a disruption in the functioning of crucial organs. These factors are differentiated according to the cause of death (mechanical injury, sudden strangling or suffocation, poisoning etc.

In the typology outlined above, suicide is therefore classified as the third type of death. In sociology, as well as social anthropology and cultural studies, death (including death by suicide) is a frequently addressed and investigated social problem. Works on that subject usually reference Émile Durkheim classic study, *Suicide* (2005). According to the French sociologist, “the term suicide is applied to all cases of death resulting directly or indirectly from a positive or negative act of the victim himself, which he knows will produce this result” (Durkheim, 1976: 5, after: Hołyst, 2002: 33). In that context, one might ask what happens in societies where social control has weakened considerably; societies that have liberated themselves from the strict sectioning of every sphere of life, but do not generate in return any new institutions of control. Therefore, what is needed for interpreting the phenomenon of suicide is a multi-dimensional diagnosis, embedded in statistics and study results.

From a sociological perspective, suicide is an indication (of sorts) of social disintegration, rather than a manifestation of the suicide’s personality. This does not, however, preclude individual motivations that are not deterministic in nature. According to Brunon Hołyst: “Suicides are, after all, social phenomena, related to the structure of the population as a whole” (Hołyst, 2002: 438). What is more, “people’s behaviour and attitudes are not a manifestation of the pathological inclinations of isolated individuals; but rather the normal reaction of humans who find themselves in a particularly difficult situation or challenging environment” (Hołyst, 2002: 438). The same had previously been noted by Émile Durkheim, who, in his 1897 study *Le Suicide* claims that a suicidal individual does not fall into a specific psychological type; rather, it would be more fitting to discuss the characteristics of the social groups from which people who attempt suicide originate; and the conditions in which these

people live. In order to characterise suicidal individuals (who fit into a certain socio-psychological profile), it is therefore necessary to familiarise oneself with the social situation in which people live: “A predilection for self-destructing behaviour is therefore shown not by people who are physically or mentally ill, but by those who are more sensitive, less resilient, or who find themselves in a situation which is (objectively or subjectively) without a solution” (Hołyst, 2002: 438). Thus it would be wrong to claim that individual qualities, such as depression, stress, trauma or crisis, are completely irrelevant; nevertheless, there are certain common determinates of suicidal behaviour.

Since we are unable to answer the question concerning the motivations for committing suicide, we should perhaps learn more about the social circumstances in which suicide is likely to be committed. B. Hołyst identifies several “enhanced risk” groups, from which suicides originate (Hołyst, 2002: 44): (1) *People suffering from mental illness*: depressive individuals (original depressions; depressive states / episodes), individuals with an addiction (alcoholism, illegal drugs), schizophrenia (in the course of stationary treatment or rehabilitation), personality disorders; (2) *People with earlier suicide history*: announced intention to commit suicide (an ambivalent appeal for help), survivors of a previous suicide attempt (10% of re-offenders); (3) *People who are elderly, lonely, widowed; or chronically ill, in pain and of limited fitness*, (4) *Young adults, teenagers*: experiencing a developmental crisis or a crisis in interpersonal relations (an internal feeling of aloneness, questioning the purpose of life), with a drug problem, with family and school problems; (5) *People facing traumatic situations and crises related to changes in life*: relationship crisis, loss of a partner, loss of social, cultural, political living space, identification crises, chronic unemployment, criminality, above all road accidents (causing injury or death to another person), (6) *Individuals suffering from painful, chronic, limiting or injurious physical conditions; particularly conditions affecting the locomotor system and the central nervous system; individuals who are terminally ill, suffer from exhaustion and require a maximum of care*.

An overview of the suicide phenomenon in Poland

As has already been indicated, the number of suicides (particularly among men) rose sharply in 2013. This increase is represented in the table no. 1 showing the trend in the rises and falls in the number of suicide attempts since 1991:

Table 1 The number of suicides in Poland between 1991 and 2014
(all data from: <http://statystyka.policja.pl/st/wybrane-statystyki/samobojstwa>)

Year	Total	Men	Women	Year	Total	Men	Women	Year	Total	Men	Women
2014	6165	5.237	928	2006	4.090	3.444	646	1998	5.502	4.591	911
2013	6.101	5.196	904	2005	4.621	3.885	736	1997	5.614	4.622	992
2012	4.177	3.569	608	2004	4.893	4.104	789	1996	5.334	4.392	942
2011	3.839	3.294	545	2003	4.634	3.890	744	1995	5.485	4.465	1.020
2010	4.087	3.517	570	2002	5.100	4.215	885	1994	5.538	4.541	997
2009	4.384	3.739	645	2001	4.971	4.184	787	1993	5.569	4.519	1.050
2008	3.964	3.333	631	2000	4.947	4.090	857	1992	5.453	4.426	1.027
2007	3.530	2.924	606	1999	4.695	3.967	728	1991	4.159	3.388	771

Given that, since 2013, there has been a change to the way statistical data concerning suicide attempts are generated and stored, it should be noted that a total of 8579 suicide attempts have been made (including 7000 by men); 6097 of these ended in death. Previously, data were being entered into the system after the conducting and conclusion of preliminary or verifying proceedings (the latter according to Art. 308 of the Code of Criminal Procedure). Currently, data are being entered immediately after the event, if circumstances indicate the event had been a suicide attempt. The system allows for the modification of data if it emerges that the event had not been a suicide attempt (<http://statystyka.policja.pl/st/wybrane-statystyki/samobojstwa>).

Attempts were mostly made in: flats (3611 cases), outbuildings (1305), cellars and attics (861) and parks and forests (688). Methods of committing suicide vary greatly, the most frequently applied being hanging (5952 cases), followed by: throwing oneself from a height (647), other types of self-inflicted injury (400), taking barbiturates (313), damaging the blood system (226), throwing oneself under a vehicle (158), drowning (118), shooting oneself (83), gas poisoning (47), taking poison (41), and other methods (489). In 78 cases, the method of taking one's own life has not been determined. The majority of suicides were under the influence of alcohol (1858). The rest were sober (681), under the influence of psychotropic drugs (45) or other substances (66). In 5771 cases, the suicide's state of mind at the time of the deed had not been determined; in 209 cases, his or her state of mind had not been known.

What is more, police statistics provide information about the causes of suicide attempts (although, in 3663 cases, the motivation for the deed has not been determined). The causes are listed in the table no. 2.

Table 2 Motivation behind suicide attempts (data for 2013)

Causes of attempted suicide	Number of cases	Causes of attempted suicide	Number of cases
family discord	999	sudden loss of one's means of support	135
mental illness	797	committing an offence or crime	48
chronic illness	570	problems at school	27
disappointment in love	555	permanent disability	12
economic circumstances	484	unwanted pregnancy	8
death of a loved one	138	other	1463

Family does not necessarily provide the individual with a natural network of support: the majority of people who commit suicide are married (3231 cases). On the other hand, single people are next in line (2546). There follows a clear gap, as divorced people come third (637 cases), with widows and widowers in fourth place (456). Those who cohabit or are separated are least likely to commit suicide (289 and 60 cases, respectively). According to police reports, the marital status of 76 people was unknown, and, in 1266 cases, there was a shortage of reliable data. The suicides' marital status would seem to point to another fact, to do with their age. Is there a correlation between the two? Data related to the age of people who attempted to take their own life are provided in the table no. 3.

Table 3 The age of suicides (data for 2013)

Suicides' age	Number of attempts
9 or less	0
85 or more	130
age unknown	674

The table demonstrates that suicides are most frequent in two age groups: 25 or older, and 50 and older; in other words, among people who have either only just started their career (and / or a family) – or those who have been in a given situation for some time, and are in danger of being made redundant. This last issue is also linked to an individual's means of support: in 1570 cases, suicides were in employment. On the other hand, 1235 suicides supported themselves on a pension, allowance or alimony. 853 people did not have an income. The unemployed formed a relatively small group of suicides, with a total of 82 cases.

The phenomenon of suicide – a possible interpretation

Sociology, psychology, as well as related social sciences and the humanities attempt to explain why individuals carry out suicide attempts. An universal answer to this question does not exist, as no two suicides are alike: they are the result of different circumstances, and are motivated by unusual factors. Nonetheless, theories that aim to interpret the phenomenon with a view to understanding it, being able to provide help and acting preventively, continue to appear.

Scholars are seeking to determine what drives people to do the ultimate deed in a time of peace and social and physical security. “In literature, the dominant view is that during the war the number of suicides shows a tendency to decrease” (Hołyst, 2002: 450); and despite being in employment and having a family. To make sense of suicidal behaviour, some scholars have investigated the context of social norms, others – the context of the processes and phenomena taking place in society. And yet, theories tend to focus on a given aspect of the problem: this is, above all, the result of the research perspective one chooses to assume. Thus, in his analysis of societies and their norms, Émile Durkheim identified three types of suicide (after: Hołyst, 2002: 439): (1) Egoistic suicides; (2) Altruistic suicides, (3) Anomic suicides. In addition, Brunon Hołyst has identified a fourth type of suicide: fatalistic suicide, linked to an individual’s specific psychic and social situation: “What is meant here is the suicide of a person who has found him- or herself in a tragic situation, with no way out not only short-term, but also in the long run” (Hołyst, 2002: 439).

According to the concept of status integration, a theory formulated by James P. Gibbs and William T. Martin (1964), and closely related to Durkheim’s elucidations, what underlies deviant behaviour are contradictions in status, which ensue from conflicting roles played by individuals in society. As a result of that conflict, anger, aggression and self-aggression are triggered in individuals. This is why, in the social classes where instances of aggressive behaviour are numerous, there are few suicides on record, and vice versa.

Other scientific explanations take note of a suicide’s dwelling place. Maurice Halbwachs has argued that some of the factors identified by Durkheim are only ostensibly of importance. Thus, for instance, religion, family relationships, family model, education, social and professional structure, are the functions of lifestyle – whether urban or rural (Hołyst 2002: 440). Social mobility and other, related social processes (such as urbanisation, changes of consciousness, the ability to adapt, the process of learning new behaviours and norms, which often run against those acquired in one’s own environment) all play a significant role. It would seem that changes and the ability to adapt to new social situations, (but also the urban network of support, i.e. institutions

offering social and psychological assistance) would result in the number of suicides in cities being lower than in the country. Nevertheless, scholars argue that the “rate of suicides among immigrants is higher than the national average” (Hołyst, 2002: 441).

The long-running study by Maria Jarosz stands out in the field of suicide research in Poland (e.g. Jarosz 1977, 1997). Jarosz cites the different factors related to one’s profession or trade as positively influencing the decision to take one’s own life (Jarosz 1980). In her nationwide study conducted in the 1970s, Jarosz distinguished between three groups of professionals (or tradespeople) which varied according to the number of suicide attempts. In the first group (which included holders of managerial posts in administration, specialists and office workers) the number of suicides was more or less the same as the national average. The highest rate of suicides was observed among farm and forest workers, industrial and construction workers and those employed in transport and communication services. There were fewest suicides among farmers. A division into three social “classes” – the intelligentsia, the working class and farmers – emerges from the conclusions to the study. Of the three, the working class is most at risk.

Redundancy or unemployment are key in arriving at the decision to commit suicide. Being out of work must be seen in a broader perspective, as a predestining factor that causes health deterioration and hypochondria; as well as contributing to behavioural changes, such as the self-destructing habits of smoking, drinking and bad dietary choices. Specialists in psycho-immunology cite the serious social problems that are caused by unemployment: social isolation, loss of personal dignity etc. Thus not only the economic, but also the psychological and emotional implications of unemployment become evident. A study conducted in Sweden is a case in point. A significant drop in lymphocyte reactivity was observed among a group of Swedish employees, nine months after they had been made redundant (Hołyst, 2002: 448); notwithstanding the fact that, according to Swedish law, employees who were made redundant, receive 90% of the remuneration they had been paid while in work. One can thus speak of the suicide-instigating aspects of loneliness (McGraw, 2010), which, according to John McGraw, are boosted by changes to certain norms, i.e., hyper-individualism, materialism and the cult of success. These changes may affect anyone, whether a city or country dweller, rich or poor, old or young, man or woman. “In order to keep pace with the world, we are constantly setting ourselves goals that push us to the limit. We must be better, and we are paying the highest price for it. Our resources of mental resilience and the capacity for responding to stress make us ill-adapted to the changes which take place around us. However, progress happens at the expense of our lives. Relationships with other people become more shallow and time-limited” (Heitzman, 2014).

Professor Janusz Heitzman continues his diagnosis of the situation in the following manner: “About 40% of young Poles require financial assistance from their parents. (...). Others will be paying off their mortgage until they retire” (Heitzman, 2014).

The growing number of suicides is recognised as a problem not only by scholars and academics, but also by journalists, who keep track of the scale of the phenomenon around the world. “According to a study published in September 2013 by the *British Medical Journal*, the 2008 crash, that had led to a significant growth in unemployment, already in 2009 translated itself into 5000 <<extra>> suicides in America and Europe. Scientists from universities in Oxford, Bristol and Hong Kong have compared the number of people who took their own lives prior to, and during, the crisis. They have based their study on data from 54 countries. A similar study had been conducted earlier, following the Asian financial crash of 1997. It had been estimated at the time that in Japan, Hong Kong and South Korea alone 10 000 more people committed suicide than in times of economic prosperity” (Matusiak & Kinasiewicz, 2014).

Suicide prevention

The problem of suicide has also been acknowledged by the World Health Organisation. According to the WHO, “almost a million people take their lives every year, and the death of each of them affects at least six others. Thus the implications of suicide have an impact on millions of people around the world” (Matusiak & Kinasiewicz, 2014). Preventative action against suicides is needed, given that “another important reason for preventing not so much suicides as pre-suicidal behaviour, is the necessity to take an interest in the fate of people who are often in the dark about the full scope of possibility as far as solving their problems is concerned, and thus they cannot be said to be making a fully informed choice” (Hołyst, 2002: 67).

What, then, needs to be done? Above all, one should “constantly broaden one’s knowledge of the processes that motivate self-destructing behaviour” (Hołyst, 2002: 67) with a view to learning how to recognise the pre-suicidal syndrome that leads to the degeneration and atrophy of defence mechanisms. Equally essential is the ability to diagnose potentially self-destructing states, which may lead to the undoing of not just individuals, but the whole social, economic and political structure. What also needs to be examined is how these self-destructive states influence the physical and mental condition; and the decision-making processes of individuals. A clean and healthy natural environment helps minimise the risk of succumbing to the diseases which are associated with the progress of civilisation; and which contribute to instigating mental crises and inspiring suicide attempts.

Referencing the model of five-tier preventative action, Maria Skawińska points to the significant role of social policy as a complex and patent system of aid-providing institutions. The task of these institutions is to prevent suicide and offer suicide therapy (Skawińska 2003: 92-93). Tier one is made up of 'influencing by education' that comes in all shapes and sizes and is directed to the society as a whole. The aim of the actions in this tier to shape attitudes that are affirmative and accepting of life, and orientated towards thinking positively about the future. Actions on tier two are directed at the group at risk of developing pre-suicidal attitudes. This is why social diagnosis in this sphere is of such tremendous importance. Tier three consists of variegated, complementary institutional and non-institutional ways of influencing people who are already pre-suicidal. Here, the activity focuses on working with individual cases, and on intense individual therapy. Tier four entails working with a "suicidal situation": in essence, what is meant by this are different forms of therapeutic influence following a suicide attempt. Tier five is concerned with providing immediate help to people and families who find themselves in a post-suicidal situation (Skawińska 2003: 92-93). One could therefore say that preventative action should be addressed to all social groups and institutions: individuals in crisis, families, the police, school, social and health services, etc.

By contrast, Marek Borowski and Anna Stromecka envisage preventative action on three, rather than five tiers (Borowski & Stromecka, 2010: 116-121). Prevention of the first order "is aimed at promoting health and prolonging human life; as well as preventing problems that arise from dysfunctional behaviour. Here, the focus is on the process of developing various skills of coping with the challenges of life" (Borowski & Stromecka, 2010: 116). People who are at risk of finding themselves in crisis need to be taught to accept loneliness, so that they can acquire a sense of independence and, crucially, a sense of reality. The second tier includes activities aimed towards identifying a problem or crisis early, which would allow for withdrawal from risky behaviour; and provide assistance in a crisis. What would be the indications that an individual is undergoing a crisis? The authors of the study enumerate the following symptoms (Borowski & Stromecka, 2010: 120-121): occurrence of an acute critical event or a chronic crisis; perceiving the situation as a loss, danger or challenge; individual, subjective experience of negative emotions; sense of insecurity of the future, feeling of loss of control; sudden breach of the daily rhythm, routine forms of behaviour and habits; prolonged state of emotional tension; necessity to change one's existing mode of functioning". Third-tier activities consist in emergency actions, which are taken once a dysfunction occurs. The aim of these actions is to prepare an individual for his or her return to society; and to a socially acceptable, pathology-free way of life. What is important here is to involve family and friends in these activities.

Conclusions

The article analyses the wide scale of the suicides in Poland over the last 20 years. This trend is very dangerous in each perspective: social, psychological, economical etc. Author of the article considered that suicides' prevention is the important task for social policy and social work institution. Traditionally this kind of social activity is seen behind/ outside of the system of help/ helpers, but it should be part of social work (among work with homeless people, unemployment, addictions, poverty).

Preventative action thus needs to include a range of activities which differ in scope and character. Educational, diagnostic, preventative, repair, research, therapeutic, informative actions should all be taken into account. Culture-producing activities are equally important: they should be pursued in a conscious, rational and systematic manner, taking into account the cultural changes of which we are part. It is necessary to shape a certain attitude towards death: an attitude founded on the assumption that, in a crisis, help can be obtained at any place and time; and receiving that help will provide an individual with a sense of social and psychological security.

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LONELINESS EXPERIENCED BY INFORMAL CAREGIVERS OF THE CHRONICALLY ILL IN THEIR HOMES. PROPOSED SOLUTIONS AND PRACTICAL RECOMMENDATIONS FOR LOCAL COMMUNITIES

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***Abstract.** Loneliness experienced by family caregivers of the chronically ill in their homes is described starting with different aspects of solitude in social sciences. Family care as part of informal care should cooperate with formal careers from health and social systems. Welfare institutions and home care in Poland are described in front of growing challenges of ageing societies in Europe. Good practices and practical recommendations for local communities, including better coordination of care, as well as support for family caregivers at risk of loneliness and other difficulties are offered as a conclusion of this report.*

***Keywords:** chronically ill, elderly, health care, home care, informal caregivers, integration, loneliness, social care, volunteers.*

Introduction

Modern human being lives in a time of many transformations of globalized world. Diversity, freedom, individualism, hedonism, anonymity are the characteristics that describe a world in which one operates. In today's world the chaos of everyday life, continuous haste and lack of time for loved ones often dominates. In consequence of this, more and more confused people are looking for meaning and purpose in life, experiencing emotional and spiritual emptiness. They often lack answers to basic and important questions of life, such as truth, love, goodness, or value of the family. This latter issue seems to be worthy of special attention and interest in the light of the transformation of the family systems functioning. They are going through a serious crisis, which requires support from the state and various institutions. Last Synod of Bishops of the Roman Catholic Church states that major threat is „rampant individualism, which debased family ties and leads to treating each family member as a lonely island, making domination, in some cases, the idea of an entity which is formed in accordance with their own desires treated as an absolute” (wiara.pl/doc/Relacja-III-Nadzwyczajnego-Synodu-biskupow).

In the same place we find other problems affecting the family, such as violence, unemployment, poverty, the disintegration of marriages, neglect of children, disorders of emotional life, or negative attitudes toward the elderly (ibid.). Statistical data obtained from social welfare centers in Poland seem to confirm these facts. One of the problems is the rapidly aging population and the increase in the number of elderly people who require constant care and social support (Baranowska, 2013). The question of who will take responsibility for the sick and dependent people, especially in home care, seems to be significant. We can also ask a more fundamental question of whether the families are important, whether we should be concerned about their future, and how to diagnose their needs, and help to solve their problems. We want to restrict our discussion here to issues related to the difficulties of informal careers of the chronically ill at homes. In our analysis will be primarily describe the social problem of their loneliness in caring process. In the second part we will present proposals for solutions and practical recommendations for local communities in Poland, and other European countries where ageing societies and changing families are the reality of today or tomorrow.

Loneliness experienced by informal caregivers of the chronically ill at home

Loneliness is a phenomenon of our time, which is difficult to define. It is a condition that can be evaluated positively, negatively or ambivalently. Some consider this situation normal, common, and others do not accept it. Loneliness can be an individual experience (being alone with you) or interpersonal one (in our relationships with others), objective or subjective, by choice or by necessity. On the one hand, one escapes from her, on the other needs her. According to Erich Fromm loneliness has always been inextricably linked to human existence, but today in particular individual is exposed to this condition (due to isolation from each other and from nature) (Fromm, 1970). On the other hand, Antoni Kępiński says that solitude is contrary to human nature (Dubas, 2000, 56).

Marco Linnemann with his team made several categories of loneliness:

- interactionist - no contact with other people, there are unmet social needs of individuals,
- systemic-theoretical - warning, crisis situation that requires a solution (in this situation plays a positive role),
- cognitive - due to differences between the expectations of the individual and society, it is necessary to find a compromise,
- psychodynamic - source of loneliness is the personality of the human being and one's difficult experiences in childhood,

- phenomenological - one is focused on social roles, aiming to construct ideal „I” until one loses its real „I” not being able with time to determine ones identity,
- existential - human being is fundamentally alone and has accepted this fact, otherwise one would be miserable,
- sociological - social changes, particularly contemporary family transformations lead to growth of loneliness (source: *ibid.*, 86-87).

According to Elzbieta Dubas, loneliness can be a social and existential phenomenon, it may appear in the family or marriage, in workplace, educational or caring institutions. Loneliness can be related to sex, others or oneself, the homeless, criminals, immigrants, artists, singles, exiles, children, adolescents, adults, seniors, may be the face of history, ideology, globalization, nature, civilization and emergencies, one's own choices, decisions, successes, own death and one of relatives, and in relationship with God (*ibid.*, 118-120). As it is suggested, loneliness can touch every person, regardless of age, gender, or experienced problems. In this text, however, we will focus on the loneliness of the chronically ill, and especially on the solitude of their careers at homes.

Chronic disease is characterized by long-term durability of treatment and gradual deterioration of health, which ultimately could result in death of the individual. Nearly 14 million adult Poles admit to have health problems that last for half a year and more. Healthcare system, established to provide medical assistance, acts in accordance with the guidelines of the Ministry of Health and the National Health Fund, and therefore reacts in life-threatening cases. When the patient's conditions are improving, the homecare is often the option (Szwalkiewicz, 2011, 15). Often comes the dilemma for the family, what do you do with someone who is chronically or seriously ill? To take one's home and take care within the family or refuse and resign from such liability, searching for institutional assistance. If the family accepts seriously disable patient, they must reorganize whole life to date.

Chronically ill patients often require non-stop care and regular assistance from medical experts. Family caregivers must make important decisions about future career prospects, and whole range of financial, house, family and personal issues. They are often forced to dedicate themselves wholly to the patient for many months or years, sacrificing their own needs, dreams, and even their own families. For this new task they have to learn how to care for the sick, and to be present and accompany one physically, emotionally and spiritually.

It happens that the family does not undertake to care for the chronically ill or old patient. This happens for various reasons, such as a need to work abroad or in another city, a lack of housing conditions or poverty. It can occur because of dysfunctional relationship with someone who is sick, and often out of fear that family will not be able to cope with such a task. Then the patient could get

different level of institutional care or is left alone at own home, counting on the support of environmental guardians from health and social care, volunteers, and neighbors.

Regardless of the decision taken by the family, one should not judge, because care of the dependent person is extremely difficult matter. The effort that is associated with this work provide even number of entries on Internet forums, where careers share their experiences and burdens of daily problems. Primarily description of the difficulties is associated with the inability to cope with various emotions, the lack of acceptance of the disease, incomprehensible reactions of ill person and their careers within the family (Care for the elderly). Even more common are requests from families and friends who do not know how to behave in such a dramatic situations, asking advise, criticizing health or social systems, and having also offensive behavior towards others (Oncological forum). Such reactions can occur, however, because of the fear of death, overwhelming sense of powerlessness, or lack of experience and knowledge regarding caring process. „No one who did not come into contact with this terrible disease personally, do not know how to behave in front of the ill person. They are afraid of suffering because of cancer and consequently over time they often distance themselves from people living alone with their pain” (ibid.). Many more complicated issues regards caregivers of dementia patients, whose care may take many years of slow deterioration and lack of contact with the dear ones (opiekanadseniorami.blogspot.co.uk).

Many times family members stop trying to contact with a chronically ill person, leaving them alone in family context. But this loneliness is not helping to recovery from illness or stop deterioration process, but often produces quite contrary effects. As confirmation of these words the results of recent research on people who have had cancer at the age of 30-89 years could serve as adequate example. These longitudinal researches were carried out in Norway for 40 years, with participation of 440 thousand people, and the main variable was their marital status. It turned out that bachelors have died sooner than married men (the difference between two groups was 35%). It was the same with group of women, although the differences there were smaller (Science in Poland). These and other analysis show that the human being in the face of suffering needs support of other people around, requires also a sense of security and fulfillment of other needs, especially psychological and spiritual understanding, respect and acceptance.

But loneliness can also be experienced by family informal caregivers. On one hand, they can experience social exclusion, when they have to take to care for the sick, changing completely their live and personal projects. They are unable to count on the support of individuals and institutions, which is still rare and most of the time not at a sufficient level in home care. They live loneliness

as the limitation of their interpersonal relationships, because they do not have the time, and are forced to give up their interests and passions. So they are isolated socially and often because of constant duties they also alienate themselves from their environment. Another problem is connected with emotional loneliness, which can evolve into sense of abandonment and the awareness that in difficult moments one is relying solely on oneself. This form is most severe and dangerous, because such a caregiver has a lot of unpleasant emotion kept inside, which can cause various forms of self-harm and violence directed at oneself, other people or external objects. One of the escapes of burn-out informal caregiver (especially with long term duties) can also be overuse of stimulants, such as alcohol or drugs, or escape into virtual world with computer, TV-set or mobile phone. Another aspect of this complex issue is called moral loneliness, which can be described as emptiness or lack of purpose and meaning in life. Caregivers do not think about the future, because I do not know how long the caring process will last. They worry instead about what they will do when the dear person will die, and how they will handle the loneliness after long caring process (Krakowiak, 2012).

Although loneliness experienced by family caregivers is a negative phenomenon, it is worth noting that sometimes they could have a need for temporary isolation, rest and stay away from the caring duties, to calm down emotionally and to rest. And in this sense loneliness in caregivers' life could play a positive role, because it allows redefining certain contents of personal and family life. However, caregivers could experience this state only when they have representation, individual or institutional support, which should be made possible in the local community (cf. Krakowiak, 2012). It is a task of social policy makers from every European state to expand existing and launch new forms of support for the informal family caregivers. Among them there are indications to provide better respite care which will be presented among proposal in the next part of this publication.

Suggestions for solutions and recommendations for local communities

Demographic forecasts for the Poland and Europe are not satisfactory. According to the statistical analysis of the population in Poland will fall from 38.3 million in 2010 to 32.8 million in 2060, moreover the number of people over 65 years will significantly increase from 13.5% in 2010 to 36% in 2060 (Baranowska, 2013, 47). Given the fact of growing number of older people it can be assumed that the number of family caregivers in home care settings also will increase. Studies show that now we have about 2 million informal family caregivers in Poland (Janowicz, 2014, 146). Higher demand will also be on institutional assistance for senior citizens and for chronically ill people.

In a situation where an elderly or chronically ill person is alone and cannot count on family support, intervention should be taken by social assistance which is the institutional activities of the state. Social services ought to meet the needs of dependent persons „unable to do so yourself within the existing distribution of wealth services and benefits” (Grabusińska, 2013, 14). Currently, social assistance activities in Poland are regulated by the Act from 12 March 2004. In this piece of legislation we find only the concept of a single person, defined as a person running a household alone, unmarried, not being in any relationship and not having parents and children (Art. 6 of the Act on Social Assistance, 2004). This understanding solitude is significantly different from that adopted in these early concepts of loneliness. It is worth noting, too, that in this document there is no record of loneliness as the difficulties experienced by clients which is often combined with other problems experienced in context of family, such as domestic violence, the problems of suicide or homicide, helplessness in life and homelessness, and various problems related to addictions.

Acts and Regulations issued in Poland indicate that elderly person who is dependent on others can receive financial aid, adequate care services at the residence, including specialized services, protected apartments, day support centers and family care homes and nursing homes. The amount and type of financial support depends on whether the protégé meets certain conditions, especially the income criteria. Care services are granted to a lonely person that requires care and assistance due to age, illness, or disability (Art. 51.1., *ibid.*). In practice, these records are in the vast majority of cases impossible to meet because of insufficient number of social assistance institutions in local communities and common lack of cooperation with healthcare and other institution in the local environment (*cf.* Krakowiak, 2012, 208-211).

The fees for care services are established by each municipality (might be paid in full, in part or free of charge). Specialist nursing services in the context of social work are directed to clients with specific needs arising from their illnesses, and caretakers must be properly trained and prepared professionally (Art. 50.4 of the Act on Social Assistance). If there are obstacles hampering the care services the solution becomes a family house social assistance. It is a form of support of a twenty-four hour care and welfare (Art. 52, *ibid.*). It can be lead by private person or organization in the dedicated apartment or house. Elderly and disabled people can be there temporarily or permanently at the request of the head of the social welfare center. Number of dependents in such institution is not less than 3 and not more than 8 persons (Grabusińska, 2013, 19). This new form of assistance offered to senior citizens in Poland is popular, but obstacles to the creation of further RDPS are strict conditions that must be met in order to start this service. The main institutional form of social assistance for the chronically ill and old are DPS - social welfare homes (Art. 54 of the Act on

social assistance). Their number, however, is far insufficient for the rapidly growing needs, and the quality of the services offered is depends on the wealth of the community and the financial capabilities of customers. In many centers lack of cooperation with the local community, or voluntary services makes those places unwelcoming.

Social welfare institutions fulfill according to the law the role of caring, supporting, educational and social (Art. 55.1, *ibid.*). There are nursing homes for the elderly, the physically disabled, chronically physically ill, chronically mentally ill, intellectually disabled adults, children and adolescents with intellectual disabilities, people with alcohol dependence (Art. 56, *ibid.*). The alternative for the elderly, remaining in residence are daily support centers. They are a living form of assistance, and their main goal is prevention of social exclusion of dependant people (Grabusińska, 2013, 21). In Poland, these activities can be distinguished for: daily nursing homes, night shelters, senior citizens clubs, self-help centers, canteens, environmental self-help houses (*ibid.*, 22). These services were underdeveloped for years, and their need in local communities is increasing with the aging population. A number of initiatives in recent years in Poland change the reality of social services in the living environment, and an example of successful ventures shall be support centers created within the national project (senior.gov.pl/program_senior_wigor).

Services for the local community are usually carried out by social workers and their cooperators. They can provide an important link in the integrated system of aid to the chronically ill and their families (Krakowiak, 2014, 137). The employee should diagnose psychological and social needs of patients, their families and the environment, providing socio-legal advice and support in crisis situations, cooperating with various institutions. Teamwork with specialists dealing with the family and care for mutual communication would help to direct clients to support groups, and to organize support of volunteers as well as work with bereaved families. From a social worker is required primarily to conduct community interviews, and then, in accordance with the possibilities of legal assistance in the form of cash and factual under the Act on social assistance. But the most important task is to organize a family assistance to relieve informal careers or include them in the care system. The social worker should act as a coordinator of care in the local community where all together with family will take care of a dependent at home (*ibid.*, 138-140).

The results obtained in the Kujawsko-Pomorskie in 2014 to 1064 seniors aged over 60 years shows that older people want more frequent contact with family members (at least once a week), and half of the respondents receives adequate support from loved ones. Most of dependent elderly people do not benefit from social assistance (over 80%), assessing their health status as average and waiting for help when shopping, in household duties, preparation of

meals. Over 60% of respondents emphasizes that experiences a chronic disease and disability hindering their normal functioning. However, a small percentage of respondents admit that he would like to use the social services offered by the welfare institutions (Kujawsko-Pomorskie in the context of an aging population, 2014). This involves certainly the stereotype of using this form of assistance mainly by socially excluded people, the unemployed, or dependent. Ashamed prior to use of the social support inhibits individuals under the care of a family from visiting the social welfare center. A common reason is also ignorance about the possible forms of support in a situation of dependence in the family (Krakowiak, Starkel, 2011, 288-322).

In view of the rapid demographic changes there are more and more regional, national and EU programs, which are intended to combat exclusion and social marginalization of older people. The response to the situation described above is the initiative taken jointly by Caritas Toruńska and Social Work Department of UMK in Torun. Preparing and creating Parish Senior Club for 200 Catholic parishes has been the first such initiative in Poland, trying to activate parish communities to integrated care for the elderly and dependents in their homes (cf. Krakowiak & Janowicz, 2015). Another example is the Government Program for Senior Citizens Social Activity for 2014-2020 in Poland. Its aim is to increase educational and cultural integration, the creation of various forms of social activity, increasing the availability of social services in local communities, as well as activities in the area of self-help for elderly (www.mpips.gov.com/seniorzyaktywne-aging/a-government-program-asos).

Regardless of the adopted strategy it is worth to promote proposals set out below, which should be included in the state social policy: social assistance for seniors; organization of health care; housing tailored to the needs of the elderly; removal of architectural barriers; educate people about elderly people, their problems and resources; volunteering for older people; training of community nurses and formal caregivers; supporting self-help activities; development of cultural, education for seniors, such as clubs, universities of the third age, circles of interest. One of the crucial elements is connected to support system for informal careers, with flexible forms of employment, and various forms of respite care for family caregivers (Szarota, 2013, 24-29).

Implementation of these measures requires changes in the regulations and integration services through coordination at government and municipal level (Grewiński, 2013, 62-63). One of the dangers of inadequate care is loneliness, which may hinder the experience of life, and consequently contribute to the emergence of many other problems, such as depression, violence, addiction or suicide. That is why they are so important, as well as compensation and intervention in caring process. Social workers should play a leading role in coordinating and integrating the efforts of various stakeholders of care process

in aging population. Need of better coordinated home care and inclusion of health and social professionals with family careers and local environment are recommended as measures which could make more effective existing systems (cf. Krakowiak, 2012, 282). Experiences from hospice-palliative in Poland have been transferred to end-of-life care, especially in home care settings (Krakowiak, Krzyżanowski, Modlinska, 2011. Good practices of teamwork and local communities' involvement from Poland are now available also in English as a free resource for all those who would like to develop the end-of-life care in their communities or countries (Janowicz, Krakowiak, Stolarczyk, 2015).

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ПРОЯВЛЕНИЕ ЭМОЦИОНАЛЬНОЙ ИНТЕЛЛИГЕНЦИИ СОЦИАЛЬНЫХ РАБОТНИКОВ В ОБЩИНЕ

Expression of Emotional Intelligence in Activities of Community Social Worker

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Abstract. Referring to scientific literature, the article aims to define definition and model Emotional intelligence (EI). Emotional intelligence (EI), the term first used in 1966, is still considered a new area of science. The increase in requirements for social workers and their personal and professional qualities made it important to know their own emotions and those of the others and manage them. Personal qualities – self-awareness, motivation, flexibility, interpersonal skills, the ability to adapt to change, to understand and recognize emotions is very important to the social worker's activities. Management of emotional intelligence in the personal and interpersonal community social worker activities is one of the main acts in relations with others. Expression of emotional intelligence in activities of community social worker is the object of this paper. The theoretical part of the work substantiates the theory of emotional intelligence expression in activities of community social worker after discussing emotional intelligence. The research empirically investigated social workers opinions about the expression of emotional intelligence community. The study uses the following methods: analysis of documents, scientific and methodological literature, websites, quantitative research method, questionnaire survey. The study was carried out in questionnaire method, interviewing 212 respondents in 44 institutions. Results of the study confirmed the hypothesis that community social worker activities is worth to foster through self-improvement of emotional intelligence expression.

Keywords: emotional intelligence, expression, social worker, community.

Введение

Introduction

Актуальность данной статьи обусловлена ростом потребностей к социальным услугам разнообразного характера, изменившим требования к социальным работникам и их личным качествам. Современная социальная работа, как профессиональная деятельность, требует от профессионала

неких специфических знаний, навыков и личностных свойств, без которых осуществление задач социальной помощи становится невозможным.

Зарубежный автор (Day, 1999) обращает внимание на то, что особенно важно познать свои и чужие эмоции, уметь ими управлять при обслуживании своих клиентов. Такие личные свойства как самосознание, мотивация, гибкость, навыки межличностного общения, умение приспособиться к переменам, опознание эмоций – все эти деловые профессиональные качества являются особенно важными в деятельности социального работника.

Следуя другому автору (Bardovskij, 2012), деятельность социального работника, независимо от разновидности предлагаемых услуг, принадлежит к профессии высокой моральной ответственности, которая несёт ответственность за социальную безопасность, здоровье и жизнь как отдельных лиц, так и общины, как первоначальной группы общества. По словам I. Leliūgienė (Leliūgienė, 2003), моральные и гуманистические принципы социальной работы являются компасом для социального работника.

Изучение авторами данного исследования множества научных источников об эмоциональной интеллигенции позволяет утверждать, что термин «эмоциональная интеллигенция» был впервые использован в 1966 году, т.е. является достаточно новой отраслью научных исследований.

Следуя L. Rudaitienė (Rudaitienė, 2004, 2008), учёные западных стран до сих пор уделяют много внимания понятийной категории и анализу эмоциональной интеллигенции, проблемам их дименсий, также вопросам соотношения эмоциональной интеллигенции с потенциалом IQ.

Управление эмоциональной интеллигенцией в личной и межличностной деятельности общинного социального работника является одним из основных способов деятельности в общении с другими.

Проблема и тематика изучения проявления эмоциональной интеллигенции в деятельности общинного социального работника мало анализирована.

Научная проблема данного исследования спровоцировала поиск ответа на вопрос – какими характеристиками отмечается проявление эмоциональной интеллигенции в деятельности социального работника в общине.

Цель этой статьи – раскрыть проявление эмоциональной интеллигенции в деятельности социального работника общины, опираясь на теоретические модели и результаты эмпирического исследования.

Научной новизной данной статьи является факт, что впервые в эмпирическом исследовании литовских учёных, авторы попытались

проанализировать проявление эмоциональной интеллигенции, особенно в деятельности социального работника общины.

Для конкретизации в данной статье термина «община», авторы на сей случай выбрали дефиницию Е. Wenger (Wenger, 2003) – *communities of practice*, т.е. общины практической деятельности. По словам Е. Wenger, деятельность существует в человеческих общинах и в отношениях обоюдного участия. Участвовать в общинной деятельности – как обязательное условие – быть вовлечённым в ту деятельность, которая является значимой. Участники такой действующей общины свою уникальность зачастую проявляют последствием эмоций. Следуя автору (Wenger, 2003), общая деятельность объединяет участников и сплачивает их даже при сложных взаимоотношениях.

Теоретическое обоснование эмоциональной интеллигенции.

Theoretical Framework of Emotional Intelligence

Понятие эмоциональной интеллигенции и ее проявление в деятельности работников/волонтеров в центрах добрососедства (общин).

P. Salovey, J. Mayer (Salovey, Mayer, 1990) первыми представили термин эмоциональной интеллигенции (далее – ЭИ) и описали его как «способность опознать и регулировать свои и чужие чувства, эмоции, оценивать их и пользоваться полученной информацией при мышлении и развитии деятельности».

ЭИ описывается в контексте интеллигенции, потому что она связана с переработкой информации, является более близка аффекту и охватывает более глубокие внутренние свои личности, которые обуславливают деятельность, исключительное внимание уделяя развитию эмоциональных способностей. По мнению учёных (Salovey, Mayer, 1997, 2000) ЭИ объединяет эмоции и мышление.

Другой зарубежный автор (Bar-On, 1999) ЭИ представляет в контексте теории личности. Его модель охватывает 5 сфер специфических способностей. Автор эмоциональную интеллигенцию описывает как «совокупность социальных и эмоциональных знаний, навыков, оказывающих влияние на наши общие навыки эффективно справляться со средой выдвигаемых потребностей».

«ЭИ способности самомотивации и умение не поддаться отчаянию, способность контролировать импульсы и отложить удовлетворение успехом; регулировать свое настроение и не допускать отчаяния, способность контролировать импульсы, мешающие подавлять мышление, быть эмпатическим и иметь надежду» (Goleman, 1995).

S. Cole, P. Lopez, P. Salovey (Cole, Lopez, Salovey, 2006) утверждают, что ЭИ связана с четырьмя способностями – понять эмоции, сообразить и выразить эмоции, использовать эмоции как информацию, манипулировать своими и чужими эмоциями.

Следуя литовскому психологу (Paškus, 2009), большинство людей сперва что-то импульсивно делают, а потом думают и сожалеют по поводу такого своего поступка, потому что совестью управляют воля и разум.

По исследованиям зарубежных учёных (Goleman, 2009), (Mount, Fabio, Boyalzis, 2006) выделены способности, свойственные лицам, отличающимся высоким уровнем эмоциональной интеллигенции: умение мотивировать людей, побуждая положительные эмоциональные состояния у других и поощряя на достижение цели; умение отождествляться с другим человеком по отношению его выдержки, тембру голоса, выражению лица, настроению, мышлению; умение сдерживаться от негативных эмоций помогают легче вникнуть в чувства другого человека, избежать конфликта и понять чувства другого человека в разнообразных ситуациях, выражать чувства эмпатии.

Исследованиями доказано, что эмоционально интеллигентные люди легче переносят стрессовые ситуации, являются более самостоятельными, способны легче предотвращать конфликтные ситуации в общине. D. Goleman (Goleman, 1995) отмечает, что ЭИ содержит два понятия интеллекта:

1. Внутренний личный интеллект (самосознание, понятие своих целей, решений, реакций и поведение, понятие личного внутреннего мира и удовлетворение своих потребностей). См. рисунок 1.

2. Межличностный интеллект (понятие чувств других людей и отношения между ними, удовлетворение их потребностей). См. рисунок 1.

Mayer, J.D., Salovey, P., Caruso, D.R. [2000] представляют модель эмоциональной интеллигентности, состоящую из четырех компонентов (см. рис. 2).

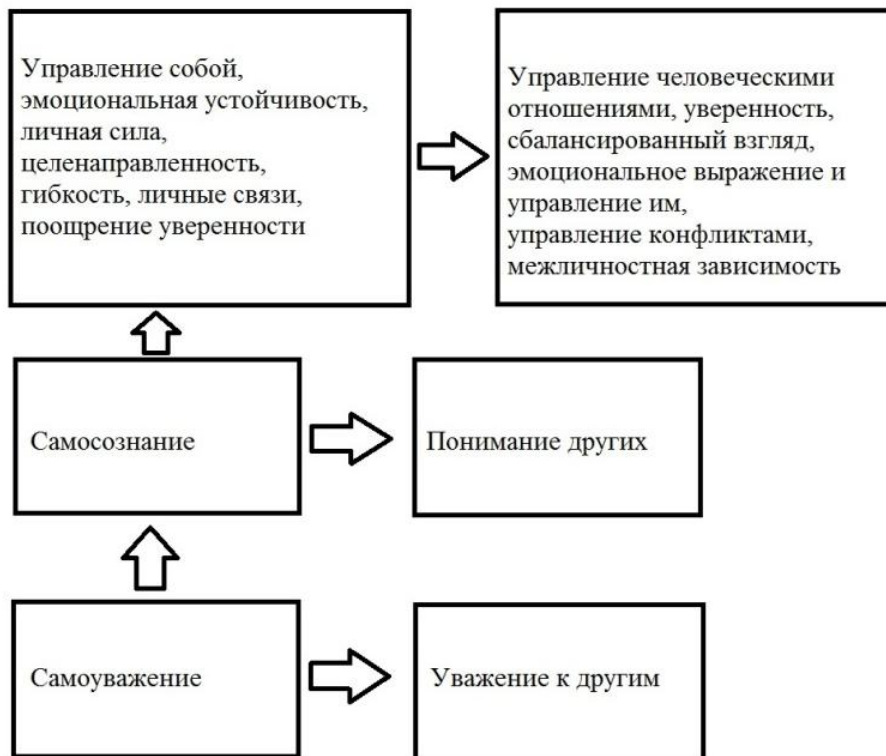


Рисунок 1. Связь внутреннего и межличностного интеллекта с эмоциональной интеллигенцией

Fig.1 Relationship of intrapersonal and interpersonal intelligence with emotional intelligence [Goleman, 1995]

Глядя на представленную модель и суждения (Neale, 2008) воспитание эмоциональной интеллигенции может быть полезно для лучших бесконфликтных отношений и общения с многонациональными общинами, с соседями разных религиозных убеждений.

Известный аналитик эмоциональной (Goleman, 2009) интеллигенции, подчеркивает важность эмоционального интеллекта. Автор подчеркивает, что лицо, неспособное опознать свои чувства в конкретной конфликтной ситуации, вряд ли поймет другого человека и он является не способным приспособиться к определенной ситуации.

Предотвращая конфликты в общине социальным работникам, владеющими эмоциональной компетенцией (интеллигенцией), помогает человеку научиться справляться с собой и помочь другим в непредвиденных деструктивных, травмирующих людей ситуациях.



Рисунок 2. Модели эмоциональной интеллигенции
 Fig 2 Models of Emotional Intelligence [Mayer, Salovey, Caruso, 2000]

J. Sadauskas, I. Leliūgienė, следуя исследованиям (Gerulaitis, 2007) отмечают, что выдержав нейтральность между двумя конфликтующими сторонами, особенно в случае, когда один свою проблему объясняет четко и ясно и владеет твердой силой, успех зависит от того, как работник социальной общины, владеющий различными способностями раскрыть суть проблемы спора и положение заинтересованных сторон, зависит от того на сколько он почувствует изменения настроений участников процесса, на сколько он овладел культурой диалога, разговора, как он умеет обобщать мысли. Решение конфликтов в общине зависит от творческого подхода социального работника, поощряя участников конфликта помириться.

Обобщая сказанное, становится ясно, что положительное и эффективное предотвращение конфликтов в общинах, предъявляющих социальные услуги, в большинстве зависит от эмоциональной интеллигентности самых тружеников, т.е. социальных работников.

Эмоциональная интеллигенция обязывает к личной и социальной ответственности, чувству доброты и справедливости, самоуважению и помощи другому человеку, к толерантности, честности, эмоциональному мышлению, осторожнее поучиться на своих ошибках.

Результаты исследования проявления эмоциональной компетенции в деятельности социального работника общины
Study Results on the Expression of Emotional Competence in the Work of Community Social Worker

Для получения ответов на проблемные вопросы был подобран инструмент количественного исследования и метод статистического анализа данных. Следуя авторам (Žukauskienė, 2008), (Kardelis, 2002) методология количественных исследований опирается на позитивистический взгляд, когда социальная реальность обоснована объективистической позицией. Следуя R. Žukauskienė (Žukauskienė, 2008) основное назначение количественных исследований – объяснение и прогнозирование признаков объекта – т.е. стремление статистически обосновать основные признаки объекта, причины связи явлений, факторы их функционирования. Собираемые данные структурирования, статистический анализ данных представлены в виде количественных показателей.

Проблемой исследования является обращение внимания на необходимость совокупности знаний для проявления эмоциональной интеллигентности в деятельности социального работника общины. Проведение данного исследования было обусловлено недостатком научных данных об эмоциональной интеллигенции социальных работников общины, поэтому авторы данной статьи решили хотя бы частично заполнить этот вакуум.

Метод исследования – целевой отбор группы респондентов – социальных работников общин. Для получения данных выбран количественный сбор информации, т.е. анкетирование. Вопросы респондентам сформулированы на основе теоретического анализа научных трудов по исследованию эмоциональной компетенции в работе социального работника. Подготовлена анонимная анкета (вопросник). Респонденты опрошены при прямом общении и с помощью интернета. Первая группа вопросов представляет демографические данные социальных работников; второй группой вопросов исследователи стремились узнать мнение респондентов о важности эмоциональной интеллигенции в трудовой деятельности социального работника; третьей группой вопросов было важно собрать эмпирические данные о проявлении

эмоциональной интеллигенции каждого социального работника и в работе трудового коллектива учреждений разнообразных социальных услуг; четвертым блоком вопросов исследователи стремились выявить фактор собственного достоинства в сложных ситуациях должностной деятельности. Всего было предложено ответить на 15 вопросов, из которых один – открытый, пять – полузакрытые, девять – закрытые. Респонденты имели возможность подобрать для них приемлемый тезис, утверждение, фразу.

В исследовании 2014-2015 г. участвовало 212 социальных работников из 44 институций, предлагающих социальные услуги в одном окружном регионе Литвы.

При проведении исследования авторы строго придерживались принципов этики: анонимности, добровольности, конфиденциальности и честности. Было разослано 300 анкет, но возвратилось правильно заполненных 212.

Данные обработаны методом описания статистических данных. Для анализа количественных данных были использованы программные пакеты S PSS 12.0 (Statistic Package for Social Science).

Полученные данные исследования в этой статье представлены в процентном выражении и средними данными.

Далее в концентрированном формате авторы статьи представляют основные данные и тенденции исследования.

Портрет респондентов: 86,8 % женщин; средний возраст – 40 лет; в опросе участвовало 43,4 % дипломированных социальных работников (далее – СР); 17 % старших СР; 2,8 % СР экспертов; 26,4 % других должностных лиц – помощников СР, руководителей учреждений, спец. педагогов и др. Средний стаж социальной работы с 6 – 10 лет. Меньше чем один год работали 3,8 % опрошенных. К участникам была предъявлена просьба – оценить по пятибалльной шкале важность эмоциональной интеллигенции в работе с клиентами. Абсолютное большинство – 90,6 % респондентов считают, что эмоциональная интеллигенция в повседневной деятельности очень важна. Статистически значимых различий ответов на этот вопрос в демографическом аспекте незамечено.

Исследование показало, что социальные работники в возрасте 36 – 45 лет чаще, чем другие подтвердили тезис, что положительные эмоции помогают лучше планировать интервенцию в ситуацию клиента, создавать новые ситуации, альтернативные подходы в решении проблем.

Социальные работники отметили, что 60,4 % из них очень часто выражают (демонстрируют) свою эмоциональную интеллигенцию познавая окружение клиента и оказывая влияние на его внешнюю среду: раскрывая интересы и предвидя результаты (47,2), опознавая свои чувства

(55,7), опознавая чувства своих клиентов (68,9), понимая и управляя своими эмоциями (69,8), понимая и управляя эмоциями своих клиентов.

Эмоциональная интеллигенция раскрывается в решении проблем клиентов (92,5), выполняя самоконтроль (87,2), преодолевая стресс (85,8), общаясь и выражая чувства (90,6), оценивая удачу и неудачи других (78,3).

Социальные работники пришли к выводу, что эмоциональная интеллигенция – это совокупность эмоций, социальных знаний (79,2), умение мотивировать себя и не поддаваться отчаянию (80,2), умение контролировать свои импульсы и не спешить заранее радоваться своим достижениям (66,1), умение контролировать свое настроение и не допускать влиять настроению на мышление (81,1), управление эмоциями (90,6), понятие эмоции (65,6), самоконтроль (94,3), упорство (60,4), навыки самомотивации (73,6), эмпатия (83,6).

Социальные работники общины высказали мнение о том, что наиболее актуальными факторами проявления эмоциональной интеллигенции в повседневной деятельности является: решение проблем (88,7), проявление чести (86,8), эмоциональное самосознание (85,8), эмпатия (85,8), социальная ответственность (84,9), гибкость (84,6), общее настроение (74,4), выражение чувств, мыслей, защита своих прав (71,7), межличностные отношения (69,8), самоактуализация (67,0).

Социальные работники отметили, что умеют радоваться успеху своих коллег (49,1), умеют управлять своими эмоциями во время работы (61,3), опознают внутреннее состояние души своих коллег (49,1), плохо чувствуют себя возле людей, которые не умеют управлять своими эмоциями (43,4), эмоции мешают мышлению (50,9), эмоции помогают принять решение (35,6), охватывает паника когда деятельность идет по другим принятому решению (41,5), не хватает терпения при общении с клиентами (50,3).

Социальные работники признались, что в некоторых случаях или ситуациях, не умеют выражать положительные эмоции. Это проявляется таким образом: не способность радоваться результатам деятельности (21,7), прислушиваясь к бедам других (19,8), познавая и принимая эмоции других (18,9), заглушая свои эмоции (17,8), низкое доверие к себе (17,9), общаясь, когда защищается свое мнение (17,9), познавая свои эмоции (16,0), оценивая свои социально-эмоциональные умения (15,1), способность познать и оценить себя (14,2), недовольство своей деятельностью (12,3), управляя и контролируя свои эмоции (10,4).

Социальные работники общины высказали свое мнение о том, как они себя ведут с клиентами, несклонными к изменениям, не принимающими советов либо помощи (86,8) терпеливо ведет разговор, несколько раз (67,9)

похвалят, скажут комплимент, поинтересуются о его семье (34,9), обнимают (32,2).

Выводы *Conclusions*

Теоретический анализ понятийного аппарата эмоциональной интеллигенции позволил раскрыть, что эмоциональная интеллигенция – это умение понять, опознать и управлять эмоциями, как личным так и социальным аспектом, балансируя формирование личности. Выделяются три основные теории эмоциональной интеллигенции, в которых актуализируются навыки и характеристики личности, а эмоциональная интеллигенция очеркивается в контексте теории деятельности.

Результаты количественного исследования –, т.е. анкетный опрос 220 общинных социальных работников, показал важность проявления эмоциональной интеллигенции при решении социальных проблем, всякого рода конфликтов в повседневном общении с жителями общины, нуждающимися в социальной помощи.

Полученные данные показали, что трудности в проявлении эмоциональной интеллигенции возникают у социальных работников с низким уровнем собственного достоинства, неуверенностью в себе, отсутствием чувства радости.

Молодым социальным работникам не хватает знаний по управлению своими эмоциями в профессиональной деятельности.

Исследование показало, что социальные работники правильно оценивают важность и практическое исследование эмоциональной интеллигенции в повседневной практике, управление своими эмоциями, своевременное опознание чувств своих клиентов.

Исследованием установлено, что проявление позитивной эмоциональной интеллигенции во многом зависит от воспитанности самой личности социального работника.

Summary

Theoretical analysis of the concept of emotional intelligence helps to characterize emotional intelligence as a person's ability to understand, identify and manage emotions, both in personal and social aspects, balancing the development of a personality. There are three predominant theories of emotional intelligence in which personality skills and characteristics are actualized and emotional intelligence is defined in the context of work.

The results of this quantitative study through the survey of 220 community social workers, showed the importance of expression of emotional intelligence in the solution of

social problems and different conflicts in daily communication with the community residents who are in need of social help.

The study data show that the difficulties in the expression of emotional intelligence by social workers arise due to low self-esteem and lack of self-confidence and contentment.

Young social workers lack knowledge how to manage their emotions in their professional work.

The study showed that social workers realize the importance and practical application of emotional intelligence in daily work, management of emotions, and timely identification of emotions in their clients.

The study results suggest that the expression of positive emotional intelligence largely depends on the development of personality by a social worker.

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SOCIO-PEDAGOGICAL SUPPORT TO YOUTH PARTICIPATION IN INTEGRATION PROCESS

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Abstract. *The purpose of the article is on the basis of theoretical formulations to analyze participation and integration as pedagogical category and socio-pedagogical means, facilitating the participation of youth in integration process in two aspects – in educational system and labour market, linkages between participation and understanding the integration as terminal (related to life goals), instrumental (means of reaching life goals) and opportune (related to opportunities) value as well as implicants of efficient participation.*

Keywords: *integration, participation, socio-pedagogical support, values, recognition, trust, encouragement, respect, empathy, cooperation, mentoring.*

Introduction

In the planning documents of Latvia and Europe youth is defined as one of priority target groups concerning arrangements of active labour market policy, the sphere of education as well as poverty and social exclusion reduction, as despite the fact that the number of unemployed youth and early school leavers slightly decreases, in recent years the youth unemployment rate and the number of early school leavers in Latvia remains one of the highest among the member states of the EU. The main directions of activities in these spheres of politics are aimed at reduction of youth unemployment and its integration into the labour market, youth social protection, youth poverty reduction and ensuring the youth education quality and development of skills (Informative Report on Youth Guarantee Implementation in Latvia in 2014-2018, 2013). In accordance with the set priorities – intelligent, sustainable and integrating growth – the aims of the strategy “Europe 2020” are reduction of the number of the younger generation population who are early school leavers and increase of the proportion of this target group having the higher education and employment (European strategy for smart, sustainable and inclusive growth, 2010). Consequently, the main challenges in reduction of these problems is to return youth to the educational system and ensure education to meet the labour market needs as well as raising the qualification of unemployed youth and development of skills according to the needs of labour market. Implementation of the offered

solutions for elimination of early withdrawal from education and training (AIIA), in three political courses (prophylaxis, intervention and compensation) includes provision of the support which is adapted to target audience, thus raising an issue in this context on integration of youth in education and labour market and the necessity, opportunities and efficiency of socio-pedagogical support (Eurydice Brief: Early Leaving from Education and Training, 2015). Education level directly correlates with the employment, unemployment and poverty as well as social exclusion risk indicators. People having basic education level are the most likely exposed to a high risk of poverty and social exclusion; and the higher is the level of acquired education, the lower is the poverty risk (Informative report on youth guarantee implementation in Latvia 2014 – 2018, 2013). It is important to be aware of contextual factors while working with youth in a target group (Methodical guidelines for work with the youth in a target group in the project “KNOW and DO!”, 2015). Nowadays a lot of criticism is devoted to policy, which stresses reduction of social exclusion consequences and relates youth to social risks, in management of which the determining factors are intervention and control, instead of “systematic support, continuity and persistent application of dynamic enabling techniques” and prevention.

Youth education and employment topicality in the context of Latvia and Europe determined the need in research aimed at defining the means of socio-pedagogical support to facilitate integration of youth participation in educational system and labour market as well as find an answer to the research question – whether and how does the understanding of youth integration as value influence youth participation.

Theoretical Framework

In the context of the research integration is defined as a task of development (Held, 2009), capacity to act (Kalpaka, 1986; Held & Riegel, 1999; Riegel, 2009), which emphasizes the need in perceiving integration as an ability to use resources, accentuating the capacity to act (participation), action competence (Buchkremer, 1995), which manifests itself in following dimensions: advising, help, presentation, informing, teaching, organisation, management, planning; process of personality development or personality “socialization” (Kreckel, 1994).

Recognition is a mutual process (Riegel, 2004) and is related to effort of integration (Flusser, 1994), based on the „participation work” (Mecheril, 2003). Affiliation work appears as self-cultivation described as an active attitude of a person towards oneself (Mecheril, 2003:342) and which appears as self-disciplining, self-restraint, self-confidence, self-compliance as well as self-denial.

To describe the effort of integration at the level of an individual (personality), Paul Mecheril uses a metaphor of „garden”. As P. Mecheril sees it, the future-oriented affiliation work is a process where “the gardener him/herself cultivates a garden inside him/herself”. The author relates the work of self-cultivation with responsibility towards oneself. The philosophy of “gardening” includes observation, attention and knowledge – a person must understand at least something about growing, decay, life and death. Cultivation of garden is simultaneously a form of changing and preserving, supervision and control, however, it may not become repressive. Cultivation is maintaining influence which is reserved and considered. Garden faces the influence – intervention, trust, waiting. Self-cultivation includes the forms of self-change facilitated by self-observation and self-influence. Responsibility influences the results and practice. Everyone is responsible for oneself – s/he does cultivate her/himself or does not. Responsibility creates the capacity to act voluntarily and predict consequences of an action. Self-development is possible only by the means of obligations which a youth accepts and acknowledges. Responsibility is an important precondition for self-cultivating attitude.

One of the most important conditions of integration is to create situations of communication and cooperation. One of the most important conditions of integration is to create situations of communication and cooperation. The basic criterion of integration is to what extent it facilitates the progress, welfare and freedom of personality (Karpova, 1994).

The causes of unemployment are categorized in two basic groups: structural causes, related to economic system and labour market and personal causes, related to skills and personality traits influencing access to labour market. Basing on the socio-psychological theories dealing with the study of attitude and behaviour of the unemployed, the authors of the research (Working on Work for all, 2010) emphasize the individual outlook of unemployment, thereby activating such socially conditioned traits of personality as self-evaluation, level of claims, self-esteem, locus of control and values. Values in terms of important and sustainable conviction or ideals (Morales & Sheafor, 2011) influence the behaviour, attitude and interaction of the involved persons as well as the efficiency of support and help (Parsons, 2011). The idea on integration as an opportune value, topical to the youth searching and discerning new self-fulfilment opportunities in educational system and labour market (opportuneness) develops on the basis of the theory by Milton Rokeach (Rokeach, 1979) on values as life objectives (terminal) and values as means to achieve life objectives (instrumental).

The authors of the research (Working on Work for all, 2010) have classified the solutions for the youth unemployment issue, relating them to three main ideas: positive thinking, encouragement for young job searchers and

reduction of social exclusion. Positive thinking begins with introduction of changes in the language and moral attitude, while solving the issue of unemployment, for instance, speaking about “young job searchers” instead of “young unemployed people”, focusing on resources and abilities instead of disadvantages etc. Positive thinking is related to the need in analysing the unemployment situation not only in a negative way, but also understanding the potential positive influence it might have, at least, what concerns several life aspects, trying to create opportunities out of the complicated unemployment situation. The authors of the research base on the insight expressed by Paulo Reglus Neves Freire in his work “Pedagogy of the Oppressed” that encouragement comes from practice: encouragement is a cyclic process of experimental learning when an individual evaluates the current life situation, identifies the things s/he would like to change, acts to make the changes happen, and then reflects the action (1970). Thus, encouragement is a continuous process of changing. This idea of encouragement as a continuous releasing process corresponds to the practical examples and work experience of the young job searchers. Encouragement indirectly points out to a continuous process consisting of development of practical skills and social competences, providing support to change attitude, cooperation and promotion of social networks’ creation. The mechanisms of the link between unemployment and social exclusion are complicated and complex therefore it is necessary to develop a holistic approach to it. Overcoming unemployment is a problem-solving strategy. The authors of the research point out that in the “situation of many problems” social workers often apply the method of existential psychotherapy, which was developed and used by Viktor Emil Frankl (1946), interviewing holocaust inhabitants and revealing that they could survive in extreme situations, as they could create something (with hands or intellectually), deeply believed in something and were attached to something – they has an emotional support and deep relationships with someone. The support provided to the young job searcher in this “situation of many problems” will be efficient if these needs are implemented.

The authors of the research on the needs in training and interests of youth in remote or underdeveloped regions (Sniķere et al, 2010) accentuate that conceptualizing the experience of foreign countries in work with youth, there are three main theoretical approaches – preventive approach, flexibility approach and positive development approach (Small & Memmo, 2004). The youth’s positive development approach is based on the following assumptions:

- assistance to youth in implementation of their opportunities is the best way to protect them from problems;
- in order to improve one’s personality youth need to feel support and discern opportunities;

- local municipalities need to increase the capacity aimed at support to youth in their efforts;
- youth should not be viewed as a problem to be solved, but as partners, which should be involved and whose acquirements should be developed.

The authors of the project “Youth in Labour Market: Analysis of the Situation and Factors Influencing Employment” (2007) referring to Thomas Loren Freedman (Freedman, 2005), point out that while evaluating and researching youth employment the International Labour Organisation along with ensuring equal opportunities, active labour market policy, creation of employment (workplaces), business, role of social partners, emphasize also such an important aspect as participation of young people. The authors of guidelines for youth participation base on the definition by the U.S. National Commission on Resources for Youth, that youth participation is “involving youth in responsible, challenging action that meets genuine needs, with opportunity for planning and/or decision-making affecting others, in an activity whose impact or consequences extends to others – outside or beyond the youth participants themselves” (Youth Participation Guide: Assessment, Planning and Implementation, 2008:25). Participation is „a way of being, an ethic of practice, which informs how individuals and groups respond to issues and problems” (Percy-Smith & Thomas, 2010:362). Tiina Sotkasiira, Lotta Haikkola and Liisa Horelli (Sotkasiira, Haikkola & Horelli, 2010) distinguish participation and active participation, and referring to previous studies arrive at conclusion that actually “participation does not automatically ensure youth the capacity to lead their lives”; as “youth participation seldom emerges on its own”, it needs intellectual and material resources and interaction of various social structures. Active participation influences transformation of youth living conditions and improvement of its civic skill. Moreover, since youth participation almost always embodies contradiction between control and freedom, “learning-based network approach to planning” offered by the authors is one of the ways to advance efficient youth participation. The structure of the approach is based on “a model of planning, specific tasks of development, and a collective monitoring and self-evaluation system”.

Dieter Schulz (Šulcs, 2005:6) supplements the view adding trust as a basic need of young people in relationships with their parents and other people as a basis of educational thinking and action, as it unites, supports and facilitates sustained development as a ground for building all the processes of development education and socialization. He emphasizes that among many forms of social interaction trust is the core bulwark. One of the three his basic conclusions is: “(..) the things what children and young people actually accept depend on the relationships between parents/educators and their children; teachers and their

pupils; masters and their apprentices (or on the relationships the mentioned people are able to build). Thus, it depends on the capacity to build relationships (..) and the capacity to create trustful relationships.” When speaking of the concept „trust”, the youth themselves speak of five dimensions: personal attitude, professional competence and assistance, respect, availability, frankness.

Karen Jones believes that trust may be defined as a feeling as well as a judgment and a disposition to act. Trusting somebody means that one has an attitude of optimism about the goodwill and the competence of the other person as it extends to the sphere of one’s interaction with them including an expectation that the other will be guided by the thought that we are counting on them (Jones, 1996:15).

An efficient strategy facilitating youth participation and helping them to adapt themselves to the educational system and labour market is mentoring. Mentoring is a relationship between a less experienced individual and a more experienced individual, who becomes an advisor or mentor; a supervision of a senior over a beginner in some field aimed at facilitation his or her professional, academic or personal development (Donaldson, Ensher, & Grant-Vallone, 2000), where mutual confidence and respect prevails, regular interaction of the involved parties takes place, the relationship based on cooperation, learning and support between the individual, who shares his/her knowledge, experience and wisdom, and the individual who is ready and willing to gain from this exchange and enrich own professionalism or personal development (Methodical Guidelines for Work with the Youth in a Target Group in the Project “KNOW and DO!”, 2015).

Participation is a category of integration (Weber, 2007), but categories of participation are co-determination, co-distribution and contribution (Arnstein, 1969, Klafki, 1990, Warren, 1993, Olk, 1994, Flusser, 1994, Petersen, 1999, Otto, Thiersch, 2001, Maslo, 2002; Kirby et al, 2003; Checkoway, 1998; Checkoway & Richards-Schuster, 2003), and it is crucial to ensure the youth opportunities to implement them. Leni Dam and Britta Hufeisen (Dam, Hufeisen, 1995:10) have elaborated an interaction model of the learning process components “objectives”, “pupil’s role”, “teacher’s role”, “action”, “materials”, “self-assessment”; the model is topical for facilitation of pupils’ participation. The set aims: to ensure pupils with the opportunities of co-distribution, contribution, co-determination, to advance dialogue opportunities between a teacher and pupil and pupil and pupil, to involve pupils in creation of learning process, to perform self-assessment, teachers to cooperate with pupils on the choice of work form, methods and content, whereas pupils to be co-deciding and co-responsible for the choice of work form, methods and content and own learning. Marie Harder, Gemma Burford and Elona Hoover view participation in 3 dimensions – depth, what concerns control over decision-making, breadth,

which includes the diversity of the people interested in participation, and scope, focused on the stages of the central decisions, analysing education at six levels:

- Denigration - indigenous knowledge (IK) which are explicitly denigrated in formal curricula;
- Neglect - IK not explicitly denigrated, but devalued by omission from mainstream curricula;
- Acknowledgement ('learning about') - IK described in formal curricula, usually by outsiders. Indigenous involvement in decision-making is quite limited or non-existent;
- Engagement ('learning from') - emphasizes the merits of IK, but it is still seen as inferior. Limited indigenous involvement in decision-making, for instance, by boundary spanners;
- Interculturality ('learning together') - Recognition of equal status and collaborative decision-making, but dichotomy is still present;
- Full partnership ('learning as one') - Problem-based, change-oriented learning dissolves 'us and them' mindset, creating new knowledge towards shared goals. Decision-making is fully collaborative (Harder, Burford & Hoover, 2013:45).

Participation is not only self-confidence, but also a tool of evaluation, self-evolution in the process of integration (Warren, 1993).

Methodological Framework

263 young people at the age of 15 – 29 took part in the research. Profile of the respondents:

- gender (111 men and 152 women);
- place of residence (165 respondents live in city, 98 – in rural areas);
- education (54 respondents have higher education, 89 – secondary education, 69 – professional education, 51 – elementary education);
- employment (64 employees, 23 entrepreneurs, 11 self-employed persons, 68 unemployed persons, 84 pupils/students, 13 NEETs);
- knowledge of foreign languages (152 respondents know 1 foreign language, 92 respondents know 2 foreign languages and 19 respondents know 3 or more foreign languages);
- experience of informal and non-formal education (186 respondents who have experience of informal and non-formal education and 77 respondents who do not have any such experience).

Questionnaire contained closed questions about comprehension of integration as valuable issue, co-determination, contribution, co-distribution as categories of participation, as well as about events which facilitate participation

in integration education and labour market, using Likert scale for their assessment, and opened questions about positive experience in education or labour market, the received support and opportunities of the usage of forms and methods which facilitate participation. The obtained primary data were encoded according to the code system elaborated in theoretical guidelines, thus creating codes, profile codes and content (conceptual) codes – multiple and metacodes – of the respondents. In the beginning of the research there were used several data statistical analysis methods, such as Cronbach's Alpha coefficient for questionnaire indicator's (questions) credibility and concordance check, establishing a sufficiently high concordance (Cronbach's Alpha coefficient values are in the range from 0,861 until 0,909), and Kolmogorov-Smirnov's test to establish the distribution of results, influencing the need in choice of non-parametric data processing methods (the distribution did not match the normal ($p=0.001$)). With the help of approach of compound methods, primary quantitative data of the research were processed in the environment of program SPSS which in intended for processing of quantitative data, using Chi-Square test, Mann-Whitney U-test, Kruskal-Walis H-test, Kendall's tau-b correlation analysis and cluster analysis. Conversely, qualitative data were processed in environment of program AQUAD which in intended for processing of qualitative data, creating tables of frequencies for determination of code frequency, linkages and implicants, thus ensuring triangulation.

Findings and Discussion

The results of Kendell's (*Kendall's tau-b*) correlation prove that there is a positive correlation between socio-pedagogical means and participation – such socio-pedagogical means as trust, empathy, recognition, respect, encouragement, cooperation and mentoring are facilitated co-determination, co-distribution and contribution (see Table 1). There is a very high positive correlation between co-determination and recognition, empathy; contribution and encouragement, cooperation; co-distribution and trust, respect; all the categories of participation and mentoring.

As well, the results of Kendell's (*Kendall's tau-b*) correlation analysis show that there is a high positive correlation between understanding integration as a value related to opportunities (opportunate) and participation (see Table 2). There is a very high positive correlation between understanding integration as an opportunate value and trust, cooperation as well as mentoring. Trust and cooperation facilitate understanding of integration as opportunate value, encouragement and empathy facilitate understanding of integration as instrumental value, but recognition and respect facilitate understanding of

integration as a terminal value. Mentoring facilitates understanding of integration as opportunate and instrumental value.

Table 1 Correlations between participation categories and means of socio-pedagogical support

Categories of participation	Means of socio-pedagogical support						
	Recogni-tion	Trust	Encourage-ment	Respect	Empathy	Coopera-tion	Mentoring
Co-determination	r=0.93 p=0.000	r=0.71 p=0.000	r=0.69 p=0.000	r=0.53 p=0.000	r=0.90 p=0.000	r=0.70 p=0.000	r=0.91 p=0.000
Co-distribution	r=0.49 p=0.000	r=0.90 p=0.000	r=0.51 p=0.000	r=0.90 p=0.000	r=0.88 p=0.000	r=0.79 p=0.000	r=0.90 p=0.000
Contribution	r=0.82 p=0.000	r=0.80 p=0.000	r=0.91 p=0.000	r=0.77 p=0.000	r=0.79 p=0.000	r=0.91 p=0.000	r=0.90 p=0.000

During cluster analysis in the environment of program SPSS, which in intended for processing of quantitative data, 3 groups of respondents were identified:

- young people who evaluate their participation as low or very low, comprehend integration as terminal value and more often have received such socio-pedagogical support as recognition and respect;
- young people who evaluate their participation as average, comprehend integration as instrumental value and more often have received such socio-pedagogical support as encouragement, empathy and mentoring;
- young people who evaluate their participation as high or very high, comprehend integration as opportunate value and more often have received such socio-pedagogical support as trust, cooperation and mentoring.

In the environment of program AQUAD, which in intended for processing of qualitative data, participation implicant was established. It is influenced by comprehension of integration as opportunate value and such socio-pedagogical means as trust, cooperation and mentoring. In this way, the results of qualitative research approved the results of quantitative research.

The stories of youth success prove that manifestations of the terminal value is a quite passive and waiting position, expectation of positive attitude, also fatality and partial dependence on others; integration as an instrumental value expresses itself as independence and self-confidence and confidence about one's power, acquiring new skills and competences, self-actualizing and improving own life quality, but integration as an opporunate value is related to opportunities to acquire new and multiform experience, undertake and overcome

challenges, it is associated to activity, initiative, venture, the emphasis is put on the establishing and maintaining relationships.

Table 2 Correlations between participation categories and means of socio-pedagogical support

Understanding of integration	Means of socio-pedagogical support						
	Recognition	Trust	Encouragement	Respect	Empathy	Cooperation	Mentoring
Integration as a terminal value	r=0.90 p=0.000	r=0.49 p=0.000	r=0.60 p=0.000	r=0.90 p=0.000	r=0.55 p=0.000	r=0.73 p=0.000	r=0.49 p=0.000
Integration as an instrumental value	r=0.51 p=0.000	r=0.52 p=0.000	r=0.91 p=0.000	r=0.60 p=0.000	r=0.90 p=0.000	r=0.52 p=0.000	r=0.90 p=0.000
Integration as a value related to opportunities (opportunate)	r=0.80 p=0.000	r=0.91 p=0.000	r=0.59 p=0.000	r=0.70 p=0.000	r=0.59 p=0.000	r=0.91 p=0.000	r=0.90 p=0.000

Mostly youth participation appears as contribution (69.93%), involving in various events; in comparison more rarely they involve in co-distribution (25.72%) and co-determination (21.54%) influencing some processes. The most frequently family was the one who has supported the integration of youth in labour market the most frequently, the least – career consultants and youth work organizers. However, the most frequently teachers/lecturers and family have facilitated the integration of youth in educational system, the least - career consultants and social pedagogues. The involvement of family in facilitation of youth participation should be appreciated; approving also the input of career consultants and social pedagogues, the results perhaps may be explained by the limited human resources in the institutions and their availability to the target audience – youth. Analysing the positive experience in luck-stories, the youth in cooperation with the representative of institutions have emphasized the forms, methods and strategies of work, for instance, identification and profiling, elaboration and implementation of individual action plan, way map for a youth, consultations, whereas in cooperation with family members and friends attitude is the one that dominates. It proves by such mentioned socio-pedagogical means as encouragement, trust and empathy. Mentoring is successful if a mentor undertakes such roles as a friend and advisor.

Youth participation faces influence of various factors, such as education, employment, knowledge of foreign languages, level of income as well as the experience of non-formal and informal education. The results of Kruskal-Walis

H-test indicate that statistically significant difference exists which depends on education, employment, knowledge of foreign languages, level of income, as well as experience of non-formal and informal education in comprehension of integration as valuable issue, efficient participation and identification of socio-pedagogical means in success stories of the respondents: entrepreneurs and young people with higher education, knowledge of three or more foreign languages, high income, as well as various experience of non-formal and informal education, have emphasized integration as potential value, participation and socio-pedagogical support more often in comparison with unemployed persons, NEETs, young people with elementary education, low income, knowledge of one foreign language and limited experience of non-formal and informal education (see Table 3).

Table 3 **Significant differences of participation**

Factors	Chi-Square test results	Mann-Whitney U-test / Kruskal-Wallis H-test results	The highest value	The lowest value
Education	$\chi^2(2)=17.530$; p=0.000	p=0.000	young people with higher education (<i>Mean Rank</i> =92.00)	young people with elementary education (<i>Mean Rank</i> =113.50)
Employment	$\chi^2(2)=15.223$; p=0.000	p=0.000	entrepreneurs (<i>Mean Rank</i> =111.15)	unemployed, NEETs (<i>Mean Rank</i> =147.00)
The experience of non-formal and informal education	$\chi^2(2)=13.820$; p=0.000	p=0.000	young people with various experience of non-formal and informal education (<i>Mean Rank</i> =134.50)	young people with limited experience of non-formal and informal education (<i>Mean Rank</i> =172.50)
Level of income	$\chi^2(2)=17.490$; p=0.000	p=0.000	young people with high income (<i>Mean Rank</i> =145.00)	young people with low income (<i>Mean Rank</i> =169.50)
Languages	$\chi^2(2)=19.778$; p=0.000	p=0.000	young people with knowledge of three or more foreign languages (<i>Mean Rank</i> =123.00)	young people with knowledge of one foreign language (<i>Mean Rank</i> =155.50)

Income influences availability of education to a large extent, thus causing separation of young people as a large part of the society.

Conclusions

1. Integration as values orientation is a system of convictions, viewpoints and priorities developed by a youth her/himself. The system is based on her/his chosen attitude towards values and it appears in one's point of view and actions within the process of integration as a terminal value (view of integration as restriction), instrumental (as a mean of reaching other objectives), but perhaps as a system of opportunities, advantages for self-fulfilment in educational system and labour market (opportune value).
2. Integration is a multidimensional process of communication: from the outlook of an individual it is identification of values, from micro-prospect – participation, from mezzo and macro prospect – affiliation.
3. Recognition and empathy mostly facilitate co-determination; encouragement and cooperation – contribution, trust and respect - co-distribution; but mentoring facilitates all the categories of participation.
4. Youth participation in the process of integration in educational system and labour market as understanding a value – it is facilitated by understanding integration as value related to opportunities. Perceiving integration as new opportunities youth discern self-fulfilment opportunities while contributing, co-distributing and co-determining.
5. The youth who understand integration as a value related to opportunities and receive socio-pedagogical support in facilitation of their participation, integrate in educational system and labour market more successfully.
6. Profile of the respondents influences comprehension of integration as valuable issue, participation and socio-pedagogical support. Education, employment and knowledge of foreign languages, level of income as well as experience of non-formal and informal education is the most significant factors which influence participation of young people in integration education system and labour market.
7. Facilitation of participation of young people in integration education system and labour market depends on holistic approach and usage of collaboration socio-pedagogical means of social and strategic partners, forms of work, methods and strategies.

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BINATIONAL MARRIAGES AND MULTICULTURAL EDUCATIONAL ENVIRONMENT

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Abstract. *Today, in the era of post-modernity, the ethnically, racially, religiously, culturally or nationally mixed marriages are more and more frequent phenomenon, contributing to the emergence of new types of cultural identity. Nationally mixed marriages (binational) define a new cultural quality when they do not concern only individuals, but when they become a phenomenon which is statistically frequent, and even dominant in a broader social context. The aim of the current project is an academic description of binational marriages which have been concluded by spouses from different nationalities, and thus characterized by different culture, tradition, mother tongue, and often religion and race, one of them being the representative of Polish culture.*

Keywords: *binationalism, educational environment, foreigners, integration marriage, multiculturalism, multilingualism, multireligious.*

Introduction

In the era of globalization, meeting people from different cultural circles on one's way of life has become a common phenomenon. Additionally, after joining the European Union, Poland has become a 'matrimonially' attractive country for non-EU citizens who may acquire Polish citizenship through marriage. The processes of entering into intercultural relations in the territory of Poland will intensify. We could say that in Polish society a significant social change is taking place, a change 'from homogeneity to heterogeneity, from unity to diversity.'

According to Tadeusz Paleczny, 'one of the elements of Americanization, universalization of the identity of the members of monocentric groups, such as Korean, Japanese or Mexican ones, is the phenomenon of amalgamation. The Europeanization of Poles and Germans will also be fully realized only when there is a new, dominant type of double or polyvalent, multiple identity beyond the ethnic and national boundaries, formed through culturally mixed marriages'(Paleczny, 2007).

The aim of the research is an academic description of binational marriages which have been concluded by spouses from different nationalities, and thus characterized by different culture, tradition, mother tongue, and often religion and race, one of them being the representative of Polish culture.

The following research problems will be analysed: decision-making processes, fields of eligibility, plans for the future, problems occurring within the binational marriages, ways of dealing with differences or difficulties resulting from binational relationships, the quality and durability of marriages, the quality of relationships in a marriage.

The accepted hypothesis assumes that in binational marriages problems often arise due to cultural diversity of the spouses, which makes the durability and quality of binational marriages lower than mononational marriages.

While conducting a study on binational marriages, the researcher is confronted with difficult tasks. A multitude of research problems and a wide range of issues make the researcher relate to a number of academic fields.

The research methods which were used are: diagnostic survey and individual case study. Diagnostic survey method was chosen as a basic method in the research, under which it was decided to use the techniques of observation, questionnaire, interview and statistical techniques. These techniques were defined more clearly and expressed by means of research tools such as: a questionnaire and an interview constructed independently by the author. The Scale of Quality and Durability of Marriage by M. Ryś; Matching Marriage Questionnaire selected by M. Plopa, J. Rostowski.

Mixed marriages

Nowadays, mostly due to the Internet and increasingly easier communication between various countries, we are observing the so-called 'shrinking' of the world, and consequently an increase in the number of people who fall in love with people from distant countries and get involved with them on a permanent basis. Accordingly, couples of mixed nationality (binational couples) are increasingly becoming a subject of scientific research.

The term 'binational marriage' means a registered relationship entered into by the citizens of two different countries. Marriages between foreigners are a kind of an indicator of openness of a society to contacts with other countries, indirectly also indicating the scale of long-term emigration or immigration, which may lead to the possibility of a permanent, intimate bond between citizens of the two states (Szukalski, 2013).

When people from different nations join together to make a couple, very important phenomena and processes occur, whose significance goes beyond the fate of the members of the couple. As a result of the amalgamation, that is a merger of cultural groups following a marriage and the creation of hybrid forms of kinship, a new cultural order emerges.

One of the very basic issues of family social sciences is the question of how do the partners experience love (Collet, 2012). In our deliberations we are also interested in motives of a binational marriage.

Beate Collet lists a number of reasons, which are not exhaustive or exclusive of course: Feeling alone, need for help or assistance and/or founding a family. For people living in a foreign country the motives might be more complex than the ones mentioned before. Due to their legally or politically precarious position, they might be searching for a job and social integration, they might not speak the local language, might feel different, discriminated against and/or even persecuted. She further states that from the perspective of a local an intimate relationship with a foreigner, hence a member of a minority group, is in some aspects “special”. To love the person might be mistaken for caring for the person. The “Romeo and Juliet complex” might also play an important role, because “love is more intense” when your partner is discriminated against or when the relationship is on unstable ground because it is legally difficult and socially rejected (Collet, 2012).

Initially, research into ethnically mixed marriages was conducted mainly in the United States and other classic countries of immigration. However, in 2006, two Dutch professors, Matthijs Kalmijn and Frank van Tubergen, published the findings of their research on ethnic marriages among the citizens of Suriname and the Netherlands Antilles¹, Turks and Moroccans in the Netherlands. For the authors, it was important to examine from the theoretical and empirical perspective whether the patterns observed earlier in the countries of traditional immigrants would be equally applied in the Dutch social context. In order to obtain a sufficiently large research sample, five representative national groups were selected, among which research was conducted between 1988 and 2002 (Kalmijn, van Tubergen, 2006).

Kalmijn and Tubergen distinguished three major sociological factors affecting the decision to enter into a mixed marriage: individual preferences concerning the features that a candidate for a spouse should possess, the number of opportunities to meet and the influence of third parties.

Sofia Gaspar argues that a binational marriage between two EU-partners is a different phenomenon than a binational marriage between an EU-partner with a non-EU spouse altogether. In an attempt to understand European intermarriages as a social phenomenon in its own right, she undertook a qualitative survey of 30 in-depth interviews with couples in Lisbon. She lists several advantages for couples with European nationality, such as the right of

¹ The Netherlands Antilles was the Dutch autonomous territory in the Lesser Antilles (Central America) covering the 5 islands in the Caribbean Sea: Curacao, Bonaire, Saba, St. Eustatius and the southern part of St Maarten, existing in the years 1848-2010.

abode, geographical mobility, civil rights, legally guaranteed freedom from discrimination and easier access to employment in comparison to other immigrant groups. She further states that as an EU citizen, marrying someone from another EU country would not require the legal and security procedures that apply for non-EU spouses when pursuing to obtain citizenship and then having the freedom of movement within the EU. Without a detailed explanation she draws the conclusion that “European intra-marriage rather involves personal motives such as love and affection than legal and economic factors that might be hidden in other types of transnational unions” (Gaspar, 2010).

A weak point in Gaspar’s study, which she admits at the end of her study, is the fact that she interviewed highly educated people only. Since any level of educational degree can be found amongst the population of binational marriages, the shortcoming of the foreign towards the native spouse should have been addressed in more detail, as this would probably highlight other yet hidden aspects (Gaspar, 2010). Interestingly Gaspar’s distinction between non-EU spouses and EU spouses seems to fit the Polish conception as well. The “bilateral negotiations” are the source for this harmonisation with inner European movement possibilities. It remains to be seen if “mass-immigration initiative” and its aftermath will have a negative impact on the relatively facile immigration procedures for EU-spouses.

International migrations and nationally mixed marriages in Poland

In the post-war history of Poland, a permanent settlement in our country of a person of a different nationality was mainly a consequence of marriage to a Polish citizen and the decision to live in the country of origin of one's spouse (Kępińska, 2001). Between 1945 and 1989 in Poland there were few mixed marriages, which was connected with the then political situation. Marriages by Polish citizens were concluded mainly with foreigners who undertook studies in Poland on the basis of international agreements.

After 1989, the scale of permanent immigration to Poland began to grow rapidly, the foreigners' motives to settle in Poland changed, too, as well as the countries of immigrants' origin. However, intermarriage was still an important reason for remaining in Poland for good. Two basic trends may be singled out that have shaped the phenomenon of mixed marriages in Poland in the 1990s. Although the total number of marriages between foreigners and Polish citizens in Poland between 1989 and 1997 was relatively stable (average of 3.2 thousand per year), their structure by country of origin and gender of the foreigner underwent remarkable changes. First of all, the percentage of Polish citizens married to the citizens of European countries (excluding the former USSR)

decreased in this period, while the percentage of Poles married to the citizens of the USSR and the countries of the former Soviet Union – increased.

After joining the European Union, Poland has become a ‘matrimonially’ attractive country for non-EU citizens who through marriage may acquire Polish citizenship.

Both phenomena: international migrations and nationally mixed marriages are dynamic processes, whose existence, development and change is affected by various groups of factors. Both phenomena are associated with making decisions which are binding for the life of an individual and both of them take into account the rationality of the individual, but they also point to a driving force of boundary conditions. Both phenomena also show the interdependence between individual characteristics and boundary conditions, which are being shaped while influencing each other. Finally, both phenomena situate the decisions taken by an individual in terms of maximizing benefits and minimizing costs. Regardless of whether the goal is marriage or migration, we can talk about the choice of a life strategy, whose primary aim is to achieve the greatest benefits that outweigh potential losses.

The number of bicultural marriages in a given society can be treated as a determinant of the degree of assimilation of minorities: the more mixed marriages, the greater the integration of minorities with the national and cultural majority.

Binational marriages among Polish scholars

Mixed marriage is a relatively new research topic among Polish scholars. Until now, the study of binational marriages has been taken up by:

- E. Kepińska who, in 2001, published the results of her research (based on 10 in-depth interviews) into the mechanisms of settlement migration, exemplified by Polish – Ukrainian marriages;
- M. Walczak who, in 2001, published her research into the psychological prospects for the durability of bicultural married couples living in Poland;
- M. Jodłowska-Herudzińska, who, also in 2001, published the findings of her study on partnerships in cross-cultural mixed marriages. Her analysis was based on 30 free and in-depth interviews, including eight case studies of Polish-Asian and Polish-African married couples residing in Poland. In 2002 she published the results of a study on marital selection in cross-cultural mixed marriages;
- M. Małek, who, in 2009, published a study on the structure of mono cultural marriages (Polish) and mixed.

According to Małgorzata Jodłowska-Herudzińska (2000), in mixed marriages a specific situation is created – the ‘meeting’, the binding of culturally distant partners who decide to enter into a marriage and thus to cohabit, to cooperate for the good of the family, which means mainly children upbringing and mutual help (Jodłowska, 2000). Cultural differences between spouses seem to be a significant independent variable determining the patterns of spouse selection, and the ‘effect’ of this choice may be a variable modifying the scope of danger that mixed marriages face because of their very nature (as far as the relationship between the final result of the selection and the quality and durability of a marriage are concerned).

Generally, it is believed that the degree of similarity between the spouses, in particular similarity of cultural characteristics, determines the success in marriage and marital satisfaction (Walczak, 2001). Heterogamy, primarily concerning such features as differences in nationality, religion or race constitutes a very heavy burden on marital and family life. What is more, it often does not meet with social approval, which almost always is given to endogamy. Usually, spouses belong to the same nation, live in the same place, have a similar level of education, are often part of the same professional category and have similar social origins (Jodłowska-Herudzińska, 2002).

Multicultural environment

Marrying a person from a different culture provides the ability to overcome personal stereotypes. Multicultural marriages (and the experience of interacting with people from different cultures) make both partners aware of the prejudices they have, while most people do not realize that they possess them (Alupoacei, 2009). However, the fact is that mixed marriages are difficult, as discord and problems with acceptance may arise even before the marriage is concluded and may cause great tensions during it, leading not only to disorganization of the marriage, but also to its disintegration (Jodłowska-Herudzińska, 2002). On the other hand, through its homogeneity, endogamy does not free a marriage of the incompatibility of views. Thus, we could say that culturally mixed marriages are a more difficult but also a more interesting option.

The degree of cultural difference determines the number of problems which occur between partners. National, religious, linguistic and cultural differences can affect both positively and negatively a partnership or marriage. The result is conditioned, among others, by the degree of the similarity of a partner, the degree of language barrier, the acceptance of a different culture and religion of the partner and his or her distinct views.

As with any inter-cultural contact, in mixed couples there must come to a kind of a compromise – the partners learn about each other's culture and together they create a mixture that enables them a harmonious coexistence. Under the influence of cultural compromise, which takes place in mixed relationships, partners, adapting to each other, may change their habits, customs, ways of behaviour, opinions, values.

The following factors may lead to problems in mixed relationships: differences of national cultures, the assumption of similarity of interlocutors, language differences, incorrect interpretation of non-verbal signals, stereotypes and prejudices, different system of values, fears and tension, uncertainty and stress, ethnocentrism and conviction of the 'superiority' of one's own culture, a culture shock, religious diversity or even cultural models to satisfy hunger.

A foreigner is often subject to prejudice and stereotypes. Römling (2013) identifies several external stress factors for binational relationships related to stereotypes and prejudice behaviour of the local population. Racism and sexism in regard to skin colour, distinct facial features and other racial associated properties constitute only the first points in her analysis. She reports also discrimination during the job search as well as at the working place of the foreign spouse. The previously described questionable interfering authoritarian power of the state is also among her key points (accusation of sham marriage). In the same category falls the unsecure legal situation of the foreign spouse. Furthermore she describes the difficult situation a foreign spouse faces in their partners friend circle and especially in his/her family surroundings. The couple is urged to prove their relationship and the durability of their marriage (Römling 2013).

Own research

The research were conducted among binational married couples living on the entire territory of Poland. The research was conducted on a sample of 40 people (10 binational married couples and 10 Polish married couples). The research shows that binational married couples do not differ in their assessments of happiness, quality and durability of their relationship as compared to Polish ones. A comparison of men and women revealed that in this type of relationship it is the wives, more often than husbands, who feel burdened by a factor of biculturalism, which makes them perceive their marriages as less integrated, less satisfactory and having a poorer communication between spouses.

It also follows from the research that for the respondents of both Polish and foreign origin, the idea of partnership in marriage is possible, despite differences in terms of its definition, which may have the source even in the gender of the respondents – spouses of foreign origin are predominantly male.

The analysed marriages were heterogeneous in terms of such characteristics as nationality, race and religion, which is a heavy encumbrance and foreshadows the difficulties that the candidates may face both during courtship, as well as during their marriage. Relationships of the type described here were much more often concluded by Polish women than by Polish men. Homogamy in these marriages in most cases related to education, social background, environmental origin, previous marital status. An unfavorable factor present in a considerable number of these marriages was a short period of having known each other before marriage.

However, there were more factors that may have a very positive impact on the the functioning of individual families, namely, in the great majority of cases: adulthood of the newlyweds, a high degree of skills enabling the spouses to cope with the language barrier, positive reactions of parents to their child's decision about marriage with a foreigner, a small age difference between spouses and positive type of motivation for entering into marriage.

Summary

Based on the own research, the following conclusions were assumed:

- Decision-making processes of people entering into bi-national marriages are different from the decision-making processes of people entering into mono-national marriages;
- In terms of socio-demographic characteristics, bi-national marriages are mostly homogeneous marriages
- One group of the spouses have common plans for the future, while the other part of the spouses have different plans for the future;
- In binational marriages problems often arise due to cultural diversity of the spouses;
- Adaptation strategies aimed at dealing with cultural differences the most commonly used by spouses, is a strategy of compromise and a coexistence strategy;
- National origin will be a factor highly unfavourable for the implementation of the partnership model of marriage.

Binational couples have to overcome a number of social, cultural and financial obstacles. There is a need to form organizations that are assisting such couples by:

- personal counseling;
- advice and support for further problems such as bringing up children or a falling out between partners, etc.;
- information and education pertinent to the legal/formal aspects of a marriage, rights and duties of the partners according to the laws of their respective countries of origin, pointing to possible discrepancies concerning the partners' culture, religion, language or upbringing;
- helping a couple-to-be prior to marriage, or before starting life as an unmarried couple, to make this important decision in full awareness of the situation the couple may find itself in, and to help them openly discuss all aspects that may

- lead to serious misunderstandings;
- diagnosis of problems arising between partners having their possible origin in different cultural backgrounds with the possibility of passing on those concerned to organisations specialised in family mediation, family counseling, family therapy, etc.;
- in cases of separation or divorce, providing information on pertinent foreign legal aspects with a special eye on guaranteeing the well-being and rights of the couple's children;
- networking/cooperation with additional counseling units/call centers for binational and non-Polish couples living in Poland;
- legal representation of non-Polish nationals (law on foreigners);
- setting up and maintaining a website in conjunction with additional organisations active in the field.

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SOCIAL MOBILITY OF FAMILIES AT RISK

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Abstract. *Social mobility is shifting from one social status to another, commonly to a status that is either higher or lower. Disadvantaged family affects all social risk: poverty, unemployment, and addictions, violence, crime environment. The authors try to review the situation of families at risk in the community; to investigate the changes of social mobility of the families at risk. The aim of research in presented article is – to reveal the social mobility and the changes of the social status of families at risk in X community. Performing the research, the literature analysis and instantly qualitative study were done. Several qualitative research methods: observation, genogram, family social network, and family functioning assessment questionnaire were selected.*

Keywords: *families at risk, social exclusion, social mobility.*

Introduction

After the change of socio-economic conditions in Lithuania, certain groups of people feel unsecured, as it is difficult for them to adapt to the pace of modern life and social economic changes. An increasing number of various social society groups become partially or completely socially excluded. As the result of this, some people feel like they aren't a part or, in fact, they aren't the part of society in which they live. To describe this, the concept "social exclusion" is used to describe this phenomena and it is an integral part of a particular public imagination what does it mean to be a full-fledged member of society.

In European Union countries, the most common prevalent perception that social segregation is the process by which individuals are pushed to the edge of society. Then poverty, lack of basic skills, lifelong learning opportunities and discrimination limits their full participation in the society life and the labour market. These families don't support their children, including access to financial, social and cultural capital. Such families are attributed to the families at social risk. Social risk families interfere now with such sociodemographic risks as poverty, unemployment, alcoholism, families with many children, child neglect, divorce, etc. Without a doubt, these families' social mobility is impaired, too. Psychologists, lawyers, sociologists, politicians are looking for

solution of social mobility problems of families at social risk. Different institutions as Children's Rights Protection Service (CRPS), school social pedagogues, police commissariats, juvenile affairs services, municipal social assistance departments, organizers of social work in communities functionate to solve such problems.

As argued Beller (2009), to understand social mobility of families at risk researchers must bridge a longstanding gap between theory and practice that increasingly distorts social mobility. A gap exists because, in theory, class background (i.e., childhood class position) is a family-level variable, but the conventional research practice equates class background solely with a father's class position. This assumes that mothers' economic participation is not common or important to class background and that father-headed families are the norm. Breen & Karlson (2014) proposed research methods to investigate changes of social status in relation to the education. They applied these methods to examine whether education has come to play an increasing role in intergenerational social class mobility.

However, these families' changes of social status must be analysed in a complex. Also, the current situation raises issue of need the effective assessment instrument of the changes in these families.

The article' aim is – to reveal the social mobility and the changes of the social status of families at risk in X community.

Theoretical Framework

In Lithuania family at social risk is defined as: a family raising children under the age of 18 and in which at least one of the parents abuse alcohol, narcotic, psychotropic or toxic substances, addicted to gambling, due to lack of social skills is unable or can't properly take care of the children, use to them psychological, physical or sexual violence, use received state's support to other than family needs and there is a risk of children's physical, mental, spiritual, moral development and security. Social risk families include the family, which child is in temporary custody (care) according to the law (LR Socialinių paslaugų įstatymas, 2006).

Families at social risk are different, because there are a lot of social risks factors, which might cause undesirable effects for human health, social environmental, activities. Risk factors that lead to the appearance of the social families at risk could be conditionally classified into two big groups:

- the peculiarities of the family structure such as incomplete or poorly equipped families, families with disabled or persons with chronic diseases, which need of permanent care; families with a member/members are in custody or have just returned from them and

- are in the process of social adaptation and persons in belonging to any social risk;
- the distorted format of family members interactions as absence of general public life and domestic interests, objectives, uncertainty and mutual distrust, the lack of mutual understanding and support, rude and brutal relationship with their relatives (Leliūgienė & Sadauskas, 2011).

According to research of Lithuanian municipalities in rural areas, there are distinguished the main problems of families at social risk are the increasing number of families at social risk, relationships between alcoholism and unemployment, crime and involvement in the smuggling of illegal goods across the state border of children growing in families at social risk (Širvinskienė, 2013).

Mostly families at social risk do not take care about families' social mobility and public opinion about them due their incorrect behaviour. They have the only problem in their life - money, which usually spend on drugs, smoking. Social problems affected people become indifferent to the positive socio-cultural environment, choose limited people society with the similar problems and inadequate lifestyle due their frustration. Impoverished families often are not able to take care on themselves. Often the society tends to react at such families rather conservatively and stereotypically. Children from risk families (especially asocial) often are called "sluggards", "worthless" and "of second sort". Therefore, the problem of child is even more deepened and the perspective of his psychosocial development becomes complicated (Mikutavičienė, 2009). To help in solution of this problem the social pedagogue can help. Social pedagogues have to create the conditions in the education institutions to form child's personality purposefully, basing upon humanistic foundations and to amortize the influence of family environment (negative). If the problematic of the child, who suffers isolation is recognized and solved on time, we can significantly "to soften" the educational and social consequences of such situation (Mikutavičienė, 2009).

However, taking into account the increasing number of people who are not able to resist to the process of social exclusion, remains the possibility of the formation of group with permanent or long lasting exclusion form the society (Širvinskienė, 2013). The concept of social mobility becomes more important. The social mobility – measures the degree to which people's social status changes between generations. It is seen by many as a measure of the equality of life opportunities, reflecting the extent to which parents influence the success of their children in later life or, on the flipside, the extent to which individuals can make it by virtue of their own talents, motivation and luck (Blanden, et al., 2005). With regard to the social exclusion, formation assumptions of families at

social risk, vertical social mobility becomes relevant when transition from one social group to another affects and influences the individual's wealth and status in society. Social mobility provides opportunities to move from poverty to materially better lifestyle, from unskilled to higher-skilled work, from the lower social status to a higher status in the social group. Children born in families at risk are now less likely to break free of their background and fulfil their potential (Blanden, et al., 2005). In other words, social mobility is an indicator which shows the level of position's improvement in society.

Empirical Research Material and Methods

Performing the research, the literature analysis and instantly qualitative study in order to investigate the social status changes of families at risk in X community were done.

The experience of family life and interaction with other families and social institutes in family' qualitative study is analysed (Juozeliūnienė & Kanapienienė, 2012). Gilgun (1992), named family qualitative research as a research in which the experience of family life and family interaction with other families and social institutes is analysed as well. According by Gilgun (1992), several qualitative research methods: observation, genogram, family social network, adapted for research family functioning assessment scale (Global Assessment of functional, Scale) and family functioning assessment questionnaire by Jakubovska (2012) were selected.

Genogram method. Genogram was used in order to summarize the data about the evolution of the family. A questionnaire of family genogram was made.

Family social network method. Family relations network (family eco-map) method was used to find out family members relationships with the community and those relationships influence meeting such needs in the family. The method also helped to identify the persons or institutions that can provide assistance to the family. By preparing the family social network and establishing their social relationships respondents were asked to answer the questionnaire.

Assessment of family functioning. According to the assessment of family functioning scale (Global Assessment of Functional Scale), families were assessed by observing if the changes of functioning were going. In May, August and November 2015, family functioning was also assessed under the questionnaire by Jakubovska (2012). It was assessed these functioning areas of the family at social risk: addictions, the family relationships and health, housing, motivation and material resources.

The research environment and respondents. The respondents were from 8 families at risk of X community (the study was conducted on February - May

of 2013 and on May - November of 2015). In accordance with the ethics and the confidentiality of information, all of the investigated families were coded. The letters and numbers were selected by coding, for example: A1B2 - the first capital letter refers to father's family, the number - which child is in the family, the second capital letter - the mother's family, the number - which child is in the family.

Survey Results

The main finding of research showed that 56 per cent of the social status of surveyed families had changed to a lower status. In many cases, respondents communicated only with Municipality Social Support Centre due to benefits granted to them. They don't participate in the events in Culture centre, library and church. Ties between the community and these families are weak. Mostly, these families tended to communicate only with similar status families and the communication with the community is described as an ineffective in the most cases. Majority of the respondents would like to have a better material life; they emphasized that they would work if the work is to be closer to home or at least within community' boundary; they mainly expected more help from the state, relatives, community members and they wouldn't take responsibility for their better own and children's life. Exactly, work, gaining of qualification, communication with other members in the community accelerates social change, but this is important only to a few investigated families. Help of social pedagogue and social worker is usually forced for families at risk.

The structure of investigated families is similar - the majority of respondents originated from large families. Themselves families have three or more children, the relations with the children are confused (see Fig. 1).

After analysing the families case files, authors of article found out that education of all surveyed families was higher than their parents, but the social status - lower. Families have professional skills to work agricultural works but they are not applied, live in poverty and their main income is child and social benefits. Mothers of investigated families often replicate their parents' social position.

Functioning of families at social risk were assessed four months in 2013 and four months in 2015 under the GAF scale (from 1 to 100 points). The assessment averages presented in the Figure 2.

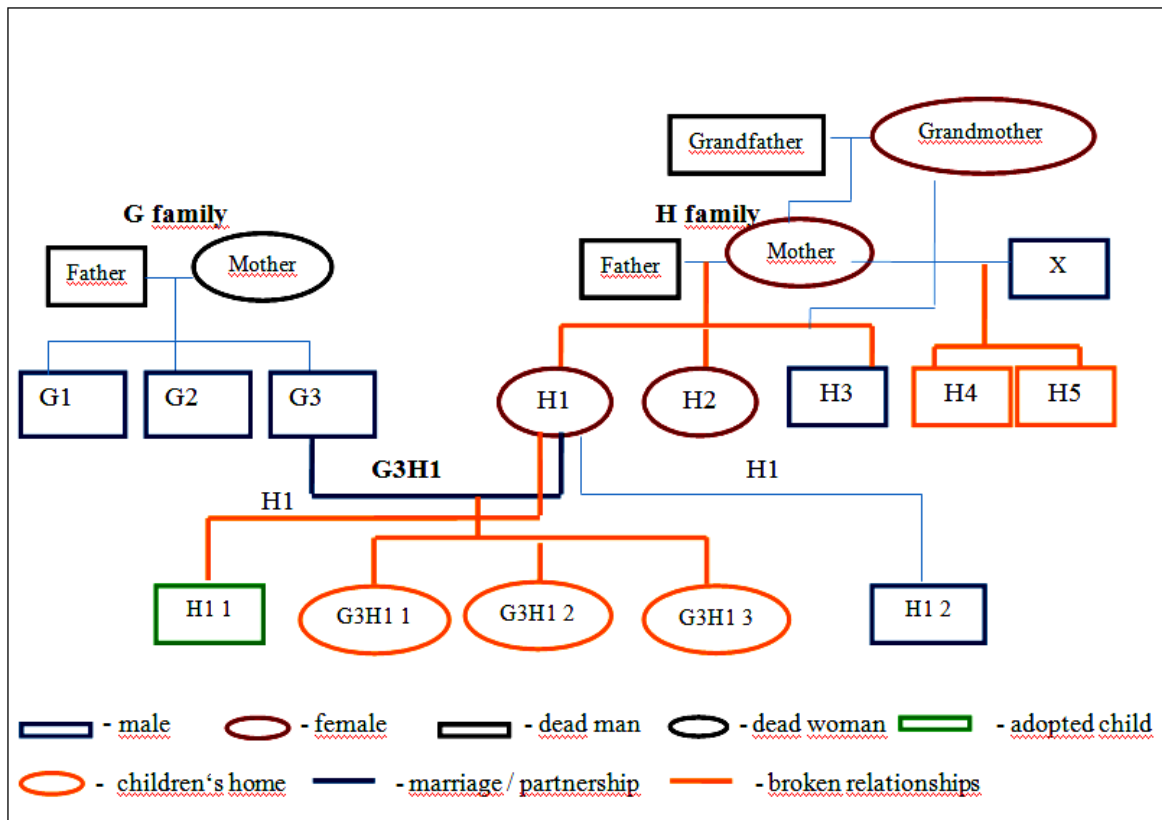


Figure 1 Genogram of G3H1 family

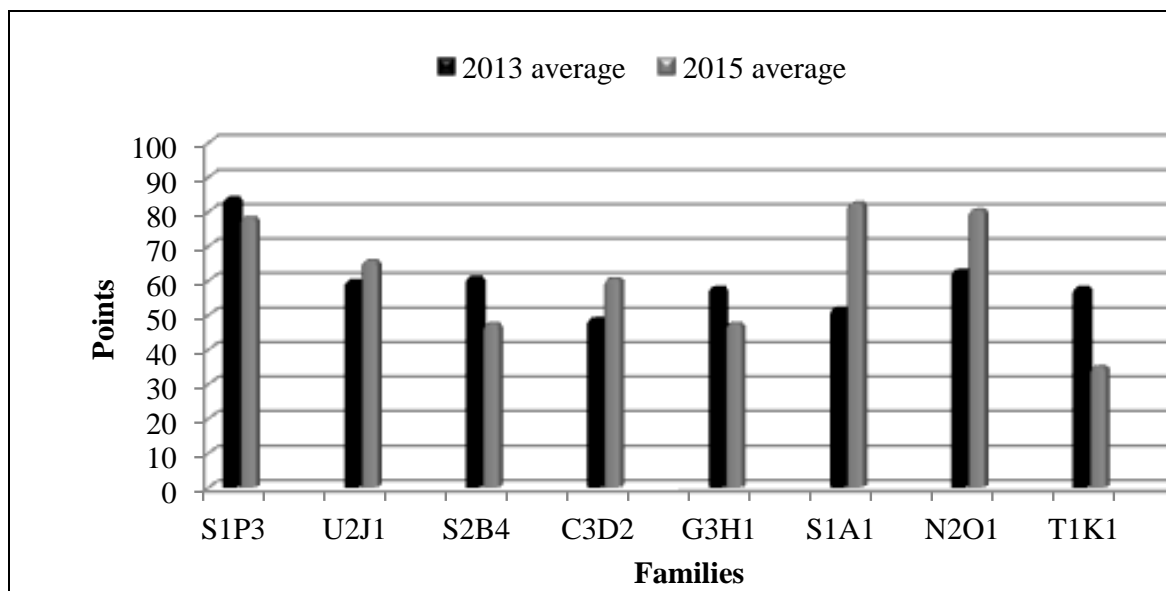


Figure 2 Changes of functioning of investigated families at social risk in 2013-2015

Research results showed, that the functioning of most families was embarrassed i.e., there were remained medium disorders of severity functioning

which manifest themselves in material difficulties, social and employment disorders, depressed mood of the family and so on. In accordance with Figure 2 data, functioning of three from eight investigated families had deteriorated, the functioning of three families had improved and functioning of two families had remained almost at the same level. In 2013, the overall average of family functioning was 61 point, in 2015 - 62 points. So, in summary, it could be said that functioning of investigated family almost unchanged.

In May and November 2015, these functioning fields of families at social risk were assessed: addiction, family relationships and health, housing, work, motivation, income. Questionnaire by Jakubovska (2012) was chosen as the instrument for the research. This assessment clearly shows the functioning changes of the investigated families during the investigation period. Changes of functioning of one family (C3D2) during the four- month period were assessed with 1-6 point scale (where 1 – “bad” situation, 6 – “good” situation) are presented in Figure 3.

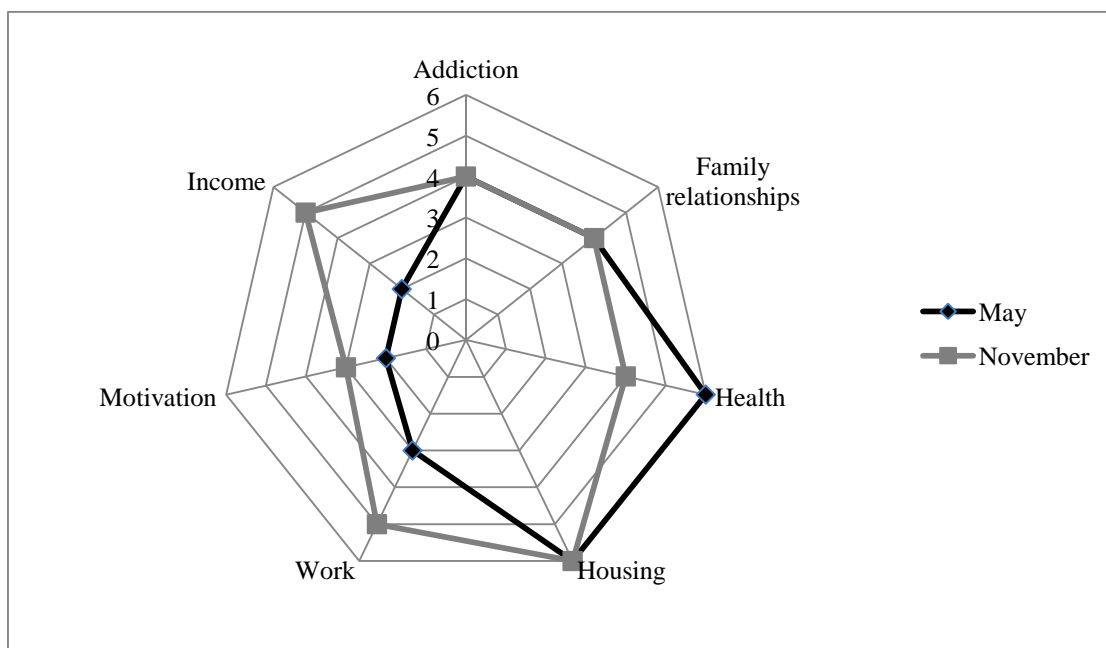


Figure 3 Changes of functioning of C3D2 family in May-November, 2015

Figure 3 data indicated that family functioning hadn't changed in areas of housing, family relationships and addiction. The family solved addiction's problem, the family relationships were labile and they had relatives who supported; the family had a permanent place of residence. The family had made improvements in the areas of work, motivation and income.

Observation had shown that the majority of the investigated families members' relationships were based on material basis, the other type of communication was fixed rarely. In majority of families, children finally appeared in child care homes, but it also was not the rate for exchange and improvement of social status. In summary, theoretically the positive social changes were relevant to the families at social risk but, practically, the perspectives of such families got into higher status were weak.

Conclusions

1. The families at social risk do not take care about families' social mobility. Social pedagogy and social worker are able to promote social functioning, inclusion, participation, social identity by observing families' at risk in complex.
2. Changes of social status of families at social risk are lower than their parents. Families at social risk generally expected the material support from parents, but not all of the research participants were able to help their children.
3. Families at social risk relations with social networks are weak or completely unsupported.
4. Families at social risk have an average functioning disorder to manifested material difficulties, social and work activities problems, family depressed mood. Such families avoid to work and keep distance from surrounding people.
5. The research results showed that opportunities of X community families at social risk to rise to a higher social status are low. The changes are determined by narrow social networks, weak relations with the community, low motivation and risk inheritance of these families.

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PREVENTION OF PSYCHOACTIVE SUBSTANCE USE AMONG YOUNG PEOPLE AS A SOCIALLY PEDAGOGICAL PROBLEM

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***Abstract.** In the century of modern technologies the human behaviour models are changing, new types of addiction are developing, including addiction to processes (cyber, games addiction), as well as addiction to new substances. Among young people there is observed an increased spreading of new psychotropic substances, manufacturing of which is very simple, but their realization determines possibilities for a markedly great profit. In the cultural environment of young people the new traditions are formed, specific elements of subculture, positive attitude towards being able to use and apply something new. A new value system is developing with a sense of unlimited freedom and extensive rights. Along with the chances to buy and use new psychoactive substances, the changes occur also in the young people's psyche, affecting their emotional and physical condition. A new, socially-pedagogical approach is needed in restriction of the use of these new psychoactive substance.*

***Keywords:** drugs; new psychoactive substances; prevention; socially pedagogical approach.*

Introduction

The use of psychoactive substances among youngsters and children, including schoolchildren, is connected to a series of different conditions: 1) these substances are relatively widely available, in comparison to drugs, for instance, heroin, cocaine, etc. 2) considering the low cost of new psychoactive substances, almost anybody can get them, if having an irresistible interest to try them; 3) there is specific logistics for the spread of new psychoactive substances and modern management as to their importing, storage and realization in the territory of Latvia; 4) specificity of manufacturing of new psychoactive substances encourages wide possibilities to generate new productions which are not included into the List of Prohibited Substances; 5) the use of substances causes especially negative, and in many cases, irreversible physical and psychic consequences in their users; 6) there has not been worked out, nor accepted a special pedagogic and preventive methodology for actions to be taken with youngsters and children – the new psychoactive substance users. In 2015, according to the data of the Information Centre of the Ministry of the Interior, 3613 (+817) criminal offenses were registered in relation to the circulation of illegal drugs and psychotropic substances, which was by 27,7% more than in the

previous year of the same period. Their proportion was 7,6% of the totally registered criminal offenses nationwide in 2015 (Pārskats, 2016).

In 2015 in Latvia there were registered 491 new cases of psychoactive substance seizures. Besides, there was encountered a fast increase of circulation of medicines containing psychotropic substances, affirmed by the number of seizures registered - 554 (+332).

Concept and essence of narcotic and psychoactive substances

Narcotic substances include all natural and synthetic drugs, psychotropic and toxic substances which possess one common feature – to change a man's psychologic condition in a subjectively pleasant direction, it is, to soothe the pain, to cause euphoria, to promote the stimulation of the body functions and to produce perception disorders with illusions and hallucinations (Konovālovs et. al. 1995).

Ammendments to the Law „Of narcotic drugs, psychotropic substances and drug legal procedures for the circulation” says, that a new psychoactive substance is a new substance in a pure form or in a preparation, which is not presented according to the Single Convention on Narcotic Drugs, 30 March, 1961 and can generate a comparable threat to health like the substances listed in the schedule I, II, or IV of the Convention mentioned, or also as a new psychotropic substance in a pure form or in a preparation, which is not listed in February 21,1971 Single Convention on Psychotropic Substances and can generate comparable threat to health as the substances listed in the schedule I, II, III or IV of the Convention mentioned (Likums “Par narkotisko un psihotropo vielu un zāļu likumīgās aprites kārtību”, 1996). The new psychoactive substances are unidentified and also illegal intoxicating substances, store drugs or intoxicating herbs.

„These intoxicating herbs are psychoactive – it means, that they change thinking, the senses and the behaviour. Their effect on a person's physical and mental health is unpredictable and there is a risk to become addicted (Legālās un nelegālās apreibinošās vielas)”. New psychoactive substances are sold as herbal mixtures, thus hiding the real contents of the mixture. Herbal mixtures are sold by different names, for instance, „Spice”, „Spice Diamond”, „Spice Gold”, „Spice Silver”, „Spice Arctic”, „Genie Incense”, „Spice Diamond Spirit”, „Spice Tropical Synergy” (Sintētiskie kanaboīdi). Among the new psychoactive substances one should mention the use of gamma – hydroxybutyrate (GHB) for illegal purposes – its manufacturing, its use in a pure form as means of intoxication. The situation is made hard by the fact that GHB is not enlisted into the Internationally Controlled Substances, besides GHB is the substance legally

used in the chemical industry, which is imported in Latvia in the contents of different mixtures. Thus, it is not possible to include GHB into the lists of controlled narcotic substances, psychotropic substances and their precursors, as a result, the law-enforcement institutions have no possibility to provide control over the substance track, as well as to remove the substance from the circulation.

We may encounter different definitions of the concept „new psychoactive substances” – substances whose action changes the type how people feel, think or behave” (Sargi sevi – narkotiskās un psihotropās vielas). They, by their nature, imitate the traditional effect caused by narcotic substances and are sold legally as well. Since 2004, the annual number of reports on new synthetic substances increases. If in 2004 there were reports on 15 new substances, then in 2014 the number of reports had increased already up to 101. At present, in fact, each year there are reports of more than 100 new synthetic narcotic substances.

Effect of new psychoactive substances on the human body

In the law „Of narcotic drugs, psychotropic substances and drug legal procedures for the circulation” it is precisely defined, that the new psychoactive substances are new narcotic or psychotropic substances in a pure form or in a preparation and they can generate comparable threat to health as narcotic and psychotropic substances.

In order to find out the substance contents the corresponding laboratory tests are being carried out. In 2015 alone there was done the study of 2522 narcotic and psychotropic substances in the State Police Forensic Research Department. Research of narcotic situations show, that despite the youngsters’ getting into medical institutions, they are still continuing to use hallucinogenic and addictive substances. The use of Spice and other synthetic Cannabinoids provokes the development of such psychic diseases, that traditionally do not develop in humans. Initially one is exposed to the hallucinogenic activity of the substance, and then it is followed by psychic disorders like schizophrenia.” (Likums “Par narkotisko un psihotropo vielu un zāļu likumīgās aprites kārtību”, 1996) Specialists admit, that these substances are released from the body slowly, and hence the tendency to try them, though even only once, is wild. The effect of synthetic cannabinoids is considered to be at least 5 times stronger than the effect of THC, the main ingredient in marijuana, thereby the psychoactive effect is formed faster – it starts three to five minutes after its use and lasts on average for one to eight hours .

Risk groups of new psychoactive substances in the community

Chances to buy new psychoactive substances are very simple – they are sold even in the Internet, the market places quite often are organized in the apartment buildings or in their neighbourhood. In 2015 it was still topical to use open and hidden (DARKNET) Internet resources, postal and courier deliveries in the illicit circulation of new psychoactive substances and controlled substances (for instance, in March 2015 there was detected the ordering of hallucinogenic mushrooms in the hidden website (Darknet) with the delivery from Poland) Pārskats, 2016). As a result, any person can purchase the psychoactive substances, children and youngsters as well and who are considered to be the greatest groups at risk.

Article 49 of the Law on Protection of Children's Rights says, that a child is not allowed to use narcotic, psychotropic, toxic and other intoxicating substances (Bērnu tiesību aizsardzības likums,1998) . The child has to be protected against the use of narcotic, psychotropic, toxic and other intoxicating substances, which have the negative effect on the body due to the manufacturing of such substances, their marketing and any kind of distribution. The second part of Article 49 of the same law, in its turn, envisages, that the guilty party is criminally responsible for delivering narcotic, psychotropic or other intoxicating substances at the child's disposal, or creating such conditions when these substances have become freely available to the child, for encouraging the child to use narcotic, psychotropic, toxic or other intoxicating substances, for the child's involvement into the use of such substances, or their distribution(Bērnu tiesību aizsardzības likums).

Mass media plays a great role, and they would have to pay more attention to the publications. The information rendered by printed and electronic mass media powerfully effects the children's and teenagers' psyche. All in all, they have a notable impact on people's views and opinions and depict the public social norms. Children and minors are the least protected and the greatest group at risk in the community, perceiving the opinions on the positive aspects of drugs and accepting them as the absolutely right ones. Undoubtedly, a child, still underaged, is not matured either physically, or emotionally, and his/her point of view is formed by perceiving the values, moral norms and opinions of the people around. Thus, there is a call for action at EU level to protect the children. One should provide the legal regulation which is powerful and effective (Eiropas Komisija stiprinās noteikumus).

The study „ Situation in the field of drugs and drug addiction problems in Latvia up to 2014”, carried out by the Disease Prevention and Control Centre, has concluded, that 198 000 population in Latvia had tried to use some drug. The sampling error is 1% to one or another side, i.e., by 95% probability we can

assert, that 13,3–15,3% or 184–212 000 of Latvian population have tried one or another illicit substance. The greatest number of drug attempts has been observed among males at the age of 15-34 years, besides, 11% males and 5% females have used them within the last year. Like in the previous years marijuana or hashish are still among the most prevalent illicit narcotic substances – tried by 12,5% of population. Next most prevalent drug following marijuana is ecstasy (tried by 2,7%), amphetamines (2,3%), cocaine (1,5%) and different opioids (1,1%). LSD, other hallucinogenics and heroin are lesser spread substances – tried by lesser than 1% of population (Situācija narkotiku un narkomānijas problēmas jomā Latvijā līdz 2014.gadam). From the above-mentioned we can conclude, that the most „active” users of drugs in our society are the people of the younger generation – the average age being from 15 to 34 years. In the study it was found out, that „at a comparatively young age there is used also marijuana, opioids, different hallucinogens, as well as new psychoactive substances, or the so-called new drugs, not mentioned in the list of addiction-inducing drug list: at least 34% have tried them being under 18 years old. Amphetamines are usually tried (56%) at the age of 19-25 years, but only 33% - prior to it. Cocaine is usually tried even at a later age – usually (44%) it is at the age of 21-15 years”. (Situācija narkotiku un narkomānijas problēmas jomā Latvijā līdz 2014.gadam).

We can admit, that just these new psychoactive substances, or new drugs, are tried and/or used by the greatest group at risk – children. The reason why majority of children and youngsters use the new drugs is their easy availability. Besides, we have to point to the low price of the psychoactive substances, which is lower than for the other narcotic substances.

Spread of new psychoactive substances in Latvia

The average age of the drug users is from 15 to 34 years. It means, that the new generation is the most active users, the children – the greatest group at risk in the society. It is admitted, that „the chief factors which expose the children to the higher risk for drug use, causing probable consequences in future, are: - previous negative experience in the family and certain psychological problems resulting from them; - a lesser degree of the sense of responsibility; - behavioural disorders; - lack of possibilities to spend one’s leisure time; - psychological microclimate in the family; - limited possibilities to acquire positive emotions, etc.” (Narkotisko un psihotropo vielu un to atkarības izplatības ierobežošanas un kontroles pamatnostādnes 2011. – 2017).

We can admit, that a great role is played also by the specific place, the town where the drugs, especially the new psychoactive substances are spread and used. One cannot deny, that the new drugs are first spread in the bigger

towns and only then further on, possibly, in the rural territory. Most commonly the drugs have been tried and used by those who live in Riga, while in smaller towns the number of drug users is slightly lesser, but in the country places – the least one. It means, that one should pay more attention to controlling the spreading of drugs in Riga, which demonstrates the most alarming figures on the use of drugs among the young people. In Riga almost every second young male of the age 15-34 years has tried some drug - 51% (Situācija narkotiku un narkomānijas problēmas jomā Latvijā līdz 2014.gadam).

In 2014 „Narcotic drugs and psychotropic substances and their dependencies containment and control guidelines for 2011 to 2017” were developed, thereby already four years before there had been known the facts on the risk what the introduction of new psychotropic substances cause, as well as there had been know „the gaps” in legislation and in the system of drug control and restriction.

It was pointed out in „Narcotic drugs and psychotropic substances and their dependencies containment and control guidelines for 2011 to 2017”, that in Latvian situation, to a greater extent than in other countries of the world, the people at young age, youngsters and children, because of their socially psychological peculiarities are the most exposed part of society to the spread of drugs (Legālās” nāves pieprasījums un piedāvājums).

Considering the spread of narcotic substances in the last years, on November 14, 2013, the amendments to the Law „Of narcotic drugs, psychotropic substances and drug legal procedures for the circulation” were adopted. The essence of the amendments was such. Firstly, they define the concept of the new psychoactive substance. Secondly, they open wider possibilities to restrict and prohibit the selling of new psychoactive substances. The following alterations have been introduced in Article I:

„(2) By decision of Disease Prevention and Control Centre for the period up to 12 months from the date the decision comes into force, it is possible to prohibit or restrict the manufacturing, purchasing, storage, transportation, delivery or distribution of such new psychoactive substances or its containing products, which are not included into the lists of controlled narcotic substances, psychotropic substances and precursors in Latvia, and about which there has been acquired the information from the European Early Warning System, or the conclusion received from the Forensic Expertise institution on the new psychoactive substances. The decision comes into force on the next day after its being published in the gazette „Latvijas Vēstnesis”.

(3) New psychoactive substances or their containing products whose circulation is prohibited or restricted according to the decision mentioned in the second part of this Article have to be returned back by the physical or legal

person to the State police within three working days since the decision has come into force.

(4) Storage of such new psychoactive substances or their containing products whose circulation is prohibited or restricted according to the decision mentioned in the second part of the Article is provided by the State police or the investigating authority, who within the framework of the criminal process has removed the new psychoactive substances or their containing products.

(5) If the new psychoactive substances are included into some lists of controlled narcotic substances, psychotropic substances or precursors in Latvia, the investigating authority makes a decision on the destruction of these substances or their containing products. The execution of the decision mentioned is provided by the State Police, according to the procedures set out in the normative act on the material evidence and the arrested property.

(6) If the new psychoactive substances are not included into any lists of controlled narcotic substances, psychotropic substances or presursors in Latvia, the State Police or the investigating authority makes a decision on the procedures of the return of this substance or their containing product to the owner or its legal possessor. The State Police or the investigating authority notifies the owner or its legal possessor, at the same time giving information on the destruction of the new psychoactive substances and their containing products, if the owner or the legal possessor within two months since the notification has not removed them. The State Police of the investigating authority return back the new psychoactive substances or their containing products to the owner or their legal possessor, or destroy them, drawing up the act on it ." (Likuma grozījumi un "lēgālo" narkotiku aprite).

Socially pedagogical aspects of prevention of the use of psychoactive substances

The most essential socially pedagogical problem in prevention of the use of psychoactive substances deals with creation of a favourable environment in the educational establishment and neutralization of conditions which encourage the young people to use drugs and alcohol. The duties of the social educator, which most directly would be related to prevention of the use of psychoactive substances, might be as follows:

- 1) to identify social and material problems of families and their effect on the child and young people's lives and different forms of activities;
- 2) to assess the probabilities of risk factors and their level in the family, school, among peers and their effect on the children's socialisation process;

- 3) to investigate the children's and young people's socialisation conditions and risk factors at school, family and informal environment;
- 4) to identify social-pedagogical possibilities at educational establishments for the implementation of resocialisation measures for children who have started to use psychoactive substances;
- 5) to attach the possible resources and partners (persons, institutions) and to identify their forms of activities and contents in neutralization of addiction from psychoactive substances;
- 6) to plan and implement certain social-pedagogical activities in neutralization of addiction from psychoactive substances among children and young people;
- 7) to carry out activities by decreasing and preventing the existing risk factors of drug addiction of children and young people in their leisure environment, among them including cooperation partners between institutions;
- 8) to plan and carry out social rehabilitation measures for children who have started to use psychoactive substances in their out-of-school leisure time;
- 9) to cooperate with social service agencies, Orphan's Court and other national and municipal institutions, promoting the topical social needs provision for children and young people;
- 10) to promote strengthening of children's and young people's responsibility and positive manifestations in the resocialization process.

Social educators who work with those children, who have started to use psychoactive substances, have to know the negative effect of these substances on their users, they have to be able to identify them. Undoubtedly, social educators have to possess excellent communication skills, to be patient and tolerant.

Taking into account the ever increasing spreading of the new psychoactive substances, marijuana and hashish not only among the youngsters, but schoolchildren as well, the issue on the establishing of the national level addiction prevention system not only for the implementation of general, but also selective prevention activities.

No doubt, that the law and its amendments alone do not solve the problem, why children and youngsters want to try and use new narcotic substances, and why they want to get intoxicated. To decrease both the demand, and supply, first of all we have to decrease and eradicate the children and youngsters' wish to become intoxicated, the wish to try. The wish to get intoxicated is related to the

wish to escape from the family problems or problems at school. Identification and solution of these problems is one of the social educator's competences.

Conclusions

New psychoactive substances, whose effect changes the way how a person feels, thinks or behaves, including the changes on the children's psyche, their emotional and physical condition. They imitate the traditional effect of narcotic substances. However, the trading volume of the new psychoactive substances after adoption of the new legal regulation in 2014, has decrease. The new psychoactive substances are sold as herbal mixtures, in such a way hiding the real contents of the mixtures. The use of Spice and other synthetic cannabionides provokes the development of a new type of psychic diseases. Specialists have admitted, that these substances are removed from the body very slowly, and consequently, the craving to have them, even if trying once, is wild. The highest number of drug users is seen among young people and young males at the ages of 15-34 years. Marijuana, opioids, different hallucinogens, as well as the new psychoactive substances, not mentioned in the list of addictive substances are being used at an even younger age. At least one third of young people (34%) have tried them before reaching 18 years of age. In Riga drugs have been tried by every second 15-34 years old man. We have to admit, that the legal regulation in Latvia in relation to such substances is sufficiently effective. We can conclude, that there has not been worked out and accepted special socially-pedagogical and preventive methodology in work with youngsters and children – users of new psychoactive substances.

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Andrejs Vilks. Prevention of Psychoactive Substance use among Young People as a Socially Pedagogical Problem

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SPORTS UN VESELĪBA
SPORTS AND HEALTH

THE RELATIONSHIPS BETWEEN SELF-REPORTED HEALTH STATUS AND SUBJECTIVE HEALTH LITERACY AMONG YOUNG ADULTS IN LITHUANIA

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Abstract. Seeking to successfully act in the 21st century, a person should have a relatively big spectrum of abilities and competences; in other words, s/he should develop literacy in a number of spheres. Health literacy is essential for a person's daily capability to manage own health and the quality of life, which is dependent on it. It is significant for the social and economic development of the society. The purpose of the research was to identify the relationships between subjective health literacy and self-reported health status among young adults in Lithuania. The methods of the research included the analysis, interpretation and generalisation of scientific literature on the topic of research, as well as anonymous questionnaire survey. Self-reported health status was ascertained by a single WHO recommended question: "How is your health in general?" Subjective health literacy of young adults was measured using an HLS-EU-Q-47 questionnaire. The survey was conducted in 2014. The research sample included 798 young adults. The results showed high correlation between health literacy in the three health relevant areas and general health literacy. Having generalised the research data, it was noted that the young adults with good/very good self-reported health status tend to achieve sufficient or excellent levels of health literacy on health care, disease prevention or health promotion and general health literacy.

Keywords: health literacy, HLS-EU-Q-47 questionnaire, self-reported health status, young adults.

Introduction

The comprehensive European health policy framework "Health 2020" (2013) is based on the idea that health is a fundamental resource for the human, social and economic development and the future of Europe. Health is determined by heredity (genetics), health care services, physical and social environment; however, lifestyle has the greatest impact on health (Lalonde, 1974). Health literacy is an important empowerment tool, which helps every person to assume greater responsibility for own health and choose health-

enhancing behaviours. This concept has been receiving considerable attention of researchers of different countries since the last decade of the 20th century. The systematic review of scientific literature on health literacy has demonstrated a strong association between the levels of health literacy and self-reported health status and health outcomes (Dewalt et al., 2004; von Wagner et al., 2007; Berkman et al., 2011; HLS-EU Consortium, 2012; Sentell et al., 2014; Mottus et al., 2014), as well as lifestyle (von Wagner et al., 2007). However, there is a lack of sufficient research in Lithuania. Two more exhaustive studies publicised in the Lithuanian language can be mentioned: D. Zagurskiene “The Evaluation of Patients’ Health Literacy” (2009) and Z. Javtokas “Overview of the Research Data on Health Literacy of Lithuanian Population” (2012). However, the aforesaid studies do not reveal the connections between the respondents’ health literacy and self-reported health status. Therefore, it is relevant to investigate health literacy of Lithuanian youth and its connections to self-reported health status.

The object of the research: subjective health literacy and self-reported health status.

The purpose of the research: was to identify there lationships between subjective health literacy and self-reported health status among young adults in Lithuania.

The methods of the research: the analysis, interpretation and generalisation of scientific literature on the topic of the research, anonymous questionnaire survey.

The Multidimensional Concept of Health Literacy

The interdisciplinary concept “health literacy” was first mentioned in scientific literature by S. Simonds (1974). He discussed health education as one of the trends of social policy, highlighted its significance in the sectors of education and health protection and in the media, as well as defined education standards in the sphere of health education that were compulsory to achieve for all learners. In the first scientific publications, the conception of health literacy was presented as a person’s ability to fulfil tasks related to information about health that demanded reading and arithmetic skills (Parker et al., 1995; Williams et al., 1995). However, this narrow approach changed in the course of time.

The definition of health literacy most frequently cited in scientific research carried out in the field of healthcare is the one provided by American Medical Association (1999), which reflects medical approach: “health literacy is the constellation of skills, including the ability to perform basic reading and numeral tasks required to function in the healthcare environment”. World Health Organization (WHO, 1998, 10) proposes a definition that is most often used in

the context of public health on the international scale and is one of the most acknowledged definitions of health literacy, “which determines the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health”. Referring to this conception and perceiving health literacy as an outcome of health education and public health, D. Nutbeam (2000) distinguishes its three levels: basic/functional literacy, communicative/interactive literacy, and critical literacy. These three types of health literacy characterize the application of skills for functioning in everyday situations (functional health literacy), to more advanced literacy and cognitive skills that can be used to effectively participate in everyday activities and apply new information to changing circumstances (interactive or communicative health literacy). Hence, different levels of health literacy demonstrate a person’s growing autonomy and enable his/her understanding, critical analysis and evaluation of the information related to health, as well as refer to it when making health-promoting decisions.

The new conception of health literacy is based on the systemic analysis and critical review of definitions and conceptual models provided in scientific literature: “Health literacy is linked to literacy and entails people’s knowledge, motivation and competences to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course” (Sørensen et al., 2012, 3). It should be emphasised that the provided conception of health literacy also includes functional, interactive and critical health literacy introduced by D. Nutbeam (2000). In the context of public health, the multidimensional concept of health literacy reflects a complex approach that combines three health relevant areas (health care, disease prevention, health promotion) and four information processing stages (access, understand, appraise, apply). The new conception is visualised by the integrated model of health literacy, which shows the connections of health literacy with health service use, health behaviour, equity and participation in activities that enable the promotion of individual or public health on both the individual level and the population level. Moreover, attention is paid to personal determinants (e.g. age, gender, race, socioeconomic status, education, occupation, employment, income, literacy), situational determinants (e.g. family and peer influences, social support, media use and physical environment), as well as societal and environmental determinants (e.g. demographic situation, language, culture, societal systems, political forces) that condition health literacy (Sørensen et al., 2012).

Research Methodology

An anonymous paper-and-pencil questionnaire and online questionnaire were used in the survey. The survey was carried out in 2014.

The research instrument. Demographic characteristics measured via the questionnaire included age (*year*) and gender (*male, female*). Self-reported health status was ascertained by a single question (*How is your health in general?*), to which participants had five response options: *very good, good, fair, bad* and *very bad*. This question is a version recommended by WHO as a standard measurement of self-reported health in European populations (de Bruin et al., 1996). Subjective health literacy was measured using an HLS-EU-Q-47 questionnaire (HLS-EU consortium, 2012). Respondents were asked to report on 47 items using a 4-point Likert scale (*very difficult, difficult, easy, and very easy*). The “*don't know*” answer option was used when stated spontaneously and coded as a missing value.

With the agreement of the HLS-EU Project coordinator K. Sørensen, the HLS-EU-Q-47 questionnaire was translated from English into the Lithuanian language using the translation–back-translation method. The questionnaire was pre-tested for comprehension and completeness. To explore internal consistency of the questionnaire, Cronbach’s α was calculated. The analysis showed that Cronbach’s α was satisfactory (Cronbach’s $\alpha = 0.94$ respectively).

Health literacy index scores were standardized on a metric scale between 0 and 50 and constructed using the formula (HLS-EU consortium, 2012):

$$I = (X - 1) \times \frac{50}{3}$$

where: I – health literacy index, X – mean of all participating items for each individual. Four ranges of health literacy were distinguished: *inadequate level* (0–25), *problematic level* (>25–33), *sufficient level* (>33–42) and *excellent level* (>42–50) of health literacy (HLS-EU consortium, 2012).

Population and sample size. According to the data of the Department of Statistics in Lithuania, there lived 482142 young adults aged 18-29, out of them 247578 males and 234564 females. The research sample was determined using sample size calculator (<http://www.surveysystem.com/sscalc.htm>). Having conducted calculations, it was determined that 798 respondents (399 males and 399 females) was a sufficient research sample that would represent the general population of 18-29 year old young adults. Table 1 shows the sample characteristics.

Table 1 Characteristics of research sample

Age in categories	Men (N = 399)		Women (N = 399)		Total (N = 798)	
	N	%	N	%	N	%
18-19	136	34,1	69	17,3	205	25,7
20-24	136	34,1	183	45,9	319	40
25-29	127	31,8	147	36,8	274	34,3

The statistical analysis. Statistical analyses were performed using SPSS Statistics version 17.0 for Windows. The following methods were applied to analyse the research data: descriptive analysis (frequencies, percent), Pearson’s Chi-Square Tests (nonparametric test that compares two independent samples), Kruskal-Wallis tests (nonparametric test that compares three or more independent samples), Pearson correlation coefficient, p-values less than 0.05 indicate a statistically significant. Cronbach α was used to test the reliability of the questionnaire scores and measure the internal consistency of propositions.

Research Results and Discussion

Self-reported health status of young adults. Self-reported health is one of the important health indicators. Having generalised the data, it was determined that most research participants defined their health status as good or very good (Table 2).

Table 2 Distribution of young adults by self-reported health status

Self-reported health status	Men (N = 399)		Women (N = 399)		Total (N = 798)	
	N	%	N	%	N	%
Very good	109	27.3	72	18	181	22.7
Good	205	51.4	224	56.1	429	53.8
Fair	72	18	95	23.8	167	20.9
Bad	3	0.8	6	1.5	9	1.1
Very bad	10	2.5	2	0.5	12	1.5

A fifth of respondents indicated that their health was fair, 2.6 % stated that their health was bad or very bad. More men than women identified their health as very bad ($\chi^2 = 17.906$; $p < 0.001$). The results of our research reflect the general tendencies of self-reported health status of young adults that participated in research of health behaviour among Lithuanian adult population (Grabauskas et al., 2015).

Health literacy of young adults. Self-reported health literacy of young adults was assessed in three health relevant areas: health care, disease prevention, and health promotion.

Though the majority of young adults had sufficient or excellent abilities to access and understand information on medical or clinical issues, more than a half of the research participants had inadequate or problematic abilities to interpret and evaluate medical information. Such results invite to pay attention to the fact that not all research participants developed abilities of critical thinking. Therefore, they might face difficulties when assessing the retrieved information and its reliability to make health-related decisions. It is presumed that such young adults will also face difficulties when making decisions related to taking care of own or others' health. Thus, having generalised the research results, it is possible to maintain that the majority of the young adults (60.8 %) were estimated to have problematic or inadequate health literacy on health care (Table 3). Persons with sufficient or excellent levels of health literacy made up 30.3 % and 8.9 % of the total respectively. Having compared the obtained results to the data of European Health Literacy Survey, it was determined that the percentage of young adults having sufficient or excellent levels of health literacy on health care in Lithuania was similar to the percentage of adults that participated in the research in Spain, but less like the percentage of adults in Austria, Bulgaria, Germany, Greece, Ireland, Netherlands and Poland (HLS-EU Consortium, 2012).

Table 3 Distribution of young adults by level of health literacy (%)

	Health literacy levels	Men (N = 399)	Women (N = 399)	Total (N = 798)
Health literacy on health care	Inadequate	20.8	18.5	19.7
	Problematic	39.8	42.4	41.1
	Sufficient	30.3	30.3	30.3
	Excellent	9	8.8	8.9
Health literacy on disease prevention	Inadequate	17	14.5	15.8
	Problematic	34.3	35.3	34.8
	Sufficient	34.8	35.8	35.3
	Excellent	13.8	14.3	14
Health literacy on health promotion	Inadequate	21.6	23.1	22.3
	Problematic	37.3	36.6	37
	Sufficient	29.8	30.8	30.3
	Excellent	11.3	9.5	10.4
General health literacy	Inadequate	17.5	15.3	16.4
	Problematic	40.6	41.4	41
	Sufficient	34.8	35.3	35.1
	Excellent	7	8	7.5

This study showed that more than a half of the research participants had sufficient or excellent abilities to access, understand information on health risk factors and derive meaning. But abilities to interpret and evaluate, to judge the relevance of the information on risk factors were problematic or inadequate. Summing up, few of young adults (14 %) had excellent health literacy on disease prevention. 35.3 % of young adults had sufficient health literacy in this area (Table 3). A half of the research participants (50.6 %) had problematic or inadequate health literacy on disease prevention. It is assumed that these young adults might face difficulties in controlling own health and reducing the risks of environmental factors. They might find it difficult to make decisions and choose such a way of life that would help them avoid contagious or chronic diseases. Therefore, insufficient abilities will affect one's health at later stages of life, especially in the old age, if they are not developed. Having compared the research results with the results of European Health Literacy Survey, it was noted that the percentage of young adults with sufficient or excellent levels of health literacy on disease prevention in Lithuania was similar to the percentage of young people in Austria and Spain, whereas it was greater in comparison to Bulgaria and less like the percentage of adults in Germany, Greece, Ireland, Netherlands and Poland (HLS-EU Consortium, 2012).

Analysing the respondents' replies about health literacy on health promotion (Table 3), it is possible to claim that two-fifths of the young adults had sufficient or excellent health literacy on health promotion. Health literacy of the bigger half of the research participants in the field of health promotion was problematic or inadequate. They lacked the abilities to update oneself on health issues, to understand health-related information and derive meaning, as well as to form a reflected opinion on health issues. Such a level of health literacy is a matter of concern since it is assumed that a lot of the research participants will face difficulties when promoting own health due to the lack of knowledge how to do it. The obtained research results reveal the existing problem in education; though it is common knowledge that "the education sector can help create healthier people and communities by improving health literacy and strengthening essential life skills" (WHO, 2015, p. 1). Nevertheless, not all young people, who have attained general education, are health literate. This promotes risky behaviour among young people.

Having compared the results obtained by European Health Literacy Survey with the Lithuanian survey on health literacy of young adults, it appeared that the percentage of young adults having sufficient or excellent levels of health literacy on health promotion was close to the results obtained in Bulgaria, but less like the percentage of adults in Austria, Bulgaria, Germany, Greece, Spain, Ireland, Netherlands and Poland (HLS-EU Consortium, 2012).

Having calculated the index of general health literacy of young adults, it was determined that 16.4 % respondents had inadequate, 41 % – problematic, 35.1 % – sufficient and 7.5 % had excellent general health literacy. The obtained data were similar to the ones obtained in Austria, Bulgaria and Spain (HLS-EU Consortium, 2012). However, the number of Lithuanian young adults that were characterised by sufficient or excellent levels of health literacy was lower than in Germany, Greece, Ireland, Netherlands and Poland (HLS-EU Consortium, 2012).

The results of research on Lithuanian young adults showed high correlation between general health literacy and health literacy in the three health relevant areas (Table 4).

Table 4 Correlations between general health literacy and health literacy in three health relevant areas

	Health literacy on health care	Health literacy on disease prevention	Health literacy on health promotion	General health literacy
Health literacy on health care		r = 0.628**	r = 0.584**	r = 0.819**
Health literacy on disease prevention			r = 0.741**	r = 0.918**
Health literacy on health promotion				r = 0.880**

Note: r – Pearson correlation coefficient

**Correlation is significant at the 0.0001 level (2-tailed)

The relationships between self-reported health status and subjective health literacy among young adults. Pursuing to reveal the relationships, young people, who participated in the research, were divided into three groups according to self-reported health status: the first group included people, whose health status was bad/very bad (2.6 %); the second group had fair health (20.9 %); the third group embraced people with good/very good health (76.4 %). Having summarised the results (Table 5), it was determined that the young adults characterised by sufficient or excellent levels of health literacy on health care and good/very good self-reported health status, exceeded those with bad/very bad or fair health status ($\chi^2 = 20.748$; $p < 0.0001$).

The number of the respondents, who demonstrated sufficient or excellent levels of health literacy on disease prevention and who defined their health as good/very good, was bigger than of those, whose health status was bad/very bad or fair ($\chi^2 = 32.239$; $p < 0.0001$). Besides, the number of the research participants, who showed sufficient or excellent levels of health literacy on health promotion and good/very good self-reported health status, was also

greater than the number of those, whose health status was bad/very bad or fair ($\chi^2 = 49.119$; $p < 0.0001$). Assessing the relationships of general health literacy with self-reported health status, an analogical tendency was noted ($\chi^2 = 35.685$; $p < 0.0001$).

Table 5 **Distribution of young adults by self-reported health status and level of health literacy (%)**

	Health literacy levels	Self-reported health status			Kruskal-Wallis Test results
		Bad/very bad (N = 21)	Fair (N = 167)	Good/very good (N = 610)	
Health literacy on health care	Inadequate	28.6	28.1	17	$\chi^2 = 20.748$ $p < 0.0001$
	Problematic	52.4	44.9	39.7	
	Sufficient	14.3	21	33.4	
	Excellent	4.8	6	9.8	
Health literacy on disease prevention	Inadequate	33.3	24	13	$\chi^2 = 32.239$ $p < 0.0001$
	Problematic	38.1	41.9	32.8	
	Sufficient	19	28.7	37.7	
	Excellent	9.5	5.4	16.6	
Health literacy on health promotion	Inadequate	42.9	34.7	18.2	$\chi^2 = 49.119$ $p < 0.0001$
	Problematic	42.9	43.7	34.9	
	Sufficient	9.5	19.2	34.1	
	Excellent	4.8	2.4	12.8	
General health literacy	Inadequate	38.1	23.4	13.8	$\chi^2 = 35.685$ $p < 0.0001$
	Problematic	42.9	50.9	38.2	
	Sufficient	14.3	23.4	39	
	Excellent	4.8	2.4	9	

Nevertheless, it should be noted that among the young adults, who described their health status as good or very good, there were people, whose health literacy in three health relevant areas and general health literacy were inadequate or problematic. It is assumed that the limited health literacy will have a negative effect on the changes of the health status of these young people. Moreover, it was determined that the young people, whose health status was bad/very bad or fair, were characterised by inadequate or problematic level of health literacy.

Conclusions

The new conception of health literacy involves abilities to access, understand, appraise and apply information across the domains of health care, disease prevention and health promotion. In scientific literature it is highlighted that health literacy has a great impact on a person's lifestyle and health status. It

was determined that most Lithuanian young adults (18-29 year old), who participated in the research defined their health status as good or very good. The research revealed that two-fifths of young adults had sufficient or excellent levels of health literacy on health care and health promotion, whereas almost a half of the respondents showed sufficient or excellent levels of health literacy on disease prevention. The results showed high correlation between health literacy in the three health relevant areas and general health literacy. Having generalised the research data, it was noted that the young adults with good/very good self-reported health status tend to achieve sufficient or excellent levels of health literacy on health care, disease prevention or health promotion and general health literacy.

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LOKĀLĀS VIBRĀCIJAS IETEKME DISTANČU SLĒPOŠANĀ (KLASISKAJĀ STILĀ)

The Effect of Local Vibration in Cross Country Skiing (Diagonal Stride)

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Abstract. *Local vibration (LV) is innovation as a part of training method that helps athletes to regain the power and get ready for next training faster. There are many discussions about how to increase moving speed in cross-country skiing. Many scientists research the possibilities of increasing moving speed in this sport. Cycle duration in different moving strides along different course terrains is stated, including even stride cycle duration separately for the leg and arm movements. It is proved by many studies that moving speed depends on stride cycle duration. A pilot study was carried out. Two LASE specialization students participated in the study. The following methods were used in the study: videoanalysis, LV manipulations, the stating experiment and mathematical statistics. The videoanalysis was made with Panasonic digital video camera (50 Hz), and the obtained data were processed using a videoanalysis program. LV manipulations were done to the muscles m. Erector spinae, m. Latisimus dorsi, m. Deltoideus, m. Trapecius and m. Triceps Brachi using 100 Hz frequency and different pressure on the muscles. The total LV application time was 10 min. with 30 min. relaxation. The obtained data were processed using mathematical statistics. The results: having stated the result difference before LV and after it. The results testify significant improvement of diagonal stride results, what is showed by the difference of the mean results. The results: having stated the result difference before LV and after it, it was stated that the mean moving speed of both students (S1 and S2) in the cycle before LV was 4.14m/s (S1) and 3.97m/s (S2), but after the application of LV the mean moving speed in a cycle was 4.51m/s (S1) and 4.25m/s (S2), thus the difference of the means was 0.37m/s (S1) and 0.28m/s (S2).*

Keywords: *diagonal stride, local vibration, moving speed.*

Ievads ***Introduction***

Daudzi zinātnieki, kā B.FitzPatrick, A.Forsberg, U.Berg, pievērsušies pārvietošanās ātrumu palielināšanas iespējām distanču slēpošanā. Lielākā daļa pētījumu tiek balstīti saistībā ar skābekļa maksimālā patēriņu un citām fizioloģiskām īpašībām slodzes laikā. Tiek noteikts cikla ilgums dažādos pārvietošanās soļos ar dažādu trases reljefu, pat noteikts soļa cikla ilgums atsevišķi kāju darbībai un roku darbībai (Nilsson, 2002).

Daudzos pētījumos pierādās, ka pārvietošanās ātrums ir atkarīgs no soļa cikla ilguma. Vislielāko ātrumu slēpotāji uzrāda pārvietojoties vienlaikus bezsolī, kur pārvietošanās ātrumu nosaka muguras, kā arī roku muskuļu spēks. Tādēļ sevišķi liela loma distanču slēpošanā ir muguras un roku muskuļu spēkam. Pamatojoties uz J. Nilssona un citiem pētījumiem, var secināt, ka atkarībā no dažādām biomehānikām strukturālām izmaiņām pārvietošanās tehnikā, tieši atgrūdiens ar nūjām ir viens no noteicošiem faktoriem pārvietošanās ātruma palielināšanā. Uzskata, ka pie dažāda sniega seguma, gaisa temperatūras, sniega temperatūras, gaisa mitruma un slēpju apstrādes īpatnībām pārvietošanās slidsolī ir par 5 – 15% ātrāka nekā klasiskais stilā, taču pie dažādu apstākļu sakritības, lielākoties meteoroloģisko apstākļu ietekmē, pārvietošanās klasiskajā stilā var būt pat līdz 10% ātrāka, kā pārvietošanās slidsolī. Kā viena no inovatīvām treniņu līdzekļa sastāvdaļām pasaulē tiek izmantota lokālā vibrācija, kas palīdz sportistiem ātrāk atjaunoties un sagatavoties jaunam treniņam.

Sportā mehāniskās vibrācijas izmanto kā masāžas līdzekli, un, kā treniņu veidu. Jau daudzus gadus vibrācijas treniņus izmanto kā treniņu līdzekli, un agrāk tai atvēlēja tikai divu veidu uzdevumus: vibrācijas stimulus izmantoja spēka palielināšanai, un ar vibrāciju diezgan sekmīgi palielināja atsevišķas biomotorās spējas ar visa ķermeņa vibrācijas platformām. Ja vibrācija kā masāžas veids un rehabilitācijas līdzeklis bija zināma jau daudzus tūkstošus gadu, tad vibrācija kā treniņu līdzeklis pavisam nesen. Zinātnieki ir konstatējuši, ka vibrācijai sportā faktiski ir divu veidu iedarbības formas: pirmā ir saistīta ar akūto vai nekavējošo iedarbību, bet otra ar ilgtermiņa vai hronisko iedarbības variantu, ko mūsdienās sauc par vibrācijas treniņiem, kurus realizē ar tādiem pašiem nosacījumiem, kā visus pārējos sportā realizētos līdzekļus.

Mūsu pilotpētījuma mērķis ir noteikt lokālās vibrācijas akūto efektu pārmaiņus divsolī.

Metodoloģija Methodology

Eksperimentālā veidā ar testa vingrinājumu palīdzību tika noteikts divu LSPA Slēpošanas katedras speciālizācības studentu: vidējais pārvietošanās ātrums, vidējais soļa cikla garums, soļa cikla ilgums pārmaiņus divsolī ~ 50m distancē. Testa vingrinājumi tika filmēti kustībā no sāna ar digitālo video kameru Panasonic (50Hz). Iegūtais videomateriāls tika apstrādāts ar videoanalīzes programmu KinezioVideoAnalyzer 3.0. Pēc tam matemātiska iegūto rezultātu apstrāde ar tās sekojošu analītisku iegūto rezultātu analīzi. Lokālās vibrācijas treniņi tika veikti ar Vibromassager WM-1, S/N09/01 (skat. 1.att.), ar frekvenci 100 Hz, amplitūdu 2 mm un variatīvu spiedienu uz muskuļiem *m. Erector spinae*, *m. Laticimus dorsi*, *m. Deltoideus*, *m. Trapecius* and *m. Triceps Brachi*. Lokālās vibrācijas pieliktais laiks bija 10 min, kam sekoja 30 min ilga pasīva atpūtas pauze. Eksperiments notika 03.03.2015. Priekuļu slēpošanas un biatlona bāzē (Cēsu Olimpiskais centrs). Gaisa temperatūra bija -3°C ar svaigi uzsnigušu mitru sniegu. Testa vingrinājumi tika izpildīti ar Fisher RCS slidsoļa slēpēm un dažāda garuma Swix nūjām.

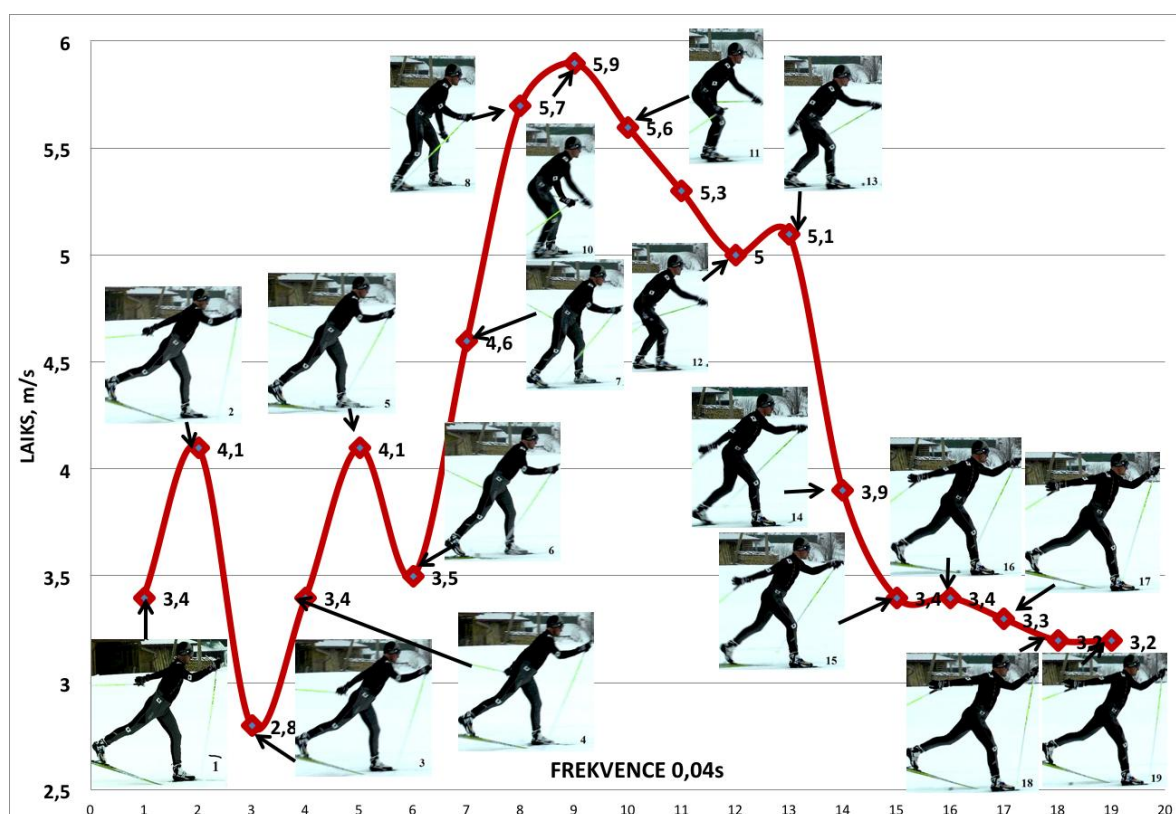


1. attēls. **Vibromassager WM-1, S/N09/01 lokālā vibroiekārta**
Figure 1 Local device of vibration Vibromassager WM-1, S/N09/01

Pētījuma rezultāti Results of research

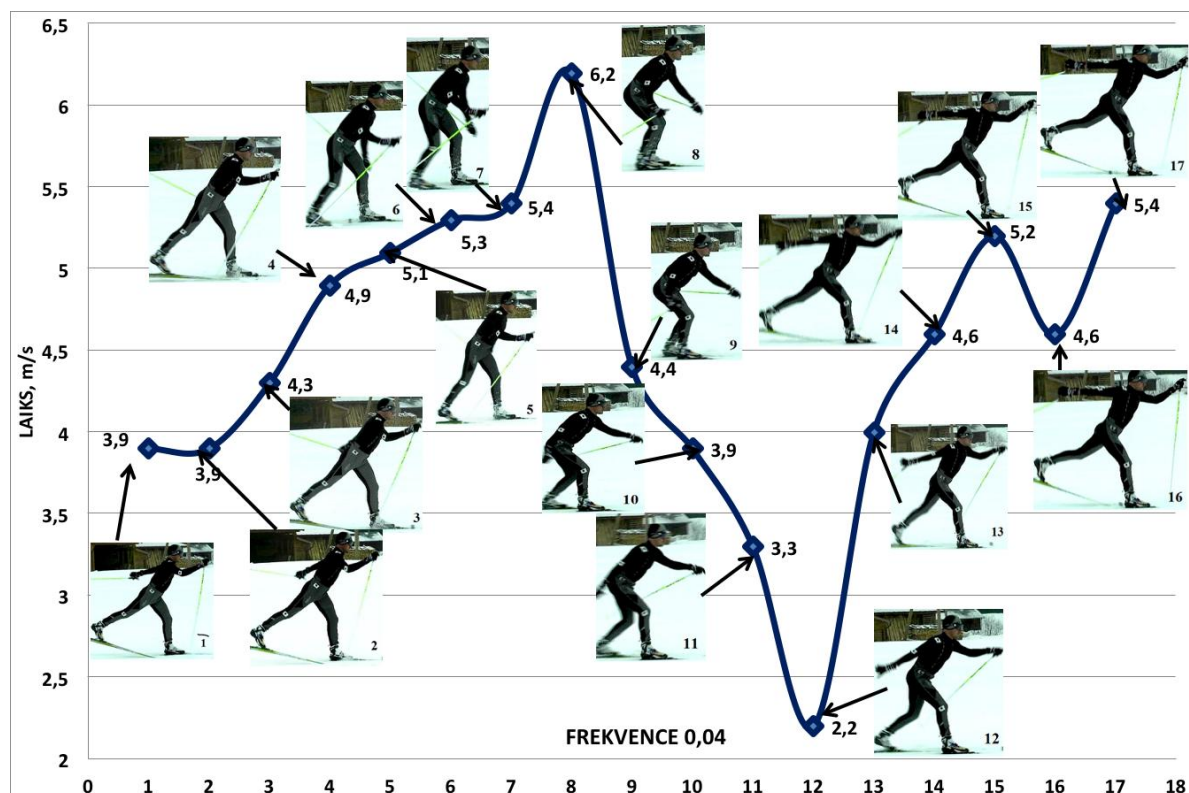
Sportistiem ātruma un kustību biežumu – tempu – limitē tehniskā meistarība. Augstvērtīga tehniskā sagatavotība raksturojas ar ķermeņa sviru, stāvokļu vieglumu un ekonomiskumu, ar labu neiromuskulāro koordināciju, kas ietekmē efektīvu enerģijas realizēšanu un līdz ar to lielāku kustību ātrumu.

Ātrumu nosaka ne tikai kustīgums un labi sinhronizētas neiromuskulārās iespējas, bet arī kustību biežums – temps, ko realizē precīzi nervu impulsi un spēcīgas kontrakcijas. Tāpēc ātrām un eksplozīvām kustībām ir jābūt garantētām ar augsta līmeņa jaudas izpausmēm. Spēcīga koncentrēšanās ir ļoti svarīgs faktors, lai sasniegtu lielu ātrumu (Krauksts, 2003). Pārmaiņus divsolis ir tehniski sarežģīts pārvietošanās veids, lai gan daudzi uzskata, ka prot šo pārvietošanās veidu, toties tehniskais izpildījums slīdošajam solim ir sarežģītāks, nekā kāpjošajam.



2. attēls Pārmaiņus divsoļa cikla ātrums pirms lokālās vibrācijas (1. students)
Figure 2 Diagonal stride cycle velocity before local vibration (1. student)

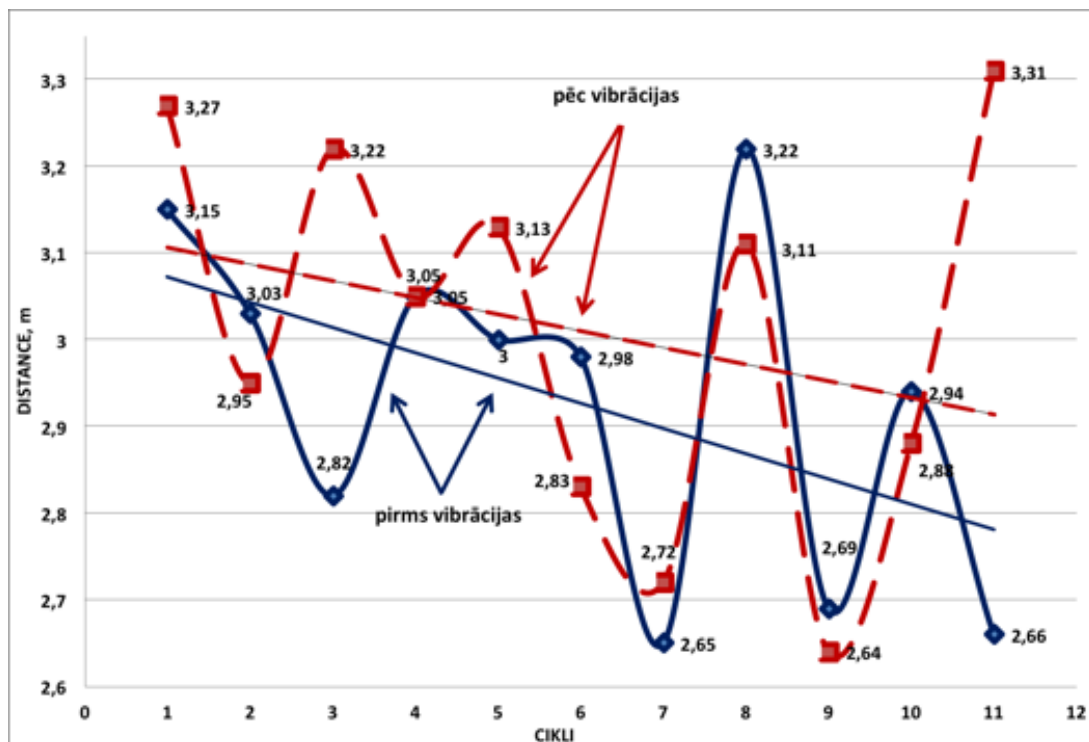
Pārmaiņus divsolī pielieto lēzenos kāpumus ($3 - 6^\circ$), bet sliktas slīdamības gadījumā – arī līdzenumā. Viens cikls sastāv no diviem vienādiem slīdošiem soļiem un diviem atgrūdieniem ar nūju un slēpi. Viens slīdošais solis ilgst $0,50 - 0,87$ s, un šajā laikā slēpotājs pārvietojas $2,6 - 3,5$ m. Vidējais pārvietošanās ātrums ir $4,2 - 6,4$ m/s. Vienas minūtes laikā slēpotājs veic $52 - 70$ ciklus (Grants, Ukins, 2001; Kops, 1989; Čepulenas, 2005). Vidējais ātrums 11 ciklos abiem LSPA studentiem pirms loālās vibrācijas bija $4,14$ m/s (skat. 2.att.) un $3,97$ m/s, bet pēc lokālās vibrācijas seansa $4,51$ m/s (skat. 3.att.) un $4,25$ m/s, kas liecina par ātruma pieaugumu $0,37$ m/s un $0,28$ m/s.



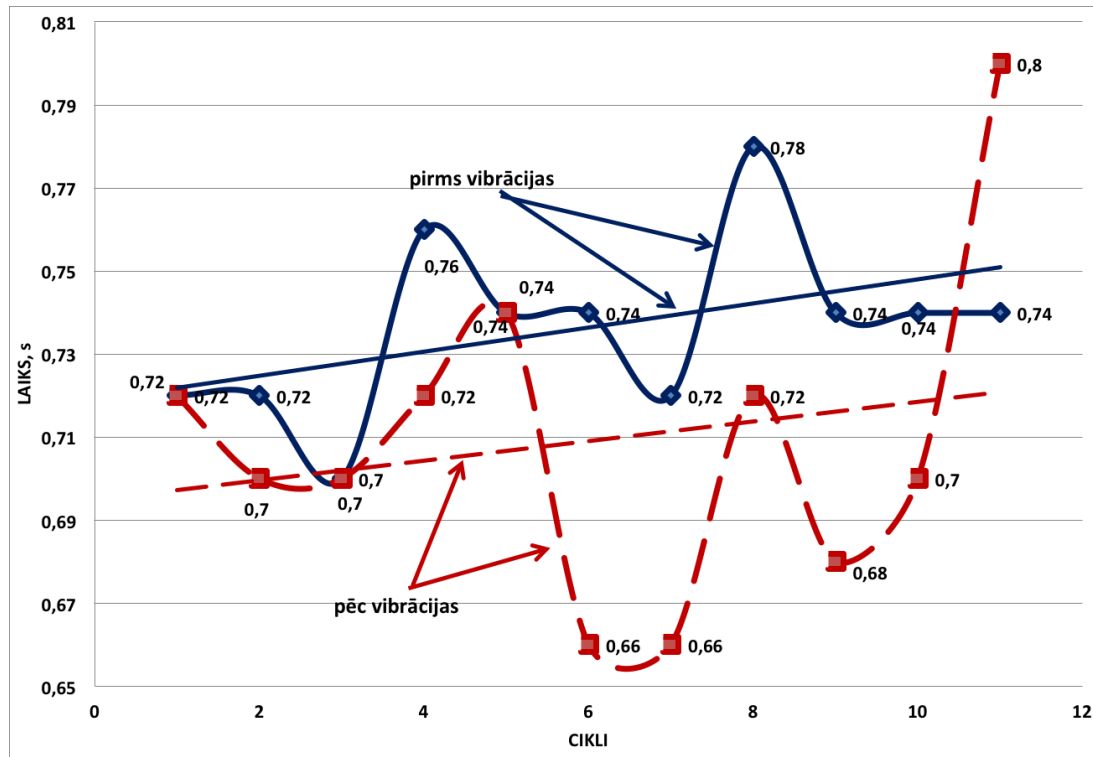
3. attēls. Pārmaiņus divsoļa cikla ātrums pēc lokālās vibrācijas (1. students)

Figure 3 Diagonal stride cycle velocity after local vibration (1. student)

Savukārt vidējais cikla garums 11 ciklos abiem LSPA studentiem pirms lokālās vibrācijas bija 3,03m (skat. 4.att.) un 2,92m, bet pēc lokālās vibrācijas seansa rezultāts uzlabojās attiecīgi veidojot 3,15m (skat. 4.att.) un 3,01m, kas sastāda 12cm un 9cm pieaugumu uz vienu ciklu. Aplūkojot noslēptos 11 ciklus, konstatējam, ka abiem LSPA studentiem noslēpotā distance sastāda 33,33m un 32,19m, bet pēc lokālās vibrācijas iedarbības rezultāts uzlabojās par 1,32m un 0,91m, kas savukārt sastāda 34,65m un 33,10m. Pavadītais laiks distancē abiem LSPA studentiem pirms lokālās vibrācijas seansa ir 8,14s (skat. 5.att.) un 8,20s, bet pēc Lokālās vibrācijas tas ir samazinājies par 0,33s un 0,28s, tādējādi rezultāts veido 7,81s (skat. 5.att.) un 7,92s. Nosakot atsevišķu ķermeņa daļu kustības ātrumu rokām, kājām un gurniem abiem LSPA studentiem, konstatējam, ka pirmajam slēpotājam rokas pārvietošanās ātrums testa vingrinājumā pirms lokālās vibrācijas bija 4,68m/s, bet pēc lokālās vibrācijas rezultāts palielinājās uz 5,06m/s.



4.attēls. Pārmaiņus divsoļa cikla garumi pirms un pēc lokālās vibrācijas (1. students)
 Figure 4 Diagonal stride cycle length before and after local vibration (1. student)



5.attēls. Pārmaiņus divsoļa cikla laiki pirms un pēc lokālās vibrācijas (1. students)
 Figure 5 Diagonal stride cycle time before and after local vibration (1. student)

Kāju darbībai pirms lokālās vibrācijas iedarbības rezultāts sastādīja 5,51m/s, bet pēc lokālās vibrācijas iedarbības 5,28m/s, taču gurni pirms lokālās vibrācijas pārvietojās ar 4,00m/s lielu kustību ātrumu, bet pēc lokālās vibrācijas 4,43m/s lielu kustību ātrumu. Otram LSPA specializācijas studentam rokas pārvietošanās ātrums pirms lokālās vibrācijas seansa bija 4,50m/s un pēc lokālās vibrācijas seansa rezultāts palielinājās uz 4,81m/s.

Kāju darbībai pirms lokālās vibrācijas iedarbības rezultāts veidoja 5,48m/s, bet pēc lokālās vibrācijas seansa 5,26m/s. Gurni pirms lokālās vibrācijas pārvietojās ar 3,88m/s lielu ātrumu, bet pēc lokālās vibrācijas iedarbības 4,31m/s.

Secinājumi **Conclusions**

Iegūtie dati abiem LSPA specializācijas studentiem liecina, ka pēc lokālās vibrācijas pielietošanas uzlabojies ir pārvietošanās ātrums, soļa cikla garums, kā arī kopējais pavadītais laiks distancē – 11 ciklos. Vidējā pārvietošanās ātruma uzlabojums abiem studentiem pēc lokālās vibrācijas seansa ir 0,37m/s un 0,28m/s. Noslēpotais distances kopgarums ir uzlabojies par 1,32 m un 0,91 m, tādējādi, katrā ciklā noslēpotā distance ir palielinājusies par attiecīgi 12 cm un 9 cm. Pavadītais laiks distancē uzlabojās par 0,33s un 0,28s, kas sastāda aptuveni 1/3 daļu no cikla. Pirmajam studentam roku pārvietošanās ātrums uzlabojās par 0,38 m/s, bet kāju pārvietošanās ātrums samazinājās par 0,23 m/s, taču gurnu pārvietošanās ātrums uzlabojās par 0,43m/s. Otrajam studentam roku darbības ātrums uzlabojās par 0,31m/s, bet kāju darbība ātrums samazinājās par 0,22m/s, taču gurnu pārvietošanās ātrums palielinājās par 0,43m/s. Uzrādītie rezultāti testa vingrinājumos pēc lokālās vibrācijas ir uzlabojušies, tādējādi dodot iespēju pilnveidot treniņus un ātrāk atjaunoties pēc tiem gan studentiem, gan augstas klases sportistiem.

Summary

Many scientists in their researches have used different vibration frequencies, amplitude and time of vibration to determine the immediate and short term effect. The scientist opinions on vibration frequency range varies starting from 5Hz to 300Hz and more. But the amplitude is from 1mm to 10mm and more, as well as the time of vibration varies from 5 seconds to even 30 minutes. In the same way the number of repetitions varies from one single repetition to several months. A tonic vibration reflex is delivered when local vibration is applied on a specific muscle and only the muscle, on which the local vibration device has direct impact, receives the excitation (Cardinale & Bosco, 2003; Rittweger et al., 2002) as the muscle spindles are innervated in a simultaneous manner in every vibration cycle (Issurin, 1994, 1996, 1999) and it leads to increased total activity of the muscle (Gilhodes et al., 1986).

However it is important to indicate that for the tonic vibration reflex a direct vibration impact on muscle or sinew with frequencies >100 Hz is required. For the purposes of the study of skiers the vibration device was set on 100Hz frequency, 2mm amplitude and the vibration time in session was 10 minutes.

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MEDICĪNAS KOLEDŽAS STUDENTU KARDIOVASKULĀRO SASLIMŠANU RISKS UN TO IETEKMĒJOŠIE FAKTORI

Cardiovascular Disease Risks and Factors Influencing them among Medical College Students

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Abstract. *The aim of the study is to identify the CVD risks among medical college students associating them to their lifestyle. It should be noted that cardiovascular diseases also affect young people, which students are also. Information obtained during research is necessary for prospective medical staff to acknowledge their cardiovascular health and its influencing factors, as well as for college lecturers to make changes in study programs. The theoretical part of the research discusses various CVD risk determination methods, as well as lifestyle`s impact on cardiovascular health. The empirical part of the research contains information about ten years CVD risk among students, using two Framingham methods (based on the body mass index and amount of lipids in the blood) and seven risk factor (blood pressure, body mass index, smoking, total cholesterol, triglycerides, high-density cholesterol and glucose) addition method.*

Keywords: *CVD risks, Framingham methods lifestyle`s impact on cardiovascular health, medical college students.*

Ievads

Introduction

Pieaugušo vecumā kardiovaskulārās slimības (KVS) no neinfekciozām slimībām ir biežākās saslimšanas un nāves iemesls visā pasaulē. Mirstība no sirds un asinsvadu slimībām ar katru gadu pieaug. 21. gadsimtā vērojama globāla aterosklerotisko kardiovaskulāro slimību epidēmija (Yusuf, Ounpuu & Anand, 2002). Tiek prognozēts, ka attīstītajās valstīs 2020. gadā no sirds asinsvadu slimībām nomirs katrs septītais iedzīvotājs (Boutayeb, 2006).

Saslimstība ar KVS dažādās valstīs ir atšķirīga. 2010. gadā kopējais standartizētais mirstības rādītājs Latvijā no KVS uz 100 000 iedzīvotājiem bija 478, tas ir divas reizes lielāks nekā vidēji ES valstīs. 2014. gadā Latvijā 57 % no visiem nāves gadījumiem bija sirds asinsvadu slimību izraisīti (Latvijas veselības..., 2014). Kardiovaskulārās slimības skar arī gados jaunus cilvēkus.

Sadalījumā pa vecuma grupām, mirstība KVS dēļ sāk pieaugt jau no 35 gadu vecuma (Raitakan et al., 2004; Oliveira et al., 2010).

Kardiovaskulārās saslimšanas nosaka modificējami un nemodificējami riska faktori. Neietekmējamie KVS riska faktori (riski faktori, kurus nevar ietekmēt, jeb nenovēršamie riska faktori) ir vecums, dzimums un iedzimtība. Ietekmējamie jeb novēršamie riska faktori saistīti ar dzīvesveidu (Stahl et al., 2006). 90 % kardiovaskulāro saslimšanu notikumu nosaka deviņi novēršami riska faktori: hipertensija, dislipidēmija, cukura diabēts, neveselīgs uzturs, mazkustīgums, viscerālā aptaukošanās, pārlietu liels alkohola patēriņš, stress (Yusuf et al., 2004; Mintāle, 2014).

KVS riska mazināšanas vadlīnijas nosaka, ka profilaktiskie pasākumi jāveic atbilstoši katram indivīdam noteiktajai riska pakāpei, kuru nosaka riska faktori. Riska faktoru atpazīšana bērnībā un jaunībā ir svarīga KVS primārai profilaksei. Daudzi jaunieši neveic veselības pārbaudes un nezina savu risku saslimt ar sirds asinsvadu slimībām. Jauniešiem vecumā no 18-24 gadiem ir 1–4 koronāras sirds slimību riska faktori un agrīnas aterosklerotiskas izmaiņas (Strong et al., 1999; Berenson et al., 1998). Ateroskleroze var attīstīties jau agrīnā vecumā, tomēr klīniskie simptomi var parādīties daudzus gadus vēlāk, novedot līdz pat letālam iznākumam bez iepriekšēja brīdinājuma. Agrīna riska faktori kontrole varētu samazināt koronārās slimības attīstību vēlākā vecumā, kā arī laikus sākt ārstēšanu mazinātu slimības izpausmes (Strong et al., 1999; Berenson et al., 1998, Lloyd-Jones et al., 2010; Council Conclusions on promoting heart health, 2004). 80 % gadījumos sirds un asinsvadu slimību var novērst, mainot dzīvesveida paradumus, kā arī agrīnā slimības attīstības stadijā, lietojot atbilstošus medikamentus. Visvieglāk veselībai nelabvēlīgos paradumus izmainīt ir jaunībā, kad apzināti dzīvesveids vēl tikai veidojas. Riska faktori summējās, un to mijiedarbība paaugstina KVS risku ģeometriskā progresijā.

Nopietns KVS riska faktors ir smēķēšana. Smēķēšana izraisa subklīnisku aterosklerozi, koronāro sirds slimību, pēkšņu kardiālu nāvi, insultu, aortas aneirismu, perifēro asinsvadu slimības un izraisa agrīnu organisma novecošanos (Benjamin et al., 2010). Smēķēšana ir viens no vislētāk un visgrūtāk novēršamiem riskiem saistībā ar KVS attīstību. Smēķēšanas pārtraukšana ir komplicēts process. Nikotīns ir psihoaktīva viela ar augstu atkarības izveidošanas potenciālu, kurš ir augstāks nekā lietojot marihuānu (Krams, 2012). Pat apzinoties risku saslimt ar KVS, smēķētājs bieži vien nespēj pārtraukt smēķēšanu nikotīna atkarības dēļ, kas var būt fiziska, garīga un sociāla. Fiziskā atkarība raksturojas ar atkarību gan no nikotīna, gan citām tabakā esošajām vielām un to iedarbību uz nervu sistēmu. Emocionāla atkarība raksturojas ar nikotīna nomierinošo iedarbību stresa situācijās. Sociālā atkarība raksturojas ar vēlmi smēķēt situācijās, kad kāds no apkārtējiem cilvēkiem smēķē - piederība noteikti cilvēku grupai (Gielen et al., 2015). Smēķēšanas atmešana mazina

mirstības no KVS risku vīriešiem 2,5 reizes, sievietēm – 2 reizes. Pēc Pasaules Sirds federācijas datiem KVS risks, atmetot smēķēšanu, gada laikā mazinās par 50 % (Ērglis et al., 2012).

Hipertensija ir galvenais riska faktors KVS attīstībā Eiropā un pasaules mērogā, kura novēršanā būtiska loma ir veselīgam dzīvesveidam, ko nosaka ķermeņa svars, veselīgs uzturs, iekļaujot nātriju, kāliju, kalciju, magniju saturošus produktus, fiziskās aktivitātes, smēķēšanas atmešana un atteikšanās no alkohola lietošanas (Gielen et al., 2015). Samazinot par 2 mmHg kardiovaskulāro slimību risks samazinās par 7-10 % (Lewington et al., 2002), bet samazinot asinsspiedienu par 10 mmHg mirstība no KVS mazinās par 20-40 % (Hedner et al., 1996).

Dislipidēmija pieder pie galvenajiem riska faktoriem, kas paaugstina KVS risku. Lipīdi ar plazmas globulīniem veido kompleksus lipoproteīdus. Novirzes lipoproteīdu metabolismā rada holesterīna un triglicerīdu koncentrācijas pieaugumu, veicinot lipīdu izgulsnēšanos asinsvadu sienās un aterosklerozes attīstību. Tā ir slimība, kas ilgst gadu desmitiem, līdz rodas klīniskās izpausmes. Paaugstināts kopējais holesterīns (TH) ir viens no svarīgākajiem KVS riska faktoriem un ir vispārpieņemta KVS riska kalkulāciju sastāvdaļa. Zema blīvuma lipoproteīdi (ZBL) precīzāk korelē ar kardiovaskulāro risku, kurš sāk paaugstināties jau no zemiem ZBL līmeņiem (Third Report ..., 2002).

Hiperglikēmija palielina kardiovaskulāro slimību veidošanās risku. Tas ir attiecināms gan uz pacientiem ar cukura diabētu, gan uz cilvēkiem ar glikozes tolerances traucējumiem. Pacientiem ar cukura diabētu KVS risks ir 2–4 reizes lielāks nekā cilvēkiem ar normālu glikozes toleranci, bet pacientiem ar glikozes tolerances traucējumiem – 1,5 reizes lielāks (Glucose tolerance and mortality ..., 1999).

Aptaukošanās ir nopietna hroniska slimība, kas var tikt raksturota kā epidēmijā globālā mērogā. Šī multifaktoriālā slimība īpaši ietekmē veselību tieši jaunajām paaudzēm. Palielināts svars un aptaukošanās ir uzskatāmi par etioloģiskiem faktoriem dažādām hroniskām slimībām, kas izraisa 60 % nāves gadījumu pasaules mērogā. Epidemioloģiskie pētījumi norāda, ka tieši abdominālā tipa aptaukošanās izraisa augstāku risku KVS attīstībai gan tieši, gan netieši izraisot tādus veselības stāvokļus kā diabētu, hiperlipidēmiju un hipertensiju, savukārt palielinātam ķermeņa svaram ir tieša ietekme uz asinsspiedienu (Gielen, 2015).

Vīrietim ar KMI virs 30 ir četras reizes lielāks risks KVS nāvei nekā vīrietim, kuram KMI ir mazāks par 23 (Baik et al., 2000). Palielināta KMI indeksa dēļ kardiovaskulārās nāves risks ir lielāks jaunākiem cilvēkiem salīdzinājumā ar cilvēkiem virs 65 gadiem (Denke et al., 1993).

Fiziskās aktivitātes spēlē centrālo lomu gan KVS profilakses, gan ārstēšanas gaitā. Regulāras fiziskās aktivitātes var uzskatīt par terapeitisku

stratēģiju dažādu sirds asinsvadu slimību gadījumos. Atbilstoša fiziska slodze kopā ar sabalansētu uzturu samazina aptaukošanās risku, uzlabo lipīdu profilu, samazinot kopējā holesterīna, triglicerīdu, un ZBL līmeni, paaugstinot ABL līmeni, uzlabo glikozes hemostāzi un insulīna hipersensivitāti, ietekmē asins koagulāciju, veicinot fibrinolīzi, samazinot trombocītu reaktivitāti un lokālas trombozes tieksmi, tiek uzlabota endotēlija funkcija un tā vazodilatējošas spējas, samazinās asinsspiediens, tiek samazināts sistēmiskais iekaisums (Augstkalne, 2007).

Regulāra un pietiekamas intensitātes fiziskā aktivitāte samazina sirds slimības risku par 40 %, insulta risku – par 27 % (Pecorelli, 2013; Sauka, 2015). Fiziskās aktivitātes norāda uz laiku un enerģiju, ko indivīds iegulda dažādos vingrinājumos, tomēr tām ir cieša saikne ar indivīda motivāciju un neatlaidību. Fizisko aktivitāšu pielietojums var tikt saistīts vai nu ar izturības vai pretestības trenēšanu.

Neveselīgam uzturam ir cieša saikne ar aterosklerozes attīstību, līdz ar to sabalansēts un veselīgs uzturs ir stūrakmens KVS riska mazināšanā, jo saistīts ar dzīvesveida izmaiņām, ko lielā mērā ietekmē indivīda motivētība. Tauki, it īpaši piesātinātie, ir galvenais holesterīna veidošanās un asinsvadu nosprostošanās iemesls. Savukārt ogļhidrāti, kurus neizmanto tūlītējai enerģijas ieguvei, tiek pārvērsti polisaharīdā – glikogēnā. Tas uzkrājas aknās un muskuļos, veidojot enerģijas rezervi. Ja ar uzturu tiek uzņemts pārlieku liels daudzums ogļhidrātu, daļa no tiem pārvēršas taukos un taukaudu veidā uzkrājas organismā (Shanta Retelny et al., 2008).

Daudzu pētījumu rezultāti norāda uz pārtikas kaloriju daudzuma palielinājumu, kas saistīts ar asins plazmas rādītāju koncentrācijas pieaugumu, tādu kā kopēja holesterīna (TH), zema blīvuma lipoproteīdu (ZBL), ļoti zema blīvuma lipoproteīdu (LZBL), triglicerīdu (TG) un pretēji – augsta blīvuma lipoproteīdu (ABL) samazinājumu. Tā, piemēram, uz svara masas pieaugumu par 1 kg kopēja holesterīna koncentrācijas pieaugums ir 20 %, pretēji tam svara samazinājums uz 10 kg. izsauc kopēja holesterīna koncentrācijas samazināšanu par 10 %, ZBL par 15 %, TG par 30 %, bet ABL koncentrācijas palielinājumu par 8 % (Шарафетдинов & Плотникова, 2007). Liela ietekme uz lipīdu sastāvu izmaiņām ir nepiesātinātu tauku izmantošana pārtikā, kas samazina kopēja holesterīna un zema blīvuma lipoproteīdu līmeni par 5 %-10 % (Погожева, 2004).

Pārmērīga uzņemto olbaltumvielu, it īpaši dzīvnieku izcelsmes, izsauc ievērojamu hiperlipidēmijas un hiperkoagulācijas pieaugumu asinīs. Olbaltumvielu trūkums uzturā pie paaugstinātās kaloriju uzņemšanas izsauc aterosklerotisko procesu asins vados.

Izmantoto uzturā ogļhidrātu neatbilstošais daudzums un to kvalitāte veicina asinsvadu komplikācijas progresēšanu. Palielināta ogļhidrātu uzņemšana izsauc

ĻZBL un triglicerīdu līmeni palielināšanu (Fried, 2003). Rafinētu ogļhidrātu izslēgšana no uztura izsauc ĻZBL un TG daudzuma samazināšanu asins serumā, kā arī veicina kopējā holesterīna koncentrācijas samazināšanu (Daly, 2003)

Metodes

Methods

Kardiovaskulāro slimību risku nosakadaudzi riska faktori. Būtiski ir izvērtēt šo faktoru savstarpējās summas vaisakarības, lai novērtētu gan risku saslimt, gan risku nomirt ar KVS. Šim nolūkam ir izveidotas dažādas datorizētas metodes.

Populārākās no tām ir Sistemātiskā koronārā riska novērtējuma (Systematic Coronary Risk Evaluation – SCORE) modelis un Framingham Kardiovaskulārā riska novērtējuma modelis. Sistemātiskā koronārā riska novērtējuma modelis vērtē prognozēto risku nomirt no KV 10 gados, pamatojoties uz vecumu, dzimumu, smēķēšanas ieradumiem, kopējo holesterīna līmeni un sistolisko asinsspiedienu (Conroy et al., 2003). Vērtējums izriet no savstarpējām sakarībām, atsevišķi apskatot pacientus pēc dzimuma un smēķēšanas. Tā kā vērtējums ir ļoti atkarīgs no vecuma, tad jauniem cilvēkiem līdz 40 gadiem izmanto Relatīvā riska karti jeb diagrammu (Perk et al., 2012). Šajā Relatīvās riska kartes novērtējuma modelī vērtē prognozēto risku nomirt no KVS 10 gados, pamatojoties smēķēšanas ieradumiem, kopējo holesterīna līmeni un sistolisko asinsspiedienu. Nav ņemts vērā ne konkrētais vecums, ne dzimums.

Framingham 2008. gada Kardiovaskulārā riska modelis nosaka iespēju saslimt ar KVS tuvākajos 10 gados, pamatojoties uz vecumu, dzimumu, smēķēšanu, kopējo holesterīnu, zema blīvuma holesterīnu, sistolisko asinsspiedienu, cukura diabētu, ĶMI. Katram no minētiem faktoriem tiek dota noteikta vērtība punktos un šo punktu summa nosaka iespējamo risku saslimt ar KVS (D'Agostino et al., 2008) Šim modelim pamatā ir vecums, dzimums, smēķēšana, asins spiediens, cukura diabēts. Uz šī pamata ir izveidoti 2 atšķirīgi vērtēšanas varianti. Pirmajā variantā pievienots ir kopējais un zema blīvuma holesterīns, otrajā variantā pievienots ĶMI. Framingham 2008. gada Kardiovaskulārā riska modelisizvērtē iespēju saslimt ar KVS tuvākajos 10 gados, nevis nomirt, kas primārai profilaksei ir ļoti nozīmīgi. Šajā modelī ir ietverti vairāki riska faktori nekā SCORE modelī. Īpaši jāatzīmē ĶMI iekļaušana.

Pētījuma mērķis ir noteikt KVS riska faktorus medicīnas koledžas studentiem, izmantojot divas Framingham metodes un Latvijas KVS šķērsriezuma epidemioloģiskā pētījuma metodiku (Ērglis, 2012), kā arī noteikt riska faktoru saistību ar studentu dzīvesveidu.

Pētījumā piedalījās 141 pirmā kursa students vecumā no 18 līdz 54 gadiem. Studenti tika informēti par pētījumā paredzamām veselības pārbaudēm. Katrs

respondents ar savu parakstu apliecināja, ka piekrīt piedalīties pētījumā. Pētījumā nepieciešamie dati tika iegūti ar anketas palīdzību, mērījumiem un laboratoriskiem izmeklējumiem.

Anketā tika iekļauti jautājumi par studentu sociāli demogrāfisko statusu (vecumu, dzimumu, nodarbinātību, vecāku izglītību, materiālo stāvokli), veselību, veiktajiem slimību profilaktiskajiem pasākumiem un zāļu lietošanu, KVS riska faktoriem – uzturu, alkohola lietošanu, smēķēšanu, fiziskām aktivitātēm, stresu. Studentiem tika noteikta ķermeņa masa un garums, asinsspiediens. No katra studenta pēc 12 stundu neēšanas (tukšā dūšā) sēdus stāvoklī tika paņemtas kapilārās asinis. Ar „SD Lipido Care” analizatoru tika noteikti šādi rādītāji – glikoze (GLU) mmol/l, kopējais holesterīns (TH) mmol/l; augsta blīvuma lipoproteīdi (ABL) mmol/l; zema blīvuma lipoproteīdi (ZBL) mmol/l; triglicerīdi (TG) mmol/l. Kopumā pilna informācija iegūta par 141 studentu, no tiem sievietes 128 (jaunākas par 35 gadiem – 103), vīrieši – 13 (visi jaunāki par 35 gadiem).

Rezultāti Results

Pēc aptaujas datiem, tika konstatēts, ka studenti neveic regulāras veselības pārbaudes. Pēdējā gada laikā holesterīna līmeņa un cukura līmeņa asinīs pārbaudi nav veikuši 80 % studentu, asins analīzi nav veikuši 26 %, elektrokardiogrammu – 83 %, redzes pārbaudi – 51 %, asinsspiediens nav noteikts 30 %. Tas norāda, ka studenti nepietiekami novērtē savus saslimšanas riskus, tajā skaitā ar KVS. Pētījumā iekļauto studentu pārbažu rezultātu apkopojums parādīts 1. tabulā.

1.tab. Pētījumā iekļauto studentu pārbažu rezultātu apkopojums
Table 1 In the study included students' test results summary

Raksturlielums	Vidējais	Standartnovirze	Minimālais	Maksimālais
Vecums	25,2	9,6	18	54
Asinsspiediens (sist)	128	15	93	168
Ķermeņa masas indekss	23,4	3,9	16,7	39,7
Glukoze asinīs (mmol/l)	4,7	0,6	3,3	6,8
Triglicerīni asinīs (mmol/l)	0,9	0,4	0,5	2,6
Augsta blīvuma holesterīns asinīs (mmol/l)	1,7	0,4	0,8	2,5
Kopējais holesterīns asinīs (mmol/l)	4,5	1,0	3,0	8,0

Aplūkojot septiņu riska faktoru summu (skat. 2. tab), redzam, ka augstākais riska faktors ir paaugstināts KMI , tam seko paaugstināts holesterīns un smēķēšana. Jaunu studentu grupā (līdz 35 gadiem) sievietēm augstākie riska faktori ir smēķēšana (29 %), paaugstināts asinsspiediens (19 %), paaugstināts KMI (19 %) un paaugstināts holesterīns (19 %). Jauniem vīriešiem – paaugstināts asinsspiediens (54 %), paaugstināts KMI (54 %) un smēķēšana (38 %). Neviens riska faktors nav 26 % studentu, viens riska faktors ir 31 %, divi – 28 %, trīs – 9 %, četri un pieci – 4 %. Vidējā risku faktoru summa bija 1,36. Tas ir ievērojami mazāk nekā Latvijas populācijā kopumā (Ērglis et al., 2012; Vestmane, 2014). Aplūkojot tikai jaunas sievietes vecumā līdz 35 gadiem, vidējā risku summa (1,17) arī ir zemāka nekā atbilstoši Latvijas populācijas daļai (1,6). Līdzīgi rezultāti ir jaunu vīriešu grupā – studentiem vidēji ir 1,85 riska faktori, Latvijas attiecīgajai populācijai – 2,6 (Ērglis et al., 2012; Vestmane, 2014).

Nosakot riskus, izmantojot Framingham metodi, tika konstatēts, ka desmit gadu KVS riski ir salīdzinoši zemi (skat. 3. tab). Jāatzīmē, ka bija ļoti augsta korelācija (0,94, $p < 0,01$) riskiem, kuri noteikti aprēķinos iekļaujot lipīdu daudzumu un ķermeņa masas indeksu. Korelācijas ar riska faktoru summu bija 0,46 ($p < 0,01$). Tas norāda, ka jauniem cilvēkiem KVS risku var noteikt, lietojot lētāko un vienkāršāko modeli ar KMI .

KVS risku var saistīt ar studentu ģimenes faktoriem. Kā svarīgākais ģimenes ietekmes faktors, tika atrasta vecāku izglītība. Studentiem, kuru vecākiem ir augstāks izglītības līmenis, ir zemāks KVS risks. Studentiem, kuru mātēm ir vismaz bakalaura izglītība (36 %), KVS risks pēc KMI ir 0,8 %, pēc lipīdiem – 0,9 %, pārējiem (74 %) – attiecīgi 2,9 % un 2,5 %. Atšķirības ir statistiski nozīmīgas ar $p = 0,01$.

2.tab. KVS risku faktoru biežums medicīnas koledžas studentiem
 Table 2 Frequency of CVD risk factors among medical college students

Risku faktors	Procenti
Paaugstināts asinsspiediens (sist ≥ 140)	25%
Paaugstināts KMI (≥ 25)	31%
Smēķēšana	27%
Paaugstināts holesterīns ($\geq 5,0$ mmol/l)	27%
Paaugstināti triglicerīdi ($\geq 1,7$ mmol/l)	5%
Pazemināts augsta blīvuma holesterīns (vīriešiem $\leq 1,0$, sievietēm ≤ 1.2 mmol/l)	15%
Paaugstināta glikoze ($\geq 5,6$ mmol/l)	6%

3.tab. Studentu KVS desmitgadu riska grupas, noteiktas ar Framingham metodēm, un riska vidējās vērtības

Table 3 Ten years CVD risk groups determined with Framingham methods, and risk average values

	Riska grupas				Vidējais %	Vidējā SK
	<5%	5-10%	10-20%	>20%		
Aprēķināts pēc lipīdiem	93,6	5,0	1,4	0	1,3	0,16
Aprēķināts pēc ĶMI	92,2	6,4	1,4	0	1,5	0,19

KVS risku var sasaistīt ar fiziskām aktivitātēm. 31 % studentu norāda, ka viņiem ar augstas intensitātes fiziskas aktivitātes. Salīdzinot ar pārējiem, viņiem ir zemāki vidējie saslimšanas riski ($p=0,075$). Vidējas intensitātes fiziskās aktivitātēs iesaistās 61 % studentu. Salīdzinot ar pārējiem, viņiem ir zemāks KVS risks, kurš aprēķināts ietverot ĶMI ($p<0,05$), bet KVS risks, kura aprēķinos ietverts holesterīna daudzums asinīs, nav atšķirīgs. Populāra fiziska aktivitāte ir staigāšana. Studentiem staigāšanas laiks nedēļā ir no 0 līdz 40 stundām, vidēji – 13,6 stundas. Tomēr šī fiziskā aktivitāte nav saistīta ar KVS risku.

Studenti ar paaugstinātu ĶMI retāk un mazāk uzturā lieto augļus un dārzeņus. Vismaz 1 porciju dienā lieto tikai 52 % šādu studentu (ar normālu ĶMI – 75 % studenti).

Secinājumi Conclusions

Pētījumā tika noteikts, ka medicīnas koledžas studentiem ir zemāki KVS riski nekā Latvijas populācijai attiecīgās vecuma grupās. Tomēr tikai 26 % studentu nav neviens KVS riska faktors, lielākajai daļai ir viens vai divi. Sievietēm biežākais riska faktors ir smēķēšana, vīriešiem – paaugstināts asinsspiediens un palielināta ķermeņa masa. Kopumā studentiem KVS risks desmit gadu periodam ir zems – nedaudz virs viena procenta. Pētījumā tika pierādīts, ka jauniem cilvēkiem KVS risku var noteikt, lietojot lētāko un vienkāršāko Framingham modeli ar ĶMI, neveicot asins analīzes.

KVS risku var saistīt ar studentu ģimenes faktoriem, uzturu un fiziskām aktivitātēm. Kā svarīgākais ģimenes ietekmes faktors, tika atrasta vecāku izglītība. Studentiem, kuru vecākiem ir augstāks izglītības līmenis, ir zemāks KVS risks. KVS risku samazina studentu augstas un vidējas fiziskās aktivitātes, staigāšana kā zemas intensitātes fiziska aktivitāte KVS risku neietekmē. Studentu ĶMI samazina un līdz ar to arī KVS risku samazina augļu un dārzeņu lietošana ikdienā.

Summary

The research results indicate that medical college students have lower CVD risks than Latvian population in relevant age groups. However, only 26 % of students don't have any CVD risk factors, most of them have one or two. For women the most common risk factor is smoking, for men - increased blood pressure and increased body weight. In general, CVD risk for period of 10 years is low - just over one percent. The research proved that CVD risk factors for young people can be determined by using the cheapest and easier Framingham model with a BMI without taking a blood test.

CVD risks may be linked to students' family factors, diet and physical activities. Parent education was found as the most important family impact factor. Students whose parents have a higher level of education have lower CVD risks. CVD risks for students can be reduced with high and medium physical activities, walking as a low-intensity physical activity does not affect the risk of CVD. Students who are used on a daily fruit and vegetables have smaller BMI and also CVD risk.

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**VESTIBULĀRO VINGRINĀJUMU IETEKME UZ
POSTURĀLĀ LĪDZSVARA PARAMETRIEM BĒRNIEM**
Effects of Vestibular Exercises on Postural Balance for Children

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Abstract. *The balance is one of the most important skills of the postural control and ability to move. The data are gained during the research that was supported by National Research Program „Innovative solutions in social rehabilitation in Latvian schools in the context of inclusive education”. The balance sway index (SI) was tested by digital platform BioSway. The research group included 8 boys and 7 girls in the 12-14 years age range with vestibular function insufficiency. The aim of the study was to examine the immediate effect of vestibular exercises and to evaluate the degree of postural balance parameter changes after vestibular exercises complex applications. Vestibular exercise with head rotation 20 seconds with 3 repetitions caused statistically significant ($p < 0.03$) increasing of SI. The statistically significant ($p < 0.025$) improvement of SI was set after vestibular rehabilitation exercises complex application during 6 weeks (10-15 minutes a day).*

Keywords: *adolescents, balance, BioSway, exercises, testing, vestibular rehabilitation.*

Ievads

Introduction

Mūsdienu sabiedrībā ir plaši izplatītas bērnu un pusaudžu motorās attīstības traucējumu formas: cerebrālie kustību traucējumi, kustību koordinācijas un smalkās motorikas ierobežojumi, motorais nemiers, hiperaktivitāte, sensorie un psihomotorie ierobežojumi, stājas un citi traucējumi. Fiziskās attīstības ietekmē strauji mainās ķermeņa proporcijas. Līdz ar to pusaudža fiziskā attīstība bieži vien nav harmoniska. Ķermeņa daļas aug nevienmērīgi un tas ietekmē kustību kvalitāti. Pusaudžu kustības bieži kļūst neveiklas un nekordinētas, kas var izraisīt kautrīgumu un neveiklību saskarsmē ar apkārtējiem. Līdz ar to kustību traucējumu gadījumos rodas kompleksi sociālie ierobežojumi, kam ir kumulatīvs raksturs, jo tie kavē personības veidošanos, noved pie sociālās atstumtības un kavē komunikatīvo attīstību.

Negatīvās sociālās vides ietekme bieži izpaužas personas psihiskās attīstības ierobežojumu struktūrā. Pasaules Veselības organizācijas publiskotajā ziņojumā indivīda funkcionēšana un tās ierobežojumi tiek raksturota kā dinamiska mijiedarbība starp veselības stāvokli un vides faktoriem gan no personas, gan vides puses (World Health Organization, 2011).

Valsts pētījumu programmas „Inovatīvi risinājumi sociālajā telerehabilitācijā Latvijas skolās iekļaujošās izglītības kontekstā” (INOSOCITEREHI) mērķis ir veikt starpdisciplināru situācijas izpēti Latgales reģiona izglītības iestādēs, nosakot līdzsvara koordinācijas traucējumu izraisītās sekas izglītojamajiem, un izstrādāt multimēdiu rehabilitācijas pasākumu kopumu. Pētījumā tiek izmantoti dati, kas iegūti, veicot bērnu līdzsvara parametru izpēti Latvijas skolās. Līdzsvara parametru pētījumā piedalījās 300 pusaudži vecumā no 12 līdz 14 gadiem no 22 Latvijas skolām. Ar BioSway iekārtu tika testēti 158 zēni (52,7 %) un 142 meitenes (47,3 %). 53,3 % (157 gadījumos) pusaudži mācās pilsētas skolās, pārējie – lauku skolās.

Apkopojot rezultātus, tika secināts, ka aptuveni vienai ceturtajai daļai skolēnu ir līdzsvara funkciju nepietiekamība. Līdz ar to ir nepieciešams izpētīt iespējamās iedarbības metodes to uzlabošanai. Pētījums tika veikts ar mērķi izpētīt vestibulāro vingrinājumu akūtās iedarbības pakāpi un izvērtēt posturālā līdzsvara parametru izmaiņas pēc vestibulāro vingrinājumu kompleksa pielietošanas.

Vestibulārās rehabilitācijas pamatprincipi *The basic principles of the vestibular rehabilitation*

Zinātniskajā literatūrā termins „vestibulārā rehabilitācija” tiek pielietots ārstēšanās taktikai, kuras pamatā ir vingrinājumu pielietošana primāro un sekundāro simptomu mazināšanai. Vestibulārās rehabilitācijas mērķis ir stimulēt centrālās nervu sistēmas (CNS) kompensatorās sistēmas izveidošanos un nodrošināt strukturētu sensoromotorās koordinācijas atjaunošanos, veicot ķermeņa pozicionēšanu un kustības. Vestibulārā rehabilitācija kā ārstnieciskā metode pirmo reizi tika pielietota jau 1946.gadā, un tā kļuva atpazīstama arī kā Cawthorne-Cooksey vingrinājumu programma, ko pielietoja pacientiem pēc galvas traumām vai vestibulārā labirinta traucējumiem. Pacientiem bija jāveic vienkāršas atkārtotas acu, galvas un ķermeņa kustības, kas stimulētu vestibulāro sistēmu un veicinātu kompensācijas procesus (Cawthorne, 1946; Cooksey, 1946).

Vestibulārās rehabilitācijas vingrinājumus pēc iedarbības veida iedala divās kategorijās:

- 1) fizioterapeitiskie - vestibulārās sistēmas traucējumu mazināšanai;

- 2) otolītu pārvietošanas terapija labdabīga paroksismāla pozicionāla vertigo (LPPV) gadījumā (Han et al., 2011).

Vestibulārās terapijas vingrinājumi nebūs efektīvi, ja pacientam tiek konstatēti izteikti un spontāni līdzsvara traucējumi, kā, piemēram, Menjēra slimības gadījumā. Kā arī adaptācijas un kompensatorie mehānismi nebūs veiksmīgi vestibulārā labirinta attīstošās pataloģijas gadījumā (Shepard & Telian, 1995).

Zinātniskajā literatūrā tiek izdalīti četri galvenie vestibulārās rehabilitācijas uzdevumi:

- 1) uzlabot redzes kontroli;
- 2) uzlabot posturālo stabilitāti;
- 3) mazināt reiboni;
- 4) veicināt ikdienas aktivitāšu kvalitāti (Herdman, 1997).

Vestibulārās rehabilitācijas vingrinājumus var iedalīt četrās grupās, kas apkopo galvas un ķermeņa kustības dažādās plaknēs, kā arī skatiena fiksācijas un līdzsvara uzdevumus (1. tabula).

1.tab. Vestibulārās rehabilitācijas programmu pamatvingrinājumu kopums

Table 1 The basic exercise set of vestibular rehabilitation program

Vingrinājumi ar galvas kustībām (acis vaļā un acis ciet)	Galvas fleksija un ekstenzija Galvas rotācija Galvas laterofleksija
Skatiena fiksācijas vingrinājumi	Acu kustības uz augšu un uz leju Acu kustības uz sāniem Galvas vingrinājumi ar fiksētu skatienu uz nekustīgu mērķi Galvas vingrinājumi ar fiksētu skatienu uz kustīgu mērķi
Pozicionēšanas vingrinājumi (acis vaļā un acis ciet)	Sēžot noliekties līdz grīdai Sēžot pagriezt galvu un paskatīties pāri plecam Noliecoties lejā, pagriezt galvu pa labi un pa kreisi Guļot pārvēlties no vieniem sāniem un otriem Piecelties sēdus no guļus pozīcijas uz muguras Piecelties sēdus no guļus pozīcijas uz muguras, pagriežot galvu uz vienu pusi
Stājas un gaitas vingrinājumi (veicot uzdevumu ar aizvērtām acīm, jānodrošina uzraudzība)	Stāja ar pēdām kopā Stāja ar papēdi pie pirkstgala Stāja uz vienas kājas Veikt galvas vingrinājumus ar skatiena fiksēšanu stāvot un pēc tam ejot Veikt iešanu pa apli, strauji pagriežoties, pa kāpnēm, ap šķēršļiem Veikt uzdevumus izmainītā vidē uz dažādām virsmām ar galvas kustībām (ar vai bez skatiena fiksēšanu) Aerobie vingrinājumi ar noliekšanos un pagriezieniem

Pētījuma organizācija un metodes *Research design and methods*

Izpētes grupas atlase tika veikta, izvērtējot m-CTSIB testa rezultātus, kas tika iegūti INOSOCTEREHI izpētes gaitā. Kā tiek norādīts vienā no jaunākajiem pētījumiem, CTSIB ir viens no visplašāk izmantotajiem testiem līdzsvara funkciju noteikšanā (Murray et al., 2014).

Posturālā līdzsvara parametru noteikšanai tika izmantota BioSway platforma ar integrēto Sensorās organizācijas līdzsvara pārbaudes standartizēto testu (m-CTSIB), kas paredz 4 stāvokļus.

m-CTSIB testā ir 4 sākuma stāvokļi, kuru ilgums ir 30 sekundes ar 10 sek. intervālu. Uzdevums - saglabāt līdzsvaru ar minimālu svārstību amplitūdu. Ar testa palīdzību iespējams noteikt, cik lielā mērā un kādas sensomotorās sistēmas cilvēks izmanto līdzsvara saglabāšanai.

Sākuma stāvokļu raksturojums m-CTSIB testa laikā:

- 1) atvērtas acis, stabila virsma, sākuma pozīcijas stāvoklis, kas iesaista visas trīs sistēmas (redzes, vestibulāro un proprioreceptīvo);
- 2) aizvērtas acis, stabila virsma - darbojas vestibulārā un proprioreceptīvā sistēma;
- 3) nestabila virsma (sintētiska līdzsvara virsma), ar redzes kontroli – traucēta proprioreceptīvas informācijas saņemšana, galvenokārt darbojas redzes un vestibulārā sistēma;
- 4) aizvērtas acis, nestabila virsma, galvenokārt darbojas tikai vestibulārā sistēma. Šajā testa izpildes pozīcijā līdzsvara saglabāšanā galvenokārt iesaistās vestibulārais labirints, jo nav redzes kontroles un proprioreceptori darbojas mainīgā vidē.

Turpmākai mērķgrupas atlasei tika veikta iegūto rezultātu sadale procentilēs, lai noteiktu testa m-CTSIB svārstību indeksa (SI) robežvērtības (tabula Nr. 2).

2.tab. Svārstību indeksa procentiļu robežvērtības
Table 2 The percentile thresholds of Sway index

	Cieta virsma, acis atvērtas	Cieta virsma, acis aizvērtas	Mīksta virsma, acis atvērtas	Mīksta virsma, acis aizvērtas
Vidēji (SD)	0.35 (0.11)	0.75 (0.26)	0.67 (0.15)	1.83 (0.33)
Procentiles 25	0.27	0.55	0.56	1.58
50	0.33	0.74	0.64	1.80
75	0.43	0.89	0.76	2.08

Analizējot INOSOCTEREHI pētījumā iegūtos datus, tika konstatēts, ka no 300 dalībniekiem 24.1 % gadījumos testa pozīcijā uz mīkstas virsmas ar acīm ciet SI rezultāts ir virs 2.08.

Pētījumā tika iekļauti 15 dalībnieki, kas piedalījās sākotnējā un atkārtotā testēšanā un patstāvīgi veica vestibulāro vingrinājumu kompleksu pilnā apjomā. Pētījuma grupā tika iekļauti 8 zēni un 7 meitenes vecumā no 12 līdz 14 gadiem, kuriem m-CTSIB testa rezultāts ceturtajā pozīcijā bija virs kritiskās robežas, t.i. 2.08. Pirms pētījuma realizēšanas tika saņemta rakstiska vecāku vai aizbildņu piekrišana par viņu bērnu piedalīšanos pētījumā.

Vestibulāro vingrinājumu akūtās iedarbības pakāpes noteikšanai izpētes grupā tika veikts modificēts Posturālās stabilitātes tests. Pirmajā testa izpildes laikā bija jā saglabā līdzsvars uz mīkstas virsmas ar aizvērtām acīm 20 sekundes (3 atkārtojumi). Otrajā testa izpildes laikā pirms katra pārbaudījuma uzsākšanas tika kairināta vestibulārā sistēma, veicot atkārtotu galvas rotācija pa labi un pa kreisi maksimālā amplitūdā 20 reizes (1 reize 1 sekundē).

Pamatojoties uz vestibulārās rehabilitācijas pamatprincipiem (Han, Song & Kim, 2011; Bronstein et al., 2004), tika sagatavots vingrinājumu komplekss, kas iekļāva trīs uzdevumus ar galvas pozīcijas izmaiņām līdzsvara funkciju uzlabošanai.

1. Galvas rotācija.

Sēdus pozīcijā pagriezt galvu pa labi un pa kreisi 10 reizes 10 sekundēs. Kustību veikt ar amplitūdu, kas ir komfortabla un neizraisa nepatīkamu iestiepumu. Vingrinājuma laikā acis ir vaļā un skatiens kustības virzienā. Pēc 10 kustībām pārtraukums 10 sekundes, tad vingrinājumu atkārtoti vēl piecas reizes. Ja, veicot uzdevumu ar aizvērtām acīm, nav izteikta galvas reiboņa, vingrinājumu turpina stāvus pozīcijā.

2. Galvas fleksija un ekstenzija ar fiksētu skatienu uz orientieri.

Uzdevumu veic sēdus pozīcijā, fiksējot skatienu uz izstieptas rokas īkšķi. Veic 10 kustības 10 sekundēs, pārtraukums starp atkārtojumiem 10 sekundes. Kopējais atkārtojumu skaits - 6. Ja pēc vingrinājuma izpildes galvas reiboni vairs neizjūt, kustību skaitu palielina līdz 20 reizēm. Uzlabojoties pašsajūtai, uzdevumu turpina veikt stāvus pozīcijā.

3. Noliekšanās un iztaisnošanās, pieskaroties ar roku pie pretējās kājas pirkstgala.

Uzdevumu atkārtoti 10 reizes pārmaiņus ar labo un kreiso roku, pārtraukums starp atkārtojumiem 10 sekundes. Izpilda 6 atkārtojumus. Ja pēc vingrinājuma izpildes galvas reiboni vairs neizjūt, noliekšanās skaitu palielina līdz 20 reizēm. Uzlabojoties pašsajūtai, uzdevumu turpina veikt ar aizvērtām acīm.

Atkārtota dalībnieku testēšana notika pēc 6 nedēļām. Pirms testēšanas notika pārruna ar pētījuma dalībnieku un vecākiem par kompleksa pielietošanas

biežumu. Turpmākai datu apstrādei tika izmantoti dalībnieku rezultāti, kas norādīja, ka kompleksu veica vismaz 5 reizes nedēļā.

Empīrisko datu salīdzinošai analīzei, tika izmantota datu statistiskās apstrādes pakete SPSS 15,0. Datu analīzē tika pielietota:

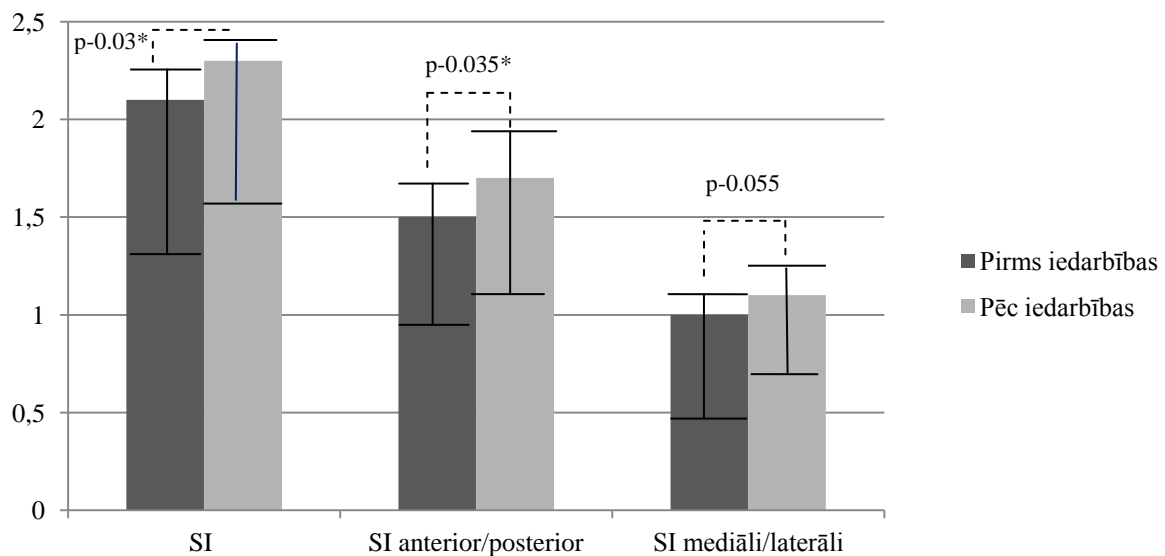
- aprakstošā statistika;
- saistīto paraugkopu salīdzināšana, izmantojot neparametriskos kritērijus;
- procentiņu skalas noteikšana.

Sakarība starp mainīgajiem tika noteikta kā būtiska, ja $p \leq 0,05$; ļoti būtiska, ja $p \leq 0,01$; maksimāli būtiska, ja $p \leq 0,001$; un sakarība starp mainīgajiem ir nebūtiska, ja $p > 0,05$ (Dravnieks, 2004).

Rezultāti un diskusija *Results and discussion*

Vestibulārā kairinājuma pakāpes novērtēšanai, ko izraisa galvas rotācijas vingrinājums, tika veikts modificēts Posturālās stabilitātes tests. Pirmajā testa izpildes laikā bija jā saglabā līdzsvars uz mīkstas virsmas ar aizvērtām acīm 20 sekundes (3 atkārtojumi). Šajā pozīcijā līdzsvara saglabāšanai galvenokārt iesaistās vestibulārā labirinta receptori. Otrajā testa izpildes laikā pirms katra pārbaudījuma uzsākšanas tika kairināta vestibulārā sistēma, veicot atkārtotu galvas rotāciju pa labi un pa kreisi maksimālā amplitūdā 20 reizes (1 reize 1 sekundē). Veicot kustības, nepieciešamības gadījumā tika nodrošināts atbalsts, pieturot izmeklējamo pie pleca.

Analizējot iegūtos testu rezultātus, tika konstatēta statistiski ticamas vidējo rezultātu izmaiņas ($p \leq 0,05$). Vislielākās izmaiņas ir vērojamas kopējā svārstību indeksa parametros (1. att.). Pirms galvas rotācijas uzdevuma izpildes vidējais SI grupai bija 2.1, bet pēc vestibulārās iedarbības – 2.3 ($p = 0.03$). Līdzsvara parametru izmaiņas galvenokārt tika konstatētas anterior/posterior virzienā (SI pirms -1.5, pēc - 1.7 ($p=0.035$)). Svārstību indeksa izmaiņas mediālā/laterālā virzienā nebija statistiski nozīmīgas (SI pirms -1.0, pēc - 1.1 ($p=0.055$)). Iegūtie rezultāti norāda, ka pētījuma dalībnieki galvenokārt pielieto „potīšu stratēģiju” līdzsvara saglabāšanai. Tas saskan ar iepriekš veiktajiem pētījumiem, kas norāda, ka jaunākā vecumā cilvēki līdzsvara saglabāšanai galvenokārt veic muskuļu sabalansēšanu potītes locītavā, bet senioru vecuma cilvēki izmanto „gūžas locītavu stratēģiju” (kustības iegurņa locītavās) vai „soļa stratēģiju” (līdzsvara saglabāšana, sperot soli) (Ricci et al., 2009).



1.att. Svārstību indeksa (SI) vērtības pirms un pēc vestibulārās iedarbības
 Figure 1 Sway index (SI) values before and after vestibular provocation

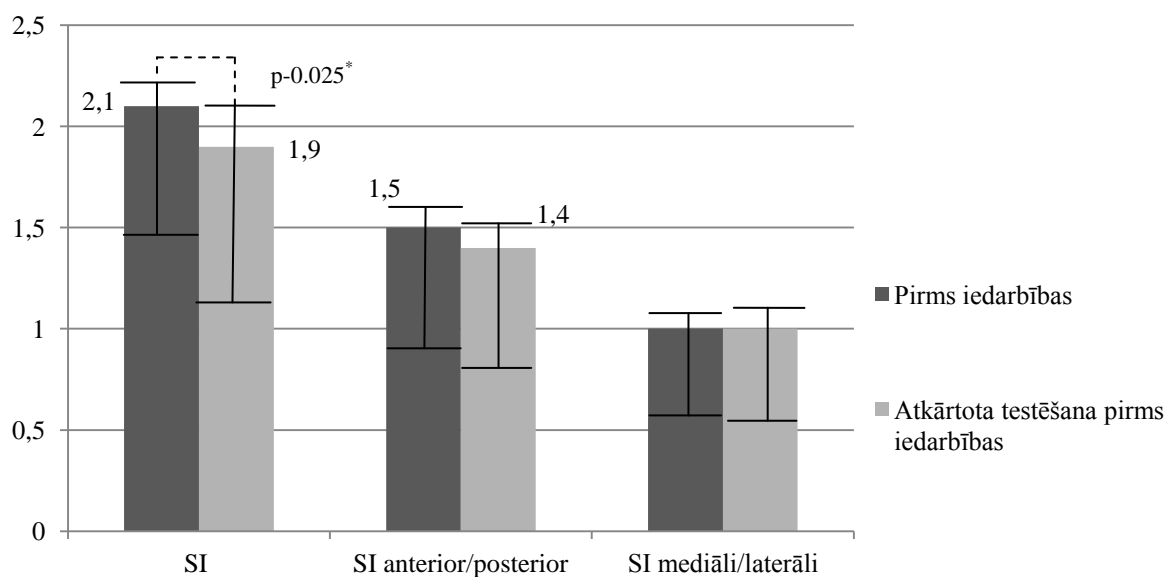
Izvērtējot iegūtos rezultātus, var secināt, ka kopējais vingrinājuma izpildījuma ilgums, kas ir 1 minūte (3 reizes pa 20 sekundēm), izraisa būtisku vestibulāro kairinājumu. Tas norāda, ka, ņemot vērā individuālās īpatnības, vienas minūtes kopējā vingrinājumu iedarbība var būt rekomendējams dozējums sākotnējā līdzsvara attīstīšanas posmā.

Herdmans un līdzautori norāda, ka pacientiem, kam ir diagnosticēts vestibulārais traucējums, ir jāizpilda skatienu fiksācijas vingrinājumi četras līdz piecas reizes dienā, kopā tam veltot 20-40 minūtes dienā, kas jāapvieno ar 20 minūšu līdzsvara un gaitas uzdevumiem (Herdman et al., 2007). Vingrinājumu atkārtojumu skaitu pakāpeniski jāpalielina no piecām līdz desmit reizēm vienā piegājienā (Krebs et al., 1993). Ņemot vērā, ka pētījuma dalībniekiem tika konstatēta vestibulārās sistēmas darbības traucējumi bez izteiktām klīniskām pazīmēm, kompleksa izpildes dozējums tika noteikts: trīs vingrinājumi katru dienu - kopējais iedarbības laiks no 10 līdz 15 minūtēm.

Vingrinājumu izpildes tehnika tika apgūta pēc pirmās testēšanas. Pētījuma dalībnieki un viņu vecāki tika informēti par nepieciešamību veikt paškontroli vingrinājumu izpildes laikā, lai nodrošinātu uzdevuma sarežģītības palielināšanu, samazinoties iedarbības pakāpei, kā arī tika izskaidroti drošības noteikumi, veicot vingrinājumus. Kompleksa mērķis bija radīt adekvātu vestibulāro kairinājumu, kas stimulētu CNS kompensatorās sistēmas izveidošanos un nodrošināt strukturētu sensoromotorās koordinācijas atjaunošanos.

Atkārtotā testēšanā, kas notika pēc 6 nedēļām, tika pielietots modificēts Posturālās stabilitātes tests uz mīkstas platformas ar aizvērtām acīm ar un bez

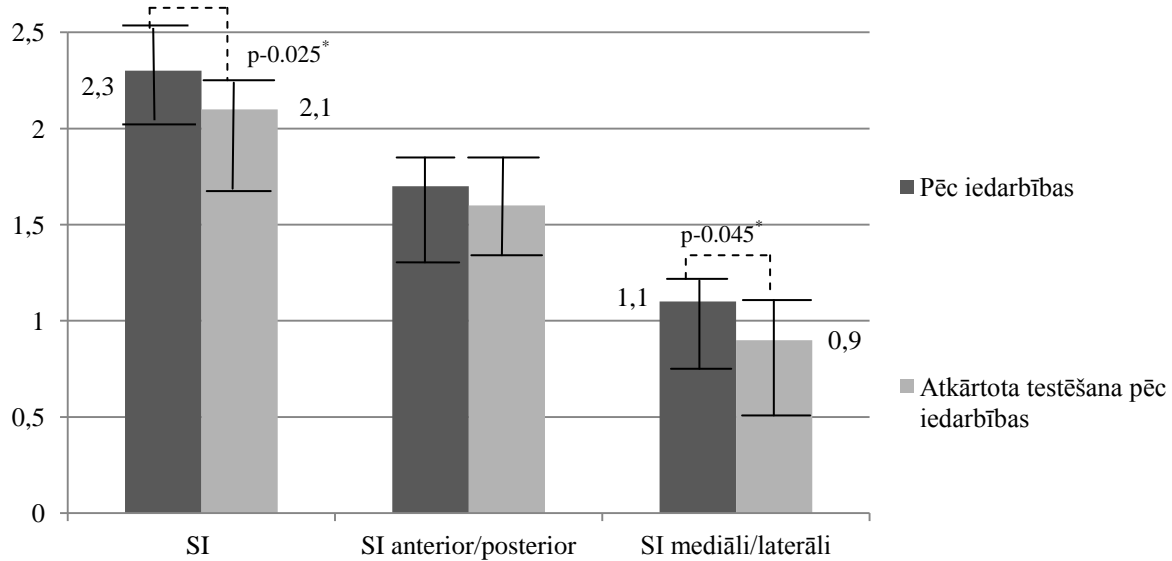
vestibulāro kairinājumu. Analizējot testēšanas rezultātus, tika konstatēts, ka statistiski ticami ($p < 0.05$) uzlabojās līdzsvara parametri gan pirms, gan pēc vestibulārā kairinājuma. Tika konstatētas statistiski ticams ($p = 0.025$) kopējā svārstību indeksa samazinājums pēc vestibulāro vingrinājumu kompleksa pielietošanas (pirms SI-2.1, pēc SI-1.9). Tomēr, analizējot svārstību indeksa izmaiņas dažādās plaknēs (anterior/posterior un mediāli/laterāli), statistiski ticamas izmaiņas netika konstatētas, lai gan vidējie rādītāji svārstībās uz priekšu un atpakaļ samazinājās (2. attēls).



2.att. Svārstību indeksa (SI) vērtības pirmajā un atkārtotajā testēšanā pirms vestibulārās iedarbības

Figure 2 Sway index (SI) values of the first and retesting before vestibular provocation

Analizējot testēšanas rezultātus pēc vestibulārā kairinājuma, tika konstatēts, ka atkārtotajā izmeklējumā kopējais svārstību indekss statistiski ticami ($p = 0.025$) samazinājās (pirms SI-2.3; pēc SI-2.1). Atkārtotā testēšanā stabilitātes indekss pēc vestibulārā kairinājuma bija 2.1, kas ir līdzvērtīgs rādītājam pirmajā testēšanā pirms galvas rotācijas (3. attēls). Tas norāda, ka vingrinājuma kompleksa ietekmē ir izveidojusies līdzsvara sistēmas adaptācija vestibulārajiem kairinājumiem.



3.att. Svārstību indeksa (SI) vērtības pirmajā un atkārtotajā testēšanā pēc vestibulārās iedarbības

Figure 3 Sway index (SI) values of the first and retesting after vestibular provocation

Atkārtotajā testēšanā statistiski ticamas atšķirības ($p=0.057$) netika konstatētas anterior/posterior virzienā, tomēr būtiski samazinājās svārstības mediālā/laterālā virzienā ($p=0.045$). Pirms kompleksa pielietojanas svārstību indekss bija 1.1, bet pēc sešām nedēļām tas samazinājās līdz 0.9. Tas norāda uz iespējamām organisma kompensatorām rezervēm, samazinot svārstības citās plaknēs, pielāgojoties mainīgai videi.

Secinājumi

Conclusions

1. Analizējot m-CTSIB svārstību indeksa vidējos rezultātus, var secināt, ka 24 % gadījumos bērniem 12-14 gadu vecumā ir konstatēta vestibulārās sistēmas traucētā darbība, kas norāda uz nepieciešamību veikt papildus izmeklējumus traucējumu diagnosticēšanai.
2. Veicot vestibulāro kairinājumu, t.i. galvas rotāciju trīs reizes pa 20 sekundēm, tiek būtiski ietekmēti līdzsvara parametri un Svārstību indekss statistiski ticami palielinās ($p \leq 0,05$). Tas ļauj secināt, ka vienas minūtes vingrinājumu dozējums ir adekvāts kairinājums vestibulārās sistēmas reakcijai.
3. Pielietojot vestibulāro vingrinājumu kompleksu 6 nedēļas vismaz 5 dienas nedēļā (10-15 minūtes dienā), ir iespējams būtiski uzlabot līdzsvara parametrus. Iegūtie rezultāti apliecina, ka sagatavotais komplekss nodrošina adekvātu vestibulāro kairinājumu, kas stimulē CNS

kompensatorās sistēmas izveidošanos un nodrošina strukturētu sensoromotorās koordinācijas pilnveidošanos.

Summary

The motor development disorders such as: cerebral movement disorders, motor coordination and fine motor limitations, motor restlessness, hyperactivity, sensory and psychomotor limitations, posture and other disorders are more and more common in adolescence. The balance is one of the most important skills of the postural control and ability to move. The data are gained during the research that was supported by National Research Program „Innovative solutions in social rehabilitation in Latvian schools in the context of inclusive education”.

The balance parameters were studied using the vestibular platform BioSway. The normative data was created based on the study of 300 adolescents aged 12 to 14 years from 22 Latvian schools. With BioSway equipment was tested 158 boys (52.7 %) and 142 girls (47.3 %). Postural sway and limitations of stability were measured with the use of three specific testing programmes that indicate the sway index (SI). The m-CTSIB represented a measurement of postural balance in four conditions which involved standing on a firm and soft foam surface with eyes open and with eyes closed. The research group included 8 boys and 7 girls with vestibular function insufficiency. In this group the SI on soft foam surface with eyes closed was above the critical level - 2.08.

The aim of the study was to examine the immediate effect of vestibular exercises and to evaluate the degree of postural balance parameter changes after vestibular exercises complex applications.

The modified Postural stability test was done to define the immediate effect of vestibular provocation. The first test condition was to maintain a balance on a soft surface with eyes closed for 20 seconds three repetitions (rest between repetitions 30 seconds). The second test condition - before the start of SI measurement the vestibular system was provoked by repeated head rotation to the right and to the left of the maximum range of 20 times (1 time in 1 second).

The testing data shows that vestibular provoked exercise caused statistically significant ($p < 0.03$) increasing of SI.

The well known vestibular rehabilitation exercises were created by Cawthorne and Cooksey in the 1940s. Cawthorne-Cooksey exercises include a exercises that involve a progression of eye movements, head movements with eyes open or closed, bending over, sit to stand exercises and walking (Cooksey, 1946). The set of three exercises with bending, head rotation and flexion-extension was applied during 6 weeks (10-15 minutes a day).

The repeated test data after 6 weeks shows that SI was improved ($p < 0.025$) as before as after vestibular provoked exercise.

The obtained results confirm that three vestibular exercise set provides adequate vestibular system irritation that stimulates the CNS to provide a compensator framework for improvement of movement coordination.

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DATORTOMOGRĀFIJA GALVAI – GADĪJUMA ATRADE DEGUNA BLAKUSDOBUMOS

Incidental Findings of Paranasal Sinuses Identified on Computer Tomography Scans

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Abstract. *The research work has been dedicated for computer tomography and devoted to the analysis of computer tomography scans. Visual diagnostic methods are widely applied in medicine. Therefore incidental findings are more often. An incidental finding is any abnormality not related to the illness or causes that prompted the diagnostic imaging test. Abnormalities of the paranasal sinuses are frequently encountered as incidental findings during spiral computer tomography evaluation of head and cone beam computer tomography for dental purposes. The growing number of imaging techniques performed per patient causes an increase in the number of incidental findings. How these findings should be managed is far from settled.*

The aim of this study was to retrospectively analyze the occurrence and type of incidental abnormalities of paranasal sinuses detected by radiographic examinations in the Latvian population of adults.

The research work includes retrospective data of three hundred patients. They underwent spiral computer tomography scan of the head referred for non-sinus pathologies in Pauls Stradins Clinical University Hospital in Latvia between February 2015 and October 2015.

This is the first report describing incidental findings of paranasal sinuses, the types, the most frequently affected sinuses in Latvian population of adults and also associations between incidental findings and such factors as age, gender, season, septal deviation and enlarged inferior nasal turbinates.

Keywords: *adults, computer tomography scan, incidental findings, paranasal sinuses.*

Ievads

Introduction

Literatūrā ar gadījuma atradi apzīmē jebkuru anomāliju, ko atrod nesaistīti ar saslimšanu vai cēloņiem, kas pamudinājuši veikt vizuālās diagnostikas izmeklējumu (Lumbreras et al., 2010). Klasisks gadījuma atrades piemērs ir veidojums virsnierēs (incidentaloma) vai mezgliņi plaušās (Lumbreras et al., 2010). Gadījuma atrades vidējais sastopamības biežums ir 23.6 % (Lumbreras et al., 2010). Augstāks sastopamības biežums (31.1 %) minēts pētījumos, kuros

izmantoti datortomogrāfijas (turpmāk DT) izmeklējumi (Lumbreras et al., 2010).

Pētījumos, kuros izvērtēja DT un magnētiskā rezonanses (turpmāk MR) izmeklējumus ausu, kakla un deguna (LOR) orgāniem, pierāda augstu gadījuma atrades biežumu asimptomātiskiem pacientiem. Havas et al., (1988) pētījumā ziņo, ka radioloģiska anomālija vismaz vienā no deguna blakusdobumiem sastopama līdz pat 42.5 % DT un MR izmeklējumu, kuri veikti asimptomātiskiem pacientiem vidēji 55 gadu vecumā (Havas et al., 1988). Literatūrā ziņo, ka korelācija starp radioloģisku atradi elpceļos un klīniskiem simptomiem ir vāja (Jones, 2002). Pētījumos, kas izvērtēja gadījuma atrades biežumu sejas-augšžokļa reģionam veiktās konusveida stara CT izmeklējumos (angl. val. *cone beam computer tomography* jeb *CBCT*), gadījuma atrades biežums variē no 24.6 % līdz 92.8 % (Pette et al., 2012, Caglayan & Tozoglu, 2012, Price et al., 2011, Pazera et al., 2011, Cha et al., 2007). Rezultātu atšķirību skaidro ar atšķirīgu attēla interpretāciju, diagnostiskiem un iekļaušanas kritērijiem, klimata ietekmi. Pētījumos konstatētās gadījuma atrades deguna blakusdobumos ir sabiezēta gļotāda, akūta vai hroniska rinosinusīta pazīmes, retences cista, polips, antrolīts, mukocēle un osteoma.

Latvijā un pasaulē attēldiagnostika kļūst aizvien pieejamāka un uzlabojas izmeklējumu kvalitāte. Šie apstākļi rada situāciju, ka aizvien biežāk tiek atklātas gadījuma atrades. Tas var veicināt tālāku pacienta izmeklēšanu, testu, diagnostisku procedūru veikšanu un ārstēšanu. Lai spriestu pargadījuma atrades prognostisko nozīmi un terapijas nepieciešamību, ir jānoskaidro gadījuma atrades sastopamības biežums.

Latvijā nav statistikas datu par gadījuma atrades sastopamības biežumu, veidu, lokalizāciju deguna blakusdobumos, atrades smaguma pakāpi un to saistību ar sezonālītāti, pacienta vecumu, dzimumu, deguna starpsienas deviāciju vai palielinātām apakšējām deguna gliemežnīcām.

Raksta mērķis – sniegt detalizētu aprakstu par radioloģiskajos izmeklējumos konstatējamām gadījuma atradēm deguna blakusdobumos, to sastopamības biežumu pieaugušo populācijā Latvijā.

Pētījuma metodika *Research methodology*

Pētījumā izmantotie materiāli

Pētījuma izstrādē tika izmantoti retrospektīvi dati no pacientu slimības vēsturēm. Pētījumā iekļāva tikai tos pacientus, kam DT izmeklējums galvai veikts sakarā ar sūdzībām un patoloģiju, kas neskar un neietekmē degunu, deguna blakusdobumus un to gļotādas stāvokli. Tie bija trīssimt DT izmeklējumi

aksiālā plāknē, kas veikti pieauguša vecuma vīriešiem un sievietēm Paula Stradiņa klīniskās universitātes slimnīcā (turpmāk P. Stradiņa KUS) laika posmā no 2015.gada 7.februāra līdz 2015.gadam 23.oktobrim sakarā ar akūtiem galvas smadzeņu asinsrites traucējumiem.

Pētījumā izmantoto statistisko metožu apraksts

Izlasses rezultātu apkopojumam un aprēķiniem tika izmantotas statistiskās apstrādes programmas: Microsoft Excel, IBM SPSS Statistics (versija 23.0) un PAST (Palaentological Statistics, versija 1.63) (Hammer et al., 2001). Izmantotās analīzes metodes:

1. Analizējot diagnožu sadalījumu (-us) tika pārbaudīta nobīde no normālsadalījuma, izmantojot viena parauga hi kvadrātā (χ^2) metodi. Par statistiski nozīmīgu atšķirību no normālsadalījuma tika uzskatīts, ja P_χ vērtība ir mazāka par 0,05 jeb $5,00 \times 10^{-2}$ (Hammer et al., 2001).
2. Pārbaudot gadījuma atražu sadalījumu atkarībā no kādas citas pazīmes, tika veidotas kontingences tabulas ($m \times n$). Analīze tika veikta izmantojot divu paraugu hi kvadrātā (χ^2) metodi vai Fišera tiešo metodi. Par statistiski nozīmīgu atšķirību starp grupām jeb sadalījumu abu metožu gadījumā tika uzskatīts, ja P_χ vērtība bija mazāka par 0,05 jeb $5,00 \times 10^{-2}$ (Hammer et al., 2001).
3. Noteiktās diagnozes tika salīdzinātas starp labo (*dextra*) un kreiso (*sinistra*) sejas pusi. Analīze tika veikta, izmantojot (1) divu paraugu hi kvadrātā (χ^2) metodi vai Fišera tiešo metodi, ja dati bija nomināli jeb iedalījās kategorijās, vai (2) nepārotu datu t testu, ja dati bija skaliski jeb skaitliski (Lund-Mackay punktu sistēma) (Hammer et al., 2001).
4. Nepārotu datu t testa metodes pirmais solis bija Levenjē (Levene's) tests, ar kura palīdzību tika noteikts, vai starp analizējamām grupām pastāv līdzīgas dispersijas. Ja abu grupu dispersijas līdzīgas (Levenjē testa $p > 0,05$), tad tika pielietots parastais Studenta t-tests, bet, ja nē (Levenjē testa $p < 0,05$ jeb $5,00 \times 10^{-2}$), tad tika izmantots Velša t-tests. Atkarībā no tā mainījās nepārotā t testa rezultāts. Šī testa ietvaros tiek noteikt t koeficients un tā p vērtība jeb rezultāta statistiskā ticamība. Par svarīgu atšķirību starp grupām uzskatījām, ja statistikā ticamība (P_t) bija mazāks par 0,05 jeb $5,00 \times 10^{-2}$ (Hammer et al., 2001).
5. Salīdzinot pa izmeklējumu mēnešiem deguna dobuma labās un kreisās puses novērtējumu atsevišķi un abas puses kopīgi pēc Lund-Mackay punktu sistēmas, tika izmantot viena virziena ANOVA. Par svarīgu atšķirību starp grupām (pa mēnešiem) uzskatījām, ja statistikā

ticamība (P_A) bija mazāks par 0,05 jeb $5,00 \times 10^{-2}$ (Hammer et al., 2001).

6. Saistību starp dažādiem ar izmeklēšanu saistītajiem lielumiem noskaidrošanai tika izmantoti vairāki saistību rādītāji:

1. Ja abu rādītāji bija skaitliski ar precīziem rādījumiem, tika izmantots Pīrsona korelācijas tests ar koeficientu r . Pīrsona korelācijas testa rādītājs r var būt robežā no -1 līdz +1. Apskatot precīzāk saistības stiprumu atkarībā no r lieluma, tad līdz | 0,2 | korelācija jeb saistība ir ļoti vāja; no | 0,2 | — | 0,4 | - vāja; no | 0,4 | — | 0,7 | - vidēji cieša; no | 0,7 | — | 0,9 | - cieša; virs | 0,9 | - ļoti cieša; | 1,00 | – ideāla. Saistība bija statistiski nozīmīga, ja tās P_r vērtība bija mazāka par 0,05 jeb $5,00 \times 10^{-2}$. Par nozīmīgu saistību uzskatīja, ja r vērtība bija lielāka par 0,40 (Hammer et al., 2001).
2. Ja analizējamie lielumi bija nomināli vai ordināri jeb dati tika iedalīti apzīmētās grupās, tad korelācijas noteikšanai izmantoja kontingences tabulas, korelācijas koeficientu Krāmēra V rādītāju. Atkarībā no V koeficienta lieluma noteica saistību stiprumu: Līdz $\pm 0,10$ saistība ir ļoti vāja; no 0,10 – 0,19 - vāja; no 0,20 – 0,29 - vidēja; virs 0,30 - stipra. Par statistiski ticamu un svarīgu saistību starp rādītājiem uzskatīja, ja rādītāja statistikā ticamība, kas ir vienāda ar χ^2 metodes ticamību, bija mazāka par 0,05 jeb $5,00 \times 10^{-2}$ (Hammer et al., 2001).
3. Ja viens rādītājs bija nomināls, bet otrs skaitlisks, tad korelācijas analīzē tika izmantots lielums eta (η). Šajā gadījumā nominālie dati - faktoriālais lielums un skaitliskie dati - rezultatīvais lielums. Ja starp pazīmēm ir 100 % saistība, tad $\eta = 1$, bet ja saistības nav, tad – 0. Apskatot precīzāk saistības stiprumu atkarībā no η lieluma, tad līdz | 0,2 | korelācija jeb saistība ir ļoti vāja; no 0,2 — 0,4 - vāja; no 0,4 — 0,7 - vidēji cieša; no 0,7 — 0,9 - cieša; virs 0,9 - ļoti cieša; 1,00 – ideāla (Hammer et al., 2001).

Starp visiem DT izmeklējumiem tika konstatēti 15 gadījumi ar dubultu atradi *sinus maxillaris dextra*, četri gadījumi – *sinus sphenoidalis dextra* un septiņi – *sinus maxillaris sinistra*. Dublētie dati netika ietverti vispārējā pacientu datu analīzē, bet pie izmeklējumiem tika uztverti kā individuāli izmeklējumi. Apkopojot izmeklējuma rezultātu tika ņemts vērā, ka vienam pacientam var būt vairākas atrades vienā lokalizācijā, kas tika uzskatīti par neatkarīgiem izmeklējumiem. Tātad, ja vienam pacientam, tika konstatēti divi dažādi veidojumi, tad analīzē tie tika uzskatīti par diviem neatkarīgiem lielumiem.

Rezultāti

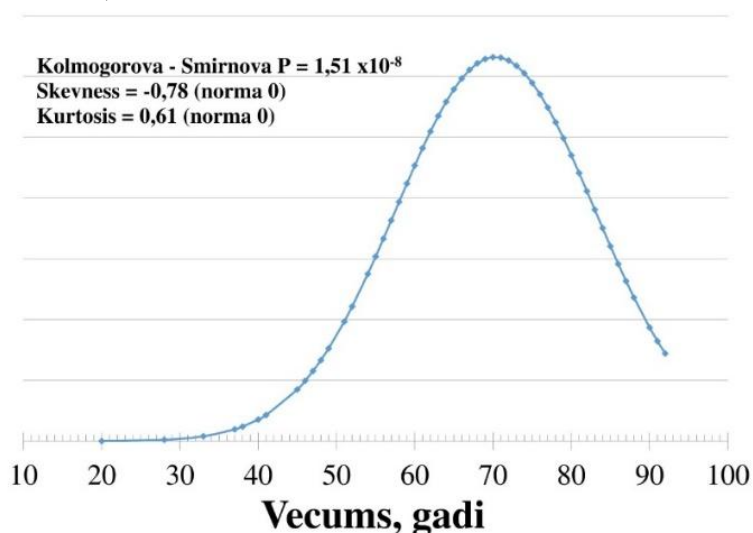
Results

Pētījumā tika analizēti galvas DT izmeklējuma apraksti, ko veicis radiologs, izvērtējot izmeklējumu sakarā ar patoloģiju, kuras dēļ tas veikts.

Analizējot aprakstus (n=276), konstatēts, ka 13,5 % (n=37) gadījumos aprakstā nav minēts deguna blakusdobumu stāvokli, 53,98 % (n=149) gadījumos atzīmēts, ka deguna blakusdobumi ir pneimatizēti, un 32,61 % (n=90) ir minēta kāda no sekojošām patoloģijām deguna blakusdobumos:

- 1) Sabiezēta/cirkulāri sabiezēta/hiperplastiska gļotāda (72,22 %; n=65);
- 2) Retences cista/cistisks gļotādas sabiezējums (25,55 %; n=23);
- 3) Saturs/saturs ar gaisa ieslēgumiem/patoloģisks substrāts sīnusā (20 %; n=18);
- 4) Sīnusa hipoplāzija/aplāzija (6,67 %; n=6);
- 5) Sklerotiskas sīnusa sienas/hiperostoze/hipertrofēta sīnusa siena (6,67 %; n=6);
- 6) Osteoma (2,22 %; n=2);
- 7) Mukocēle (1,11 %; n=1);
- 8) Polips (1,11 %; n=1);

Kappa koeficients ir 0.294, kas norāda, ka starp radiologu un pētnieku pastāv mērena vienošanās pakāpe, identificējot gadījumus ar vai bez patoloģijām (Viera & Garret, 2005).



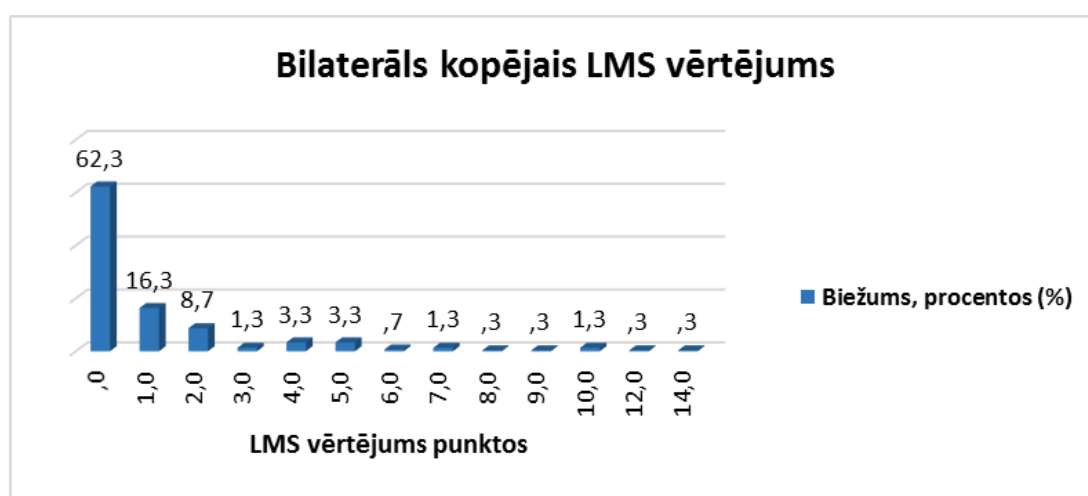
1.att. Pacientu vecuma sadalījums pēc Gausa liknes jeb normālsadalījuma

Fig. 1 Patient age distribution by a Gaussian or normal distribution curve

Starp visiem pacientiem, kas tika iekļauti pētījumā, 47,00 % bija vīrieši, bet 53,00 % - sievietes. Vidējai vecums bija $70,29 \pm 12,65$ gadi ar vecuma intervālu no 20 līdz 92 gadiem. Izmantojot *Kolmogorov-Smirnov* testu tika noteikts, ka vecumu sadalījums nav normālsadalījumā (nulles hipotēze: sadalījums ir

normāls nepierādās, jo $P_{KS} = 1,51 \times 10^{-8}$ jeb $<0,05$). Normālsadalījuma neesamība izskaidrojama ar lielāku jauno pacientu īpatsvaru (Gausas līknes rādītājs $skvness = -0,78$; 1. attēls).

Izvērtējot DT izmeklējumus pēc Lund-Mackay punktu sistēmas (turpmāk LMS), konstatēts, ka lielākai daļai pacientu (no 81,67 līdz 98,33 %) deguna blakusdobumi ir pilnībā izgaismoti. Biežāk skartais deguna dobums ir *sinus maxillaris*, kur 13,67 un 16,67 % konstatēts vismaz daļējs aizēnojums attiecīgi labajā vai kreisajā augšžokļa dobumā. *Sinus maxillaris dextra* ir vieta, kur visbiežāk (4 %, n=12) konstatēts pilnīgs aizēnojums. Bilaterāls kopējais LMS vērtējums 0 (visu deguna blakusdobumu pilnīgs izgaismojums) konstatēts 62,3 % (n=187) gadījumu (2. attēls).



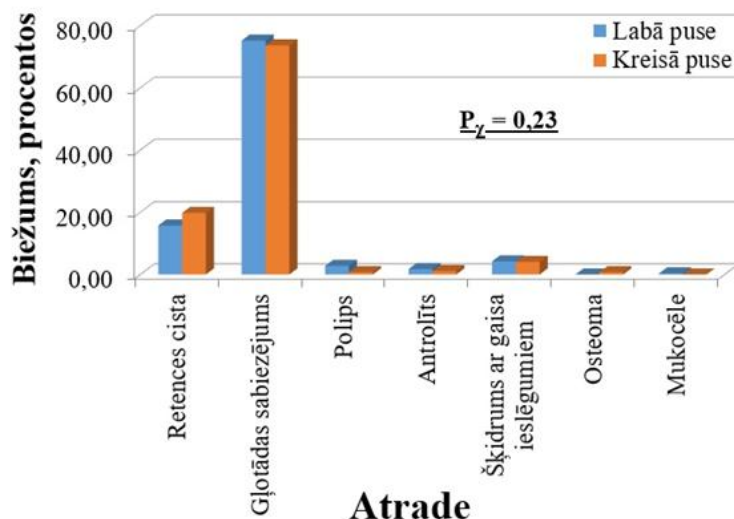
2.att. Bilaterāls kopējs vērtējums pēc Lund-Mackay punktu sistēmas (LMS)

Fig. 2 The bilaterally total Lund-Mackay scores

Analizējot deguna blakusdobumos sastopamās atrades, konstatēts, ka biežākās atrades ir gļotādas sabiezējums, retences cista un šķidrums ar gaisa ieslēgumiem. Visbiežāk sastop gļotādas sabiezējumu. Tas atzīmēts 54,33 % no visiem pacientiem un kopumā 416 reizes jeb 74,42 % no visiem izmeklējumiem. Salīdzinot atražu biežumu starp labās un kreisās puses deguna blakusdobumiem (3. attēls), netika konstatēta statistiski nozīmīga atšķirība.

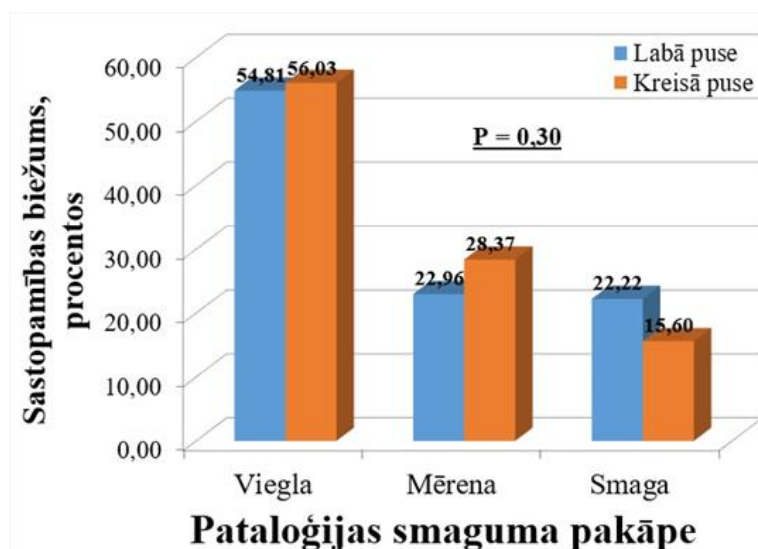
Pētījumā tika konstatēta gadījuma atrades biežākā lokalizācija kādā no deguna blakusdobumiem. No iegūtajiem rezultātiem var secināt, ka gadījuma atrades visbiežāk skar augšžokļa dobumu. Atražu biežums ir ļoti līdzīgs starp *sinus maxillaris dextra et sinistra* ($P>0,05$). Tādējādi tika izvērtēta arī gļotādas patoloģijas smaguma pakāpe tieši augšžokļa dobumos. Gļotādas patoloģija tika klasificēta kā viegla, mērena vai smaga, ja kādā no aksiālajā plaknē veiktajiem griezieniem tās biežums sasniedza attiecīgi 3-6, 6-9 vai ≥ 9 milimetrus. Visbiežāk konstatē vieglas pakāpes gļotādas patoloģiju. Gļotādas patoloģijas

smaguma pakāpe nav statistiski nozīmīgi atšķirīga starp *sinus maxillaris dextra et sinistra*.



3.att. Deguna blakusdobumos konstatēto atražu sadalījums starp labās un kreisās puses deguna blakusdobumiem

Fig. 3 The distribution of incidental findings among all paranasal sinuses according to the right and left sides



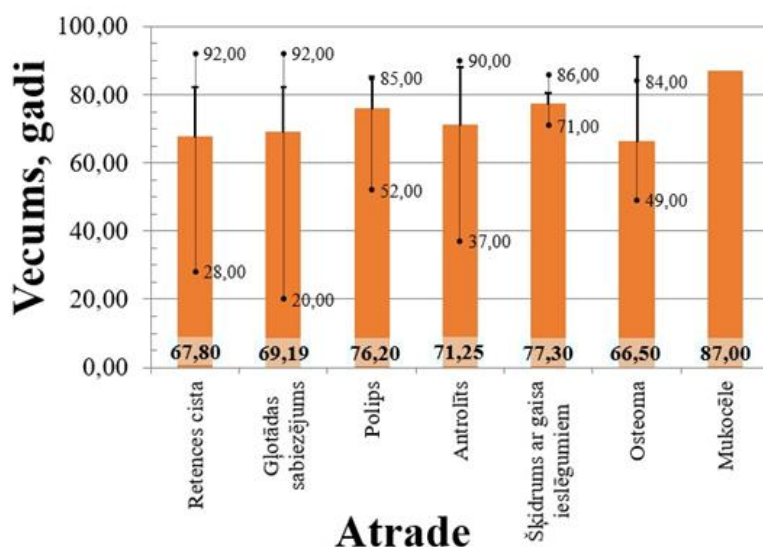
4.att. Gļotādas pataloģijas smaguma pakāpe sadalījums augšžokļa dobumos

Fig. 4 The degree of mucosal pathology in maxillary sinuses

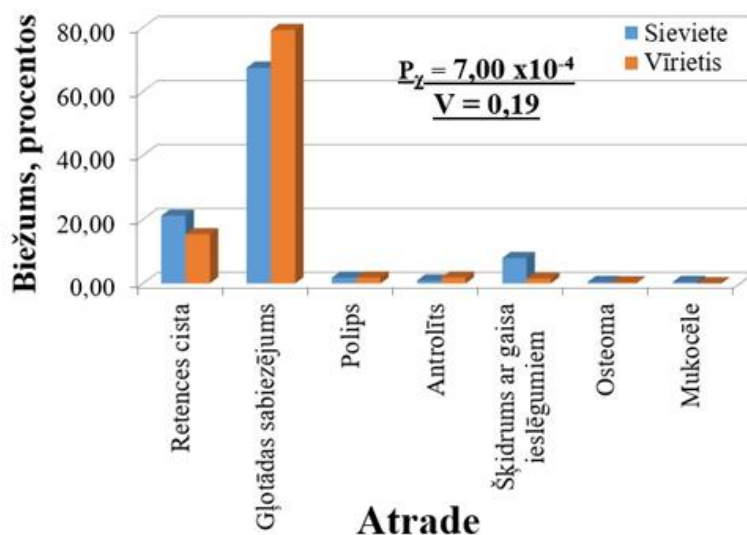
Pētījumā tika analizēta augšžokļa dobuma gļotādas pataloģijas smaguma pakāpes saistība ar pacienta vecumu, dzimumu, sezonalitāti, deguna apakšējās gliemežnīcas izmaiņām un deguna starpsienas deviāciju. Statistiski ticama atšķirība un saistība ir novērota tikai starp labā augšžokļa dobuma gļotādas pataloģijas smaguma pakāpi un dzimumu. Vīriešiem vairāk nekā divas reizes biežāk ir mērena gļotādas pataloģija labajā augšžokļa dobumā ($P_{\chi} = 2,36 \times 10^{-2}$).

Attiecīgi par nedaudz vairāk nekā 12 % biežāk sievietēm ir novērojamas smagas pakāpes pataloģija. Šī saistība ir vāja, bet statistiski ticama.

Analizējot rezultātus, var secināt, ka deguna blakusdobumu atražu grupu pacientu vidējais vecums ir statistiski ticami atšķirīgs ($P_{\chi} = 2,55 \times 10^{-2}$; 5. attēls). Pacienti, kam konstatē polipu vai šķidrums ar gaisa ieslēgumiem, ir vidēji vecāki nekā parējās grupas pacienti. Visvecākie pēc iegūtiem datiem ir pacienti ar mukocēli, bet jāņem vērā, ka šajā grupā šāds bija tikai viens pacients. Saistība starp šiem rādītājiem ir ļoti vāja ($\eta = 0,16$).



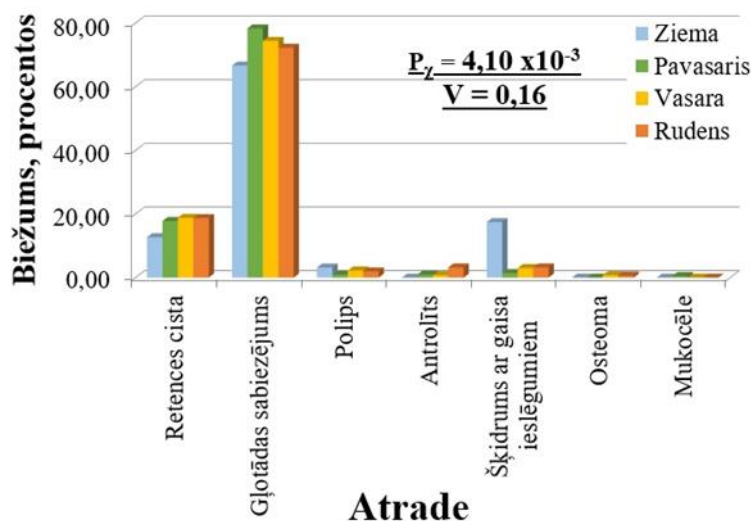
5.att. Deguna blakusdobumos konstatēto atražu sadalījums pēc vecuma
 Fig. 5 The distribution of patients with incidental findings according to the age



6.att. Deguna blakusdobumos konstatēto atražu sadalījums pēc dzimuma
 Fig. 6 The distribution of incidental findings in paranasal sinuses according to gender

Pēc iegūtajiem rezultātiem ir arī redzams, ka deguna blakusdobumu atražu sadale ir statistiski ticami atšķirīgas starp sievietēm un vīriešiem ($P_{\chi} = 7,00 \times 10^{-4}$; 6. attēls). Ir redzams, ka sievietēm deguna blakusdobumos ir izteikti biežāk sastopams šķidrums ar gaisa ieslēgumiem un nedaudz biežāk retences cista (6. attēls).

Analizējot deguna blakusdobumu atražu sezonālītāti, varam konstatēt (7. attēls), ka šķidrums ar gaisa ieslēgumiem ir daudz biežāk sastopams ziemas periodā nekā pārējā gada laikā. Turpretim pacienti ar antrolītu ziemas periodā nav diagnosticēti vispār. Šīs atšķirības ir statistiski ticamas ($P_{\chi} = 4,10 \times 10^{-3}$), bet ar vāju saistību starp rādītājiem.



7.att. Deguna blakusdobumos konstatēto atražu sadalījums pēc sezonālītātes
 Fig. 7 The distribution of incidental findings of paranasal sinuses according to the seasons

Secinājumi Conclusions

1. Latvijas populācijā gadījuma atrades deguna blakusdobumos ir bieži konstatējamas radioloģiskos izmeklējumus.
2. Biežākās gadījuma atrades ir gļotādas patoloģijas: sabiezēta gļotāda, retences cista un šķidrums ar gaisa ieslēgumiem.
3. Biežākā gadījuma atrades lokalizācija ir *sinus maxillaris dextra et sinistra*.
4. Augšžokļa dobumā gļotādas patoloģijas visbiežāk ir vieglas pakāpes (neviens no aksiālajā plaknē veiktiem griezieniem nepārsniedz 6 milimetrus).

5. *Sinus maxillaris dextra* ir deguna blakusdobums, kur visbiežāk konstatē pilnīgu aizēnojumu, izvērtējot DT galvai pēc *Lund-Mackay* punktu sistēmas.
6. Statistiski ticama saistība novērota tikai starp labā augšžokļa gļotādas patoloģijas smaguma pakāpi un pacientu dzimumu (sievietēm biežāk ir mērenas pakāpes gļotādas patoloģija, bet vīriešiem – smagas).
7. Augšžokļa gļotādas patoloģijas smaguma pakāpi neietekmē pacienta vecums, sezonālitate, deguna apakšējās gliemežnīcas izmaiņas vai deguna starpsienas deviācija;
8. Polips vai šķidrums ar gaisa ieslēgumiem ir gadījuma atrades, kas konstatētas pacientiem ar lielāku vidējo vecumu nekā citi gadījuma atražu veidi.
9. Sievietēm biežāk sastop šķidrumu ar gaisa ieslēgumiem un, atšķirībā no literatūras datiem, nedaudz biežāk retences cistu.
10. Ziemas periodā šķidrums ar gaisa ieslēgumiem, kas ir akūta sinusīta radioloģiska pazīme, ir daudz biežāk sastopams nekā pārējā gada laikā.

Priekšlikumi

1. Gadījuma atrades iespēju jāapsver individuāli, klīniskā kontekstā ar simptomiem un fizikālo atradi. Tādējādi samazinot risku radioloģiskās atrades ietekmei tikt pārvērtētai.
2. Nepieciešams pētījuma turpinājums, lai izvērtētu tālāko taktiku konstatēto gadījuma atražu gadījumā.
3. Ja gadījuma atradēm ir nepieciešama tālāka vizuālā diagnostika, jāapsver *screening sinus CT scan* izmeklējumu (izmeklējums tikai aksiālā plaknē ar 5-10 mm bieziem griezieniem).

Summary

This is the first report describing incidental findings of paranasal sinuses, the types, the most frequently affected sinuses in Latvian population and also associations between incidental findings and other factors.

Analysing descriptions of CT scans made by radiologists for primary pathology following data was obtained: incidental pathology in paranasal sinuses was mentioned in 32.61 % (90 of 276) of descriptions. After evaluating CT scans it was found that the most frequent incidental finding is pathology of sinus mucosa: mucosal thickening, retention cyst or pathological substrate. Mucosal thickening was the most frequent pathology. It was noted in 54.33 % of all patients, 416 times or in 74.42 % of all examinations. The most frequently affected were maxillary sinuses. The prevalence of incidental findings was similar between sinus maxillaris dextra et sinistra ($P > 0.05$).

Taking into account all the results mentioned above, the degree of mucosal pathology in maxillary sinuses was measured. From the results obtained it was concluded that predominate mild mucosal pathology: 54.81 % (n=74) in sinus maxillaris dextra and 56.03 (n=79) in sinus maxillaris sinistra. While analysing associations between incidental findings in maxillary sinuses and other factors, it was found that statistically significant association exists only between the degree of mucosal pathology in sinus maxillaris dextra and the gender of patient. Males had more than 2 times frequent mucosal pathology of moderate degree in the right maxillary sinus ($P_{\chi}=2.36 \times 10^{-2}$). Females had a little bit more than 12 % frequent mucosal pathology of severe degree. Sinus maxillaris dextra is also the location where noted total opacity during staging CT scans with Lund-Mackay score. The study does not reveal any statistically significant association between degree of mucosal pathology and age, season, changes of lower nasal turbinate or septal deviation.

Statistically significant associations were revealed while analysing data collected from all sinuses. There was statistically significant association ($P_{\chi} = 2.55 \times 10^{-2}$) between the type of incidental finding and the mean age of patients. Patients with nasal polyp or pathological substrate had higher mean age than others. The older patients had mucocele. There were statistically significant difference ($P_{\chi} = 7.00 \times 10^{-4}$) of distribution of incidental findings among males and females. Pathological substrate was more often and retention cyst was a little bit more common among females than males. The pathological substrate with inclusions of air bubbles was more common during winter, but antrolith was not noted during winter period at all ($P_{\chi} = 4.10 \times 10^{-3}$).

Results confirmed that, radiological incidental findings in paranasal sinuses are common in Latvian population. Incidental findings may be considered in the individual clinical context of signs and symptoms, reducing the risk of overestimation of the real impact of radiographic findings.

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**ВРЕМЯ ПЕРЕМЕН: ПУТИ «ОЗДОРОВЛЕНИЯ»
МОЛОДЕЖНОЙ СРЕДЫ И ПОЛИТИКИ В ОТНОШЕНИИ
МОЛОДЕЖИ**

***Time of Changes: the Path to „Recovery” Environment and Youth
Policy for Young People***

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Abstract. *The Article is devoted to problems of improvement of the youth environment in conditions of social transformations. The authors examine the role of youth policy of the state and society in solution of the mentioned problems. The article suggests a system of measures for the development of spiritual, moral, cultural and physical potential of young people. Based on subject-subject approach is determined by the conditions of their realization. Confirmation of the authors' conclusions are results of research of processes of socialization, participation and samuoliene youth in society, the motives and peculiarities of manifestation of its civic consciousness, value scale of young people.*

Keywords: *citizenship, healthy lifestyle, improvement of the youth environment, social activation of young people, social transformation, youth policy.*

Введение

Introduction

В условиях постиндустриального информационного общества конкурентоспособность человека становится фактором национальной безопасности, что требует соразмерных системных мер со стороны всех политических институтов по формированию бережного отношения к человеческому капиталу и инновационному потенциалу молодого поколения. Очевидно, что молодежь не может рассматриваться исключительно как ресурс. Она представляет собой социальную ценность и общественное достояние, которое государство и общество обязаны

охранять, заботясь о постоянном восполнении и продуктивной реализации ее потенциала.

Настоятельная необходимость в формировании условий для духовно-нравственного, физического и патриотического воспитания молодежи вызвана конкретно-исторической ситуацией трансформации российского государства и общества. Процесс социализации, в том числе выбор гражданской позиции, обретение истинно духовных и нравственных качеств, профессиональное становление, здоровый образ жизни, - сложнейшая проблема для молодежи в эпоху глобальных перемен. Тем более, что здоровый образ жизни понимается нами не только как физическое, но и как духовное и нравственное здоровье молодых граждан.

Цель статьи – актуализировать вопрос оздоровления как молодежной среды, так и политики в отношении молодежи в переломные периоды истории общества и государства.

Теоретическое обоснование проблемы *The theoretical justification of the problem*

Молодым предстоит жить и действовать в условиях усиления глобальной конкуренции, возрастания роли инноваций и значения человеческого капитала как основного фактора экономического развития. И их преимущества в этом далеко не всегда очевидны, поскольку старшее поколение имеет богатый опыт практической деятельности во всех сферах жизни.

Основополагающим фактором успешной социальной адаптации молодежи, на наш взгляд, является политика государства, направленная на развитие социальной активности молодого поколения. По мнению европейских экспертов, молодежь все меньше и меньше инвестирует свою энергию в общественную сферу жизни европейских сообществ, недостаточно проявляет активность на местном уровне. Общественно-политические организации сегодня не столь активны в вовлечении молодежи в системные отношения современного общества. Подобные явления характерны для всех европейских стран, в том числе и для России.

Особенности современного этапа социально-политической трансформации требуют нового уровня взаимодействия молодежи, граждан общества, общественно-политических молодежных организаций и властных структур. Результативная политика должна обеспечить обществу и государству возможности инновационного развития за счет создания условий для успешной социализации и эффективной самореализации молодежи, развития и эффективного использования ее потенциала в интересах страны. Одним из важнейших условий обеспечения

безопасности, стабильности и мобильности государства мы считаем состояние здоровья населения, прежде всего детей и молодежи. В настоящее время среди приоритетов молодежной политики любой страны значимое место занимает формирование здорового образа жизни молодёжи, развитие физической культуры и массового спорта.

Оздоровление общества, пропаганда здорового образа жизни и профилактика негативных явлений в молодежной среде становится одной из стратегий молодежной политики. Так, например, в России в большинстве региональных программ по молодежной политике (за исключением Кемеровской и Новгородской областей) предусмотрены целые комплексы мероприятий по реализации данного направления работы с молодежью, которые выстроены на основе системы целевых блоков действий.

1. Информационно-пропагандистский блок: организация и проведение акций среди молодежи по пропаганде здорового образа жизни, профилактике алкоголизма, наркомании, табакокурения, а также вируса иммунодефицита человека и заболеваний, передающихся половым путем.
2. Организационный блок: содействие созданию молодежных организаций, осуществляющих антинаркотическую деятельность в подростковой и молодежной среде. Поддержка проектов, программ студенческих социальных, педагогических отрядов, деятельность которых направлена на работу со школьной, учащейся и студенческой молодежью по профилактике асоциальных явлений и по внедрению здорового образа жизни в молодежную среду.
3. Практический блок: применение здоровьесберегающих технологий, организация мероприятий, способствующих социализации и оздоровлению молодых людей (летние смены, турпоходы, выездные занятия, фестивали, форумы). Развитие системы работы с молодежью «группы риска» и неформальной молодежью в аспекте здорового образа жизни.
4. Научно-исследовательский блок: проведение научных исследований, мониторингов по вопросам формирования здорового образа жизни и профилактики применения психоактивных веществ в молодежной среде. Организация и проведение итоговых совещаний, конференций, «круглых столов» по вопросам обобщения опыта профилактической работы с безнадзорностью и правонарушениями несовершеннолетних, их асоциальным поведением, опыта создания оздоравливающего пространства и использования здоровьесберегающих технологий.

Но встает вопрос: насколько эффективна предложенная система работы?

Материалы и методы исследования «Социальное самочувствие молодежи»

Materials and methods „Social well-being of young people”

В 2014-2015 гг. в процессе научного исследования вопросов, связанных с социальным самочувствием и социально-политической активностью молодежи Ярославской области, проведенного Ярославским молодежным информационным центром при участии авторов нашли определенное подтверждение такие негативные тенденции, как рост наркомании, алкоголизма, преступности, безработицы, ухудшение здоровья молодых людей, что связано с недостаточной профилактической работой по всем направлениям. Отсутствие во многих территориях условий для оздоровления, организации досуга и занятости молодежи не позволяет молодым гражданам в полной мере реализовать свои возможности, создает условия для проявления различных социальных девиаций.

Путем многократного опроса респондентов по единой выборке проводилось изучение динамики социальных явлений в молодежной среде. Анализ полученных результатов осуществлялся на основе следующих показателей:

- динамика социального самочувствия молодежи;
- динамика отношения к общественно-политической жизни страны.

На наш взгляд, изучение социального самочувствия молодежи представляется актуальным, поскольку молодежь в силу возрастных, социальных, психологических особенностей более восприимчива к переменам, происходящим в обществе.

Цель исследования – выявление факторов:

- способствующих формированию здорового образа жизни и
- тормозящих процесс оздоровления молодежной среды.

Общий объем выборки исследования составим 521 человек в возрасте от 14 до 30 лет, в том числе:

- 14-18 лет – 21,9 %;
- 19-22 года – 29,4 %;
- 23-30 лет – 48,7 %.

Мужчин и женщин было одинаковое количество.

В исследовании использовались два вида индикаторов социально-экономического статуса респондентов: «оценочные» (связанные с прямой оценкой респондентами своего социально-экономического положения) и «косвенные» (данные о материальных возможностях и социальных предпочтениях молодых людей). По этим параметрам проводился анализ полученных данных. Проблематика жизненных условий, которые волнуют молодежь, оказалась следующей:

- сфера здравоохранения – 62,4 %;
- образование – 50,1 %;
- культура – 28,2 %;
- физическая культура и спорт – 25,7 %;
- экономика – 24,9 %;
- экология – 21,7 %;
- инфраструктура региона – 20 %.

Оценка молодежью собственного состояния здоровья	%
Не испытывают проблем со здоровьем	73,1
Обращаются за помощью к врачам и лекарствам	26,9

Тем не менее, основными проблемами молодежь считает:

- алкоголизм – 67,4 %;
- наркомания – 47,8 %;
- качество медицинского обслуживания – 50,7 %.

Доминирующие личностные потребности подчеркивают неосознанное стремление молодежи к здоровому образу жизни: здоровье – 77 %; любовь – 49,1 %; счастливая семейная жизнь – 47,6 %.

Как видим, здоровье является основной ценностью молодых людей. Хотя настораживает, что об оценке состояния своего организмане задумываются 32,3 %, а об оценке своего душевного благополучия – 27,2 %. Наличие вредных привычек имеется у 42 % респондентов.

Высокий или наоборот низкий уровень организации досугового пространства в районе основного проживания, спектр возможностей использования досугового времени всегда или нивелируют, или наоборот, усугубляют остроту жизненных проблем. Хотя 43,3 % молодежи отметили, что они имеют возможность организовывать и активно проводить свой досуг, и лишь десятая часть общей выборки отрицает такие возможности, тем не менее, результаты исследования показывают, что только чуть более 15 % молодежи полностью удовлетворены возможностями для проведения своего досуга, 13,2 % - категорически не удовлетворены. У 71,8 % оценка возможностей проведения досуга достаточно средняя.

Более 70 % респондентов отметили, что в их месте проживания также распространена проблема употребления наркотиков. Участники исследования видят истоки наркомании и других зависимостей в моральной деградации общества; вседозволенности (52,4 %); доступности наркотиков (48,6 %); социальном неблагополучии (45,1 %); отсутствии организованного досуга (35 %). Неэффективность профилактической работы отметили только 18,7 %. Но, вместе с тем, многие молодые люди верят в самоизлечение (около 60 %) и мало информированы об уголовной ответственности (более 80 %),

а это значит, что имеется недостаток в профилактической работе.

По мнению участников опроса, характерными проблемами современной молодежи региона являются:

- употребление алкоголя, сигарет и наркотиков – 73 %;
- неорганизованность досуга молодежи – 35 %;
- финансовые трудности – 28 %;
- отсутствие карьерного роста – 26 %;
- социальное одиночество – 24 %;
- ухудшение здоровья – 24 %;
- правонарушения в молодежной среде – 22 %;
- несформированность гражданской идентичности – 21 %.

Такой тревожный социальный фон подчеркивается неудовлетворением респондентов собственным социально-экономическим положением: проявилось не только стремление «вертеться», чтобы выжить (27,8 %), но и чувство протеста, побуждение к сопротивлению (25 %, против 14 % годом ранее).

Выводы по исследованию *Findings of the study*

В регионах России существует множество проблем с реализацией программы формирования здорового образа жизни, обусловленных во многом методологической, нормативно-правовой и технологической непроработанностью основ профилактической деятельности. Субъекты профилактики недостаточно четко представляют свою роль, имеют смутное представление о роли, функциях и полномочиях других субъектов профилактики. Вследствие этого возникает проблема нескоординированности действий, отсутствия должного межведомственного взаимодействия. Во многом это связано с низким уровнем профессионализма кадров, реализующих молодежную политику.

Концептуальная недоработка основ профилактической деятельности усугубляется отсутствием механизма межведомственного бюджетирования деятельности по профилактике алкоголизма, наркомании и токсикомании. Во многих регионах недостаточно развиты институты, координирующие деятельность субъектов профилактики негативных тенденций в молодежной среде и занимающиеся мониторингом ситуации. Необходимо усилить и научную базу исследования факторов распространения алкоголизма и наркомании на территории регионов с целью разработки адекватных профилактических мероприятий и создания определенных условий для осуществления оздоровительной деятельности.

Система подготовки и повышения квалификации специалистов, работающих в сфере профилактики указанных девиаций и пропаганды здорового образа жизни среди молодежи до сих пор не сложилась. В большинстве случаев используется информационно-лекционный формат обучения, не соответствующий требованиям сегодняшнего дня. Интерактивные формы обучения (тренинги, деловые игры) применяются неэффективно. В особенности слабо организована работа по повышению квалификации специалистов, работающих в муниципальных образованиях. Перечисленные объективно существующие проблемы минимизируют эффект от проводимых мероприятий.

В период общественных трансформаций значительное место в оздоровлении молодежной среды занимает досуговая сфера. Деятельность по организации досуга молодежи преследует следующие цели: создание условий для самоопределения личности, для ее самореализации; формирование гражданственности и социально позитивных ориентаций; воспитание высокого уровня общей и правовой культуры; создание стойких убеждений в недопустимости антиобщественной, антигосударственной и противоправной деятельности.

Исследование показало, что в России создание условий для организации досуга молодежи продолжает оставаться одной из самых непроработанных областей регионального законодательства, следовательно, инфраструктура молодежного досуга остается слабо приспособленной к задачам и ценностям духовного и физического развития подрастающего поколения. Одной из причин этого, на наш взгляд, является уже указанная выше недостаточная профессиональная компетентность специалистов, реализующих государственную молодежную политику в регионах. Время перемен требует создания особых условий для физического развития молодежи. Но мероприятия регионального уровня по реализации данного направления во многом носят однотипный характер, прежде всего это: подготовка и проведение региональных спортивных соревнований и переоснащение стадионов и сооружений для повышения уровня подготовки профессиональных детских спортивных команд.

Мероприятия, связанные с интеллектуальным, творческим и физическим развитием граждан, являются, пожалуй, наиболее эффективно, но не всегда эффективно реализуемыми и полноценно финансируемыми. Так, большинством молодых граждан России молодежная политика воспринимается именно как комплекс фестивалей, конкурсов, игр команд КВН, мероприятий «Студенческая весна», спортивных соревнований и тому подобное. К сожалению, проведение этих мероприятий часто носит бессистемный точечный характер, и в них задействована очень небольшая часть молодежи, активной в творческом и физическом плане. Для

большинства стран современного мира это вполне закономерное явление. Очевидно, что в данном направлении также необходимо осуществлять системную целенаправленную деятельность по активизации молодежи.

Эффективная деятельность в сфере оздоровления молодежной среды без активного участия самой молодежи невозможна. Но, как подчеркивал известный российский философ – идеалист Н.И. Бердяев еще в начале 20 века, активность молодых должна проявляться не только в «активности действий», но, прежде всего, - в «активности духа», поскольку активность действий без духовного наполнения часто ведет к девиации. Именно уровень такого типа активности молодежи является ключевым показателем сформированности гражданского общества, а значит, и эффективности молодежной политики, ее «оздоровления».

Особенностью исследуемого периода стало снижение интереса молодежи к общественно-политической сфере. Доля молодых респондентов, активно интересующихся социально-политическими процессами снизилась за год в два раза и составила 6,8 % (это самый низкий показатель после 2007 г.), а доля молодежи, совсем не интересующаяся процессами, происходящими в общества, увеличилась на 16,8 % и составила 49,7 %. Это самый высокий показатель за весь период исследования. Опрос позволил также выявить степень гражданской активности молодежи. Более 2/3 респондентов готовы к участию в программах здорового образа жизни (36,6 %) и уважения к окружающей среде (33 %). Становится очевидным, что большинство молодых людей хотели бы проявлять активную гражданскую позицию в деятельности, направленной на формирование ответственного отношения как к своему здоровью, так и к оздоровлению окружающей среды.

Итак, мы считаем, что в трансформационный период крайне важно разработать стратегию развития молодежи, а инициативу по ее реализации следует взять на себя государству и общественным организациям посредством поддержки и развития молодежных и детских общественных объединений всех уровней, создания дополнительных форм и механизмов взаимодействия, стимулирующего общественную активность молодежи. Общий смысл стратегии – создание условий и стимулов для социализации и жизнедеятельности нового здорового поколения, которые способствовали бы проявлению, развитию и реализации задатков, способностей и талантов молодых людей в целях социально-экономического развития общества.

Итоговые выводы *Final conclusions*

1. На основе всего вышеизложенного можно заключить, что высокий конечный результат взаимодействия молодежи, общества и власти при решении вопросов здорового образа жизни достижим при условии совместной реализации продуманной системной стратегии и тактики молодежной политики в этом направлении, наличия материального потенциала и регулирования профессиональной компетентности специалистов в области молодежной политики.
2. Такое взаимодействие должно носить комплексный характер с обоснованным и профессиональным использованием социальных технологий, позволяющих определить зоны общей ответственности и мобилизовать все имеющиеся ресурсы.
3. Для этого необходимо формирование особого типа отношений, основанных на признании реальных потенциальных возможностей каждого из партнеров, то есть отношений субъект – субъектного типа.
4. Общественно-политическая активизация молодежи – ключ к решению проблем «оздоровления» нации.
5. Очевидно, что время общественных трансформаций требует реализации общей цели: системных изменений в жизни молодого поколения, то есть «оздоровления» не только молодежной среды, но и молодежной политики на основе партнерства и с учетом результатов научных исследований.

Summary

One of the strategic directions of the youth policy should be the development of a healthy lifestyle as a counter to the physical and personal degradation youth. This work contributes to the formation of patriotic and civic foundations of the young person's identity in the process of socialization. These are the basics of developing a sense of civic identification of each person, without the development and adoption of which can not form civil society. The duty of state institutions and public organizations of all types today is in active cooperation with youth organizations on the basis of subject-subject relationship, involving them in the implementation of the strategy of a healthy lifestyle.

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MEDICĪNAS MĀSAS PROFESIONĀLĀS KOMPETENCES KOMPONENTU PAŠNOVĒRTĒJUMS VEIDOJOT POZITĪVU VESELĪBAS APRŪPES VIDĪ

Nurses' Professional Competence Components Self-assessment in Building a Positive Health Care Environment

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Abstract. *Nurses' professional competence consists of several interrelated components, which during interacting of critical thinking, reflection and experience, characterizes the essence of the profession of nurses. Critical thinking applies not only to the educational process, it is an expression the nurses' responsible and professional action during the health care process. Critical thinking and reflection make up of various specific competence component interactions of nurses professional healthcare process. The professional competence of the nurse grows and develops in interaction of social, educational and health care environment, learning process, and is realized in the context of the knowledge and experience. It is constantly exposed to the transformation from the potential state to the actual, developing, increasing its potential and readiness in a systemic perspective.*

The study aims to determine the self-assessment level of the nurses' professional competence components to create a positive environment for health care and improve health care quality. It is important for nurses to engage in scientific research work, thus developing evidence-based health-care practices. Research task in nursing and health care is the identification and development of knowledge, promoting the use of the theory of nursing in practice through critical and systematic way of thinking and implementing the theory based health care. The study utilized: 1) nurses' professional competence component self-assessment scale (Nurse Competence Scale); 2) The research process implementation barrier assessment scale (Barrier scale).

Keywords: *positive health care environment, professional competence, self-assessment.*

Ievads *Introduction*

Eiropas Komisijas Izglītības un kultūras ģenerāldirektorāta izstrādātajā dokumentā „Pamatkompetences” ir akcentēta zināšanu, prasmju, spēju un attieksmju nozīme ikviena cilvēka sagatavošanai aktīvai dalībai zināšanu sabiedrībā. Dokumentā ir rezumēts, ka „...lai kompetencei piešķirtu tādu apzīmējumu kā galvenā, būtiska, nepieciešama vai pamata, tai jābūt nepieciešamai un derīgai katram indivīdam un sabiedrībai kopumā. Tai jānodrošina iespēja indivīdam veiksmīgi integrēties daudzās sociālās sistēmās, saglabājot neatkarību, un un būt personīgi efektīvam gan pazīstamos, gan jaunajos un neparedētos apstākļos” (Eurydice, 2002).

Eiropas Parlamenta un Padomes (EPP) ieteikums par Eiropas kvalifikāciju ietvarstruktūras (EKI) izveidošanu mūžizglītībai, dokumentā atbilstošam izglītības līmenim definētās zināšanas, prasmes un kompetence ir visaptverošas, un var uzskatīt, ka medicīnas māsas profesionālās zināšanas, prasmes un kompetence ir jāveido atbilstoši veselības aprūpes profesijai (EKI, 2008).

B. Briede savos pētījumos atzīmē, ka kompetences jēdziena formulējums ir atkarīgs no tā, kādā aspektā kompetence tiek skatīta, proti, kā rezultāts, process, personības kvalitātes raksturojums vai kompetence kā kompetences komponentu nepārtraukta attīstība dzīves laikā, nodrošinot ilgtspējību globālā skatījumā (Briede, 2009).

Medicīnas māsas profesionālā kompetence ir dinamiska kognitīvo un metakognitīvo zināšanu, prasmju un izpratnes, starppersonu, intelektuālo un praktisko iemaņu un ētisko vērtību kombinācija. Medicīnas māsu profesionālās kompetences attīstības veicināšana ir visu medicīnas māsu izglītības programmu mērķis. *Māszinību* programmas veidotas, balstoties uz zināšanu, prasmju pārmantojamību un izpratni, kas attīstījušās daudzu gadsimtu gaitā māszinībās un veselības aprūpē. Medicīnas māsu profesionālā kompetence veidojas un attīstās visos *Māszinību* programmas studijuursos, tiek izvērtēta dažādos izglītības programmu un veselības aprūpes prakses ciklos.

Pētījumam tika izvirzīts mērķis - izvērtēt medicīnas māsu profesionālās kompetences komponentu pašnovērtējumu kritēriju līmeni.

Iegūto rezultātu analīze balstīta uz neatkarīgu paraugkopu t-testu (Independent sample t-test).

Medicīnas māsas profesionālā kompetence *The Professional Competence of Nurse*

No kompetences viedokļa I. Zimņaja (*Зимняя Ирина Алексеевна*) analizē, kādas vadošās kategorijas raksturo kompetentas pieejas īstenošanu izglītības

jomā un atbilstošā profesijā, uzsverot, ka kompetence ir dinamiska cilvēka īpašība, kas attīstās no profesionālā sākuma līmeņa un ir iegūta profesionālā izglītībā kā augstākā kompetences forma virzībā uz meistarību. I. Zimņaja uzsver, ka, iekļaujot kompetences sistēmā emocionālo, gribasspēku regulējošo, motivācijas un uzvedības komponentu, tiek pieļauta metodoloģiska kļūda, jo kompetenta pieeja un profesionālā kompetence pazeminās, kā izmērāma kategorija, izdalot piecus kompetences komponentus, kas liecina par kompetenci:

- gatavība un motivācijas aspekts – gatavība tiek skatīta kā subjekta spēja mobilizēt spēkus;
- kognitīvais aspekts – zināšanas, kuras izskaidro un ietver kompetenci;
- pieredze un uzvedības izpausme – kompetence dažādās standarta un nestandarta situācijās;
- attieksme pret kompetences saturu – kā jēgas un vērtību aspekts;
- kompetence attīstītās emocionāla gribasspēka procesa regulācijas rezultātā (Зимняя, 2006).

Atsaucoties uz profesionālo kompetenci, vairāki autori konsekventi izmanto jēdzienu *pieredze* jeb izmanto to kā sinonīmu, apgalvojot, ka kompetence ir indivīda īpašība, kurš izcili veic darbu, un ietver gan redzamās zināšanas un prasmes kompetenci, gan pamatā esošos kompetences elementus, kā arī iezīmes un motīvus (Boam & Sparrow, 1992; Mitrani et al., 1992; Smith, 1993; Brown, 1993, Hartle, 1995).

Lai sasniegtu augstus profesionālus sasniegumus D.C. Makklelands (*David Clarence McClelland*, 1917 – 1998) aprakstot kompetenci akcentē darbiniekam piemītošās personiskās īpašības, piemēram, zināšanas, vērtības u.c., (McClelland, 1998).

R.E. Bojatsis (*Richard Eleftherios Boyatzis*) uzskata, ka kompetence ir indivīda pamatpazīme, kas cēloņsakarīgi saistīta ar efektīvu vai augstu sasniegumu profesionālā jomā (Boyatzis, 1982).

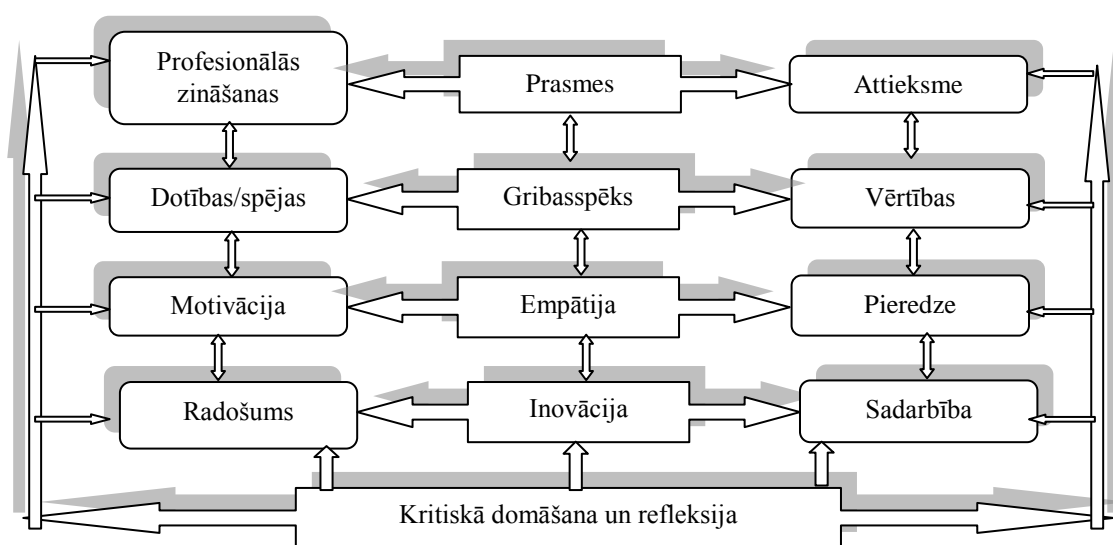
Autori R. Kurcs (*Rainer Kurz*), D. Bertrams (*Dave Bartram*), Dž. Šipmans (*Jeff Schippmann*), R. Ešs (*Ronald Ash*), M. Batista (*Mariangela Battista*) kompetences aprakstā uzsver darbinieka zināšanas, prasmes, pieredzi un spējas, lai gūtu rezultātus profesionālā darbībā (Kurz & Bartram, 2002, Shippmann & Ash & Battista et al., 2000).

P. Grīns (*Paul Green*) kompetences raksturojumu saista ar izmērāmiem darba pienākumiem, zināšanām un individuālām prasmēm, lai sasniegtu mērķi, neuzsverot augstus rezultātus (Green, 1999).

Fr. Delamare-Le Deista (*Françoise Delamare - Le Deist*) un Dž. Vinertons (*Jonathan Winterton*) norāda, ka neatkarīgi no iepriekš iegūtajām zināšanām, prasmēm un kompetences, kas tiek prezentētas veicot konkrētus pienākumus noteiktā vidē, specifiskos profesionālos apstākļos un situācijās tiek iegūtas

situatīvās jeb *no konteksta atkarīgās* zināšanas un prasmes. Pieejas priekšrocība ir tā, ka tiek respektētas neizteiktās zināšanas un prasmes, kas neietilpst darba pienākumos un nav iekļautas amata aprakstā (Delamare-Le Deist & Winerton, 2005). Līdzīgu pieeju jau 20.gs. vidū pauda R. Vaits (*Robert White*), ka profesionālā kompetence ir tiešā sasaistē ar vidi, kurā tiek veikti uzdevumi (White, 1959).

Medicīnas māsas profesionālo kompetenci veido vairāki savstarpēji saistīti komponenti, kas mijiedarbojoties kritiskai domāšanai, refleksijai un pieredzei, raksturo medicīnas māsu kā personību un profesijas būtību veselības aprūpes vidē, (1. attēls).



1.att. Medicīnas māsas profesionālās kompetences komponenti

Fig. 1 Components of Nurses' Professional Competence

Veselības aprūpes kontekstā medicīnas māsa vērtīborientētas, harmoniskas personības attīstība sociālā, izglītības, veselības aprūpes vidē, ilgtspējīgā attīstībā pamatu raksturo divpadsmit profesionālās kompetences komponenti:

- 1) Divi zināšanu līmeņi – **uztvere un izpratne** veselības aprūpē – raksturo spēju māszinību izglītības programmas teorētisko zināšanu studiju kursus savstarpēji sasaistīt kā vienotu veselumu. Nepārtraukti papildinot teorētiskās zināšanas tālākizglītībā – informālā un neformālā – veicina izpratni par tendencēm un teorētiskām struktūrām veselības aprūpes jomā. Iegūt jaunas zināšanas un pastāvīgi mācīties ir būtiski svarīga tendence, lai medicīnas māsa gūtu atzinību un būtu veiksmīga kā profesionāle.
- 2) **Prasmes** izpaužas iegūto teorētisko zināšanu izmantošanā veselības aprūpes praksē, integrēties veselības aprūpes komandā un sabiedrībā, komunicējot un sadarbojoties subjekta–subjekta līmenī. Medicīnas

māsa var vispārināt sistemātiski iegūtās teorētiskās zināšanas un pieredzi veselības aprūpes praksē, ģenerēt idejas un radīt jaunas zināšanas (pētniecība).

- 3) **Attieksmi** raksturo pašapziņa un pašnovērtējums vispirms attiecībā pret sevi, zināšanām un prasmēm, kas savukārt ietekmē medicīnas māsas spēju veidot attieksmi pret saviem profesionālajiem pienākumiem, pacientiem/klientiem, līdzcilvēkiem un plašākiem procesiem sociālā vidē.
- 4) **Dotības** paplašina medicīnas māsas iedzimto dotumu loku, tā ir iespēja izglītības un profesionālā darbībā sevi pilnveidot un realizēt.
- 5) **Gribasspēks** raksturo medicīnas māsas profesionālās attīstības līmeni, nodrošina mērķu sasniegšanu vai atteikšanos no tiem, ja tie ir pretrunā ar personīgo vērtības skalu.
- 6) **Vērtības** komponents kā emocionāls virzītājspēks un tikums piešķir īpašu nozīmi medicīnas māsas spriestspējai, pārliecībai par saviem ideāliem personīgajā dzīvē, profesionālajā darbībā un sabiedrībā notiekošajos procesos.
- 7) **Motivācijā** ir akcents uz izglītības nepārtrauktības vajadzības jēgas izpratni medicīnas māsas personības un profesionālās darbības pilnveides kontekstā.
- 8) **Empātija** ir būtiska medicīnas māsas profesionāla spēja, pārvarot egocentrismu, līdzjust un līdzpārdzīvot, saprast un respektēt citu vēlmes un uzskatus profesionālās darbības situācijās.
- 9) **Pieredze** kā nepārtraukts medicīnas māsas attīstības process, kas balstīts uz zināšanām, prasmēm, medicīnas māsas personīgās pieredzes refleksiju un kritisko domāšanu, izvērtējot veselības aprūpes situāciju un rezultātu.
- 10) **Radošums** medicīnas māsas profesionālajā darbībā ir garīgs process jaunu nestandarta situāciju risinājumu meklējumos, prasme risināt problēmas, vadīt pārmaiņu procesus un mācīties no savām kļūdām.
- 11) **Inovācija** ir jaunu ideju un tehnoloģiju integrācija veselības aprūpē, vienlaikus veicinot kvalitatīvāku, drošāku un efektīvāku veselības aprūpi.
- 12) **Sadarbība** notiek veselības aprūpes komandā, savstarpēji līdzdarbojoties ar pacientu/klientu, ģimeni un tuviniekiem, veidojot atbalstošu un saskaņotu rīcību, lai īstenotu izvirzītos uzdevumus un sasniegtu veselības aprūpes mērķus.

Kritiskā domāšana attiecināma ne tikai uz izglītības procesu, tā ir medicīnas māsas atbildīgas un profesionālas rīcības izpaušme veselības aprūpes procesā. Kritiskā domāšana un refleksija veido dažādu specifisku medicīnas māsas profesionālās kompetences komponentu mijiedarbību veselības aprūpes

procesā, piemēram, racionālisms – medicīnas māsa veselības aprūpē balstās uz faktiem, nevis emocijām, balstās uz objektīviem pierādījumiem, neignorējot nevienu pierādījumu, reflektējot meklēt pacientam/klientam labvēlīgāku problēmas izskaidrojumu un risinājumu, nevis savas pārlicības un taisnības pierādīšanu. Medicīnas māsas teorētiskās darbības refleksija ir veids, kas izskaidro apceri, šaubas un pretrunu pilnas pārdomas gan par teorētiskiem un plašākiem cilvēces esamības pamatjautājumiem, gan arī paša rīcības likumsakarībām sava psihiskā stāvokļa, savu jūtu un pārdzīvojumu analīze un apcerēšana.

Izglītības kvalitāte veido medicīnas māsas kvalitātes īpašības, kas pilnībā atspoguļojas profesionalitātes kvalitātē, norādot, ka profesionalitātes kvalitāte ir atspoguļojums ne tikai profesionālai sagatavotībai, bet arī medicīnas māsu personības integrālo īpašību apkopojums. Izglītības kvalitāte un iegūtās zināšanas nosaka medicīnas māsas profesionālās kompetences un kompetentas pieejas saturu, jo prasmes un iemaņas, kā arī kompetence veido instrumentālu zināšanu formu.

Pētījuma metodoloģija ***Methodology of Research***

Pētījumam tika izvirzīts mērķis - izvērtēt medicīnas māsu profesionālās kompetences komponentu pašnovērtējumu kritēriju līmeni. Strukturētā anketa tika izstrādāta, pamatojoties uz Medicīnas māsu profesionālās kompetences komponentu pašnovērtējuma skalu (Nurse Competence Scale), kas izstrādāta Somijā 2004. gadā (Meretoja et al., 2010).

Izstrādātā anketa sastāv no 2 daļām - 1. daļa ietver demogrāfiskos datus saistībā ar darba stāžu, izglītības līmeni, svešvalodu zināšanām un līdzšinējo pieredzi pētniecības jomā. 2. daļa ietver profesionālās kompetences komponentu pašnovērtējuma kritērijus, kas jānovērtē 4 ballu skalā (0 - nespēju veikt; 4 - noteikti spēju veikt). Izstrādātie kritēriji tika iedalīti 4 grupās:

1. grupa - Personības attīstība veselības aprūpes procesā, kas ietver 10 kritērijus:

1. Apzināties savas profesijas misijas apziņu.
2. Kritiski izvērtēt personīgo veselības aprūpes filozofiju.
3. Veidot emocionālo līdzsvaru veselības aprūpes komandā.
4. Pieņemt lēmumus, pamatojoties uz ētikas principiem.
5. Aktīvi piedalīties multidisciplināras veselības aprūpes pilnveidē atbilstoši veselības aprūpes filozofijai.
6. Motivācija pilnveidot profesionālās zināšanas un prasmes.
7. Apzināties veselības aprūpes dokumentācijas mērķus un uzdevumus.
8. Apzināt veselības aprūpes jomas un identificēt problēmas turpmākam

pētniecības procesam.

9. Izmantot pētījumus māszinībās veselības aprūpē.
10. Pilnveidot zināšanas un izmantot informācijas tehnoloģijas ikdienā veselības aprūpē.

2. grupa - Veselības aprūpes vide veselības aprūpes procesā, kas ietver 2 kritērijus:

1. Veidot un izprast pozitīvas veselības aprūpes vidi veselības aprūpes komandas labjūtes veidošanā un pacientu/klientu atveseļošanās procesā.
2. Pilnveidot veselības aprūpi struktūrvienībā.

3. grupa - Veselības aprūpes komanda veselības aprūpes procesā, kas ietver 6 kritērijus:

1. Veidot mentoringu māszinību studentiem atbilstošā profesionālo prasmju līmenī.
2. Motivēt nodaļas personālu jauno kolēģu mentoringā.
3. Motivēt veselības aprūpes komandu pilnveidot profesionālās zināšanas un prasmes.
4. Pacientu/klientu veselības aprūpes neatliekamības situācijā iesaistīt atbilstošus speciālistus.
5. Papildināt veselības aprūpes komandas pacientu/klientu novērošanas prasmes veselības aprūpes procesā.
6. Savlaicīgi noteikt, atpazīt un rīkoties atbilstoši pacienta/klienta neatliekamības situācijās.

4. grupa - Izglītība un apmācība veselības aprūpes procesā, kas ietver 9 kritērijus:

1. Izvērtēt pacienta/klienta izglītošanas vajadzības līmeni, nodrošinot nepieciešamo laiku un individuālu pieeju.
2. Motivēt veselības aprūpes komandu pacientu/klientu apmācībā un izglītošanā.
3. Plānot pacienta/klienta piederīgo izglītošanu, iesaistot veselības aprūpes komandu.
4. Atbalstīt pacientu/klientu atveseļošanās procesā.
5. Veidot aprūpes plānu atbilstoši pacienta/klienta vajadzībām.
6. Plānot izglītošanas sasniedzamos mērķus kopā ar pacientu/klientu.
7. Noteikt pacientu/klientu piederīgo vajadzības (informācija, psiholoģiskais atbalsts u.c.).
8. Nodrošināt pacientu/klientu piederīgajiem atbilstošu informāciju.
9. Nodrošināt pacienta/klienta un viņu piederīgo labjūti stacionāra vidē.

Tā kā profesionālās kompetences komponentu pašnovērtējuma kritērijos ietilpst arī pētnieciskās darbības pašnovērtējums, izstrādāta anketa tika papildināta ar pētniecības barjerām māszinībās, kas izveidotas, balstoties uz *The*

research process implementation barrier assessment scale (Barrier scale) (Funk, 1991). Pētniecības barjeru novērtējumam tika izveidota 4 ballu skalā (0 - visnenozīmīgākā barjera; 4 - visnozīmīgākā barjera).

Iegūto rezultātu analīze balstīta uz tādām statistikas metodēm kā neatkarīgu paraugkopu t-tests (Independent sample t-test).

Pētījumā tika iesaistītas 48 praktizējošas medicīnas māsas no vairākām daudzprofila veselības aprūpes iestādēm Rīgā vecumā no 24 līdz 60 gadiem (vidējais vecums 43 gadi).

No pētījumā iesaistītajām medicīnas māsām 27 ieguvušas augstāko izglītību (18 medicīnas māsām - veselības zinātņu bakalaura grāds māszinībās, 7 medicīnas māsām - veselības zinātņu maģistra grāds māszinībās).

33 medicīnas māsas angļu valodas zināšanas vērtē, kā zemas.

36 medicīnas māsas strādā pilnu slodzi.

27 māsas ir apguvušas ar pētniecību saistītus kursus.

18 medicīnas māsām ir pieredze pētniecībā, iesaistoties dažādos pētniecības projektos.

Medicīnas māsu sniegtais profesionālās kompetences komponentu pašnovērtējums, balstoties uz vidējo aritmētisko aprēķinu, apkopots 1. tabulā.

1.tab. Medicīnas māsu profesionālās kompetences komponentu pašnovērtējums

Table 1 Self-assessment of Nurses' Professional Competence Components

Grupa	Kritērijs	Vidējais vērtējums
1. grupa	Izmantot pētījumus māszinībās veselības aprūpē	2.88
1. grupa	Aktīvi piedalīties multidisciplināras veselības aprūpes pilnveidē atbilstoši veselības aprūpes filozofijai	3.00
1. grupa	Apzināt veselības aprūpes jomas un identificēt problēmas turpmākam pētniecības procesam	3.00
1. grupa	Veidot emocionālo līdzsvaru veselības aprūpes komandā	3.18
1. grupa	Pilnveidot zināšanas un izmantot informācijas tehnoloģijas ikdienā veselības aprūpē	3.18
3. grupa	Veidot mentoringu māszinību studentiem atbilstošā profesionālo prasmju līmenī	3.18
1. grupa	Kritiski izvērtēt personīgo veselības aprūpes filozofiju	3.24
1. grupa	Motivācija pilnveidot profesionālās zināšanas un prasmes	3.24
3. grupa	Motivēt nodaļas personālu jauno kolēģu mentoringā	3.24
3. grupa	Motivēt veselības aprūpes komandu pilnveidot profesionālās zināšanas un prasmes	3.29
1. grupa	Apzināties veselības aprūpes dokumentācijas mērķus un uzdevumus	3.29
2. grupa	Veidot un izprast pozitīvas veselības aprūpes vidi veselības aprūpes komandas labjūtes veidošanā un pacientu/klientu atveseļošanās procesā	3.35

2. grupa	Pilnveidot veselības aprūpi struktūrvienībā	3.35
4. grupa	Noteikt pacientu/klientu piederīgo vajadzības (informācija, psiholoģiskais atbalsts u.c.)	3.35
1. grupa	Apzināties savas profesijas misijas apziņu	3.35
1. grupa	Pieņemt lēmumus, pamatojoties uz ētikas principiem	3.41
4. grupa	Motivēt veselības aprūpes komandu pacientu/klientu apmācībā un izglītošanā	3.41
4. grupa	Izvērtēt pacienta/klienta izglītošanas vajadzības līmeni, nodrošinot nepieciešamo laiku un individuālu pieeju	3.47
4. grupa	Veidot aprūpes plānu atbilstoši pacienta/klienta vajadzībām	3.47
4. grupa	Plānot izglītošanas sasniedzamos mērķus kopā ar pacientu/klientu	3.47
4. grupa	Nodrošināt pacienta/klienta un viņu piederīgo labjūti stacionāra vidē	3.47
3. grupa	Pacientu/klientu veselības aprūpes neatliekamības situācijā iesaistīt atbilstošus speciālistus	3.53
3. grupa	Papildināt veselības aprūpes komandas pacientu/klientu novērošanas prasmes veselības aprūpes procesā	3.53
4. grupa	Plānot pacienta/klienta piederīgo izglītošanu, iesaistot veselības aprūpes komandu	3.53
4. grupa	Nodrošināt pacientu/klientu piederīgajiem atbilstošu informāciju	3.59
3. grupa	Savlaicīgi noteikt, atpazīt un rīkoties atbilstoši pacienta/klienta neatliekamības situācijās	3.65
4. grupa	Atbalstīt pacientu/klientu atveseļošanās procesā	3.65

Iegūtie rezultāti norāda, ka viszemāk novērtētie medicīnas māsu profesionālās kompetences komponenti ir saistāmi ar pētījumu rezultātu pielietojumu veselības aprūpē, informācijas tehnoloģiju pielietojumu ikdienas veselības aprūpē, emocionālā līdzsvara veidošanu veselības aprūpes komandā, mentoringa nodrošinājumu māszinību studentiem un motivāciju pilnveidot profesionālās zināšanas un prasmes.

Pašnovērtējuma komponentus saistībā ar pētniecības rezultātu pielietojumu veselības aprūpē viszemāk novērtē 30 medicīnas māsas ar vidējo profesionālo un 1. līmeņa profesionālo augstāko izglītību, ko var pamatot ar zināšanu trūkumu, savukārt visaugstāk vērtē 18 medicīnas māsas ar iegūtu veselības zinātņu bakalaura vai maģistra grādu māszinībās, ko var pamatot ar tādu studiju kursu apguvi kā „Pētniecība” un „Statistika”.

Informācijas tehnoloģiju pielietojumu kā apgrūtinājumu ikdienas praksē novērtē 27 medicīnas māsas vecumā no 43 līdz 55 gadiem, ar darba pieredzi no 20 līdz 30 gadiem un zemām angļu valodas zināšanām, neraugoties uz to, ka 18 medicīnas māsām ir iegūts veselības zinātņu bakalaura grāds māszinībās, kas nosaka, ka studiju laikā ir apgūts studiju kurss „Informācijas tehnoloģijas”.

Visaugstāk novērtētie medicīnas māsu profesionālās kompetences komponenti ir saistāmi ar pacientu/klientu un viņu piederīgo izglītošanu,

atbalstu pacientiem/klientiem atvēršanās procesā, spēju savlaicīgi rīkoties neatliekamības situācijās, iesaistot atbilstošos speciālistus.

Izvērtējot demogrāfisko rādītāju saikni ar profesionālās kompetences komponentu kritēriju pašnovērtējumiem, var secināt, ka nepastāv statistiski ticama atšķirība starp profesionālās kompetences komponentu pašnovērtējumiem, dalot respondentus grupās pēc izglītības līmeņa, darba pieredzes un iepriekšējās pieredzes pētniecībā.

Medicīnas māsu sniegtais pētniecības barjeru novērtējums, balstoties uz vidējo aritmētisko aprēķinu, apkopots 2. tabulā.

2.tab. Pētniecības barjeru novērtējums
Table 2 Research Process Implementation Barrier Assessment

Barjera	Vidējais vērtējums
Pētījumā veiktā datu statistiskā analīze nav izprotama	2.44
Pētniecība nav svarīga veselības aprūpes praksē	2.50
Medicīnas māsa nesaņem atbalstu pētījuma rezultātu ieviešanai no veselības aprūpes komandas	2.50
Medicīnas mātai, veicot tiešos darba pienākumus, neatliek laika lasīt zinātniskos rakstus	2.63
Medicīnas mātai netiek dota iespēja veidot dialogu un diskutēt par pētījuma rezultātiem	2.63
Teorija, prakse un pētniecība māsziņībās nav svarīga, lai nodrošinātu pacientu/klientu veselības aprūpi	2.69
Medicīnas māsa nevēlas ieviest izmaiņas veselības aprūpes praksē	2.75
Pētījuma rezultāti un secinājumi nav pamatoti teorijā	2.81
Zinātniskā literatūra māsziņībās netiek apkopota kopējā datu bāzē	2.88
Veicot veselības aprūpi, medicīnas mātai neatliek laika, lai ieviestu pētījuma rezultātus veselības aprūpes vidē	2.88
Medicīnas māsa uzskata, ka pētījuma rezultātus nav iespējams ieviest veselības aprūpes praksē	3.00
Nav skaidra pētījuma rezultātu ieviešana veselības aprūpes praksē	3.13
Medicīnas mātai nav ticība, ka pētniecība izmainīs veselības aprūpi	3.25
Medicīnas māsa nav droša par pētījuma rezultātu ticamību	3.31

Iegūtie rezultāti norāda, ka visnenozīmīgākās barjeras māsziņību pētniecības attīstīšanai ir saistītas ar izglītības trūkumu saistībā ar statistiskās analīzes izpratni, pētniecības nozīmi veselības aprūpes praksē un atbalsta trūkumu no veselības aprūpes komandas.

Izvērtējot demogrāfisko rādītāju saikni ar pētniecības barjeras novērtējumu, var secināt, ka nepastāv statistiski ticama atšķirība, dalot respondentus grupās pēc izglītības līmeņa, darba pieredzes un iepriekšējās pieredzes pētniecībā.

Neraugoties uz iepriekš norādītajiem pētniecības barjeru novērtējumiem, kā

galvenie medicīnas māsu norādītie pētniecības attīstību kavējošie faktori tika minēti - motivācijas trūkums (stagnācija), izglītības trūkums, atbalsta un sadarbības trūkums no veselības aprūpes komandas, it īpaši ārstiem, pamatojot atbildi ar to, ka medicīnas māsām netiek dota iespēja veidot dialogu par pētījumu rezultātiem, kā arī finansiālā atbalsta trūkums. Medicīnas māsas norāda uz tālākizglītības kursu nepieciešamību par pētniecības nozīmi veselības aprūpē, kā arī statistikas metodēm, datu apstrādes un interpretācijas veidiem.

Secinājumi **Conclusions**

1. Viszemāk novērtētie medicīnas māsu profesionālās kompetences komponentu pašnovērtējumu kritēriji ir saistīti ar personības attīstību veselības aprūpes procesā, ko pamato tādi kritēriji, kā pētījumu rezultātu pielietojums veselības aprūpē, informācijas tehnoloģiju pielietojums ikdienas veselības aprūpē un motivāciju pilnveidot profesionālās zināšanas un prasmes, kas var tikt saistīti ar pētniecības barjeru novērtējumu.
2. Galvenie medicīnas māsu norādītie pētniecības attīstību kavējošie faktori tika minēti - motivācijas trūkums (stagnācija), izglītības trūkums, atbalsta un sadarbības trūkums no veselības aprūpes komandas, it īpaši ārstiem, jo medicīnas māsām netiek dota iespēja veidot dialogu par pētījumu rezultātiem.
3. Medicīnas māsas norāda uz tālākizglītības kursu nepieciešamību par pētniecības nozīmi veselības aprūpē, kā arī statistikas metodēm, datu apstrādes un interpretācijas veidiem, kas spētu ietekmēt medicīnas māsu šī brīža viedokli par pētniecības nozīmi veselības aprūpē.
4. Medicīnas māasai izglītības procesa un veselības aprūpes prakses vidē jārosina saskatīt un izprast dzīvo saikni starp notiekošiem procesiem daudzdimensionālā vidē. Lai medicīnas māsa patiešām uzņemtos un attīstītu savas personīgās, profesionālās un sociālās lomas, liela nozīme ir spriestspējai. Tā ir iespēja medicīnas māsām labāk izprast un apzināt globālās pasaules problēmas. Transformatīva mācīšanās medicīnas māsas izglītībā jāsaprot kā mācīšanās kultūras maiņa, jo tā ir kritiski izvērtējama un tajā nav pretrunu ar realitāti un pieredzi veselības aprūpē, kurā norit aktīva sadarbība ar citiem, izmantojot refleksiju darbības izpratnē.

Summary

The lowest rated criteria for nurse professional competence component self-assessment are related to the personal development in the health care process, which was based on criteria like, the application of research results in health care, application of information technology

in everyday health care and motivation to improve the professional knowledge and skills that can be connected to assessment of research barriers.

The highest rated criteria for nurse professional competence component self-assessment are related to patient/client and their relatives education, patient/client support during recovery process and ability to react in time in case of urgent situations, involving appropriate specialists.

The lowest rating of self-assessment components related to implementing research results in nursing practice and use of information technologies in everyday practice was given by nurses without higher education (age group 43-55 years, work experience 20-30 years, low English language skills).

Main hindering factors of research development were mentioned - lack of motivation (stagnation), lack of education, lack of cooperation and support from the health care team, especially doctors, as nurses are not given the opportunity to engage in dialogue on the study results.

Nurses points to the need for further education on the importance of research in health care, as well as statistical methods, data processing and interpretation of the ways that could affect nurse views on the importance of research in health care at the moment.

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KVALIFICĒTU SVARCĒLĀJU KUSTĪBU STRUKTŪRAS IZPĒTE RAUŠANĀ UN GRŪŠANĀ AR BIOMEHĀNISKO KOMPONENTU MODELĒŠANAS PALĪDZĪBU

Research Of The Movement Structure Of The Qualified Weightlifters In The Snatch And The Clean And Jerk Taking Into Account Modelling Of Biomechanical Components

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Abstract. *The research was conducted during the training process of Ukrainian, Russian and Latvian weightlifters and their participation in international competitions (the World and European Championships). The aim of the current study was to identify qualified weightlifters movements development regularities snatch and clean and jerk through the biomechanical component modelling. A total of 442 qualified weightlifters participated in the research: 242 male weightlifters and 200 female weightlifters. All athletes were divided into three groups according to their weight category: male weightlifters: Ist group – 56–69 kg; IInd group – 77–94 kg; IIIrd group – 105 and +105 kg; female weightlifters: Ist group – 48-58 kg; IInd group – 63-69 kg; IIIrd group – 75 and +75 kg. Obtaining the biomechanical parameters of technical training of the qualified weightlifters in the snatch and the clean and jerk during the competitions, biodynamic and biokinematic complex of movement parameters of the interaction between the athletes and the barbell was examined using the electro-optical complex „Weightlifting analyzer 3.0“, produced in Germany.*

In all weight categories in the final acceleration phase (F_{3FAP}) and supported squat phase (F_{4SSP}) the best efforts in the snatch are made by female weightlifters, although they lift considerably less weight of loads (by 15–25 %) than male weightlifters. In the first group of weight categories the parameters differ by 1,4 and 4,2 % ($p \leq 0,005$), in the second group of weight categories – by 8,9 and 3,9 % ($p \leq 0,005$), however in the third group of weight categories differences were only observed in the final acceleration phase (F_{3FAP}) – by 3,7 % ($p \leq 0,005$). The results of the research show that in the instant of the first application of the maximum force (v_{F1}) females develop higher speed of the barbell than males (by 44,0 %). The same tendency is observed in the instant of the maximum knee extension (v_{MAXKE}) – in this phase the vertical speed of the barbell among female weightlifters is by 4,5 % ($p \leq 0,05$)

higher than among male weightlifters. Females of the Ist and the IIIrd group of weight categories achieve the best results in the final acceleration phase (v_{MAX}) – they are by 6,8 and 5,4 % ($p \leq 0,05$) higher than the same parameters of males of the Ist and the IInd group of weight categories. Significant differences have been also observed in biomechanical parameters of the barbell's movement among representatives of different genders and weight categories. Moreover, in the Ist group of weight categories differences mainly exist in the preliminary squat phase ($h_{PR.SQ.}$), when female parameters are by 4,5 % higher than male parameters; in the instant of the attainment of the maximum height of the barbells' displacement (h_{MAX}) they are by 7,5 % higher respectively; the amount of force in the process of interaction between the athletes and the barbell in the active braking phase (F_{ABP}) is by 5,3 % bigger respectively. In the IInd group essential differences appeared in the vertical displacement of the barbell in the instant of the attainment of the maximum height (h_{MAX}), female parameters are by 7,3 % higher than male parameters; in the supported squat phase ($h_{SQUAT.}$) the opposite tendency can be observed as parameters among males are by 47,8 % higher than female parameters; the amount of force applied to the barbell in the supported squat phase (F_{SSP}) among females are by 3,4 % higher than among males. In the IIIrd group significant differences are noticed in the vertical displacement of the barbell in the instant of the attainment of the maximum height (h_{MAX}), female parameters are by 6,5 % better than male parameters; the amount of force in the process of interaction between the athletes and the barbell in the active braking phase (F_{ABP}) among females is by 5,7 % higher than among males.

Thus biomechanical parameter changes of the execution technique of competitive exercises in the clean and jerk among the weightlifters of different gender and weight categories show more than 62,5 % of differences in respect of biodynamic and biokinematic (speed and spatial) parameters of support interaction of the athletes. In spite of the same phase structure of the exercises, movements of the first method of the clean and jerk considerably differ from the similar parameters of the snatch technique. This indicates individualisation of model parameter formation of technical training of the qualified athletes, performing competitive exercises within the certain group of weight categories, taking into consideration gender differences.

Keywords: athlete's qualification barbell speed, clean and jerk push, phases, snatch, time, vertical speed, weightlifting.

Ievads Introduction

Mūsdienu sporta prakse, pastiprināta sporta komercializācija un profesionalizācija, kā arī pastāvīgi pieaugošā sociāli politiskā smagatlētu panākumu nozīme starptautiskajā arēnā ir galvenie trenēšanās procesa un sacensību darbības intensifikācijas faktori. Turklāt šie faktori mudina meklēt veidus, kā uzlabot sportistu rezultātus un kā dažādās valstīs izveidot efektīvu sportistu tehniskās sagatavotības sistēmu. Vairāku valstu pazīstamākie zinātnieki, kas ir pētījuši problēmu saistībā ar sportistu tehniskās sagatavotības sistēmas pilnveidošanu, izmantojot mūsdienu inovatīvos sagatavotības modelēšanas un kontroles līdzekļus, savos pētījumos apgalvo, ka pasaules

līmeņa rezultātus spēj sasniegt tikai talantīgi sportisti, kuros ir iedzimta tieksme maksimāli realizēt savas spējas izvēlēto disciplīnu sacensībās. (Бернштейн, 1947; Гавердовський, 2007; Лапутін et al., 2001; Матвеев, 2010; Платонов, 2015; Шалманов et al., 2012).

Speciālisti uzskata, ka augsto sasniegumu sportā gūtās teorētiskās zināšanas un praktiskie materiāli par sportistu tehniskās sagatavotības pilnveidošanas problēmu jāturpina uzlabot un papildināt arī svarcelšanas sportā, kas ir viens no Olimpisko spēļu sporta veidiem. Pastāvošajā zinātniska sistēmā jāiekļauj gan personiskie vispārinājumi, gan jaunākie teorētiskie prakses materiāli, t.i., mūsdienu paņēmieni sportistu tehnisko darbību modelēšanā atkarībā no viņu specializācijas, dzimuma, vecuma un morfoloģiskajām īpatnībām.

Sportistu tehniskās sagatavotības pilnveidošanas problēmu dažādās svarcelšanas disciplīnās ir pētījuši daudzi pasauleslaveni speciālisti. Lielākā daļa pētījumu ir veikta Krievijā (Иванов, 2013; Кожекин, 1998; Корнилов, 2010; Медведев, 1997; Полетаев, 2006), Ukrainā (Антонюк, 2012; Гамалий, 2007; Мочернюк, 2013; Олешко, 2014; Пуцов et al., 2012; Oleshko, 2013), kā arī tādās valstīs kā ASV (Garhammer, 2001; Garhammer & Komi, 1998), Spānija (Полетаев et al., 2005; Campos et al., 2006), Japāna (Isaka et al., 1996; Okada et al., 2008), Grieķija (Gourgoulis et al., 2002, 2004) un Ķīna (Yang et al., 2000).

Krievu speciālistu vidū izceļas S.J. Te (2009), kas ir pētījis dažāda ķermeņa uzbūves tipa svarcēlāju tehniskās meistarības pilnveidošanas metodiku. Krievu speciālists P.A. Poļetajevs kopā ar zinātniekiem no Spānijas H. Kamposu un A. Kvestoju (2005) ir pētījis sieviešu-svarcēlāju individuālos raušanas tehnikas modeļus. Speciāliste no Malahovkas FKSI A.M. Maļutina (2008) ir pētījusi kvalificētu sieviešu-svarcēlāju raušanas tehnikas ritmisko laika struktūru.

Sacensību vingrinājumu izpildes tehnikas pilnveidošanas parametru optimizācijas meklējumus turpināja ukraiņu zinātnieki un svarcelšanas pārstāvji S.A. Pucovs (2012), A.V. Antoņuks (2012), A.V. Ivanovs (2013), A.F. Tovstonogs (2012), V.B. Močerņuks (2013) un citi.

ASV zinātnisko pētījumu skolu, kur pēta svarcēlāju tehnisko sagatavotību, pārstāv Kalifornijas Valsts universitātes biomehānikas laboratorijas doktors Dž. Garhamers (2001, 1998), kurš ir pētījis vingrinājumu tehnikas biomehāniskos rādītājus abu dzimumu svarcēlāju vidū. Viņš pirmo reizi ASV vēsturē izmantoja stieņa kustības tehnikas analīzi trīsdimensiju telpā, izmantojot trīs videokameras, kas noteica sieviešu antropometrisko datu ietekmi uz stieņa kustības trajektoriju. Citi pazīstamāko ASV universitāšu amerikāņu speciālisti – L. Donalds, M. Kevins, K. Braians, Dž. Karloze (2006) – ir pētījuši desmit augstas kvalifikācijas sieviešu-svarcēlāju raušanas tehniku.

Speciālisti no Japānas T. Isaka, J. Okada un F. Kadzuo (1996) un speciālisti no Ķīnas C. Jangs, V. Lī un Z. Gū (2000) arī ir pētījuši raušanas tehnikas

variabilitāti, reģistrējot stieņa kustības trajektoriju abu dzimumu un dažādu svara kategoriju grupu svarcēlāju vidū.

Zinātnieki no Grieķijas V. Gurgulis, N. Agelusis, G. Mavromatis un A. Garas (2002, 2004) ar mūsdienu reģistrējošās aparatūras palīdzību ir pētījuši 12 sieviešu-svarcēlāju vingrinājumu tehniku trīsdimensiju telpā.

Doktors A. Urso (2011), speciālists no Itālijas, savā monogrāfijā „Weightlifting Sport for All Sports“ ir veicis svarcēlāju-olimpiešu kustību tehnikas biomehānisko analīzi, ņemot vērā padomju laika svarcelšanas speciālistu darba pieredzi.

Turcijas pārstāvis E. Harbili (2012) no Selčukas universitātes ir pētījis vienas svara kategoriju grupas abu dzimumu svarcēlāju raušanas tehnikas pamatus.

Līdz ar to problēma saistībā ar kvalificētu svarcēlāju tehniskās sagatavotības efektivitātes uzlabošanu, meklējot papildu rezerves komponentu modelēšanas sistēmā, nav pietiekami labi izpētīta, lai gan šai problēmai jau sen ir pievērsuši uzmanību speciālisti no dažādām valstīm. Lielākā daļa pētījumu ir veikta, pamatojoties uz teoriju par sportistu kustību veidošanu un pārvaldību ar tehnisko kontroles līdzekļu palīdzību (Гамалий & Островский, 2011; Корнилов, 2010; Медведев, 1997; Олешко, 2011; Garhammer, 2001); kā arī pamatojoties uz pētījumiem par tehniskās sagatavotības pilnveidošanas sistēmu svarcelšanā, izmantojot komponentu modelēšanas rādītājus (Кожекин, 1998; Олешко, 2014; Роман, 1986; Те, 2009; Товстоног, 2012).

Minētie pētījumi un izskatītās problēmas liecina, ka svarcēlāju sportiskās sagatavotības teorijā un praksē ir uzkrāts liels zinātnisko zināšanu apjoms, ko ne vienmēr iekļāva vienotā sportistu tehniskās sagatavotības pilnveidošanas sistēmā un kas bija organiski saistīts ar daudzgadējas pilnveidošanas posmiem. Daži šī procesa veidošanās atzinumi nebija saskanīgi vai ietvēra sevī dažādus praktiskos materiālus attiecībā uz noteiktu vecuma grupu, dzimumu vai sportistu kvalifikāciju, kas apgrūtināja ar šo problēmu saistīto zināšanu vienotas sistēmas izveidi.

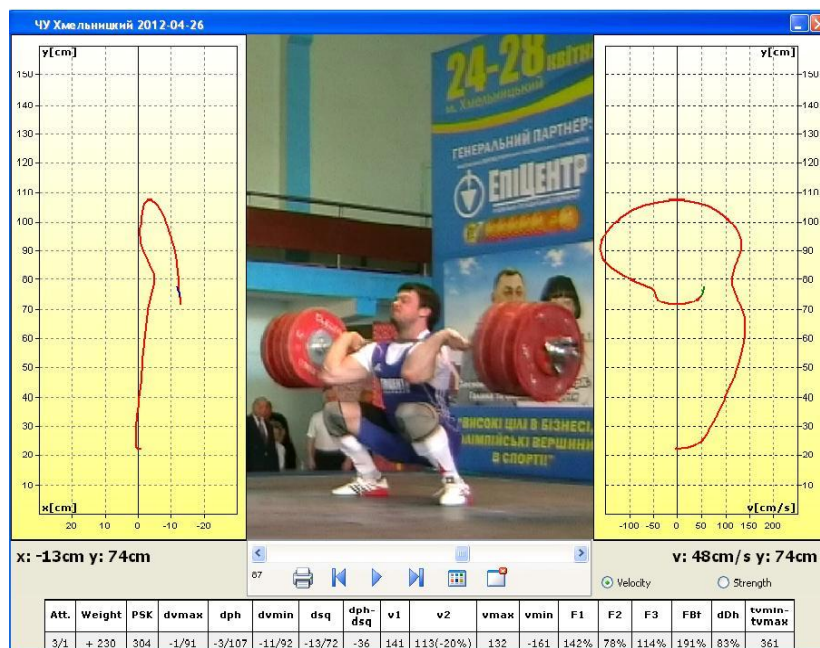
Šī kopaina parāda, ka ir nepieciešams sistematizēt gūtās zināšanas par kvalificētu svarcēlāju tehniskās sagatavotības sistēmas optimizāciju daudzgadējos pilnveidošanas posmos, izmantojot mūsdienu inovatīvos tehnisko darbību pamatkomponentu modelēšanas un kontroles līdzekļus atkarībā no atlētu specializācijas, dzimuma, vecuma un morfoloģiskajām īpatnībām. Mūsu darba mērķis bija noteikt kvalificētu svarcēlāju kustību pilnveidošanas likumsakarību raušanā un grūšanā, izmantojot biomehānisko komponentu modelēšanu.

Metodika Methods

Mūsu pētījuma tika pielietotas sekojošas metodes: teorētiskā analīze un speciālās zinātniski pētnieciskās literatūras apkopošana, praktiskā darba pieredzes apkopošana un dokumentālo materiālu analīze, sintēze, abstrahēšana un analogija; pedagoģiskie novērojumi, morfoloģiskie paņēmieni (antropometrija, elektroniskā kalipometrija); rīka kustības reģistrācijas optoelektroniskais paņēmiens; biomehāniskā videokompjūteranalīze; pedagoģiskā kontrole, matemātiskā modelēšana; pedagoģiskais eksperiments; matemātiskās statistikas metodes.

Pētnieciskās darbības tika veiktas Ukrainas Nacionālās Fiziskās kultūras un sporta universitātes Zinātniski pētnieciskajā institūtā, kā arī sportistu olimpiskās sagatavošanas centros, kas atrodas tādās pilsētās kā Koktebeļa, Feodosija un Čerņigova. Izpēte tika veikta Ukrainas, Krievijas un Latvijas svarcēlāju mācību un treniņu procesa, kā arī starptautisku sacensību laikā (Pasaules un Eiropas čempionātos).

Pētījumā piedalījās 442 kvalificēti svarcēlāji: 242 vīrieši un 200 sievietes. Visi sportisti bija sadalīti dažādās svara kategoriju grupās: vīrieši: I grupa – 56–69 kg; II grupa – 77–94 kg; III grupa – 105 un +105 kg; sievietes: I grupa – 48–58 kg; II grupa – 63–69 kg; III grupa – 75 un +75 kg.

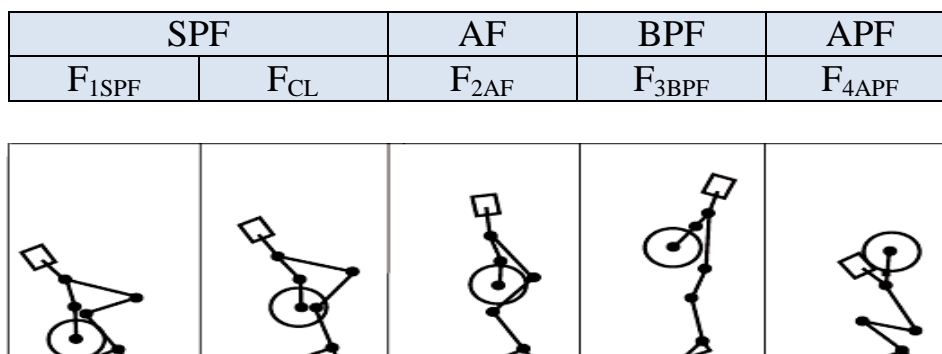


1.att. Datorprogrammas „Weightlifting-analyzer 3.0“ fragments: kreisā puse – stieņa kustības trajektorija (x – novirzes no vertikāles, cm; y – stieņa pārvietojuma lielums, h, cm); labā puse – stieņa kustības vertikālais ātrums (v, m·c⁻¹)

Fig. 1 A fragment of the computer programme „Weightlifting-analyzer 3.0“

Sacensību laikā gūstot kvalificētu svarcēlāju tehniskās sagatavotības biomehāniskos rādītājus raušanā un grūšanā, tika izskatīts sportistu mijiedarbības ar stieni kustību biodinamisko un biokinemātisko rādītāju komplekss, izmantojot Vācijā ražotu optoelektronisko kompleksu „Weightlifting analyzer 3.0“ (1. att.).

Izmantojot optoelektronisko programmu, raušanā un grūšana gūto dinamisko, ātruma un telpisko kustības rādītāju reģistrācija un modelēšana tika veikta vairākās kustības pamatfāzēs: sākuma paātrinājums (SPF), amortizācija (AF), beigu paātrinājums (BPF) un atbalsta pietupiens (APF) (2 un 3. att.).



2.att. Stieņa raušanas tehnikas fāžu struktūra
 Fig. 2 The phase structure of the snatch technique

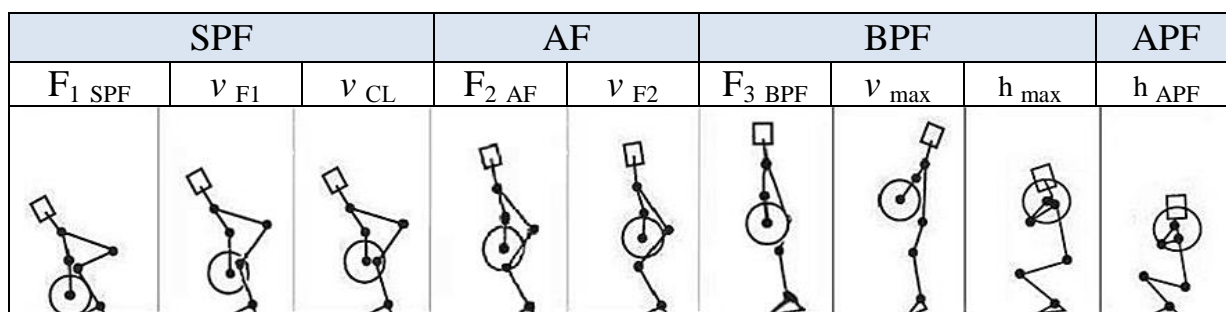
$F_{1 SPF}$ – spēka moments, sportistiem mijiedarbojoties ar rīku sākuma paātrinājuma fāzē;

F_{CL} – spēka fāze, sportistiem mijiedarbojoties ar rīku pirmajā kāju iztaisnošanas maksimuma momentā;

$F_{2 AF}$ – spēka moments, sportistiem mijiedarbojoties ar rīku amortizācijas fāzē;

$F_{3 BPF}$ – spēka moments, sportistiem mijiedarbojoties ar rīku beigu paātrinājuma fāzē;

$F_{4 APF}$ – spēka moments, sportistiem mijiedarbojoties ar rīku atbalsta pietupiena fāzē.



3.att. Pirmā stieņa grūšanas tehnikas paņēmiena fāžu struktūra
 Fig. 3 The phase structure of the first method of the clean and jerk technique

$F_{1\ SPF}$ – spēka moments, sportistiem mijiedarbojoties ar rīku sākuma paātrinājuma fāzē;

v_{F1} – stieņa kustības ātrums pirmajā piepūles maksimuma momentā sākuma paātrinājuma fāzē;

v_{CL} – stieņa kustības ātrums pirmajā kāju iztaisnošanas maksimuma momentā sākuma paātrinājuma fāzē;

$F_{2\ AF}$ – spēka moments, sportistiem mijiedarbojoties ar rīku amortizācijas fāzē;

v_{F2} – stieņa kustības ātrums piepūles maksimuma momentā amortizācijas fāzē;

$F_{3\ BPF}$ – spēka moments, sportistiem mijiedarbojoties ar rīku beigu paātrinājuma fāzē;

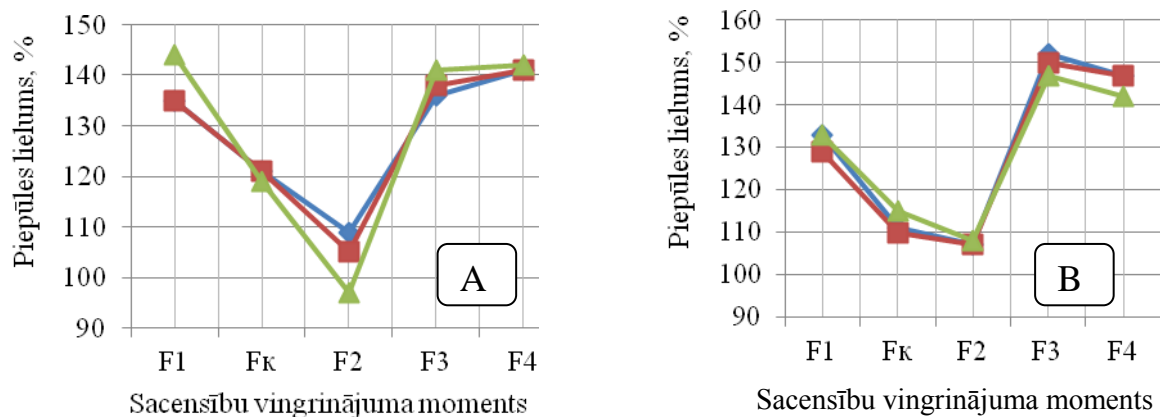
v_{MAX} – stieņa kustības maksimālais ātrums beigu paātrinājuma fāzē;

h_{MAX} – stieņa maksimālā pārvietojuma sasniegšanas moments beigu paātrinājuma fāzē (izteikts procentos atkarībā no ķermeņa garuma);

h_{APF} – stieņa fiksācijas moments atbalsta pietupiena fāzē (izteikts procentos atkarībā no ķermeņa garuma).

Rezultāti Results

Abu dzimumu sportistu raušanas atbalsta fāzēs gūto biodinamisko spēka rādītāju salīdzināmās analīzes rezultāti liecina (att. 4), ka visās svara kategorijās beigu paātrinājuma fāzē (F_{3BPF}) un atbalsta pietupiena fāzē (F_{4APF}) vislielākās pūles stieņa raušanā pieliek sievietes, lai gan viņas ceļ ievērojami mazāku apsmagojuma svaru (par 15–25 %) nekā vīrieši.



4.att. Kvalificētu svarcēlāju piepūles izmaiņas (A – vīrieši; B – sievietes), viņiem mijiedarbojoties ar rīku raušanas kustības struktūrā

— I grupas atlēti; — II grupas atlēti; — III grupas atlēti

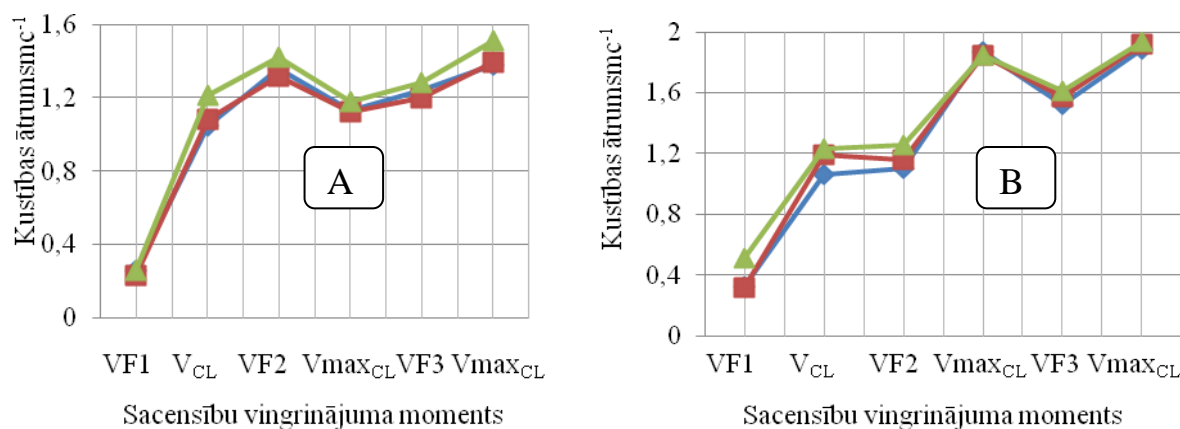
Fig. 4 Force changes of the qualified weightlifters in the process of interaction between them and the barbell in the structure of the snatch

Pirmajā svara kategoriju grupā rādītāji atšķiras par 11,4 un 4,2 % ($p \leq 0,005$), otrajā svara kategoriju grupā – par 8,9 un 3,9 % ($p \leq 0,005$), taču trešajā svara kategoriju grupā atšķirības tika noteiktas tikai beigu paātrinājuma fāzē ($F_{3\ BPF}$) – par 3,7 % ($p \leq 0,005$).

Turklāt sākuma paātrinājuma fāzē ($F_{1\ SPF}$) sieviešu piepūles izmaiņas krasi atšķiras no vīriešu piepūles izmaiņām. Piepūles lielums palielinās tieši proporcionāli sieviešu ķermeņa masas palielinājumam, t.i., I svaru kategoriju grupā piepūles lielums palielinās par 1,9 % ($p \leq 0,005$), II svaru kategoriju grupā tā palielinās divas reizes – par 4,6 % ($p \leq 0,005$), un attiecīgi III grupā piepūle palielinās vairāk nekā trīs reizes – par 7,9 % ($p \leq 0,005$).

Galvenā raušanas tehnikas biodinamiskās struktūras atšķirība starp sievietēm un vīriešiem attiecībā uz viņu pielikto piepūles lielumu, mijiedarbojoties ar rīku, ir tā, ka sievietes maksimālo līmeni sasniedz beigu paātrinājuma fāzē ($F_{3\ BPF}$), bet vīrieši – galvenokārt atbalsta pietupiena fāzē ($F_{4\ APF}$). Tas nozīmē, ka labus rezultātus raušanā var gūt divos veidos: pirmais – pielikt maksimālas pūles pirmajā kustības struktūras daļā; otrais – pielikt maksimālas pūles otrajā kustības daļā.

Tika arī konstatēts, ka raušanā stieņa kustības ātruma rādītāji starp sievietēm un vīriešiem ievērojami atšķiras (att. 5).



5.att. Svarcēlāju ātruma rādītāju izmaiņas (A – vīrieši; B – sievietes), viņiem mijiedarbojoties ar rīku raušanas kustības struktūrā

—♦— I grupa; —■— II grupa; —▲— III grupa

Fig. 5 Speed parameter changes of the weightlifters in the process of interaction between them and the barbell in the structure of the snatch

Pētījuma rezultāti rāda, ka pirmajā piepūles maksimuma momentā (v_{F1}) sievietes attīsta lielāku stieņa kustības ātrumu nekā vīrieši (par 44,0 %). To pašu var novērot arī kāju iztaisnošanas maksimuma laikā ($v_{MAX\ CL}$) – šajā fāzē stieņa kustības vertikālais ātrums sieviešu vidū ir par 4,5 % ($p \leq 0,05$) lielāks nekā vīriešu vidū. Ātrākos rezultātus gūst II un III svara kategoriju grupas sievietes

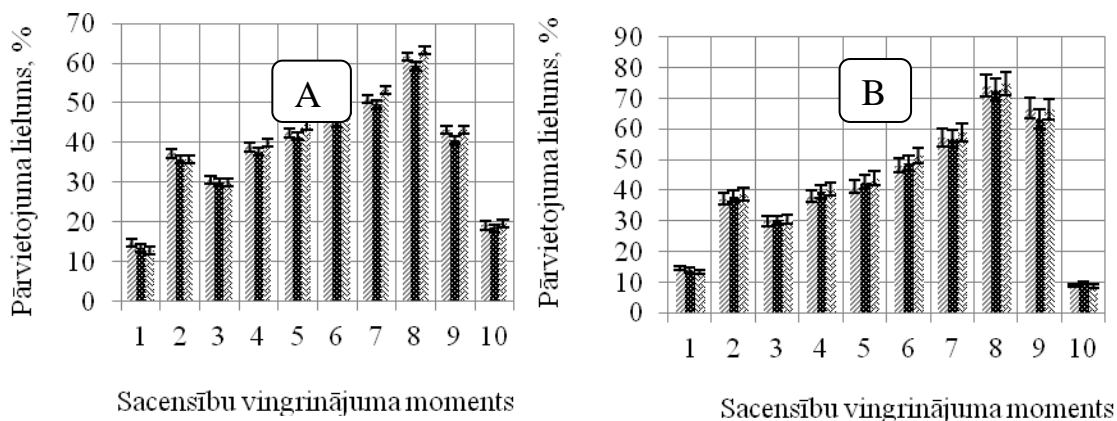
beigu paātrinājuma fāzē (v_{MAX}) – tie ir labāki par 6,8 un 5,4 % ($p \leq 0,05$) nekā tie paši rādītāji I un II svara kategoriju grupas vīriešu vidū.

Tas skaidrojams ar to, ka vīriešiem ir daudz stabilāki tehniskās sagatavotības komponenti, tieši tādēļ viņi attīsta optimālu stieņa ātrumu, ar kā palīdzību viņi var pacelt stieņa svaru attiecīgajā augstumā. Turpretī sievietes tehniskās sagatavotības rādītāji ir mainīgi, tādēļ viņas attīsta lielāku stieņa kustības ātrumu šajā vingrinājumā, nekā tas ir nepieciešams.

Pavisam citādāku izmaiņu dinamiku var vērot raušanas tehnikas rādītājos amortizācijas fāzē (v_{F2}). Šajā fāzē vīriešu maksimālais stieņa ātrums ir par 12,7 % lielāks nekā sievietes gūtais ātrums, un nepastāv gandrīz nekādu atšķirību raušanas tehnikas rādītājos pirmajā kāju iztaisnošanas maksimuma fāzē (v_{CL}).

Tādējādi var konstatēt, ka dažāda dzimuma sportistu raušanas tehnikas ātruma struktūras komponenti būtiski atšķiras gan kustības rādītāju, gan dažādu svara kategoriju grupu sportistu tehnikas laika rādītāju ziņā.

Stieņa vertikālā pārvietojuma kinemātisko rādītāju izmaiņas raušanā norāda uz to, ka sievietes vidū rādītāji ir daudz augstāki par līdzīgiem tehnikas rādītājiem vīriešu vidū (att. 6).



6.att. Svarcēlāju telpisko rādītāju izmaiņas (A – vīrieši; B – sievietes), stieņa raušanas kustības struktūrā

1 – h_{F1} , 2 – h_{V1} , 3 – h_{CL} , 4 – h_{F2} , 5 – h_{V2} , 6 – h_{F3} , 7 – h_{VMAX} , 8 – h_{MAX} , 9 – h_{APF} , 10 – $h_{MAX-h_{APF}}$
 ▨ – I grupa; ▩ – II grupa; ▤ – III grupa

Fig. 6 Spatial parameter changes of the weightlifters in the structure of the snatch

Tika atklāts, ka, pirmkārt, atšķirības starp sievietēm un vīriešiem pastāv pirmajā sievietes pūļu pielikšanas pie stieņa maksimuma momentā (h_{F1}). Sievietes vidū pārvietojuma rādītāji vidēji ir par 9,3 % augstāki nekā vīriešu vidū; pirmajā kāju iztaisnošanas maksimuma momentā (h_{CL}) vertikālā pārvietojuma rādītāji attiecīgi ir par 14,2 % ($p < 0,001$) augstāki; stieņa

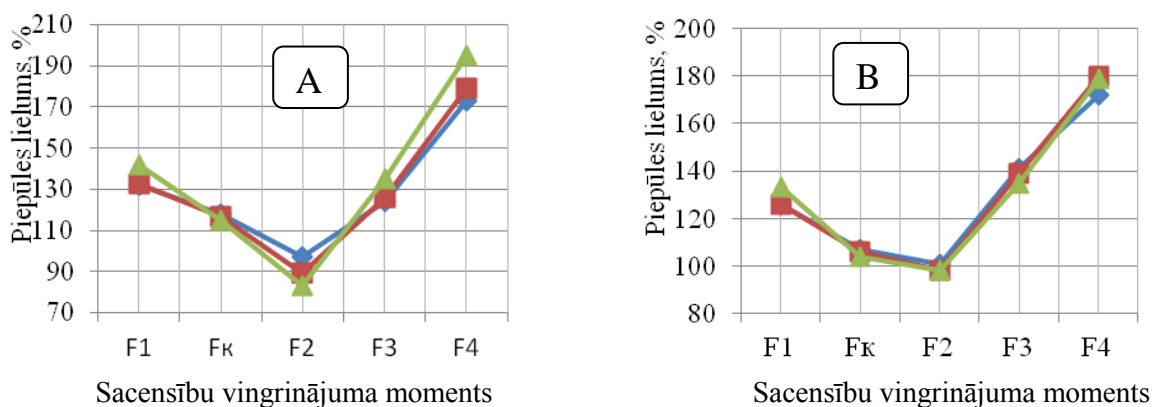
pārvietojuma maksimālā augstuma rādītāji (h_{MAX}) attiecīgi ir augstāki par 4,2 % ($p < 0,005$); kā arī atbalsta pietupiena fāzē (h_{APF}) rādītāji attiecīgi ir augstāki par 3,8 % ($p < 0,005$).

Citi stieņa vertikālā pārvietojuma kinemātiskie rādītāji sieviešu vidū ir ievērojami zemāki nekā līdzīgi rādītāji vīriešu vidū. Pirmkārt, šīs atšķirības var novērot stieņa pārvietojumā, sportistiem sasniedzot maksimālo ātrumu sākuma paātrinājuma fāzē (h_{V1}), jo vīriešu vidū tie ir augstāki par 8,0 % ($p < 0,005$) nekā sieviešu vidū; pūļu pielikšanas pie stieņa maksimuma momentā amortizācijas fāzē (h_{F2}) sieviešu rādītāji ir augstāki par 9,8 % ($p < 0,001$); sasniedzot maksimālo stieņa ātrumu amortizācijas fāzē (h_{V2}) rādītāji attiecīgi ir augstāki par 14,5 % ($p < 0,001$).

Tikai divi stieņa vertikālā pārvietojuma komponenti raušanā vīriešu un sieviešu vidū neizmainījās: stieņa vertikālā pārvietojuma lielums, sievietēm pieliekot pūles pie stieņa maksimuma momentā beigu paātrinājuma fāzē (h_{F3}), un attiecīgais lielums, ar stieni sasniedzot maksimālo ātrumu (h_{VMAX}).

Tādā veidā var konstatēt, ka stieņa vertikālā pārvietojuma lielumu izmaiņas dažādu dzimumu un svara kategoriju grupu sportistu raušanas struktūrā būtiski atšķiras. Tas jo īpaši ir vērojams I („vieglās“ kategorijas) un III („smagās“ kategorijas) svara kategoriju grupas sportistu kustību rādītājos.

Abu dzimumu sportistu pirmā grūšanas paņēmiena laikā gūto biodinamisko piepūles rādītāju izmaiņu salīdzināmās analīzes rezultāti rāda, ka visās trīs grupās visvairāk pūļu pieliek tieši sievietes, it īpaši divās fāzēs – beigu paātrinājuma (F_{3BPF}) un amortizācijas (F_{2AF}) fāzē salīdzinājumā ar vīriešu veikumu šajās fāzēs (att. 7).



7.att. Svarcēlāju piepūles izmaiņas (A – vīrieši; B – sievietes), viņiem mijiedarbojoties ar rīku pirmā stieņa grūšanas paņēmiena kustības struktūrā

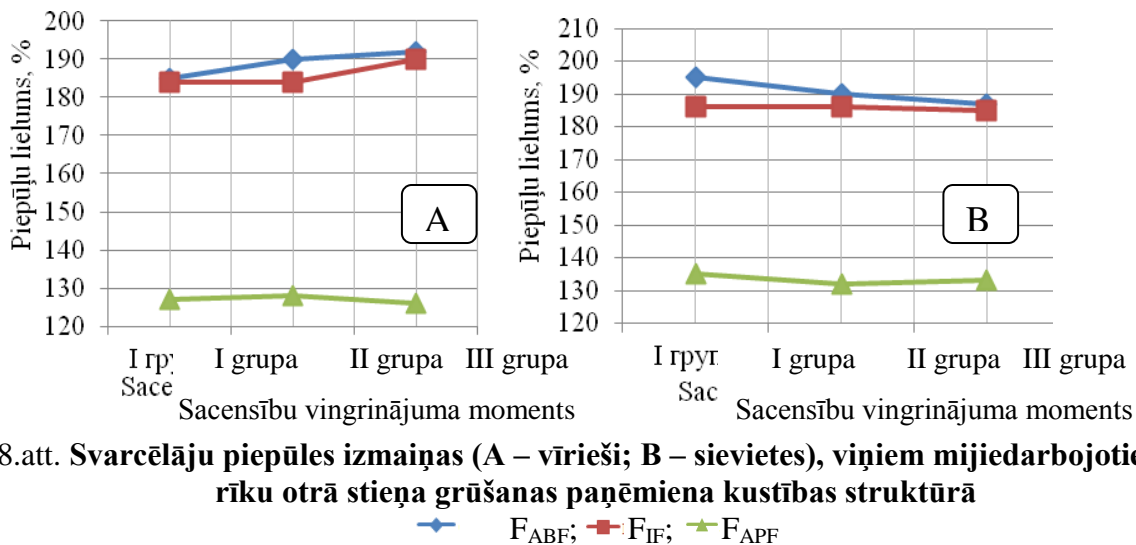
—♦— I grupa; —■— II grupa; —▲— III grupa

Fig. 7 Force changes of the weightlifters in the process of interaction between them and the barbell in the movement structure of the first clean and jerk method

I svara kategoriju grupā pirmajā piepūles fāzē tehnikas rādītāji atšķiras par 13,9 un 4,3 % ($p \leq 0,005$); II svara kategoriju grupā – par 10,4 un 10,1 % ($p \leq 0,005$); III svara kategoriju grupā atšķirības saglabājas tikai amortizācijas fāzē ($F_{2_{APF}}$) – atšķiras par 19,3 % ($p \leq 0,001$).

Citās stieņa kustības atbalsta fāzēs tiek novērots, ka, mijiedarbojoties ar rīku, sievietes pieliek mazāk pūļu nekā vīrieši. To var galvenokārt konstatēt III svara kategoriju grupas sievietes vidū sākuma paātrinājuma ($F_{1_{SPF}}$) un atbalsta pietupiena fāzē ($F_{4_{APF}}$). Mijiedarbojoties ar rīku, šo sievietes pūļu lielums minētājās fāzēs ir par 6,8 un 8,6 % mazāks ($p \leq 0,005$) nekā tās pašas grupas vīriešu pūļu lielums.

Otrā grūšanas paņēmiena atbalsta fāzēs vīriešu tehnikas dinamisko rādītāju analīzes rezultāti rāda, ka, mijiedarbojoties ar rīku, daži piepūles lielumi mainās atkarībā no sportistu svara kategorijām. Šīs izmaiņas notiek divās galvenajās fāzēs, ceļot stieni no krūtīm: aktīvās bremsēšanas (F_{ABF}) un izgrūšanas (kustības virziena piedošana stienim (Švinks, 2002) fāzē (F_{IF}) – rādītāji palielinās par 4,2 un 2,9 % ($p \leq 0,005$) salīdzinājumā ar I svara kategoriju grupas svarcēlājiem (att. 8).

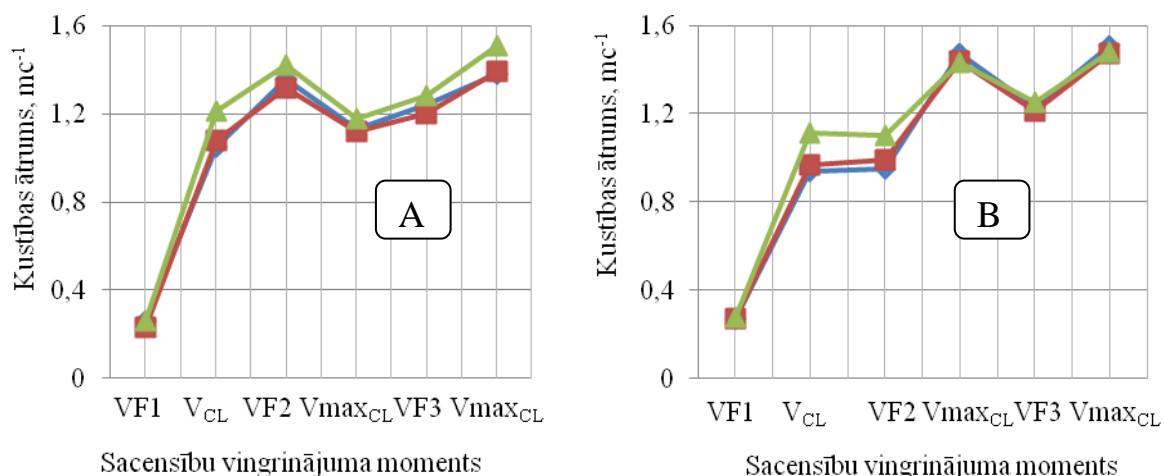


8.att. Svarcēlāju piepūles izmaiņas (A – vīrieši; B – sievietes), viņiem mijiedarbojoties ar rīku otrā stieņa grūšanas paņēmiena kustības struktūrā

Fig. 8 Force changes of the weightlifters in the process of interaction between them and the barbell in the movement structure of the second clean and jerk method

Citādākas dinamiskās piepūles izmaiņas tiek konstatētas sievietes vidū. Mijiedarbojoties ar rīku aktīvās bremsēšanas fāzē (F_{ABF}), III svara kategoriju grupas sievietes piepūles lielums samazinās par 4,1 % ($p \leq 0,005$), salīdzinot ar I svara kategoriju grupu. Interesanti ir tas, ka izgrūšanas fāzē maksimālas pūles pieliek II svara kategoriju grupas sportistes, kas nedaudz maina iepriekš atklāto tendenci.

Būtiskas atšķirības var novērot arī starp vīriešu un sievietes pirmā grūšanas paņēmiena kustības struktūras ātruma rādītāju izmaiņās (att. 9).



9.att. Svarcēlāju ātruma rādītāju izmaiņas (A – vīrieši; B – sievietes), viņiem mijiedarbojoties ar rīku pirmā grūšanas paņēmiena kustības struktūrā

— pirmā grupa; — otrā grupa; — trešā grupa

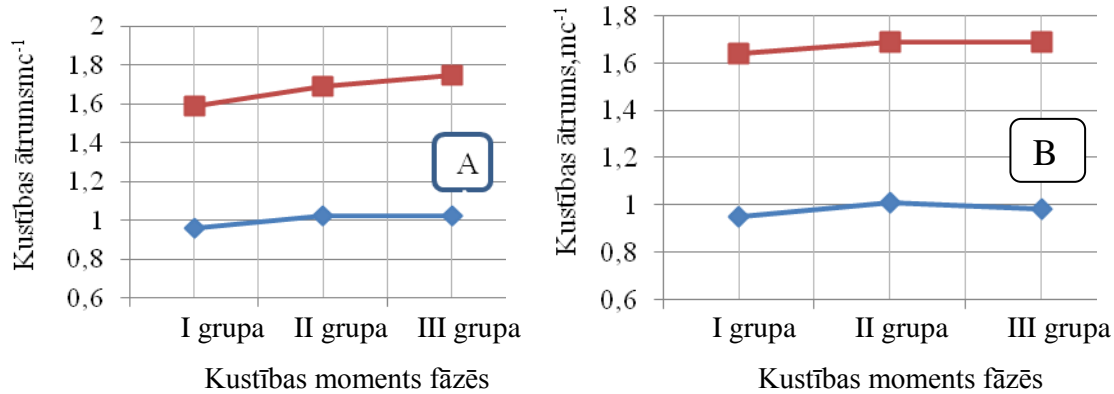
Fig. 9 Speed parameter changes of the weightlifters in the process of interaction between them and the barbell in the movement structure of the first clean and jerk method

Piemēram, šādi pirmajā pūļu pielikšanas pie stieņa maksimuma momentā (v_{FI}) sievietes attīsta par 44,0 % lielāku kustības ātrumu nekā vīrieši. Tāda pati tendence tiek novērota sievietes vidū otrajā kāju iztaisnošanas maksimuma momentā ($v_{MAX\ CL}$), kas ir lielāka par 4,5 % ($p \leq 0,05$), savukārt beigu paātrinājuma fāzē (v_{MAX}) attiecīgi par 4,9 % ($p \leq 0,05$).

To var paskaidrot šādi: vīrieši salīdzinājumā ar sievietēm veic daudz ekonomiskākas kustības, ceļot stieni uz krūtīm, tādā veidā viņi arī attīsta optimālo rīka ātrumu.

Nedaudz citādāka situācija ir vērojama amortizācijas fāzē (v_{F2}), kad maksimālais stieņa ātrums vīriešu vidū ir ievērojami lielāks nekā sievietes vidū – par 17,5 % ($p \leq 0,05$). To pašu var novērot arī pirmajā kāju iztaisnošanas maksimuma momentā (v_{CL}), kad vīriešu rīka kustības ātruma rādītāji ir labāki par 7,2 % ($p \leq 0,05$) nekā sievietes vidū.

Vīriešiem ceļot stieni no krūtīm, stieņa vertikālā ātruma rādītāju izmaiņu analīzes rezultāti rāda, ka aktīvās bremzēšanas fāzē (v_{ABF}) šis ātrums palielinās tieši proporcionāli sportistu ķermeņa masas palielinājumam, t.i., par 6,2 % ($p < 0,05$). Tāpat arī izgrūšanas fāzē (v_{IF}) stieņa vertikālais ātrums vīriešu vidū palielinās atkarībā no svara kategoriju grupas: III svara kategoriju grupā par 10,1 % ($p < 0,05$) salīdzinājumā ar I svara kategoriju grupu, bet II svara kategoriju grupā – par 6,3 % ($p < 0,05$) salīdzinājumā ar I svara kategoriju grupu (att. 10).



10.att. Svarcēlāju ātruma rādītāju izmaiņas (A – vīrieši; B – sievietes) atkarībā no svara kategoriju grupas, viņiem mijiedarbojoties ar rīku otrā grūšanas paņēmiena kustības struktūrā

—♦— v_{ABF} ; —■— v_{IF}

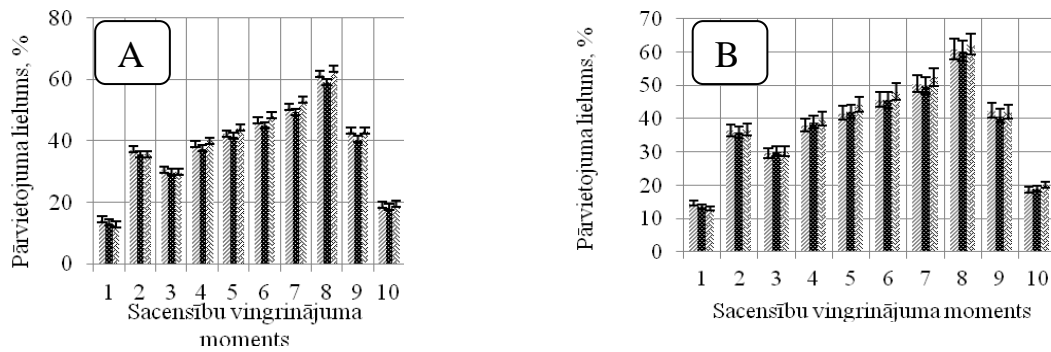
Fig. 10 Speed parameter changes of the weightlifters, depending on the group of weight categories in the process of interaction between them and the barbell in the movement structure of the second clean and jerk method

Stieņa vertikālā ātruma izmaiņas rāda, ka arī sieviešu vidū, paceļot stieni no krūtīm aktīvās bremsēšanas fāzē (v_{ABF}), šis ātrums palielinās par 6,3 % ($p < 0,05$) atkarībā no svara kategoriju grupas. Izgrūšanas fāzē (v_{IF}) sieviešu stieņa vertikālais ātrums īpaši nepalielinās.

Dažādu dzimumu svarcēlāju stieņa vertikālā ātruma izmaiņas norāda uz to, ka izgrūšanas fāzē (v_{IF}) pastāv ievērojamas atšķirības starp I un III svara kategoriju grupu. I svara kategoriju grupā sieviešu stieņa vertikālā ātruma rādītāji ir par 3,1 % ($p < 0,05$) augstāki nekā vīriešu vidū, taču III svara kategoriju grupā situācija ir citādāka – vīriešu vertikālā ātruma rādītāji ir par 3,5 % ($p < 0,05$) augstāk nekā sieviešu rādītāji.

Interesantu tendenci var novērot sieviešu vidū atklātajos stieņa vertikālā pārvietoējuma rādītājos, izmantojot pirmo grūšanas paņēmieni beigu paātrinājuma fāzē (h_{F3}). Visvājākos rezultātus uzrāda II svara kategoriju grupas sievietes – tie ir par 4,8 % ($p \leq 0,005$) augstāki nekā I svara kategoriju grupā un attiecīgi par 3,5 % ($p \leq 0,005$) augstāki nekā III svara kategoriju grupā (att. 11).

Šī tendence norāda uz to, ka II svara kategoriju grupas sportistes, pateicoties optimālām ķermeņa daļu proporcijām, labāk pārvalda savas kustības par citu svara kategoriju grupu pārstāvēm.



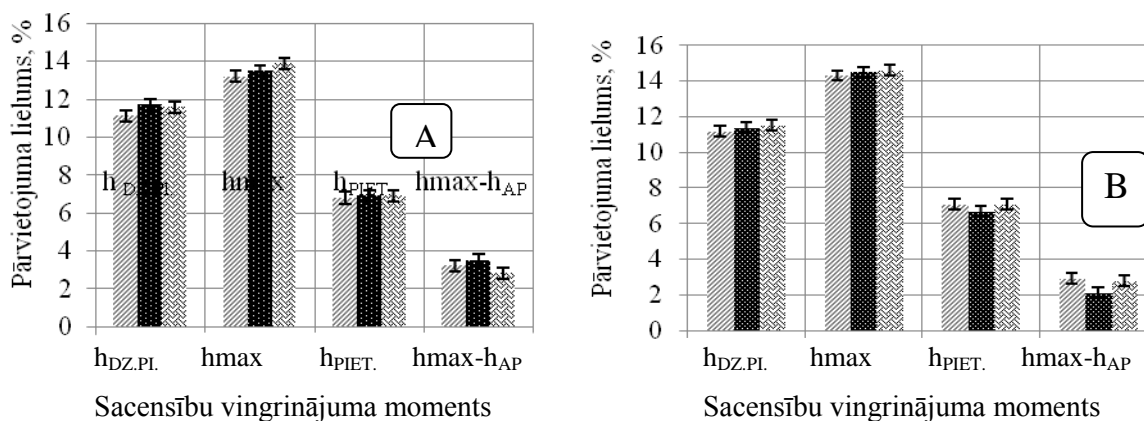
11.att. Svarcēlāju telpisko rādītāju izmaiņas (A – vīrieši; B – sievietes) pirmā stieņa grūšanas paņēmiena kustības struktūrā:

1 – h_{F1} , 2 – h_{V1} , 3 – h_{CL} , 4 – h_{F2} , 5 – h_{V2} , 6 – h_{F3} , 7 – h_{VMAX} , 8 – h_{MAX} , 9 – h_{APF} , 10 – $h_{MAX-h_{APF}}$;

▨ – pirmā grupa; ▩ – otrā grupa; ▤ – trešā grupa

Fig. 11 Spatial parameter changes of the weightlifters in the movement structure of the first clean and jerk method

Otrā grūšanas paņēmiena laikā gūtie stieņa vertikālā pārvietojuma telpisko rādītāju analīzes rezultāti liecina, ka sieviešu vidū gūtie rādītāji ir augstāki par vīriešu vidū gūtajiem līdzīgiem rādītājiem (att. 12): pirmajā pūļu pielikšanas pie stieņa maksimuma momentā (h_{F1}) – par 8,8 % ($p < 0,001$); pirmajā kāju iztaisnošanas maksimuma momentā (h_{CL}) – par 12,7 % ($p < 0,001$); ar stieni maksimālā ātruma sasniegšanas momentā (h_{VMAX}) – par 7,1 % ($p \leq 0,005$); stieņa pārvietojuma maksimālā augstuma sasniegšanas momentā (h_{MAX}) – par 27,2 % ($p < 0,001$); atbalsta pietupiena fāzes momentā (h_{APF}) – par 5,3 %; nolaišanas fāzē – stieņa maksimāli iespējamā pārvietojuma lieluma un atbalsta pietupiena fāzes starpība ($h_{MAX-h_{APF}}$) – par 12,5 % ($p \leq 0,005$).



12.att. Svarcēlāju telpisko rādītāju izmaiņas (A – vīrieši; B – sievietes) otrā stieņa grūšanas paņēmiena kustības struktūrā:

▨ – pirmā grupa; ▩ – otrā grupa; ▤ – trešā grupa

Fig. 12 Spatial parameter changes of the weightlifters in the movement structure of the second clean and jerk method

$h_{DZ.PI.}$ – stieņa pārvietojuma lielums sagatavojošā pietupiena fāzē;

h_{MAX} — stieņa pārvietojuma lielums maksimālā izlidošanas augstuma sasniegšanas laikā izgrūšanas fāzē;

$h_{PIET.}$ – stieņa pārvietojuma lielums bez atbalsta pietupiena fāzes izpildes laikā;

$h_{MAX} - h_{APF}$ – stieņa maksimāli iespējamā izlidošanas augstuma un atbalsta pietupiena fāzes starpība, %.

Arī cita telpisko rādītāju grupa, kas gūta sieviešu vidū otrajā stieņa grūšanas paņēmiena laikā, atšķiras no līdzīgiem rādītājiem, ko uzrādīja vīrieši: maksimālā ātruma sasniegšanas momentā sākuma paātrinājuma fāzē (h_{V1}) sieviešu rādītāji ir par 5,8 % ($p \leq 0,005$) zemāki nekā vīriešu rādītāji; pūļu pielikšanas pie stieņa maksimuma momentā amortizācijas fāzē (h_{F2}) – attiecīgi par 8,4 % ($p \leq 0,005$); stieņa kustības maksimālā ātruma sasniegšanas momentā amortizācijas fāzē (h_{V2}) – attiecīgi par 12,1 % ($p \leq 0,001$). Stieņa pārvietojuma lielums beigu paātrinājuma fāzē (h_{F3}) ir vienīgais otrā grūšanas paņēmiena telpiskais rādītājs, kas starp vīriešiem un sievietēm būtiski neatšķiras.

Nozīmīgas atšķirības ir ievērotas arī stieņa kustības biomehāniskajos rādītājos dažāda dzimuma un svara kategoriju grupu vidū.

Turklāt, *I svara kategoriju grupā* atšķirības pastāv galvenokārt sagatavojošā pietupiena fāzē ($h_{DZ.PI.}$), kad sieviešu vidū šie rādītāji ir par 4,5 % augstāki nekā starp vīriešiem; stieņa pārvietojuma maksimālā augstuma sasniegšanas momentā (h_{MAX}) tie ir attiecīgi augstāki par 7,5 %; piepūles lielums, mijiedarbojoties ar rīku, aktīvās bremzēšanas fāzē (F_{ABF}) ir attiecīgi augstāks par 5,3 %.

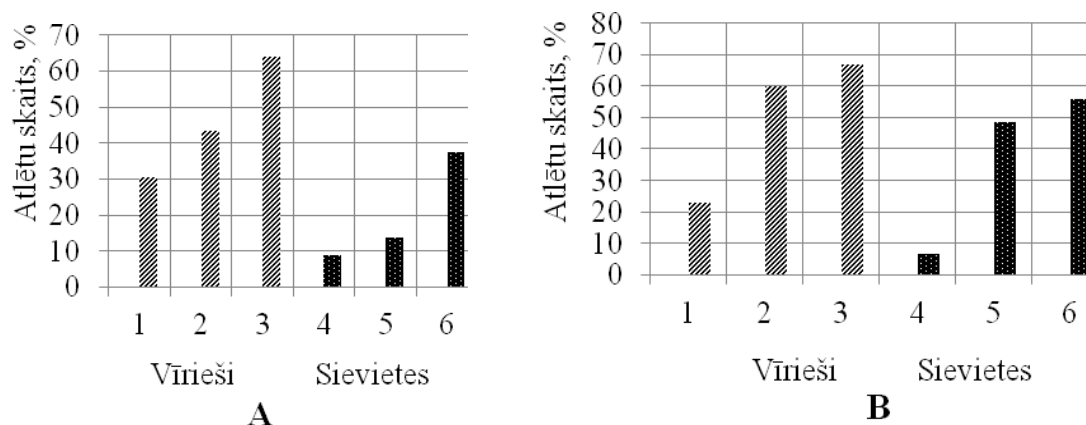
II grupā būtiskas atšķirības parādījās stieņa vertikālā pārvietojuma lielumos maksimālā izlidošanas augstuma sasniegšanas momentā (h_{MAX}), sieviešu vidū šie rādītāji ir par 7,3 % augstāki nekā vīriešu vidū; atbalsta pietupiena fāzē ($h_{PIET.}$) vērojama pretēja tendence, jo vīriešu rādītāji ir par 47,8 % augstāki nekā sieviešu rādītāji; pūļu pielikšanas pie stieņa lielums atbalsta pietupiena fāzē (F_{APF}) sievietēm ir augstāks par 3,4 % nekā vīriešiem.

III grupā nozīmīgas atšķirības var ievērot stieņa vertikālā pārvietojuma lielumos maksimālā izlidošanas augstuma sasniegšanas momentā (h_{MAX}), sievietēm šie rādītāji ir par 6,5 % augstāki nekā vīriešiem; mijiedarbības ar rīku spēka lielumos aktīvās bremzēšanas fāzē (F_{ABF}) sieviešu rādītāji ir par 5,7 % augstāki nekā vīriešu.

Tādējādi dažādu dzimumu un svara kategoriju grupu svarcēlāju sacensību vingrinājumu izpildes tehnikas biomehānisko rādītāju izmaiņas grūšanā norāda uz vairāk nekā 62,5 % atšķirību attiecībā uz sportistu atbalsta mijiedarbības biodinamiskajiem un biokinemātiskajiem (ātruma un telpiskajiem) rādītājiem, neskatoties uz vingrinājumu vienādo fāžu struktūru, pirmā grūšanas paņēmiena izpildes kustības ievērojami atšķiras no raušanas tehnikas līdzīgajiem rādītājiem.

Tas norāda uz kvalificētu sportistu tehniskās sagatavotības modelēšanas rādītāju veidošanas individualizāciju, izpildot sacensību vingrinājumus noteiktas svara kategoriju grupas robežās un ņemot vērā dzimumu atšķirības.

Šie pētījumi parādīja, ka sacensību laikā svarcēlāji var gūt augstus rezultātus, ja dinamisko, ātruma un telpisko tehnikas rādītāju kompleksa kustības struktūra ir racionāli izveidota, ņemot vērā ietekmējošās dzimumu un morfoloģiskās atšķirības. Sportistu sacensību vingrinājumu tehnikas reģistrācija rāda, ka biomehāniskajā kustības struktūrā viņi izmanto divus kustību sadales variantus: vairākums maksimālas pūles pieliek pirmajā kustības daļā, t.i., sākuma paātrinājuma fāzē (SPF); mazākums – otrajā kustības daļā, t.i., beigu paātrinājuma fāzē (BPF). Pirmo variantu visbiežāk izmanto smago svara kategoriju grupu pārstāvošie vīrieši un sievietes – grūšanā attiecīgi 67 un 56 %, bet raušanā attiecīgi 64,0 un 37,5 %. Otro variantu visbiežāk izmanto vieglo svara kategoriju grupu sportisti (att. 13).



13.att. Dažādu dzimumu un svara kategoriju grupu sportistu skaits, kas izmantoja pirmo kustību variantu sacensību vingrinājumu struktūrā – raušana (A) un grūšana (B):

1–3 – vīriešu svara kategoriju grupas; 4–6 – sieviešu svara kategoriju grupas.

Fig. 13 The number of the athletes of different gender and groups of weight categories, who used the first movement variant in the structure of competitive exercises – the snatch and the clean and jerk

Sportistiem izpildot sacensību vingrinājumus, ir noteiktas izmaiņas arī citās kustībās atkarībā no dzimuma un morfoloģiskajām atšķirībām. Stieņa kustības ātruma struktūras rādītāji palielinās tieši proporcionāli sportistu svara palielinājumam, taču sākuma un beigu paātrinājuma fāzē sievietes attīsta lielāku ātrumu nekā vīrieši, bet amortizācijas fāzē pārsvaru gūst vīrieši. Sacensību vingrinājumos stieņa kustības struktūras telpiskie rādītāji mainās atkarībā no sportistu svara kategoriju grupas, taču sievietes vislabākos rezultātus uzrāda

sākuma paātrinājuma fāzē, vissliktākos – amortizācijas fāzē, bet gandrīz tādus pašus rezultātus kā vīrieši – beigu paātrinājuma fāzē.

Dažādu dzimumu un svara kategoriju grupu sportistu kustību varianti, kurus viņi izmanto sacensību vingrinājumu izpildes laikā, nosaka to, ka svarcēlāju tehniskās sagatavotības kontroles procesā tiks izmantoti dažādi modelēšanas rādītāji.

Lai izmantotu kvalificētu svarcēlāju tehniskās sagatavotības komponentus atlases un orientācijas sistēmā, ir izveidoti dažādu dzimumu sportistu tehnisko darbību biomehāniskie modeļi trīs svara kategoriju grupās. Šajos modeļos bija iekļauts modelēšanas rezultāts sacensību vingrinājumu izpildē (atbilst normatīvam SKSM), morfoloģisko rādītāju komplekss, kā arī atlētu atbalsta mijiedarbības ar stieni tehnikas biomehānisko rādītāju komplekss sacensību vingrinājumu izpildē (tab. 1).

1.tab. **Dažādu dzimumu svarcēlāju biomehāniskie kustību modeļi II svara kategoriju grupā grūšanā** (sacensību rezultātiem vīriešu vidū – 186–207 kg, sacensību rezultātiem sievietes vidū – 111–125 kg)

Table 1 Biomechanical movement models of the weightlifters of different gender in the IInd group of weight categories in the clean and jerk (for competitive results among males – 186-207 kg, and for competitive results among females – 111-125 kg)

Morfoloģiskie rādītāji			Dinamiskie rādītāji		
rādītāji	vīrieši	sievietes	rādītāji	vīrieši	sievietes
Ķermeņa garums, cm	171–174	161–164	F_{1SPF} , %	133,0–134,0	125,3–126,7
Ķermeņa masas indekss, kg·m ⁻²	28,2–28,6	25,0–25,6	F_{CL} , %	116,4–117,2	105,7–106,9
Rumpja garums, %	31,0–31,5	33,6–34,0	F_{2AF} , %	89,8–90,8	97,6–99,0
Roku garums, %	41,4–42,0	41,5–41,9	F_{3BPF} , %	127,3–128,7	138,3–139,7
Apakšējo ekstremitāšu garums, %	55,8–56,6	58,1–58,5	F_{4APF} , %	181,8–183,4	178,6–181,2
Tauku saturs, %	13,8–14,4	19,3–21,9			
AĶM indekss, nos. vien.	1,47–1,52	1,30–1,38			
Ātruma rādītāji			Telpiskie rādītāji		
v_{F1} , m·c ⁻¹	0,22–0,24	0,26–0,28	h_{F1} , %	13,3–13,5	14,9–15,1
v_{CL} , m·c ⁻¹	1,05–1,07	0,96–0,98	h_{CL} , %	29,8–30,0	32,6–32,8
v_{F2} , m·c ⁻¹	1,11–1,13	0,98–1,00	h_{F2} , %	37,4–37,8	36,4–36,8
v_{MAXCL} , m·c ⁻¹	1,30–1,32	1,43–1,45	h_{F3} , %	44,8–45,2	45,2–45,6
v_{F3} , m·c ⁻¹	1,18–1,20	1,20–1,22	h_{max} , %	59,0–59,4	63,2–63,6
v_{MAX} , m·c ⁻¹	1,38–1,40	1,46–1,48	h_{APF} , %	40,4–0,8	42,4–42,8

Kvalificētu sportistu tehniskās sagatavotības modelēšanas rādītājus plānoja izmantot kā kontroles normatīvus viņu tehniskās meistarības pilnveidošanas un realizācijas procesā.

Izstrādātie svarcēlāju tehniskās sagatavotības modeļi tika izmantoti kā sportistu tehniskās meistarības kontroles rādītāji, gatavojot viņus galvenajām ikgadējām makrocikla sacensībām. Pamatojoties uz atlētu kontroles testēšanas rezultātiem, tika ieteikta un sporta praksē ieviesta „*Sportista tehniskās meistarības pase*“, kurā tika atzīmēti svarcēlāju kustību individuālie biomehāniskie rādītāji sacensību vingrinājumu izpildē. Gūtos datus salīdzināja gan ar modelēšanas rādītājiem, gan ar iepriekš gūtajiem noteiktā atlēta individuālajiem biomehāniskajiem parametriem. Pēc tam tika veikta sportista kustības struktūras tehnisko kļūdu analīze noteiktā vingrinājuma izpildē (tab. 2).

2.tab. **Sportista tehniskās meistarības pase** (A. T., NBSM, svara kategorija – 105 kg, augums – 181 cm, ķermeņa svars – 105,0 kg, pamatojoties uz 2012. gada Ukrainas čempionātu) (paraugs)

Table 2 *The Passport of technical skills of the athlete* (A. T., HMS, weight category – 105 kg, height – 181 cm, weight – 105.0 kg, on the basis of the championship of Ukraine 2012) (sample)

Parametra nosaukums	Mērījumu vienības	1. cēliens	2. cēliens	3. cēliens
Rezultāts raušanā, kg		185	193	198
Rīka kustības jauda	cm·c ⁻¹ kg	317	326	332
Maksimālais pārvietojuma lielums	cm	130	127	126
Maksimālais pārvietojuma augstums	%	72	70	70
Fiksācijas fāzes augstums	cm	118	113	113
Fiksācijas fāzes augstums	%	65	62	62
Pietupiena dziļums	%	7	8	8
Maksimālais stieņa izlidojuma ātrums	m·c ⁻¹	1,71	1,69	1,68
Maksimālās pūles startā SAM	%	145	144	142
Maksimālās pūles BPF	%	114	119	124
Rezultāts grūšanā, kg (celšana uz krūtīm)		215	225x	230
Rīka kustības jauda	cm·c ⁻¹ kg	324	316	304
Maksimālais pārvietojuma augstums	cm	112	112	107
Maksimālais pārvietojuma augstums	%	62	62	59
Fiksācijas fāzes augstums	cm	78	76	72
Fiksācijas fāzes augstums	%	43	42	40
Pietupiena dziļums	%	19	20	19
Maksimālais stieņa izlidojuma ātrums	m·c ⁻¹	1,51	1,46	1,32
Maksimālās pūles startā SAM	%	140	139	142
Maksimālās pūles BPF	%	131	124	114

Grūšana no krūtīm				
Rīka kustības jauda	cm·c ⁻¹ kg	448	441	453
Pietupiena dziļums	%	14	14	15
Maksimālais pārvietojuma augstums	cm	30	28	30
Maksimālais pārvietojuma augstuma	%	17	15	17
Maksimālais stieņa izlidojuma ātrums	m·c ⁻¹	2,09	1,91	1,97
Maksimālās pūles BPF	%	194	176	183

Raušanā lielākā kustību tehnikas rādītāju daļa ir uzlabojusies salīdzinājumā ar pagājušajā gadā gūtajiem rādītājiem Ukrainas čempionātā un Pasaules čempionātā. Atlētam ir jāpievērš uzmanība stieņa kustības trajektorijai: tā virzās aiz vertikāles, kam seko lēciens atpakaļ. Ceļot stieni uz krūtīm, atlēts pārāk augstu izstiepj stieni uz augšu un pēc tam pietupjas par 19–20 %, kas pārsniedz modelēšanas rādītājus. Ceļot stieni no krūtīm, trešajā piegājienā pēc sagatavojošā pietupiena atlēts izpilda izgrūšanas fāzi ar stieņa kustības trajektoriju aiz vertikāles (par 13 cm). Pārējie stieņa grūšanas tehnikas rādītāji atbilst izstrādātajiem modeļiem.

Šīs programmas ieviešana kvalificētu svarcēlāju trenēšanas procesā palīdzēja samazināt tehnisko kļūdu skaitu vingrinājumu kustības struktūrā un paaugstināt sacensību paņēmienu realizācijas līmeni trenēšanās un sacensību laikā. Sportistu tehniskās sagatavotības kompleksās modelēšanas un pilnveidošanas sistēmas galvenie teorētiskie atzinumi ir izklāstīti noteiktos ieteikumos „Izlases komandu sportistu sagatavošanas un individuālo plānu gatavošanas starptautiskām sacensībām kompleksās programmas“ sadaļā „Svarcēlāju sacensību darbības, funkcionālās un tehniski taktiskās sagatavotības modelēšanas rādītāji“.

Secinājumi *Conclusions*

Ir izveidota zināšanu sistēma saistībā ar kvalificētu svarcēlāju kustību sadales likumsakarībām sacensību vingrinājumu izpildē izmantošanai sporta praksē, ņemot vērā tehniskās sagatavotības komponentu modelēšanu un pilnveidošanu.

Augstu rezultātu gūšana sacensību vingrinājumu izpildē ir atkarīga no noteiktu biomehānisko tehnikas komponentu uzturēšanas. Šie komponenti var mainīties atkarībā no sportistu sacensību vingrinājumu struktūras. Konstatēts, ka svarcēlāju veikto vingrinājumu augstu rezultātu efektīva realizācija ir iespējama, izmantojot divas dažādas kustību struktūras: lietojot pirmo struktūru, atlētam ir jāpievērš maksimālas pūles sākuma paātrinājuma fāzē; lietojot otru struktūru –

beigu paātrinājuma fāzē. Pirmo stieņa celšanas variantu galvenokārt izmanto abu dzimumu smago svara kategoriju svarcēlāji, un tas vairāk izpaužas grūšanā nekā raušanā. Otro stieņa celšanas variantu vairāk izmanto vieglo un vidējo svara kategoriju atlēti.

Dažādu dzimumu un svara kategoriju grupu svarcēlāju biomehānisko kustību modelēšanas rādītāji ietvēra šādus komponentus: morfoloģiskie rādītāji un atlētu rīku kustības struktūras biodinamiskie un biokinemātiskie rādītāji, kas nodrošina maksimālu rezultātu gūšanu sacensību vingrinājumu izpildē.

Summary

In order to use technical training components of the qualified weightlifters in the system of selection and orientation, biomechanical models of technical movements of the athletes of different gender are made in three groups of weight categories. These models included the modelling result of the performance of competitive exercises (complies with the regulation in regard to the World-class athletes), the complex of morphological parameters as well as the complex of biomechanical parameters of the technique of the support interaction between the athletes and the barbell in the performance of competitive exercises. The system of knowledge regarding patterns of movement distribution of the qualified weightlifters in the structure of competitive exercises is made, taking into account the type of the exercise as well as gender and morphological characteristics of the athletes. The models of their components are developed in order to improve the technique of the exercises and introduce the models into the sports practice. It was established that the effective realisation of movements can be achieved by using different movement structures of the barbell, especially among the weightlifters of different groups of weight categories. The developed technical training models of the weightlifters were used as parameters for monitoring the technical skills of the athletes during their preparation for the major annual competitions of the macrocycle. Obtained data was compared with both the model parameters and the previously obtained individual biomechanical parameters of the athlete. Afterwards the analysis of technical errors in the movement structure of the athlete during the performance of the particular exercise was done. The achievement of high results in the performance of competitive exercises depends on the maintenance of certain biomechanical components of technique, which can vary depending on competitive exercise structure of the athletes. It was determined that the effective realisation of high results in the weightlifter exercises can be achieved by two different movement structures: using the first structure, the athletes have to apply maximum force in the preliminary acceleration phase; using the second structure – in the final acceleration phase. The first version of the barbell lifting is mainly used by the weightlifters of both genders representing the group of heavy weight categories, and it is more frequent in the clean and jerk than in the snatch. The second option of the barbell lifting is mostly used by the athletes of the light and middle weight categories.

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ROLE OF HAMSTRING MUSCLES IN KNEE JOINT STABILITY PROVIDING AND INJURY PREVENTION

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Abstract. *The aim of our investigation was to determine the ratio of maximal torque values and the torques in the certain positions of range of movements (ROM) between hamstring (H) and quadriceps femoris (Q) muscles at medium and high velocity of movement in concentric (CC) and eccentric (ECC) action of hamstring muscles.*

The knee muscles of 15 amateur female short and middle distance runners were tested by the dynamometer system in the isokinetic movements with the angular velocity of 90°/s and 240°/s in CC and at the velocity of 90°/s in ECC H/ CC Q muscles contractions. The torque values produced by the muscles are detected at the different angular positions of the ROM with the step of 10°. The ratios of H/ Q muscles torques are calculated.

The H/Q muscles maximal torques ratio is 0.51 ± 0.13 at the velocity of 90°/s in CC and 0.60 ± 0.09 in ECCH/ CC Q muscles contractions, and 0.59 ± 0.09 CC at the velocity of 240°/s. The H/Q maximal torques ratio and this ratio in the knee extreme extension and flexion at the ECC contraction of H is higher due to greater torques produced by the H in comparison with Q muscle. The H must be stronger to decelerate the thigh and lower leg extension in the late swing phase of running and to extend the hip in early stance phase to provide powerful sprint running and prevent the knee and H injury. The H/Q muscles torques ratio in extended knee positions are similar in medium (90°/s) and fast (240°/s) velocity of motions because CC action of H muscles cannot prevent extreme knee extension.

Keywords: *dynamometry, hamstring muscles, knee, muscles balance.*

Introduction

Fast movements during running involve eccentric (ECC) and concentric (CC) contractions components, one following immediately after the other. This allows to reach higher force and power production and to provide smooth motions of the limbs. In the greatest part of the range of movements (ROM) the muscles contractions are CC. The ECC muscles action occurs only through few degrees of the ROM. Nosse (1982) and Coombs & Garbutt (2002) think that it is not correct to determine the ratio of hamstrings (H)/ quadriceps femoris (Q) muscles maximal torques because they appear in the different positions (angles) of the knee joint ROM. Aagaard et al., (1997, 1998) have investigated an ECCH/ CCQ muscles contractions in the knee extension movement by isokinetic dynamometer and determined these muscles torques ratio 0.80 – 1.00 for elite sailors and 0.80 – 0.84 for male controls at the angle of ROM 50° (0° -

full knee extension). These ratios in solely CC are close to 0.50. The H/ Q muscles torques ratios in all range of the knee joint movements in CC and ECC contractions of muscles and at different velocity of motions in the same athletes are not compared. These ratios values in the extreme positions of the ROM must be more informative in the joint stability estimation because a joint injury can occur more probable in these positions of the ROM. The aim of our investigation was to determine the ratio of maximal torque values and the torques in the certain positions of range of movements between knee flexor (hamstring) and extensor (m. quadriceps femoris) muscles at medium and high velocity of movement in concentric and eccentric action of hamstring muscles.

Theoretical background

Precise and smooth motions of the limbs depend on balanced action of muscles (agonists and antagonists) in the opposite sides of every joint. Weakness of one group of muscles can cause imbalanced motion in this joint leading to traumatization of musculoskeletal system due to incorrect distribution of the mechanical stresses in muscles, tendons, ligaments outside and inside the joint, and in the joint's surface cartilage. Only some investigations are available about a relationship between the knee flexor and extensor muscles strength balance and an occurrence of injuries in healthy athletes. For example, Knapik et al., (1991) revealed that the thigh muscles strength imbalance measured at fast velocity of movements by isokinetic dynamometer is associated with injuries. Another authors (Campbell & Wayne, 1979; Kannus & Jarvinen, 1990; Marshall & Tischler, 1978) determined that previous knee trauma and operation cause weakness of certain groups of muscles and imbalance of their action. Therefore repeated trauma often can occur. The predisposing factors to injury are (Campbell & Wayne, 1979): changed muscles agonists/antagonist's strength, work and power balance, lack of flexibility in the joint, insufficient warmup before exercises and fatigue of muscles.

All three hamstring muscles are biarticular muscles: they are involved in hip extension and knee flexion, Fig. 1. During the late swing phase of sprint running or jumping the hamstrings work eccentrically to decelerate both the thigh and lower leg in preparation to ground contact (Marshall & Tischler, 1978). Early in stance phase the hamstrings act concentrically to extent the hip. Kinetic investigations have shown that the maximal torques at the hip and knee occur during these phases (Whiting & Zernicke, 1998).

If the H muscles are too weak in comparison with the Q muscle, it can change the muscles action balance and to create additional mechanical stresses on the knee anterior cruciate ligament (ACL) (Whiting & Zernicke, 1998). These muscles partially compensate the knee ACL ligaments functions: they

restrict the anterior movement of a tibia relative to a femur and provide resistance to valgus and varus deformations of the leg in the knee joint and to rotation of the tibia (Campbell & Wayne, 1979). For example, after thigh muscles fatigue in females, H reflex latency was enhanced and a reduction of reflex responses is associated with increased tibial translation in sagittal plane and ACL injury risk (Behrens et al., 2013). The ECC H strength is decreased for sprinters with a history of the hamstrings injury (Alexander, 1990) and therefore low “functional” H/ Q torque ratios allow to predict the muscle group re-injury. The knee muscles strength and power balance can be altered due to faster fatigue of H muscles in comparison with Q muscle observed also in amateur male handball players during isokinetic exercises at the velocity of 240°/s (Pontaga & Zidens, 2015). After an isokinetic fatigue protocol of the Q and H muscles, female middle distance runners contacted the ground with a greater knee-flexion angle (Kellis et al., 2011), which was accompanied by an antagonist-inhibition strategy around the knee. The ECC maximal H torque (both thighs) was reduced in long distance runners 18 hours after a marathon (Koller et al., 2006). ECC H fatigue may be a risk factor for knee and soft tissue injuries during running.

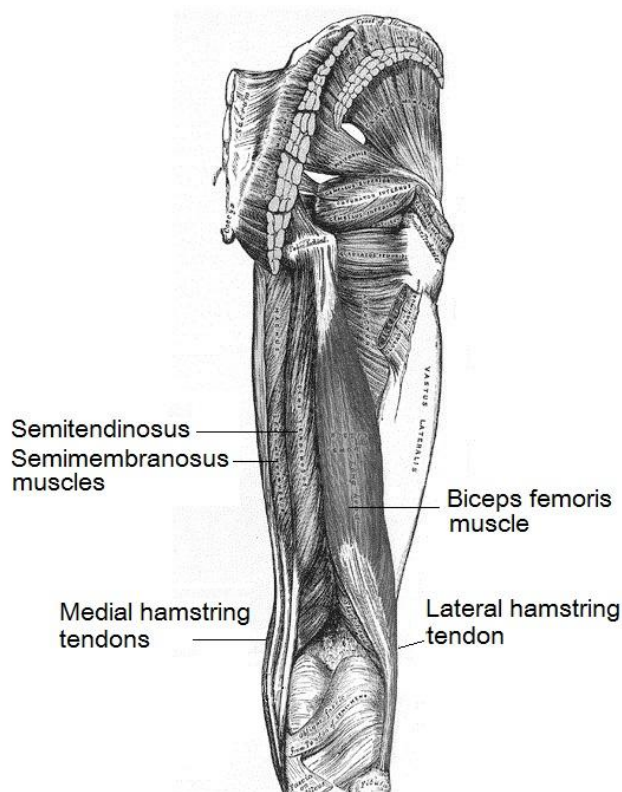


Fig. 1 Posterior group of thigh muscles (hamstrings) (Gray, 1918)

Material and Methods

Fifteen amateur female athletes trained in short and middle distances running (students of the Latvian Academy of Sports Education, they had trainings three times per week, mean duration of training was two hours, training experience varied from four to ten years) were informed of the possible test risks and voluntarily participated in the investigation. The study was performed in conformity with the standards of the ethics committee of Latvian Council of Sciences. All knee joints were injury – free and painless during the movements. The mean age of the female athletes was 20.5 ± 1.6 years, the mean weight 60.3 ± 6.3 kg and the height 1.67 ± 0.05 m.

The tests were performed by a dynamometer system “REV – 9000” (Technogym, Gambettola, Italy) by isokinetic knee flexion – extension movements. The measurements were corrected for effects of gravity. The range of movements (ROM) in the knee joint was from 10° in extension to 90° in flexion (position 0° of the ROM coincides with full extension of the knee). The person was placed in the positioning seat with the hip at an angle of 115° of flexion, Fig. 2. (Pontaga, 2004). The hip and trunk were fixed by stabilizing straps. The support lever was attached at the point between the upper two thirds and the lower third of the shin. The person was fixed in position after adjustment of the depth of the seat, the height of the dynamometer and the length of support lever to be aligned with a prolonged virtual rotation axis of the knee. The rotation axis of the knee joint was determined as a line passing through the femoral condyles. The test began with the knee extension from 90° of the ROM – extreme flexion position. The movements were repeated five times.

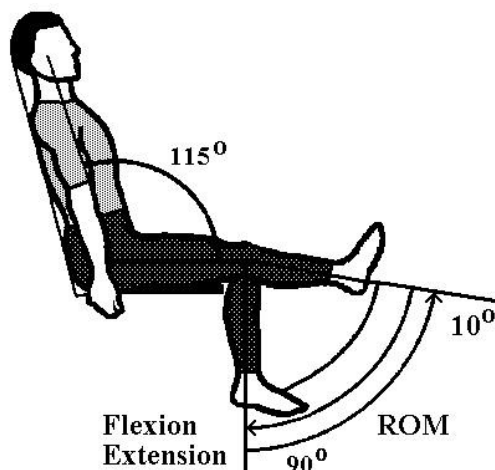


Fig. 2 Range of movements (ROM) in the knee flexion and extension, the positioning seat with the hip angle 115° of flexion during the isokinetic dynamometry test (Pontaga, 2004)

The knee muscles were tested at the angular velocity of 90°/s (degrees per second) and 240°/s in the in CC H/ CC Q contractions and only at the velocity of 90°/s in the ECC H/ CC Q muscles contractions. The torque values produced by H and Q muscles are detected at the different angular positions of the ROM of 20°, 30°, 40°, 50°, 60°, 70°, 80° and 90° in solely CC contractions and in the ECC H/ CC Q muscles contractions.

Just before the investigations and between the tests at different angular velocities passive knee flexion - extension motions at the angular velocity 120°/s were performed during 90 seconds. The athletes familiarized themselves with the dynamometric system by a submaximal force of muscles contractions.

The values of maximal torque (measured in N·m) and torque at different angles of the knee flexion and extension movements were obtained from the best repetition at each angular velocity (with the highest maximal torque reached). The results were compared for the CC contractions of both muscles groups and the ECC H/ CC Q muscles contractions. In extreme positions of the joint flexion and extension movements the reliability of the measurements of knee muscles produced torque values was low due to fast changes of the velocity of movements (the movement was not isokinetic). Due to it these values were taken into account only in the middle part of the ROM. The ratios of H/ Q muscles torques are calculated for the knee joint angles of 30°, 40°, 50°, 60°, 70° and 80°.

Mean values and standard deviations for all characteristics at the velocity of movement of 90°/s and 240°/s for solely CC muscles contractions and at the velocity of 90°/s for the ECC H/ CC Q muscles contractions were calculated. Student's *t* - test for paired data groups was employed to determine differences between characteristics of the CC H/ CC Q muscles and ECC H/ CC Q muscles contractions at the velocity of 90°/s and between these characteristics in CC contractions performed at the velocity of movement of 90°/s and 240°/s. The differences were considered to be statistically significant at $p < 0.05$.

Results

The mean H/ Q muscles maximal torques ratio for the female short and middle distances runners in CC of the both muscles groups at the angular velocity of 90°/s is 0.51 ± 0.07 , but in the ECC H/ CC Q muscles contractions this ratio is 0.60 ± 0.09 . The difference between the maximal torques ratio in CC/ CC and ECC/ CC contractions is significant (18 %, $p < 0.001$). This maximal torques ratio in the CC contractions at the fast angular velocity of 240°/s is 0.59 ± 0.09 . The difference between the CC/CC contractions in medium (90°/s) and fast (240°/s) velocity of motions is significant (16 %, $p < 0.001$).

The angular H/ Q muscles torques ratios are significantly higher at fast velocity of movement of 240°/sin comparison with the medium velocity of 90°/sin CC of the muscles in flexed knee positions (60°, 70°, 80°), $p < 0.05$. These angular torques ratios do not differ significantly in extended knee positions (30°, 40°, 50°), Fig. 3.

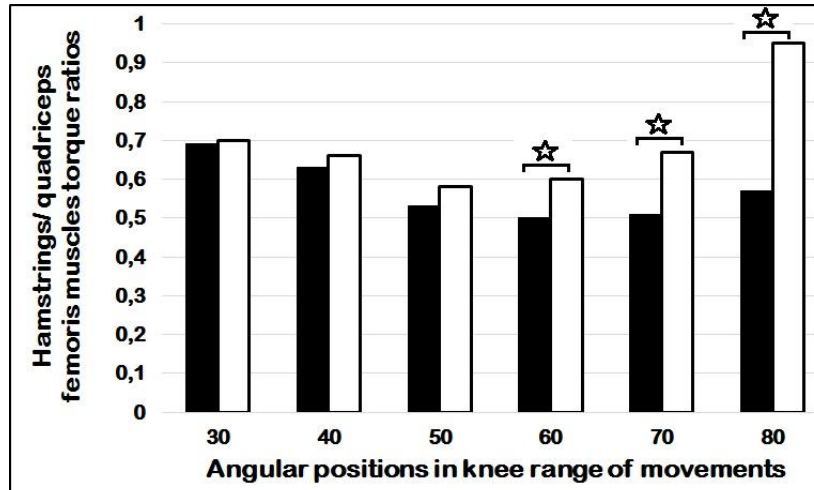


Fig. 3 Hamstrings/ quadriceps femoris muscles torques ratio at the different positions of the ROM at the angular velocity of movement of 90°/s (■) and 240°/s (□) in the concentric contractions for female athletes, □ - difference between the ratios is significant, $p < 0.05$

The angular H/ Q muscles torques ratios are higher for the ECC H/ CC Q muscles contractions than for the CC of both muscles groups. The differences are significant in the knee extension (30°) and in flexion (70°, 80°) angular positions of the ROM, $p < 0.05$, Fig. 4.

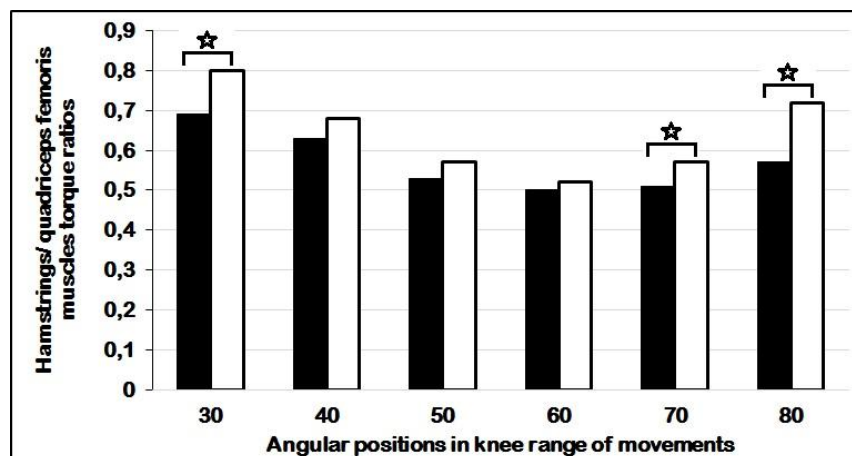


Fig. 4 Hamstrings/ quadriceps femoris muscles torques ratio at the different positions of the ROM at the angular velocity of movement of 90°/s in the concentric/ concentric (■) and eccentric/ concentric (□) contractions for female athletes, □ - difference between the ratios is significant, $p < 0.05$

Discussion

To estimate the balance or imbalance in the joint it is necessary to determine flexors/ extensors strength ratios for these two muscles' groups. An imbalance of muscles may cause the weaker muscle group to lie more vulnerable to stress (Osternig, 1986). The mean value for the knee flexors/ extensors (H/ Q) torques ratio is approximately 0.60 at slow angular velocity of movement 30°-60°/s

(Calmels et al., 1997; Kellis & Baltzopoulos, 1995; Nosse, 1982). This value of this ratio increases with the growth of the velocity of movement, and the value is close to 0.80 at the fast velocity 240°-300°/s in males (Alexander, 1990; Francis & Hoobler, 1987; Osternig, 1986). In previous investigation we determined that the H/ Q torques ratio at the medium angular velocity of 100°/s is 0.61 ± 0.07 , but at the high velocity 200°/s: 0.70 ± 0.09 in male basketball and handball players (Pontaga, 2004). From review data of Hewett et al., (2008) the relative maximal H strength does not change as the velocity increased in females (H/ Q ratio is 0.49 ± 0.09 at 30°/s; 0.51 ± 0.06 at 360°/s). Females, unlike males, do not increase H/ Q torque ratios at velocities that approach those of functional activities. Our results obtained on female sprint and middle distance runners (H/Q is 0.51 ± 0.07 at 90°/s; 0.59 ± 0.09 at 240°/s; $p < 0.001$) do not support their findings. This can be explained by sport specific adaptation of female thigh muscles to short distance running. Nevertheless H/Q torques ratio in our females at fast motions (240°/s) is lower than in males: 0.80 (Alexander, 1990; Francis & Hoobler, 1987; Osternig, 1986).

Changes of the normal H/Q muscles strength ratio puts extra stress on the intra – articular ligaments of the knee, and the ability to restore the correct body alignment in response to sudden external forces is decreased. Therefore the knee joint trauma may occur more probable in sport activities. For example, too high strength of Q muscle in comparison with H can be a reason of knee anterior cruciate ligament rupture in athletes (Kannus & Jarvinen, 1990). The role of the H muscles is especially important for patients after ACL injury, because these muscles partially compensate the ligaments functions: they restrict the anterior movement of a tibia relative to a femur and provide resistance to valgus and varus deformations of the leg in the knee joint and to rotation of the tibia (Whiting & Zernicke, 1998). Therefore, ACL rupture with conservative treatment and after reconstruction operation can be a reason of the H muscles compensatory hypertrophy, and the Q muscle weakness (Lewek et al., 2002; Pontaga & Larins, 2006). Exercises that use a Q-dominant activation might negatively affect the knee by increasing strain on the anterior cruciate ligament (Begalle et al., 2012). The H muscles can counteract the deleterious effect of the Q except when activation is minimal. Exercises with a more balanced Q and H

coactivation ratio may benefit ACL rehabilitation and knee injury-prevention programs. For example, the most balanced Q-to-H coactivation ratios were produced during the single-limb dead-lift, lateral-hop, transverse-hop and lateral band-walk exercises.

Our opinion coincides with Coombs & Garbutt (2002) and Nosse (1982), who think that it is not correct to determine the conventional CCratio of H/ Q for the maximal torques values because they appear in the different positions (angles) of the knee joint range of movements (ROM) and the type of muscles contraction (ECC in some parts of ROM) in real action is not taken into account.

Therefore, we calculated the H/Q torque ratios for the knee joints in different positions of the joints range of movements with the step 10° and determined that this ratio changes in dependence on the joint angle. This approach allowed us to determine the parts of the ROM, where the certain muscle groups are most vulnerable. Alteration of the strength of muscle groups especially in these parts of the ROM may cause an injury. For H the maximal strain in muscles appears in the extreme flexion of the hip joint simultaneously with the extreme knee extension. The weakness of extensors in the hip extreme flexion positions (late swing phase) and the extreme knee extension may cause injury of the H muscles (Whiting & Zernicke, 1998). The H/Q muscles torques ratio in extended knee positions (30° , 40° and 50°) are similar in medium ($90^\circ/s$) and fast ($240^\circ/s$) velocity of motions (Fig. 3.). This proves that concentric action of H cannot prevent extreme knee extension and possible injuries of intra-articular ligaments and H sprain. This ratio in flexed knee positions (60° , 70° and 80°) is significantly higher at fast ($240^\circ/s$) velocity of movement in comparison with medium ($90^\circ/s$). This can prevent sprain of H in the hip extreme flexion positions during sprint running. Our data proves that ECC action of H can to decelerate the knee extension to prevent the injury of knee intra - articular ligaments (Whiting & Zernicke, 1998) because the angular H/Q muscles torques ratios are higher for the ECC H/ CC Q muscles contractions than for the CC in the knee extension (30°) and in flexion (70° , 80°) angular positions of the ROM, $p < 0.05$, Fig. 4.

Aagaard et al., (1997; 1998) investigated “functional” H/Q muscles strength ratios as ECC H and CC Q contraction in the knee extension, and CC H and ECC Q contraction in the knee flexion. Aagaard et al., (1997) determined this “functional” H/Q ratio at the angle of ROM 50° (0° - full knee extension): it was 0.80 – 1.00 for elite sailors and 0.80 – 0.84 for male controls at the fast movements ($240^\circ/s$). The conventional H/QCC maximal torques ratios were close to 0.50. In our investigation the conventional H/QCC maximal torques ratio is very close to Aagaard et al., (1997) finding: 0.53 ± 0.11 , but the ECC H/ CC Q torques ratio at the angle of ROM 50° is only 0.57 ± 0.11 for female sprint and middle distance runners (see Fig. 4.). This can be explained by using of

lower angular velocity of movement in the test (90°/s) and by lower response of H/Q torques ratio on velocity of motions and contraction mode in females in comparison with males (Hewett et al., 2008).

Aagaard et al., (1998) determined that the ECC H/ CC Q muscle torques ratios increased during the fast knee extension in the ROM angles 50°, 40°, 30°. This proves the role of H in the knee joint stability providing at the fast movements (240°/s). Investigations of Coombs & Garbutt (2002) also has shown that there is a continual rise in the ECC H/ CC Q ratio when extending the leg compared to the relatively unchanged CC H/ CC Q ratio. From our results only ECC H/ CC Q muscles torques ratios significantly increase during the knee extension in the ROM angles from 60° to 30° (see Figs. 3. and 4.). This is in good agreement with the observations of Aagaard et al., (1998) and Coombs & Garbutt (2002). The ratio of the ECC H/ CC Q muscles torques is significantly higher than in solely CC contractions only in the extended knee positions (30°) (Fig. 4.) and flexed knee positions (70° and 80°) for females. This can be explained with the assumption that the contraction of H muscles in daily and sport movements is ECC only in the extreme positions of the range of movements (knee extension and flexion), but this contraction is concentric in the middle part of the ROM.

Using isokinetic dynamometers the contractions of muscles can be CC or ECC in full range of movements. They are “unnatural”, because during the real sport activities the ECC muscles action occurs only through few degrees of movement of the ROM.

The balance of the H/Q torques ratio changes dynamically in the range of movements. Therefore, we suggest that it is necessary to determine the alteration of this ratio in the different angles of ROM in ECC/ CC and CC/ CC contractions of the muscles. This will allow to detect the parts of the ROM, where the H muscles are weak and more probable may be traumatized. Therefore it will give possibility to elaborate exercises for the H strength and power training in the proper part of the ROM.

Conclusions

The knee flexor/ extensor muscles maximal torques ratio in eccentric hamstring/ concentric quadriceps femoris muscles contractions at the angular velocity of 90°/s: 0.60 ± 0.09 and at the fast concentric contractions of 240°/s: 0.59 ± 0.09 - both are significantly higher in comparison with this ratio in concentric contractions of muscles at the velocity of 90°/s: 0.51 ± 0.13 ($p < 0.05$).

The hamstrings/ quadriceps muscles torques ratio in only concentric contractions in extended knee positions (30°, 40° and 50°) are similar in medium

(90°/s) and fast (240°/s) velocity of motions, but in flexed knee positions (60°, 70° and 80°) this ratio is significantly higher in fast movements ($p < 0.05$).

The hamstring/ quadriceps muscles torques ratio in the knee extreme extension (30°) and flexion (70°, 80°) at the eccentric contraction of hamstrings is significantly higher due to greater torques produced by the hamstrings in comparison with quadriceps muscle ($p < 0.05$).

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THE IMPACT OF DIFFERENT CHARACTERISTICS AND MODALITIES OF PHYSICAL ACTIVITY ON HEALTH VARIABLES IN ELDERLY PEOPLE WITH TYPE 2 DIABETES

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Abstract. Type 2 diabetes (T2D) comprises 90 % of people with diabetes around the world, and is largely the result of excess body weight and physical inactivity (WHO, 2015).

Objective: To evaluate and analyze evidence based research studies exploring the impact of physical activity on health variables in elderly population age 50-70 years with T2D.

Data sources: Web of Science, CINAHL, SCOPUS, EMBASE, MEDLINE, PubMed and SPORTdiscus data bases were used for screening and selecting relevant research studies over the period 2005-2015.

Study Selections: Randomized controlled trials (RCTs). *Population:* older adults or elderly with T2D. *Intervention:* All types of physical activity such as interval walking, aquatics or free living activity were included. *Outcomes:* glycemic control, lipid profile, insulin sensitivity, BMI, blood pressure and VO₂max. *Methodological quality* was assessed using the Delphi List.

Data Synthesis: While 1773 potentially relevant studies were found and 213 RCTs were relevant to the topic, only 16 studies (patients n = 946) accepted to the review.

Results: The circuit resistance training was associated with hemoglobin A1c (HbA1c) decrease (8.0 (.35) to 7.36 (.28)), body mass index (BMI) reduction from 22.0 (.8) to 20.9 (.8) and body weight change from 53.3 (1.6) to 51.9 (1.7). Improvement of insulin sensitivity, VO₂max and glycemic control were observable in 8 studies including 16-week aerobic exercise training, 16-week interval walking training, and combined aerobic and resistance training. Combination of aerobic and resistance exercises were associated with positive change in plasma fasting glucose and were 6.86 (1.40) and 6.19 (1.47).

Conclusions: The most effective and time consuming physical activity is interval walking, circuit training or combination of different intensity and/or physical activity modalities.

Keywords: health, physical activity, type 2 diabetes.

Introduction

Type 2 diabetes mellitus (T2DM) is a rapidly growing disease worldwide (Beck – Nielsen et al., 2012). The increasing prevalence of obesity and sedentary

lifestyle are the major underlying causes ranking T2DM as one of the fastest growing public health problems worldwide (Barengo et al., 2009). National diabetes prevalence is the 5th highest in the European Union according data from Portugal, Slovenia, Cyprus, and Lithuania (Dzerve et al., 2013). Exercise training provides a wealth of health, cardiovascular and metabolic benefits (Huffman et al., 2014; Schwingshackl et al., 2014). The effects of exercise on glycemic control in individuals with type 2 diabetes are well documented but the optimal exercise intensity and type remain to be defined (Kartsoft et al., 2014). Isolated effect of resistance, aerobic training or combination of both have been reviewed by Schwingshackl et al., (2014) and other authors. Moreover, Schwingshackl et al., (2014) focused only on glycemic control and blood lipids as study outcomes.

This study consists of a systematic review with meta-analysis of randomized controlled clinical trials (RCTs) presenting association of structured physical exercise training and physical activity, with various intensity and modality on glycemic control, physiological and on risk of obesity variables. The importance of physical activity for people with T2DM is obvious but there still lack of information about what type and intensity of physical activity can contribute more important health related outcomes for patients with T2DM.

The aim of the present study was evaluate and analyze evidence based research studies exploring the impact of physical activity on health variables in elderly population age 50-70 years with T2D.

Methods

The scientific literature search was performed using the electronic data bases Web of Science, CINAHL, SCOPUS, EMBASE, MEDLINE, PubMed, and SPORTdiscus. The search was restricted to the publications in English language from 2005 till 2015. Two independent reviewers extracted data and assessed quality of the included studies. The following keywords were used for relevant studies were 'exercise therapy' or 'free living activity' or 'interval training' or 'walking' or 'combined training' or 'adapted physical activity' or 'aquatic exercise' AND 'relieve symptoms' or 'improve functions' or 'rehabilitation' or 'glycemic control' or 'lipids' or 'VO² max' or 'HR' or 'insulin' AND 'type 2 diabetes' or 'T2DM' or 'metabolic syndrome'. The reference lists of all identified articles were screened for additional studies. Full-text articles were selected after the review of the titles and abstracts. Then full-text were screened for eligibility criteria and were included or excluded from the review.

Studies were included in the review if they met following criteria - a randomized controlled trial, control group or two intervention groups, patients with type 2 diabetes without secondary complications, BMI ≥ 30 , mean age 50 and not younger than 45, at least one of the biochemical variable outcome (e.g. glycemic control, lipid profile, insulin sensitivity etc.), the reporting of the changes from baseline with SDs, published in English language, and the exclusion of articles with dietary mixed intervention. All abstracts and full texts were independently assessed for inclusion criteria by two independent investigators.

From 1773 potentially relevant citations retrieved from electronic databases and searches of reference lists, 16 RCTs met the inclusion criteria. A flow diagram of search and selection is shown in Fig. 1. The following data were extracted from each study: the first author's last name, publication year, study duration, participants age, gender, BMI, number of participants in each group, group assignment, content of the program, intensity of physical activity, treatment effects on biochemical and physiological outcomes.

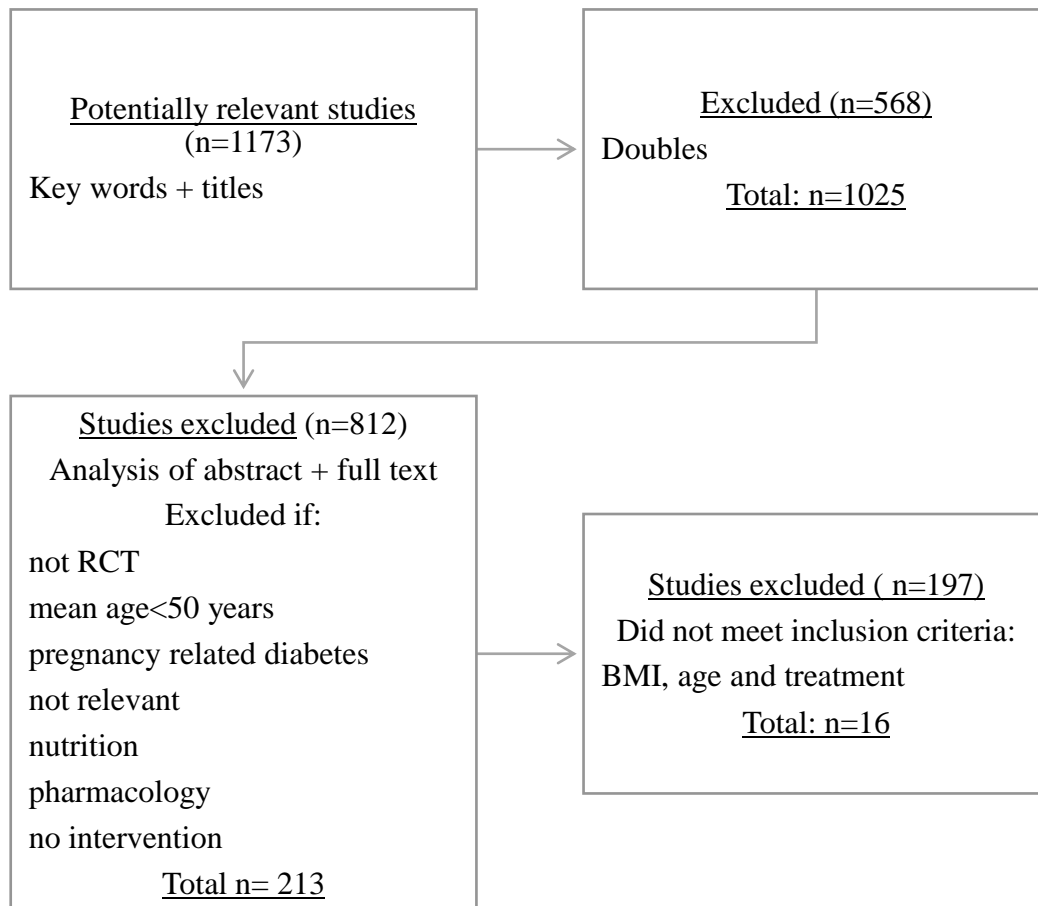


Figure 1 **Flow-chart: selection of studies**

Assessment of methodological quality

The methodological quality was assessed using the Delphi List for Quality Assessment of Randomized Clinical Trials and was performed by two reviewers. The scale gives each study a score from 0 to 9 with three answer options yes (1), no (0) and not reported (0). The included articles Delphi score was from 3 to 7. This was based on the fact that even low quality RCT's could provide some useful information. No articles were excluded because of low Delphi scores.

Results

Identified studies

The databases were searched and 1173 studies were selected according to their relevance to the topic. The titles of the articles were analyzed. The second screening was performed looking at the abstracts, doubles studies were excluded. Only 213 studies from 1025 were further retrieved and analyzed in full text. Total of 16 studies were included in this review (See figure 1). The characteristics of the included studies are shown in Table 1. The final 16 included studies had a total of 971 patients (64 % females). The participant's age range was from 46.6 till 74.90 years. Exercise program duration ranged from 8 to 96 weeks with a frequency of exercise ranging from one to seven days per week. Of those 946 patients 185 were included in aerobic exercise, 77 in yoga training, 66 in diaphragmatic breathing, 63 in resistance exercises training, 40 in interval training, and 29 in strength training. In addition, 39 participants participated in combined endurance and resistance training, 14 were in circuit training and only 8 subjects used vibration exercise training. Four studies were from Korea and fourteen from different countries from around the world. The study characteristics is shown in Table 1.

In the study by Bacchi et al., (2012), Choi et al., (2012) the physical activity in one of the intervention group was reported as aerobic exercise training. The study outcomes were HbA1c reduction (-0.40 (-0.61 to -0.10), 7.1 (6.8-7.6) to 6.9 (6.5-7.3) respectively). Mitranun et al., (2014) showed improvements in reducing HbA1c (60 ± 2 to 54 ± 2), however Karstoft et al., (2013) reported no change using interval training. The circuit resistance training was associated with hemoglobinA1c (HbA1c) decrease from $8.0 (\pm .35)$ to $7.36 (\pm .28)$, body mass index (BMI) reduction from $22.0 (\pm .8)$ to $20.9 (\pm .8)$ and body weight change from $53.3 (\pm 1.6)$ to $51.9 (\pm 1.7)$ kg (Kang et al., 2009). Combination of aerobic and resistance exercises were associated with positive change in plasma fasting glucose and were $6.86 (\pm 1.40)$ and $6.19 (\pm 1.47)$ (Tan et al., 2012). The study characteristics and outcomes is shown in Table 2.

Table 1 Study characteristics

Author, year	Age (SD)	N	Gender F/M	BMI (kg/m ²)	Group assignment	Study frequency
Bacchi et al., (2012)	57.2(1.6)	20	14/6	29.5(1.1)	Aerobic	16w 3x60min
	55.6(1.7)	20	14/6	29.2(1.0)	Resistance	
Baum et al., (2007)	63.3(5.9)	13	NR	29.4(4.2)	Flexibility	12w 3x15min
	62.9(7.3)	13	NR	29.07(3.1)	Strength	12w 3x30-
	62.2(4.0)	14	NR	26.49(6.3)	Vibration	40min
Choi et al., (2012)	53.8 (7.2)	37	NR	26.8(2.4)	Endurance	12w 5x60min
	55.0 (6.0)	16	NR		Control	
Egger et al., (2012)	64.5(7.1)	16	5/18	29.9(4.7)	Endurance	8w 2x70min
	65.2(8.6)	16	8/8	29.8 (5.3)	Strength	8w 2x55min
Gordon et al., (2008)	64	77	62/16	27.35(0.51)	Hatha yoga	24w 1x 120min
	63.9	77	62/15	27.28(0.39)	Standard	24w 1x 120min
	63.6	77	62/15		Control	
Hegde et al., (2012)	60.0(10.4)	60	NR	24.9(3.1.)	Breathing	12w 7x15-20
	57.5(8.9)	63	NR	25.3(3.9)	Control	
Kang et al., (2009)	50.4(2.14)	7	NR	22.0(8)	Circuit	12w 3x60min
	52.5(2.15)	8	NR	23.6(1.4)	Walking	12w 3x60min
Han et al., (2010)	55.7(7.0)	15	NR	27.1(2.4)	Endurance	12w 5x60min
	55.7(6.2)	13	NR	27.1(2.3)	Resistance	12w 5x60min
	57.8(8.1)	16	NR	27.4(2.8)	Control	
Kurban et al., (2011)	53.77(8.2)	30	13/17	30.90(4.64)	Walking	12w 3x50min
	53.57(6.6)	30	18/12	30.23(4.74)	Control	
Loimaala et al., (2009)	53.6(6.2)	24	NR	29.3(3.7)	End+Resist	96w 4x30min
	54.0(5.0)	24	NR	29.8(3.6)	Control	
Meex et al., (2010)	59.4(1.1)	18	0/18	30.0(0.8)	End+Resist	12w 3x45min
	59.0(0.8)	20	0/20	29.7(0.8)	Control	
Mitranun et al., (2014)	61.7(2.7)	14	9/5	29.4(0.7)	Continuous	12w 3x30-
	61.2 (2.8)	14	9/5	29.6(0.5)	Interval	40min
	60.9(2.4)	15	10/5	29.7(0.4)	Control	12w 3x30- 40min
Sung et al., (2012)	70.2(4.7)	22	15/7	23.9	Walk+Edc	24w 3x50min
	70.1 (3.6)	18	11/7	25.45	Control	
Karstoft et al., (2013)	60.8(2.2)	12	4/8	29.9(1.6)	Continuous	16w 5x60min
	57.5(2.4)	12	5/7	29.0(1.3)	Interval	16w 5x60min
	57.1(3.0)	8	3/5	29.7(1.9)	Control	
Tan et al., (2012)	65.9(4.2)	15	10/8	25.2(2.5)	End+Resist	24w 3x50min
	64.8(6.8)	10	6/5	25.8(2.5)	Control	
Ng et al., (2011)	57(7)	30	19/11	27.4(4.7)	Resistance	8w NRx50min
	59(7)	30	22/8	27.8(5.2)	Endurance	8w NRx50min

End+Resist – endurance and resistance training, Walk+Edc – walking training and education program, NR – not recorded.

Table 2 **Study characteristics and outcomes**

Author, year	Groups	Intensity	Biochemical outcomes	Physiological outcomes
Bacchi et al., (2012)	Aerobic Resistance	60-65% HRR 70-80% 1-RM	HbA1c insulin sensitivity, β cell f-n	VO ₂ max (A \uparrow) strength \uparrow (R)
Baum et al., (2007)	Flexibility Strength Vibration	70-80% 1 RM 30-35Hz	OGTT(V,S \downarrow) HbA1c(V \downarrow)	m.quadriceps max isom.st.(S \uparrow) HR(all \downarrow)
Choi et al., (2012)	Endurance Control	Average		Weight \downarrow ,BP \downarrow VO ₂ max \uparrow
Egger et al., (2012)	Endurance Strength	70% 1RM	GI (V,S \downarrow)	Weight,BMI,HR S/D BP (E,S)
Gordon et al., (2008)	Hatha yoga Standard	70% max	HbA1(Y), GI (Y,S)	Sys/Diast blood pressure (Y)
Hegde et al., (2012)	Breathing	NR	IFG (\downarrow)HbA1(\downarrow)	BMI (\downarrow)
Kang et al., (2009)	Circuit Walking	60%max 60%max	HbA1(At)	Muscle mass(\uparrow) BMI (\downarrow)
Han et al., (2010)	Endurance Resistance	Average 40-50%max EC	Insulin sensitivity (no change)	BMI (\downarrow)
Kurban et al., (2011)	Walking	Average	Antioksidation status	
Loimaala et al., (2009)	End+Resist	65-75% VO ₂ max	Hemoglobin(\uparrow), good for metabolic control	VO ₂ max (\uparrow), m.strength(\uparrow) BMI (\downarrow)
Meex et al., (2010)	End+Resist	55% Wmax	Insulin sensitivity	
Mitranun et al., (2014)	Continuous Interval	50-60%, 80%+50% VO ₂ max	Insulin sensitivity (I,C),HbA1(I)	HR(I,C), leg m.strenght (I,C), VO ₂ max(I)
Sung et al., (2012)	Walk.+Edc	55-64;65-75% HRmax	HbA1	Everyday activity level
Karstoft et al., (2013)	Continuous Interval	55%max PEE 70%max PEE	Glucose(I)	VO ₂ max (I), BMI(I)
Tan et al., (2012)	End+Resist	55-70% PHRmax, 50-70% max 1RM	Lipids profile	strength, obesity outcomes
Ng et al., (2011)	Resistance Endurance	65% 1RM 65%max HR		Mental health status

HRR - heart rate reserve, 1 - RM – one repetition maximum, BP – blood pressure, GI – glucose level, PEE – peak energy - expenditure rate, max EC – max of exercise capacity, PHRmax – predicted heart rate maximum, Wmax – workload maximum.

Discussion

According to this literature search this is the first review comparing the pooled effects of different type and modalities of physical activity on wide range of health related outcomes for elderly population without secondary health conditions, non-obese with type2 diabetes. The main interest of this review was to present the most effective, time consuming and also cost efficient physical activity programs applicable in Latvia. The result of the present study indicated that any type of properly organized physical activity contributes health variables of persons with T2DM. Also, it was found that articles from 2005-2010 mostly presented implementation of aerobic physical activity programs with the average intensity while only recent studies have focused on the interval training with higher intensity. Earlier interval training mostly was used for athletes and healthy population in comparison with the new studies were interval training used for cardiac and diabetic population. One of our interests was also free living activities such as walking. Walking as aerobic training has been used more frequently during the last decade. Kartsoft et al., (2013) showed that walking could be very powerful tool in the interval training format. Moreover, this approach is cost and time efficient.

In conclusion, any type of physical activity positively influence physiological and/or biochemical outcomes. However the most efficient and time consuming physical activity training is interval walking, circuit training or combination of different intensities or physical activity modalities.

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POTĪTES FUNKCIONĀLĀ BLOKA KOREKCIJAS UN NOSTIPRONOŠO VINGRINĀJUMU IETEKME UZ SKRIEŠANAS TEHNIKU ORIENTIERISTIEM

The Effect of Ankle Functional Block Correction and Strengthening Exercises on Orienteer Running Technique

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Abstract. *The ankle joints are neutral at heel strike and then the plantar flexes to bring the forefoot to the ground. Based on Reid's (2009) gait analysis it is evident that foot pronation should be viewed as a whole body movement, since it affects muscles and structures located not only in the foot area. The aim of the research was to evaluate the effect of the ankle functional block correction and strengthening exercises on orienteer running technique. Methods: 36 orienteers (12 to 18 years old) were randomized in three groups to an intervention, movement video analysis (Cswing program), osteopathic testing and correction of the somatic dysfunction of the ankle, quasi-experiment, mathematical statistics were conducted. The results partly confirmed that by releasing the ankle joint functional block disposal and applying strengthening exercises orienteer running technique - foot touchdown parameters were improved.*

Keywords: *ankle functional block correction, orienteer running technique, osteopathy, strengthening exercises.*

Ievads

Introduction

Orientēšanās distancē skrienamība var būt ļoti dažāda un arī segums distancē ir mainīgs. Orientieristam ir jāspēj bez lieka enerģijas patēriņa pielāgoties mainīgajiem apstākļiem. Ne visiem tas sekmīgi izdodas un tāpēc tiek gūtas traumas, kas traucē izvairīto mērķu sasniegšanā. Laba skriešanas tehnika ir viens no pamata noteikumiem lai izvairītos no traumām (Larson & Katovsky, 2012). Orientieristiem viena no biežāk sastopamajām traumām ir pēdas traumas

(Leumann et al., 2010; Fors & Winblad, 2015). 86 % Šveices orientēšanās izlases orientieristiem bija konstatētas akūtas un atkārtotas potītes traumas (n=37) (Leumann et al., 2010). Savukārt jau iepriekš veiktie pētījumi Latvijā liecina, ka no aptaujātajiem (n=124) orientieristiem potītes sastiepumi bija visbiežāk 38 % (n=47) minētā trauma (Smila, 1994).

Šobrīd aktuāla problēma arī orientieristiem, ko darīt ja traumas jau ir bijušas un tās ik pa laikam atkārtojas, kā uzlabot skriešanas tehniku, lai tā būtu maksimāli efektīva un turpmāk varētu mazināt traumatismu. Pētījuma ietvaros ir pētīts, vai pēc potītes funkcionālā bloka likvidēšanas un to nostiprinošo vingrinājumu kopuma realizācijas būs izmaiņas orientieristu skriešanas tehnikā un tā tuvināsies optimālam skriešanas modeļa četru fāžu raksturojumam (Marquardt, 2011).

Pētījuma mērķis ir izvērtēt potītes funkcionālā bloka korekcijas un to nostiprinošo vingrinājumu ietekmi uz orientieristu skriešanas tehniku.

Teorētiskais pamatojums

Theoretical framework

Orientieristu skriešanas tehnika ir ļoti specifiska, tāpēc, ka apvidus un slodze dažādās sacensībās ir mainīgas (Arnet, 2009; Creagh & Reilly, 1997). Skriešana apvidū notiek ar viegli ieliktiem ceļiem un gūžām, kas nodrošina zemu ķermeņa smaguma centru un labu līdzsvaru. Spēja lielā ātrumā skriet pa nelīdzenu segumu, neredzot, kur tiek likta kāja, ir atkarīga no spēcīgām pēdu saitēm (Leumann, 2013). Liela loma ir arī orientēšanās kartes lasīšanai, kad uzmanība tiek koncentrēta uz to, skrējienis turpinās, un ir jāizvairās no traumām gūšanas (Leumann et al., 2010; Guillaume et al., 2010). Pētot elites klases orientierista skriešanu pa mežu secināts, ka saglabājot skriešanas ātrumu, tiek pārvietots ķermeņa smaguma centrs, aktīvi to koordinējot ar rokām un ķermeņa augšdaļu, izlīdzinot ķermeņa svārstības (Hébert-Losier et al., 2015). Impulsi smaguma centra pārvietošanai acīmredzot nāk no pēdas novietojuma uz nelīdzenā seguma (Supe, 2004; De Ridder et al., 2015). Vides un biomehāniskie faktori ļoti būtiski ietekmē orientierista sniegumu, ņemot vērā, skriešanas mehānikas izmaiņas uz nelīdzenas virsmas, tuvojoties šķērslim, uz virsmām, kam ir dažāda cietība, un uz smiltīm vai zāles, salīdzinot ar asfaltu (Hébert-Losier et al., 2015). Jo vairāk ierasta ir skriešana mežā, jo vieglāk skriet atslābinātam dažādos apvidos ar mainīgu segumu (Lussiana et al., 2016). Šādam skrējienu visefektīvākais un mazāk traumatiskākais tehnikas veids ir pēdas zemskare uz pēdas vidusdaļas, ņemot vērā optimāla skriešanas modeļa četru fāžu raksturojumu (Marquardt, 2011).

Optimāla skriešanas modeļa četru fāžu raksturojumā (Marquardt, 2011) zemskare ir pirmais kontakts ar zemi, notiek uz pēdas metatarsālajiem kauliem

(pēdas vidusdaļu). Ķermenis ir gandrīz taisns, nedaudz noliekts uz priekšu, papēdis ir nedaudz priekšā ķermenim, apakšstilbs ir nedaudz priekšā viegli ieliektam celim. Muskulatūra atbrīvota.

Vadoties pēc katra sportista individuālajām spējām, fiziskās sagatavotības un skriešanas tehnikas ir iespējami dažādi zemskares veidi (1. tab).

1.tab. Zemskares veidi skriešanas teknikā (Marquardt, 2011)
 Table 1 Touchdown types of the running technique (Marquardt, 2011)

	Zemskare uz pirkstgala	Zemskare uz pēdas vidusdaļas	Zemskare uz papēža
Ieguvumi	Mazāks muskuļu sasprindzinājums piezemējot pēdu, nav palielināta pronācija; Piezemēšanās zem ķermeņa smaguma centra, nav bremsējošas kustības.	Ķermeņa svara absorbcija tiek izmantota pilnībā; Vienmērīgs slodzes sadalījums; Neliels enerģijas zudums.	Automātiska kustība; Iesācējiem viegli pielietot.
Trūkumi	Augstāks ortopēdisko traumu risks ahileja cīpslai, peroneus muskulatūrai; Lielāka slodze pēdas priekšējai daļai; Ir jāiemācās skriet šādā tehnikā.	Ir jāiemācās skriet šādā tehnikā.	Liela slodze papēžiem; Liela ekscentriskā slodze ekstremitātes muskuļiem; Liels enerģijas zudums; Bremsējoša kustība.
Iespējamās traumas	Ahileja tendinīts.	Nav nozīmīgu traumu risks.	Ahileja tendinīts, „skrējēja celis”, kaulu plēves iekaisumi.

Lai būtu iespējams tuvināties optimālam skriešanas modeļa četru fāžu raksturojumam (Marquardt, 2011), potītei ir jābūt funkcionāli brīvai un kustīgai. Ja ir bijušas traumas, tad iespējams, ka var būt šie funkcionālie bloki, kuri ierobežo kustību. Mūsdienās par bloka cēloni uzskata subluksāciju ar šādiem neiroreflektoriem traucējumiem: primāri ir kustību traucējumi ar sākotnēju samazinātu locītavu virsmu slīdamību; locītavā, katrā fizioloģiskā kustības norises posmā var būt traucējumi un ierobežojumi vienā vai vairākos virzienos: 1) ap locītavu esošajos muskuļos, sakarā ar neirofizioloģiskajiem mehānismiem bloka virzienā, var būt sasprindzinājums; 2) locītavai atbilstošās segmentālās zonas audos un iekšējos orgānos var būt pārmaiņas (Glēzners & Gūtenbrunnars, 2008).

Bloka izraisītāji var būt: disbalanss starp kustību un balsta sistēmas noslogojumu un slodzes izturību; nelielas traumas un neveiklas kustības līdz pat nopietnām traumām, ieskaitot imobilizāciju un fiksāciju; strukturālas pārmaiņas, kā deģenerācija un iekaisums; reflektorās norises (Glēzners & Gūtenbrunnars, 2008). Funkcionālo bloku noņemšanai kā viena no efektīvākajām un cilvēkam saudzīgākajām ir osteopātijas metode (Zemītis, 2003; Lorencs, 2011).

Muskuļu spēka attīstīšana ir būtiska, lai orientieristiem būtu vispusīgi attīstīti muskuļi, lai locītavas būtu nostiprinātas, tādējādi novēršot liekas un nevajadzīgas kustības locītavās. Kā arī tā nosaka ķermeņa korsetes muskuļu stāvokli, skriešanas tehniku pārvietojoties mežā un var mazināt traumas. Funkcionāli brīvu un kustīgu potīti nodrošina regulāri treniņi. Tas nozīmē, ka muskuļu spēks, kustību koordinācija un līdzsvars, skrējienā pa nelīdzenu virsmu nosaka drošu skriešanas tehniku. Pētījumi liecina, ka viens no efektīvākajiem traumu profilakses veidiem ir daudzveidīgi vingrinājumi uz *Airex* līdzsvara paklājiem (Marquardt, 2011).

Pētījuma organizācija un metodes *Research design and methods*

Pētījumā piedalījās 36 dalībnieki vecumā no 12 -18 gadiem. Dalībnieki septiņas dienas bija orientieristu nometnē, kurā visiem bija līdzvērtīgas dzīvošanas, atpūtas un treniņu iespējas. Nometnes pirmajā dienā tika veikta dalībnieku filmēšana. Dalībnieki bija informēti, ka viņus filmēs, taču nezinaja, kas tieši tiks vērtēts. Gan pētījuma sākumā, gan beigās dalībnieki skrējieni veica pa vienu un to pašu segumu, ar vieniem un tiem pašiem apaviem. Skrējieni tika veikti maksimālā ātrumā.



1.att. Pēdas zemskares leņķa mērīšana
Figure 1 Measurement of foot-ground angle

Vēlāk filmētie video tika ievietoti Cswing programmā, kura paredzēta sporta veidu tehnikas izpētei (Schafer, 2011). Šajā pētījumā tika noteikti pēdas

piezemēšanās leņķi. Leņķi tika zīmēti sagitālā plaknē, kur tika mērīti pēdas biomehāniskie parametri - pēdas zemskares leņķis attiecībā pret plakni (skat. 1. att.) un tas salīdzināts ar optimāla skriešanas modeļa zemskares fāzes raksturojumu (Marquardt, 2011). Pēdas zemskares leņķa noteikšana tika veikta gan pirms, gan arī pēc potītes funkcionāla bloka korekcijas.

Orientieristi tika sadalīti 3 grupās:

1. grupa. Orientieristi, kuriem netika konstatēta potītes un pēdas bloki. Grupa piecas dienas pēc kārtas divas reizes dienā izpildīja vingrinājumus potītes nostiprināšanai;

2. grupa. Orientieristi, kuriem tika konstatēta potītes locītavas bloki un kuriem tika veikta potītes korekcija ar osteopātijas paņēmieniem nometnes pirmajā dienā;

3. grupa. Orientieristi, kuriem tika konstatētas potītes locītavas bloki un kuriem tika veikta potītes korekcija ar osteopātijas paņēmieniem nometnes pirmajā dienā, un kuri piecas dienas pēc kārtas divas reizes dienā izpildīja vingrinājumus potītes nostiprināšanai.

Vingrinājumi potītes nostiprināšanai uz *Airex* līdzsvara paklāja veidoti arī ņemot vērā biežāk pārvaramos šķēršļu orientēšanās distancē, piemēram, pārvarot grāvi, ir nepieciešams tam pārlēkt un sekmīgi piezemēties (Marquardt, 2011, Reyneke, 2002, Siler, 2000):

1. vingrinājums. Sākuma stāvoklis – pamatstāja, stāvot uz *Airex* līdzsvara paklāja, kājas kopā, rokas uz gurniem. Paceļas uz pirkstgaliem, notur pozu, saglabājot stabilas potītes (cenšoties izvairīties no pēdas inversijas). Pozu jānotur 10 sekundes, atkārto vingrinājumu piecas reizes (skat. 2. att.).



2.att. 1. vingrinājums un 2. vingrinājums

Figure 2 Exercise 1 and Exercise 2

2. vingrinājums. Sākuma stāvoklis – stāja uz vienas kājas, rokas uz gurniem. Otru kāju priekšā, notur pozu cik ilgi var, tad kāju izstiepj sānis, notur cik var, tad virza uz aizmuguri, notur tik ilgi, cik var noturēt. Saglabā vertikālu ķermeņa asi. Tas pats ar otru kāju. Atkārto divas reizes (skat. 2. att.).

3. vingrinājums. Sākuma stāvoklis - pamatstāja, kājas gurnu platumā. Pietupieni, līdz ceļi saliecas taisnā leņķī un frontālā plaknē atrodas virs pēdas (biomehāniski pareizi izpildīts pietupiens). Atkārto 10 reizes.

4. vingrinājums. Sākuma stāvoklis – stāja uz vienas kājas, otra pēda piespiesta pie atbalsta kājas potītes aizmugurē. Pacelties uz vienas kājas pirkstgaliem saglabājot potītes stabilitāti un lēni ieņemt sākuma stāvokli. Atkārto piecas reizes ar katru kāju (skat. 3. att.).



4. vingrinājums



5. vingrinājums

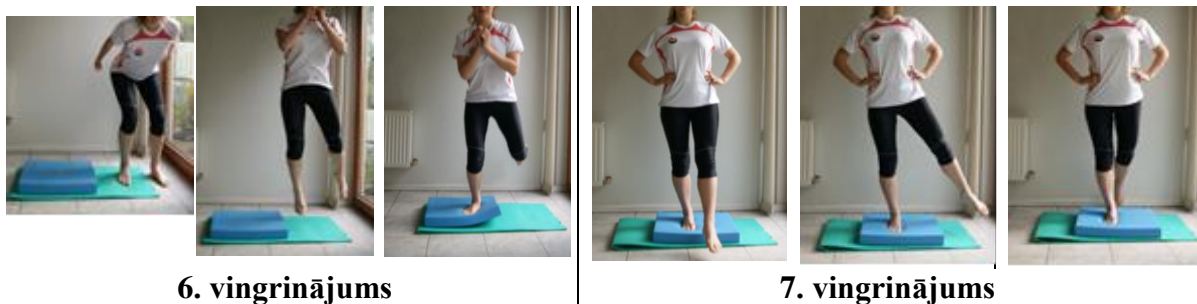
3.att. 4. vingrinājums un 5. vingrinājums

Figure 3 Exercise 4 and Exercise 5

5. vingrinājums. Sākuma stāvoklis - uz kreisās kājas, labā saliekta ceļī. Ar labo roku lēnām sniedzas līdz grīdai pie viduslīnijas un lēnām iztaisnojas. Nākošajā reizē ar roku sniedzas pie iedomāta punkta uz grīdas, kas ir pa kreisi no viduslīnijas un iztaisnojas. Trešajā reizē ar roku sniedzas pie iedomāta punkta, kas atrodas pa labi no viduslīnijas, iztaisnojas. Atkārto ar pretējo roku un kāju. Izpilda 4 reizes (3. att.).

6. vingrinājums. Sākuma stāvoklis - pamatstāja, blakus līdzsvara virsmai. Iesēžas un veic enerģisku lēcieni sānis, piezemēšanās uz vienas kājas uz Airex līdzsvara paklāja. Uzdevums pēc piezemēšanās uz vienas kājas - palikt stabilam. Izpilda lēcienus 5 reizes simetriski uz abām pusēm (skat. 4. att.).

7. vingrinājums (skat. 4. att.). Sākuma stāvoklis - stāja uz vienas kājas, rokas uz gurniem, acis ciet. Stāvot uz vienas kājas, otru kāju izstiepj priekšā, notur 10 sekundes, tad kāju virza uz aizmuguri, notur 10 sekundes. Atkārto četras reizes ar katru kāju. Izpildes laikā ir jānotur taisna ķermeņa augšdaļa, nesaliekties uz priekšu. Visos vingrinājumos tika izmantotas mīksta atbalsta virsmas, lai palielinātu potītes stabilitāti veicinošu slodzi un imitētu dabisku mīkstu, nestabilu virsmu, kas raksturīga orientēšanās skrējienam pa mežiem, pļavām, purviem.

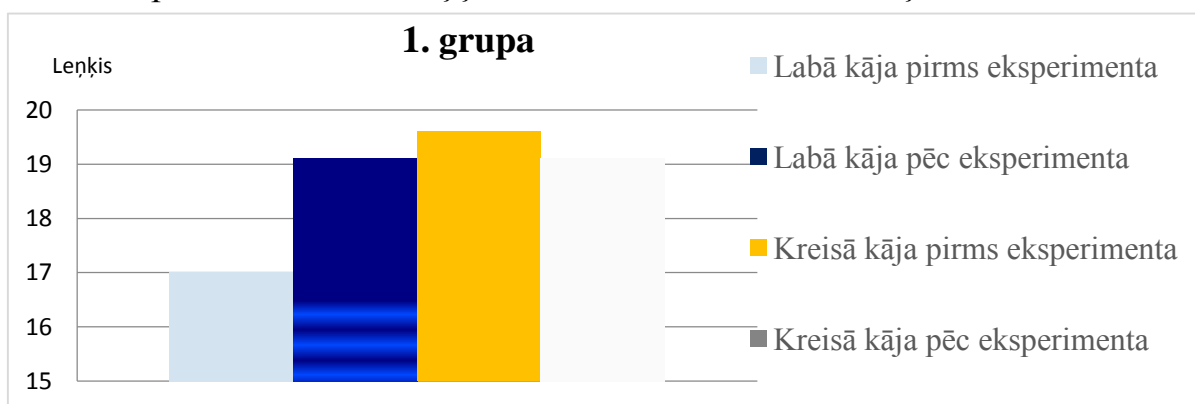


4.att. 6. vingrinājums un 7. vingrinājums
Figure 4 Exercise 6 and Exercise 7

Datu analīzei izmantota SPSS ver.20.0 datu apstrādes programma, aprēķināta aprakstošā statistika, Kolmogorova-Smirnova kritērijs, veikta Spīrmena rangu korelācijas analīze. Sākotnējo un pēc eksperimenta iegūto datu atšķirības izvērtētas pēc Vilksona kritērija.

Rezultāti Results

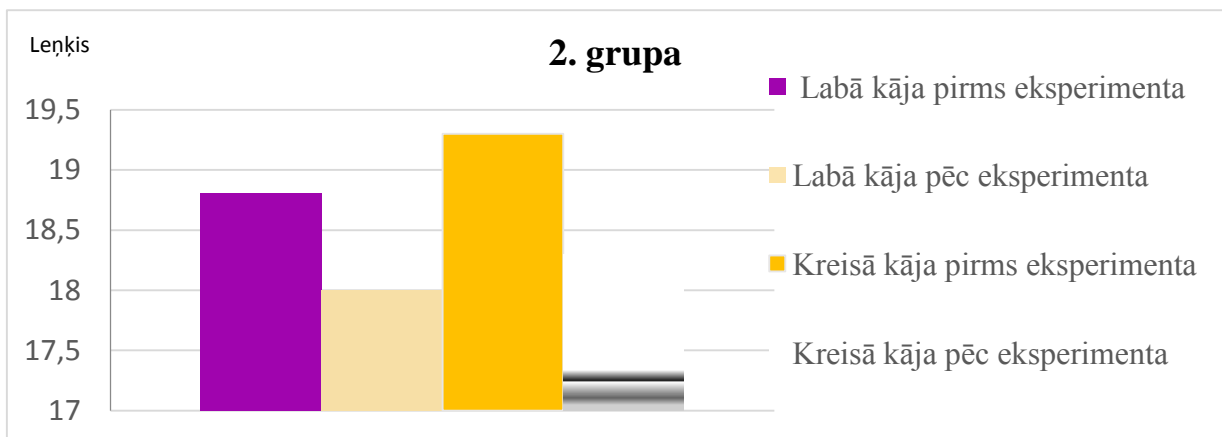
Apskatot orientieristu pēdas zemskares leņķa rezultātu izmaiņas pēc eksperimenta, grupai nav novērojamas krasas izmaiņas: labās kājas pēdas zemskares leņķis pirms eksperimenta $18,53 \pm 5,42$; labās kājas pēdas zemskares leņķis pēc eksperimenta $19,14 \pm 4,49$; kreisās kājas pēdas zemskares leņķis pirms eksperimenta $19,94 \pm 5,52$; kreisās kājas pēdas zemskares leņķis pēc eksperimenta $18,72 \pm 3,45$, izmaiņas nav statistiski ticamas. Ja orientieristiem nav konstatēti potītes bloki, tad pirms eksperimenta labās kājas pēdas zemskares leņķis ir lielāks ($r_s = 310$, $p < 0.05$). Ja orientieristiem pirms eksperimenta labās kājas pēdas zemskares leņķis ir lielāks, tad arī pirms eksperimenta kreisās kājas pēdas zemskares leņķis ir lielāks ($r_s = 536$, $p < 0.01$). Katram orientieristam ir novērotas pēdas zemskares leņķa lielumu individuālas izmaiņas.



5.att. Pēdas zemskares leņķa izmaiņas pēc vingrinājumu izpildes
Figure 5 Foot-ground angle changes after exercises

1. grupas orientieristiem, kuriem netika konstatēta potītes un pēdas bloki un kuri piecas dienas pēc kārtas divas reizes dienā izpildīja vingrinājumus potītes nostiprināšanai (skat. 5. att.), labās kājas pēdas zemskares leņķis pirms eksperimenta bija $17,00 \pm 4,59$, bet pēc eksperimenta $19,08 \pm 4,31$; kreisās kājas pēdas zemskares leņķis pirms eksperimenta bija $19,58 \pm 5,76$, bet pēc eksperimenta $19,08 \pm 3,42$, izmaiņas nav statistiski ticamas.

Savukārt 2. grupas orientieristiem, kuriem tika konstatēti potītes locītavas bloki un tika veikta potītes korekcija ar osteopātijas paņēmieniem (skat. 6. att.), labās kājas pēdas zemskares leņķis pirms eksperimenta bija $18,83 \pm 6,46$ un pēc eksperimenta $18,08 \pm 5,84$; kreisās kājas pēdas zemskares leņķis pirms eksperimenta bija $19,75 \pm 6,31$ un pēc eksperimenta $18,50 \pm 3,23$, izmaiņas nav statistiski ticamas. Ja orientieristiem pirms eksperimenta labās kājas pēdas zemskares leņķis ir lielāks, tad arī pirms eksperimenta kreisās kājas pēdas zemskares leņķis ir lielāks ($r_s = 565$, $p < 0,05$). Ja orientieristiem pēc eksperimenta labās kājas pēdas zemskares leņķis ir lielāks, tad arī pēc eksperimenta kreisās kājas pēdas zemskares leņķis ir lielāks ($r_s = 674$, $p < 0,01$).

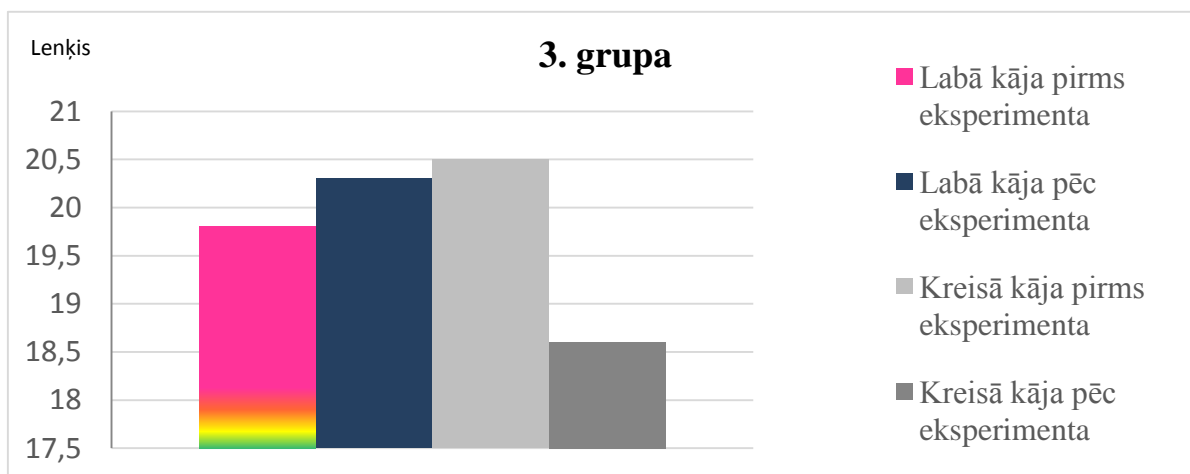


6.att. Pēdas zemskares leņķa izmaiņas pēc osteopātiskajām manipulācijām
Figure 6 Foot-ground angle changes after osteopathic manipulation

3. grupas orientieristiem, kuriem tika konstatēti potītes locītavas bloki un kuriem tika veikta potītes korekcija ar osteopātijas paņēmieniem, un kuri arī izpildīja vingrinājumus potītes nostiprināšanai (skat. 7. att.), labās kājas pēdas zemskares leņķis pirms eksperimenta bija $19,75 \pm 5,13$ un pēc eksperimenta $20,33 \pm 2,93$; kreisās kājas pēdas zemskares leņķis pirms eksperimenta bija $20,50 \pm 4,87$ un pēc eksperimenta $18,58 \pm 3,94$, izmaiņas nav statistiski ticamas.

Ja orientieristiem konstatēti labās potītes bloki, tad pirms eksperimenta kreisās kājas pēdas zemskares leņķis ir lielāks ($r_s = 541$, $p < 0,05$). Ja orientieristiem pirms eksperimenta labās kājas pēdas zemskares leņķis ir lielāks,

tad arī pirms eksperimenta kreisās kājas pēdas zemskares leņķis ir lielāks ($r_s = 600$, $p < 0.05$).



7.att. Pēdas zemskares leņķa izmaiņas pēc osteopātiskajām manipulācijām un vingrinājumu izpildes

Figure 7 Foot-ground angle changes after osteopathic manipulation and exercises

Pētījumā orientieristiem labās kājas pēdas zemskares leņķis palielinājās 9 gadījumos, samazinājās 8 gadījumos un tas neizmainījās 2 gadījumos, savukārt kreisās kājas pēdas zemskares leņķis palielinājās 6 gadījumos, samazinājās 11 gadījumos un 4 gadījumos tas neizmainījās. Visvairāk uzlabojumu bija 3. grupai, kurai veikta potītes korekcija ar osteopātijas paņēmieniem un izpildīti vingrinājumi potītes nostiprināšanai. Tas ir skaidrojams ar vairāku faktoru mijiedarbību, kas sekmē orientierista skriešanas tehniku.

Diskusija *Discussion*

Jaunākajos pētījumos elites orientieristu un amatieru skriešanas biomehānikas jomā izvērtēta sportistu statusa un virsmas ietekme uz orientieristu skriešanas biomehāniku (Hébert-Losier et al., 2015). Autori uzsver, ka vides un biomehāniskie faktori ļoti būtiski ietekmē orientierista sniegumu, ņemot vērā, skriešanas mehānikas izmaiņas uz nelīdzenas virsmas. Mūsu veiktajā pētījumā orientieristiem vērojamas lielas individuālas pēdas zemskares leņķa variācijas gan pirms eksperimenta, gan arī pēc eksperimenta, kuras var ietekmēt potītes un pēdas individuālās morfoloģiskās īpatnības, funkcionālais stāvoklis, orientierista fiziskā sagatavotība, kā arī orientieristu apavu izvēle.

Ir zināms arī, ka slodzes ilgums var ietekmēt skriešanas biomehāniku, skriešanas biomehānika lielākā mērā mainās garo distanču laikā, kad skrien minimālisma stila apavos un pa nelīdzenu virsmu, nevis speciālajos apavos

(Lussiana et al., 2016). Turpmāk būtu vēlams pirms eksperimenta veikt padziļinātu pēdas funkcionālā stāvokļa un to ietekmējošo faktoru izpēti. Kā arī, lai būtiski optimizētu orientieristu skriešanas tehniku nepieciešams ilgāks pētījuma laiks, ilgstošāka potīti nostiprinošu vingrinājumu veikšana treniņos. Kā zināms, cīpslu un saišu mehāniskās īpašības mainās lēni, līdz ar to ir jāpilnveido katra dalībnieka treniņa process gan individuāli, gan grupai kopumā.

Secinājumi **Conclusions**

Izvērtējot potītes funkcionālā bloka korekcijas un to nostiprinošo vingrinājumu ietekmi uz orientieristu skriešanas tehniku var secināt, ka skriešanas tehnikā ir novērota pēdas biomehānisko parametru izmaiņu tendence - pēdas zemskares leņķis pārsvarā samazinājās 19 gadījumos, palielinājās 15 gadījumos, bet neizmainījās 6 gadījumos. Visvairāk uzlabojumu bija 3. grupai, kurai tika veikta potītes korekcija ar osteopātijas paņēmieniem un orientieristi izpildīja vingrinājumus potītes nostiprināšanai. Izmaiņas izskaidrojamas ar vairāku faktoru mijiedarbību, kas sekmē orientierista skriešanas tehniku, veicot potītes locītavas funkcionālā bloka likvidēšanu, dalībniekam tiek uzlabots kustīgums potītē un vienlaicīgi veicot vingrinājumus tiek nostiprināta potīte un ar to saistītās struktūras.

Summary

Evaluating ankle functional block corrections and strengthening exercise effects on orienteering running technique it can be concluded that in running technique the tendency of a change in foot biomechanical parameters is observed: foot-ground angle mostly decreased in 19 cases, it increased in 15 cases, but did not change in 6 cases. According to the research it can be concluded that in running technique is distinct change and it is closer to a four-phase model (according to Marquardt. 2011), it would be needed for the research a longer time, including a larger number of trainings. Tendons and ligaments mechanical properties change slowly, therefore the training process should be improved for both an individual and a whole group. The largest improvement has Group 3, where the ankle correction applying osteopathic techniques together with strengthening exercises is used.

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THE EFFECT OF ANKLE AND SUBTALAR JOINT SOMATIC DYSFUNCTION CORRECTION TO IMPROVE ORIENTEER STATIC BALANCE

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Abstract. *The most frequent injuries among sports orienteers are the ankle injuries. The one of the most effective means to prevent the ankle injuries and recurrent ankle injuries is balance and stability development. The aim of this study is to find out the most effective method to develop static stability in the previously injured ankle for orienteers: osteopathic treatment of the ankle and subtalar joints or balance exercises, or the combination of osteopathic treatment of the ankle and subtalar joints and balance exercises. The effectiveness analysis of the intervention methods was conducted with the use of Digital Balance Analyzer (DBA) for the assessment of static balance. 36 orienteers (12 to 18 years old) were randomized in three groups to an intervention, after being assessed at baseline and then reassessed one week later. Static balance improvements are only when using osteopathy and ankle joints subtalar somatic dysfunction correction together with balance exercises. Separate osteopathy or balance exercises will not give results as effective as the combination of these two effects.*

Keywords: *ankle and subtalar joint somatic dysfunction correction, orienteers` static balance improvement, osteopathy.*

Introduction

The number of sports injuries is increasing (Tiirikainen et al., 2008). One of the most common injuries for orienteers is subtalar joint sprain: both primary and recurrent (Leumann, 2013; Fors, Winblad, 2015). As suggested by a research on 43 orienteers of the Swiss Orienteering National Team, 86% were found to have an acute ankle sprain (n = 37), seven athletes (16%) were found to have suffered unilateral and 30 athletes (70%) bilateral ankle sprains. Similar studies have been carried out with orienteers from Finland and other countries as well (Leumann et al., 2013). This proves that orienteering has a high risk level for such injuries.

One of the most effective preventive measures for these injuries is balance training (Mattacola, Dwyer, 2002). Balance (also called proprioceptive) training does not prevent all injuries, but reduces ankle injuries. The proprioceptive/neuromuscular training reduces the incidence of certain types of sports injuries among adolescent and young adult athletes during pivoting sports (Hübscher et al., 2010). A neuromuscular training and injury prevention counselling programme is effective in preventing acute ankle and upper-extremity injuries (Parkkari et al., 2011).

Therefore the aim of the study is to find out the most effective method to develop static stability in the previously injured ankle for orienteers: osteopathic treatment of the ankle and subtalar joints or balance exercises, or the combination of osteopathic treatment of the ankle and subtalar joints and balance exercises.

Theoretical framework

There are 26 bones in the foot. The ankle and subtalar joints have the most important role in foot biomechanics (Sobotta, 2004). Joints provide a functionally correct step while both walking and running. The function of the ankle joint is plantar flexion and dorsiflexion of the foot, while the function of the subtalar joint ensures inversion and eversion of the foot (Leardini et al., 2014). The majority of ankle eversion/inversion occurs at the subtalar joint; however, the ankle component cannot be ignored (Arndt et al., 2004). While walking and running, the ankle constantly adapts to terrain. The tarsal, metatarsal and phalanx bones act as primary stabilizers and adjust the foot to each support surface or our movement style. In turn, these small movements affect the stabilizing adaptation of the heel bone, the talus bone and the ankle joint, as the information is transmitted to the central balance analyzer in the medulla of the central nervous system (CNS). Thus the ankle plays an important role in maintaining balance both on the move and in static positions.

Balance is the ability to maintain a state in various movements and poses. Balance is provided by the balance centre in the CNS, where the information is received from the vestibular, visual, auditory and somatosensory analyzers. Proprioceptors have a key role in the somatosensory analyzer system. Vestibular nucleus neurons respond to the changes of the extremity state, body turns, signals from the internal organs, i.e. provide information synthesis, which comes from various sources. Various movement responses are controlled and managed at the same time. Peripheral proprioceptors are located in both muscles and joints. These receptors respond to mechanical irritation and participate in movement coordination. They serve as a source of information on the state in which the particular part of the body is located in space. In literature muscle

proprioceptors have been studied more (Ward, 2003). Joint receptors respond to the position of the joint and the joint angle changes, thereby being a link in feedback for sending information through efferent pathways to the CNS.

The term „somatic dysfunction” is a key concept of osteopathic medicine. In osteopathy it is assumed as an axiom that the body – bag and viscera – has the ability to self-heal, and this unique ability of the body is respected and revitalized with osteopathic manipulations. A thorough structural examination and testing is primarily essential in a patient’s osteopathic examination in order to detect somatic and visceral dysfunctions (Ward, 2003). Physical processes, which activate in the somatic dysfunction zone, alter neural activity in the respective spinal segment (facilitation forms), as well as change the body’s endocrine and immune response (Zemītis, 2003).

Articular techniques is one of the possible influence types – osteopathy has a whole arsenal of them, based on precise knowledge of the specific joint’s anatomy and biomechanics, and a reinforced osteopathic „tissue sense” – hand sensitivity. Other possible technique types are trusts (Zemītis, 2003) – very rapid movements of small amplitude, fascial techniques, where the togetherness and continuity phenomenon of the connective tissue system in the human body is used, fluid techniques (Ward, 2003; Jealous, 2000), where correction of the somatic dysfunction is achieved with the help of the body’s internal hydrodynamic potential, as well as energetic techniques, where in the classic medicine yet unrecognized energetic potential of a living being is effectively used.

The ankle and subtalar joints have an important functional role in ensuring balance of the body. Good balance guarantees coordinated and energy-saving movements, which are important to orienteers as representatives of an endurance sport, who run on uneven surfaces, reading a map at the same time. The most common injuries in this sport are an ankle sprain of the supination type. Typically, a once traumatized ankle may be repeatedly injured (Leumann et al., 2013; Fors, Winblad, 2015). As regards prevention of the repeated injuries, articles mainly have information on exercising for ankle strengthening, as well as passive stability ensuring measures – tape wrapping and wearing orthopaedic insoles (Leumann et al., 2013; Kujala et al., 1995). We were interested in the opportunity to find the most effective active stability regenerating tool, using an osteopathic method, and to assess how it can be combined with special balance exercises.

Methodology of the research

During the experiment 8 balance index measurements were made for 36 SP „Auseklis” orienteers aged from 12 to 18, of which, by osteopathic testing, 29

were found to have an ankle and subtalar joint somatic dysfunction. On the first day of the orientation camp four measurements were made and four measurements were made on the last – seventh – day of the camp.

The Balance Index (BI) was determined with the subject taking a posture according to the Bondarevsky method. The subject stood on one leg, the hands on the hips, the other leg bent in the knee joint. The foot relaxed in the support leg's knee joint, looking forward. The balance was tested standing on both the right and left leg with the eyes open and with the eyes and ears closed. Testing on the Digital Balance Analyzer (DBA) platform with the ears and eyes closed was carried out in order to exclude as many senses as possible, which help to keep balance. By excluding eyesight and hearing, the neutralization of external influence impulses on the central vestibular analyzer was achieved. In turn, the internal sense of balance, which is provided by muscle and joint proprioception, is very important for orienteers in order not to injure themselves, while running through a forest and reading a map at the same time. For the neutralization of the auditory information, which also creates external influence impulses on the central vestibular apparatus in CNS, sport shooter's earphones were used, which are typically used in shooting-galleries in order to protect the hearing apparatus from loud noises. Thus, during the balance testing a complete sound isolation was achieved. A blindfold was used for eyesight exclusion.

Testing was carried out for 1 minute for both the right and the left leg in two variants: with the eyes and ears both open and closed. Static Force Platform measures the displacement of a subject's centre of pressure while standing still using three or four force transducers (Murray et al., 1975). Testing was carried out in a room with a DBA platform. The platform was connected to the computer program DBA–Ruler for data recording and analysis. The DBA platform was used to measure the BI (range from 0 “excellent balance” to 10 “very poor balance”). The DBA platform records balance fluctuations, according to which the BI is calculated. The less foot fluctuations have been recorded, the lower the balance index, and vice versa – the higher and the more fluctuations, the higher the balance index.

For this research after the first balance test on the DBA platform an osteopathic examination of both legs was carried out on all orienteers, checking the ankle and the subtalar joints and determining the existence of somatic dysfunctions. The found dysfunctions were corrected with an appropriate method – articular technique (Zemītis, 2003). In other words – with the athlete lying on his/her back, one therapist's hand clasping the ankle from the top and the other – the foot from the bottom, joint surfaces are gradually slipped into opposite directions until a free movement in a normal amount is achieved in the sagittal plane. The articular technique of the subtalar joint is as follows: the athlete is lying on his/her back. One therapist's hand clasps the patient's heel

from the bottom, another hand firmly encircles the talus bone from the top. Traction is carried out with both hands along the tibia's axis and at the same time the upper arm moves the talus bone in inversion. The technique is carried out until a natural movement between the two bones is freed.

Initially the orienteers were divided into 3 groups:

Group 1 – orienteers, for which the ankle and foot somatic dysfunctions had not been found. These young people performed balance exercises on a regular basis for a whole week 2 times a day;

Group 2 – orienteers, for which the ankle and foot somatic dysfunctions had been found. For these young people the ankle state correction was performed in the ankle and subtalar joints with a corresponding articular osteopathic technique during the first 2 days of the camp;

Group 3 – orienteers, for which the ankle and foot somatic dysfunctions had been found. For these young people the ankle state correction was performed in the subtalar and ankle joints with a corresponding articular osteopathic technique during the first 2 days of the camp, as well as they performed balance exercises on a regular basis for a whole week 2 times a day.

For all groups the static balance for the right and left leg with the ears and eyes both closed and opened was determined on the first and last day of the camp. During the experiment at the same time with the three initial groups, group 4 and group 5 were performed:

Group 4 – in this group information was gathered on the balance changes for the healthy leg of Group 2 orienteers;

Group 5 – in this group information was gathered on the balance changes for the healthy leg of Group 3 orienteers.

For groups 1, 3 and 5 the following balance exercise set was created and modified (Peterson&Renstrom, 2001; Cyriax, 1980; Reyneke, 2002; Siler, 2000):

Exercise 1. The starting position – standing, the legs together, the hands on the hips. Athlete rises on tiptoes, holds the position, maintaining stable ankles (trying to avoid foot inversion). The exercise is repeated 5 times.

Exercise 2. The starting position – standing on one leg, the hands on the hips. The other leg is stretched in front, holds a strong position for as long as possible, then this leg is stretched to the side, holds as long as possible, then to the back, holds as long as possible. During the exercise vertical body axis is to be maintained. The same with the other leg. The exercise is repeated 2 times.

Exercise 3. The starting position – standing on an Airex pillow, the feet are placed hip width apart. Squats until the knees bend at a straight angle and in the frontal plane places above the foot (biomechanically correctly executed squat). The exercise is repeated 10 times.

Exercise 4. The starting position – standing on one leg, the other is pressed against the back of the support leg. To rise on one leg's tiptoes while maintaining ankle stability and to slowly, in a controlled manner descend back. The exercise is repeated 5 times.

Exercise 5. The starting position – standing on the left leg, the right one is bent in the knee. With the right hand an athlete slowly reaches towards the floor at the centre line and slowly rises to the starting position. Next time he/she reaches with the hand towards an imaginary point on the floor, which is to the left of the centre line. The third time he/she reaches with the hand towards an imaginary point, which is to the right of the centre line. The exercise is repeated 2 times.

Exercise 6. The starting position – standing next to the Airex pillow. An athlete squats and performs an energetic lateral jump with landing on one leg. The task is to remain stable on one leg after landing. The exercise is repeated 5 times.

Exercise 7. The starting position – standing on one leg on the Airex pillow, the hands on the hips, the eyes closed. The other leg is stretched in front, an athlete keeps a strong vertical position for as long as possible, then this leg is stretched to the side, holds for as long as possible, then this leg is stretched to the rear, holds for as long as possible, to maintain a vertical body axis as possible. The same with the other leg. The exercise is repeated 2 times.

The balance exercise set was created mainly to develop the deep muscles of the lower leg, as well as proprioception of the foot and the ankle, because in ensuring the balance the highest functional load is on the joints, which are close to the support surface. Soft support surfaces were used during the exercises in order to increase the load specifically for the ankle's stability and to imitate a natural soft, unstable surface, characteristic of orienteering run through forests, meadows and swamps.

SPSS Statistics (version 17.0) data processing programme was used for data analysis, where descriptive statistics was carried out. Kolmogorov-Smirnov criterion was used to determine whether the data are parametric or non-parametric. Non-parametric statistics correlation analysis method was used to determine Spearman's rank correlation coefficient, as well as Wilcoxon Signed Rank test was used.

Results

Looking at the overall balance index dynamics before and after the experiment with the eyes both closed and opened, it can be concluded that in all groups after the experiment, which lasted for a week, there is a tendency for the balance index to improve (see Figure 1).

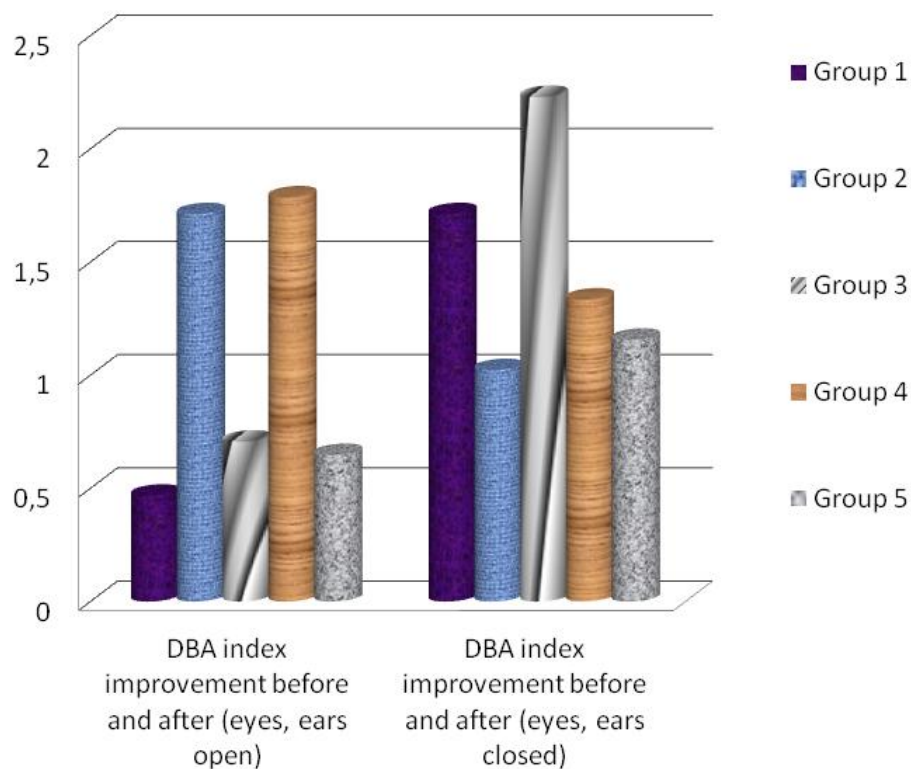


Figure 1 **Decrease of Balance Index for the 5 experimental groups before and after the experiment**

According to Figure 1 it can be observed that the highest increase of the static balance (excluding eyesight and hearing analyzers) was evident in Group 3, for which both osteopathy and balance exercises were used together. For this group the balance test was carried out on the leg, on which the osteopathic correction was initially performed and then the exercise programme for balance training. The balance index has improved by 2.229 and this result is statistically significant ($p=0.026$). Improvement of the rest of the balance indexes can be assessed only as a trend, because the result changes are not statistically significant. However, the overall conclusion is that after the experiment the greatest result improvements were observed in the tests, which were carried out with closed eyes and ears (excluding eyesight and hearing), so the main information „gateway” for the central body balance analyzer was proprioception. By contrast, when performing the static balance test with the ears and eyes opened, the greatest balance ability improvement was observed for the group, for which only the osteopathic method was used for the ankle’s structural adjustment. Result improvement was observed for both the healthy leg and the previously traumatized leg with somatic dysfunctions, which were corrected. However, we once again want to point out that, since these results are

not statistically significant, they can be judged only as a static balance improvement trend.

Observing the correlations between the static balance test's initial and post-experiment results of Group 3 (Fig. 2), it was determined that there is a strong correlation in the static balance test results before and after the experiment with closed eyes and ears ($r_s = .696$, $p < 0.01$), as well as there is a strong correlation between performance results in the static balance test with ears and eyes opened before the experiment and the performance results in the static balance test with closed eyes and ears before the experiment ($r_s = .703$, $p < 0.01$) and a strong correlation after the experiment ($r_s = .622$, $p < 0.05$).

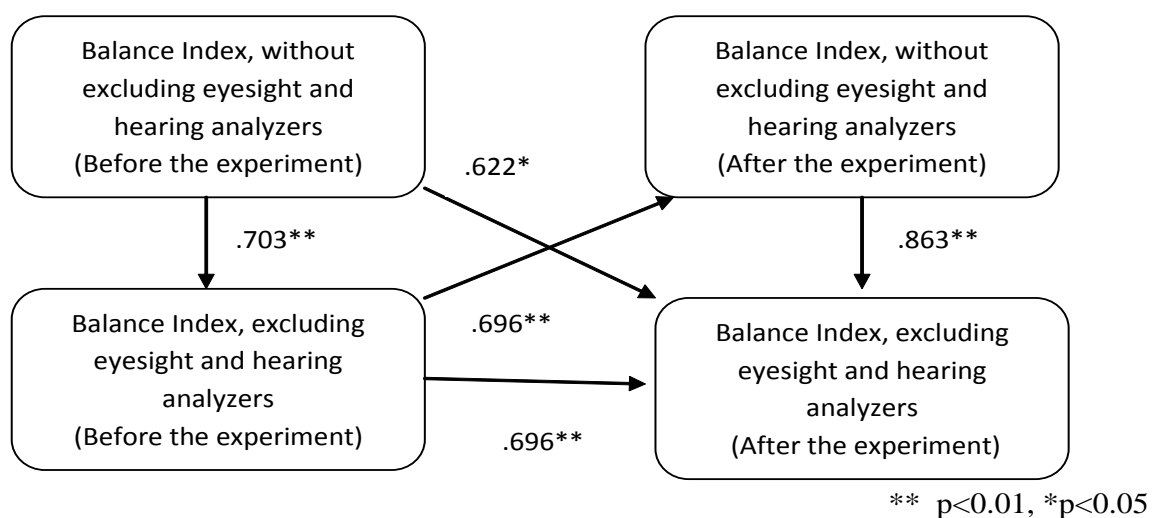


Figure 2 Correlation of the Static Balance Test results for Group 3 by Spearman (n=16)

There is a very strong correlation in the test results with ears and eyes opened and closed after the experiment ($r_s = .863$, $p < 0.01$). Consequently, if orienteers of Group 3 before the experiment have a high balance index in the static balance test, excluding eyesight and hearing analyzers, then after the experiment, excluding eyesight and hearing analyzers, the balance index in the test will increase. The overall conclusion is that the only statistically significant result improvement changes are in Group 3 in the DBA static balance test with the ears and eyes closed. That is, the balance index improved by 2.229 units. Consequently, application of osteopathy and balance exercises is the most effective method for static stability improvement.

Discussion

In order to prevent chronic instability injuries, 35% athletes of Swiss orienteering team trained their lower leg muscles weekly, specifically in a force-

gymnastic programme for at least 10-20 minutes. 51% athletes did this programme on an irregular basis and 12% athletes never (Leumann et al., 2013), but this programme does not include balance exercises.

Considerable improvements of static balance are achieved only by applying osteopathy for correction of the ankle and subtalar joint somatic dysfunction together with balance exercises. Performing osteopathy or a balance exercise set separately will not give as effective results as the combination of the two influences. In our opinion, it is these results that confirm the fact that by structurally adjusting the movement and support apparatus, it still will not bring the desired results for a full recovery of the function. An osteopath definitely should suggest orienteers an application of further physical load (corresponding exercises). However, after an ankle injuries (ligament strains, bone subluxations), which is a typical sports injuries in different sports, including sports orienteering in terrain, before applying a rehabilitation exercise programme there is a justified reason to perform correction of the foot and ankle somatic dysfunctions. Combined with subsequent balance and coordination exercises, it will restore the joint's stability and will be a guarantee for the prevention of future repeated traumas.

Conclusions

1. The combination of osteopathic treatment for the ankle and subtalar joints and balance exercises is the most effective method for developing static stability in the previously injured ankle for orienteers, the balance index improves by 2.23 ($p=0.026$), in comparison to separately applied osteopathy and balance exercise method.
2. The study showed that for the recovery of a wholesome function, i.e. balance, both components are necessary – both structural adjustment and the subsequent functional balance training.

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**HOKEJA KOMANDAS „RĪGA 2000” UZBRUCĒJU
UN AIZSARGU FUNKCIONĀLĀS SAGATAVOTĪBAS
UN ANTROPOMETRISKO PARAMETRU IZVĒRTĒJUMS
2015./2016. GADA SEZONAS SĀKUMĀ**

*Assessment of ice hockey team „Riga 2000” of forwards,
defensives and goalkeeper players of functional fitness preparedness
and anthropometry parameters at beginning of 2015./2016. season*

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Igors Ķīsis

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Abstract: *The Aim of the Study is assessment the hockey players of team „Riga 2000” overall functional fitness preparedness and anthropometric parameters indicators according to their age. In study voluntarily participated 23 ice hockey players: 12 of them were forwards – players (first group), 8 of them were defenses – players and 3 of them were – goalkeepers (second group). For physical fitness testing we used „Eurofit” method. Testing was executed in Latvian Sport medicine center beginning overall preparation period of the season 2015/2016th, end of July. Evaluating the hockey players of team „Riga 2000” of forwards players (first group), defenses players and goalkeepers (second group) overall functional fitness preparedness and average anthropometric parameters indicators according to their age after „Eurofit” criteria we can see that the most part of indicators comply with the assessment – medium and under medium level.*

Keywords: *Aerobic endurance, „Eurofit” method, ice hockey, physical preparation.*

Ievads

Introduction

Visos komandu sporta veidos treniņu process sagatavošanas periodā ir pamats turpmāko sportisko rezultātu sasniegšanā. Katrā sporta veidā šis treniņu process pamatā tiek virzīts uz vispārējās fiziskās sagatavotības paaugstināšanu, taču komandu sporta veidos, atkarībā no sporta veida specifikas, tas ir atšķirīgs (Gabrys et al., 2009). Vienā sporta veidā uzsvars tiek likts uz izturību, citā uz spēka, bet vēl citos sporta veidos uz ātruma īpašībām. Lai hokejā veiksmīgi darboties, gan uzbrukumā, gan aizsardzībā un sekmīgi nospēlēt visu maiņu svarīga loma ir visām fiziskajām īpašībām.

Lai novērtētu audzēkņu funkcionālo sagatavotību ir nepieciešams vismaz 2 reizes gadā veikt obligātos fiziskās sagatavotības testus, kā arī papildus treniņu procesā izmantot dažādus speciālos kontroles testus, lai varētu kontrolēt un individualizēt sportistu vispārējās funkcionālās sagatavotības treniņu procesu atkarībā no sportistu individuālajām īpatnībām (Lāriņš, 2004, Lāriņš et al., 2013). Treniņu procesa individualizācijā nepieciešama slodzes virzība uz katra audzēkņa vai komandas kopējo atpaliekošo spēju un īpašību attīstīšanu, bet, ja audzēkņa attīstībā vai komandas kopējā fiziskās sagatavotības rādītājos netiek konstatētas nepilnības, tad slodzes virzība var vērst uz sporta veida galveno fizisko īpašību attīstīšanu (Панков, 2012).

Pētījuma mērķis ir izvērtēt hokeja komandas „Rīga 2000” uzbrucēju un aizsargu, vārtsargu funkcionālās sagatavotības un antropometrisko parametru rādītājus atbilstoši savam vecumam.

Izvērtējot testēšanas rezultātus būs iespējams konstatēt hokeja komandas „Rīga 2000” uzbrucēju un aizsargu stiprās un vājās puses fiziskajā sagatavošanā, kas turpmāk treneriem dos iespēju novērst to vājās puses.

Materiāli un metodes *Materials and methods*

Fiziskās sagatavotības testēšanu ar “Eurofit” metodi veica hokeja komandas „Rīga 2000” 23 hokejisti (12 – uzbrucēji, 8 – aizsargi un 3 – vārtsargi). Pētījumā tika pielietots konstatējošais eksperiments, kurš tika veikts Valsts Sporta medicīnas centrā. Testēšana tika veikta 2015./2016. gada sezonas sagatavošanas perioda sākumā, jūlija beigās. Visu hokejistu vidējais vecums (pilni gadi) 2015./2016. gada sezonas sagatavošanas perioda sākumā bija 14 – 15 gadi, augums $171,8 \pm 2,4$ cm, un ķermeņa masa $61,7 \pm 3,1$ kg. Lai sasniegtu pētījuma mērķi, tad visi hokejisti tika sadalīti divās grupās: 1. grupa – uzbrucēji ($n=12$) un 2. grupa – aizsargi un vārtsargi ($n=11$).

“Eurofit” metode ir standartizēta fiziskās attīstības, fiziskās sagatavotības un organisma funkcionālo spēju noteikšanas metode bērniem un jauniešiem vecumā no 6 līdz 18 gadiem. “Eurofit” metodi veido antropometrisko rādītāju, motorās gatavības un kardiorespiratoro spēju noteikšanas testu komplekss. Antropometrisko rādītāju noteikšanai iekļāvām auguma garuma, ķermeņa masas un ķermeņa masas indeksa aprēķināšanu (Lāriņš, 2004, Lāriņš et al., 2013, Rozenštoka, 2014).

Motorās gatavības testos tika iekļauti statiskā līdzsvara, lokanības, rokas kustību un spēka īpašību noteikšanas testi. Kardiorespiratoro spēju (aerobās izturības) noteikšanai veicām slodzes testu uz veloergometra (Nabiullin et al., 2008). Tauku daudzumu organismā noteicām ar bioelektriskās impedances analīzi (BIA). Hokejistu testu baterijā tika iekļauti šādi testi:

1. rokas tvēriena maksimālā statistiskā spēka noteikšanas tests – rokas spēka noteikšana ar dinamometru;
2. līdzsvara tests – “Flamingo” līdzsvara tests uz metāla stieņa;
3. roku kustības ātruma noteikšanas tests – uzsitieni uz plāksnes;
4. lokanības tests – sēdēt un aizsniegt;
5. eksplozīvā spēka noteikšanas tests – lēciens tālumā no vietas;
6. vēdera muskulatūras spēka noteikšanas tests – guli un piecelies;
7. roku muskulatūras statistiskās spēka izturības noteikšanas tests – noturies saliektās rokās pie stieņa;
8. fizisko darba spēju noteikšanas tests – PWC₁₇₀, kāpņveida slodzes tests uz veloergometra.

Pēc antropometrisko rādītāju noteikšanas un fizisko testu veikšanas katram hokeja komandas „Rīga 2000” hokejistam Valsts Sporta medicīnas centra speciālisti novērtēja funkcionālās sagatavotības rādītājus un antropometriskos parametrus atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem (zems līmenis, zem vidējā līmeņa, vidējs līmenis, virs vidējā līmeņa, augsts līmenis) (Lāriņš, 2004, Lāriņš et al., 2013, Rozenštoka, 2014). Lai izveidotu Hokeja komandas „Rīga 2000” uzbrucēju un aizsargu, vārtsargu vidējās funkcionālās sagatavotības un antropometrisko parametru profilus apstrādājot iegūtos datus ar matemātisko statistiku katram novērtējuma kritērijam tika piešķirti punkti (zems līmenis – 1 punkts, zem vidējā līmeņa – 2 punkti, vidējs līmenis – 3 punkti, virs vidējā līmeņa – 4 punkti, augsts līmenis – 5 punkti) (Kropļijs & Raščevska, 2010) un aprēķinot vidējos rādītājus tika iegūts vidējais vērtējums skaitļu izteiksmē ar precizitāti viena zīme aiz komata, kuri tika precīzi atspoguļoti profilā (sk. 1. att.).

Pētījumā iegūtie rezultāti tika apstrādāti ar Latvijas Sporta pedagogijas akadēmijas profesora Dravnieka J. izstrādāto MS EXCEL pievienojumprogrammu „STATISTIKA”, un tika izmantoti sekojoši statistiskās analīzes varianti aprakstošā statistika un Stjudenta t – kritērijs saistītajām kopām. Atšķirības ir statistiski ticamas ja $\alpha < 0,05$ (Dravnieks, 2004).

Rezultāti

Results

Pēc “Eurofit” testēšanas rezultātu apstrādes varam redzēt, ka starp hokeja komandas „Rīga 2000” uzbrucējiem un aizsargiem, vārtsargiem 2015./2016. gada sezonas sagatavošanas perioda sākuma vairākos funkcionālās sagatavotības testēšanas vingrinājumos un antropometriskajos parametros ir novērojamas atšķirības (skat. 1., 2. tabula).

Uzbrucēju vidējais augums ir $169,4 \pm 2,8$ cm, kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – zem vidējā līmeņa ar vidējo

vērtējumu 2,5 punkti, bet aizsargu un vārtsargu vidējais augums ir 174,0±3,7 cm, kas atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,7 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu auguma starpība ir 4,6 cm, atšķirība statistiski ir ticama ($\alpha < 0,05$).

1.tab. Hokeja komandas „Rīga 2000” uzbrucēju un aizsargu, vārtsargu funkcionālās sagatavotības rezultāti un antropometriskie parametri 2015./2016. gada sezonas sākumā
 Table 1 Results of functional condition and anthropometry parameters of ice hockey team forwards and defensive, goalkeepers players “Rīga 2000” at beginning of 2015./2016. season

Nr. pk.	Parametrs/Tests	Spēlētāji		Starpība	Atšķirību ticamība
		Uzbrucēji (n=12)	Aizsargi, vārtsargi (n=11)		
1	Auguma garums (cm)	169,4±2,8	174,0±3,7	4,6	ir ticama ($\alpha < 0,05$)
2	Svars (kg)	55,2±2,6	67,5±4,7	12,3	ir ticama ($\alpha < 0,05$)
3	Ķermeņa masas indekss (kg/m^2)	19,2±0,5	22,1±1,1	2,9	ir ticama ($\alpha < 0,05$)
4	Rokas tvēriens (absolūtais statistiskais spēks) (kg)	32,1±1,8	40,0±2,6	7,9	ir ticama ($\alpha < 0,05$)
5	Rokas tvēriens (relatīvais statistiskais spēks) (kg/svars)	58,6±2,7	59,4±1,5	0,8	nav ticama ($\alpha > 0,05$)
6	Flamingo tests (ķermeņa līdzsvars) (reizes)	5,4±1,8	4,6±1,2	0,8	nav ticama ($\alpha > 0,05$)
7	Uzsitieni uz plāksnes (roku kustības ātrums) (sek.)	9,9±0,3	10,0±0,3	0,1	nav ticama ($\alpha > 0,05$)
8	Sēdēt un sniegties (lokanība) (cm)	22,8±1,7	25,4±1,8	2,6	ir ticama ($\alpha < 0,05$)
9	Lēciens tālumā no vietas (eksplozīvais spēks) (cm)	214,6±3,3	210,2±6,1	4,4	nav ticama ($\alpha > 0,05$)
10	Ķermeņa augšdaļas pacelšana (ķermeņa spēks) (reiz./30 sek.)	27,0±0,8	27,7±0,7	0,7	nav ticama ($\alpha > 0,05$)
11	Kāriens ar saliektām rokām (funkcionālais spēks) (sek.)	34,9±4,2	25,7±2,7	9,2	ir ticama ($\alpha < 0,05$)
12	Veloergometrijas tests PWC ₁₇₀ (aerobā izturība) (w/kg)	3,0±0,1	2,9±0,2	0,1	nav ticama ($\alpha > 0,05$)
13	Tauku daudzums (BIA) (%)	9,7±1,2	14,7±2,1	5,0	ir ticama ($\alpha < 0,05$)

Uzbrucēju vidējā ķermeņa masa ir 55,2±2,6 kg, kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – zem vidējā līmeņa ar vidējo vērtējumu 2,5 punkti, bet aizsargu un vārtsargu vidējā ķermeņa masa ir

67,5±4,7 kg, kas atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,7 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu ķermeņa masas starpība ir 12,3 cm, atšķirība statistiski ir ticama ($\alpha < 0,05$).

Uzbrucēju vidējais ķermeņa masas indekss ir 19,2±0,5 kg/m², kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – zem vidējā līmeņa ar vidējo vērtējumu 2,4 punkti, bet aizsargu un vārtsargu ķermeņa masas indekss ir 22,1±1,1 kg/m², kas atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,9 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu ķermeņa masas indeksa starpība ir 12,9 un atšķirība statistiski ir ticama ($\alpha < 0,05$).

Uzbrucēju vidējais tauku daudzums organismā ir 9,7±1,2 %, kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,5 punkti. Aizsargu un vārtsargu vidējais tauku daudzums organismā ir lielāks 14,7±2,1 %, savukārt ņemot vērā, ka dažu indivīdu tauku daudzums ir ļoti zems pēc vidējiem vērtējuma punktiem tas arī atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,4 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu organisma tauku daudzuma starpība ir 5,0 % un atšķirība statistiski ir ticama ($\alpha < 0,05$).

Uzbrucēju rokas tvēriens (absolūtais statistiskais spēks) ir 32,1±1,8 kg, kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – zem vidējā līmeņa ar vidējo vērtējumu 2,4 punkti. Aizsargu un vārtsargu vidējais rokas tvēriens (absolūtais statistiskais spēks) ir 40,0±2,6 kg, kas atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,9 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu rokas tvēriena (absolūtais statistiskais spēks) starpība ir 7,9 kg un atšķirība statistiski ir ticama ($\alpha < 0,05$).



■ Uzbrucēji (n=12) ■ Aizsargi un vārtsargi (n=11)

1.att. Hokeja komandas „Rīga 2000” uzbrucēju un aizsargu, vārtsargu funkcionālās sagatavotības un antropometrisko parametru profils 2015./2016. gada sezonas sākumā
 Fig. 1 Profile of functional condition and anthropometry parameters of ice hockey team forwards and defensive, goalkeepers players “Riga 2000” at beginning of 2015./2016. Season

Savukārt uzbrucēju rokas tvēriens (relatīvais statistiskais spēks) ir 58,6±2,7 kg/svars, kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst

vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,3 punkti, bet aizsargu un vārtsargu rokas tvēriens (relatīvais statistiskais spēks) ir $59,4 \pm 1,5$ kg/svars, kas arī atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,2 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu rokas tvēriena (relatīvais statistiskais spēks) starpība ir tikai 0,8 kg un atšķirība statistiski nav ticama ($\alpha > 0,05$).

Uzbrucēju “Flamingo” līdzsvara testā vidējais rezultāts ir $5,4 \pm 1,8$ reizes, kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,8 punkti, bet aizsargu un vārtsargu “Flamingo” līdzsvara testā rezultāts ir $4,6 \pm 1,2$ reizes, kas atbilst vērtējumam – virs vidējā līmeņa ar vidējo vērtējumu 4,0 punkti (skat. 1. attēls). Starpība starp uzbrucējiem un aizsargiem, vārtsargiem “Flamingo” līdzsvara testā ir tikai 0,8 reizes un atšķirība statistiski nav ticama ($\alpha > 0,05$).

Uzbrucēju vidējais rezultāts roku kustības ātruma testā “Uzsitieni uz plāksnes” ir $9,9 \pm 0,3$ sek., kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – virs vidējā līmeņa ar vidējo vērtējumu 4,0 punkti, bet aizsargu un vārtsargu rezultāts ir $10,0 \pm 0,3$ sek., kas atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,9 punkti (skat. 1. attēls). Starpība starp uzbrucējiem un aizsargiem, vārtsargiem roku kustības ātruma testā “Uzsitieni uz plāksnes” ir tikai 0,1 sek. un atšķirība statistiski nav ticama ($\alpha > 0,05$).

Uzbrucēju vidējais rezultāts lokanības testā “Sēdēt un sniegties” ir $22,8 \pm 1,7$ cm, kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – virs vidējā līmeņa ar vidējo vērtējumu 4,0 punkti, bet aizsargu un vārtsargu rezultāts ir $25,4 \pm 1,8$ cm, kas arī atbilst vērtējumam – virs vidējā līmeņa ar vidējo vērtējumu 4,4 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu rezultāta starpība lokanības testā “Sēdēt un sniegties” ir 2,6 cm un atšķirība statistiski ir ticama ($\alpha < 0,05$).

Uzbrucēju vidējais rezultāts tāllēkšanā no vietas ir $214,6 \pm 3,3$ cm, kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,6 punkti, bet aizsargu un vārtsargu rezultāts ir $210,2 \pm 6,1$ cm, kas arī atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,4 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu rezultāta starpība tāllēkšanā no vietas ir 4,4 cm un atšķirība statistiski nav ticama ($\alpha > 0,05$).

Uzbrucēju vidējais rezultāts ķermeņa augšdaļas pacelšanā ir $27,0 \pm 0,8$ reiz./30 sek., kas atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,6 punkti, bet aizsargu un vārtsargu rezultāts ir $27,7 \pm 0,7$ reiz./30 sek., kas arī atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,8 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu rezultāta starpība ķermeņa augšdaļas pacelšanā ir 0,7 reiz./30 sek. un atšķirība statistiski nav ticama ($\alpha > 0,05$).

Uzbrucēju vidējais rezultāts kārienā ar saliektām rokām ir $34,9 \pm 4,2$ sek., kas atbilstoši savam vecumam pēc "Eurofit" testa kritērijiem atbilst vērtējumam – virs vidējā līmeņa ar vidējo vērtējumu 4,1 punkts, bet aizsargu un vārtsargu rezultāts ir $25,7 \pm 2,7$ sek., kas atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,2 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu rezultāta starpība kārienā ar saliektām rokām ir 9,2 sek. un atšķirība statistiski ir ticama ($\alpha < 0,05$).

Uzbrucēju vidējais rezultāts veloergometrijas testā PWC₁₇₀ ir $3,0 \pm 0,1$ w/kg, kas atbilstoši savam vecumam pēc "Eurofit" testa kritērijiem atbilst virs vidējā līmeņa ar vidējo vērtējumu 4,5 punkti, bet aizsargu un vārtsargu rezultāts ir $2,9 \pm 0,2$ w/kg, kas arī atbilst vērtējumam – vidējs līmenis ar vidējo vērtējumu 3,8 punkti (skat. 1. attēls). Uzbrucēju un aizsargu, vārtsargu rezultāta starpība ķermeņa augšdaļas pacelšanā ir 0,1 w/kg, un atšķirība statistiski nav ticama ($\alpha > 0,05$).

Analizējot un izvērtējot hokeja komandas „Rīga 2000” uzbrucēju un aizsargu, vārtsargu vidējos funkcionālās sagatavotības rādītājus kopumā varam teikt, ka uzbrucēji un aizsargi, vārtsargi ir līdzīgajā fiziskajā formā. Savukārt izvērtējot vidējās funkcionālās sagatavotības rādītājus atbilstoši savam vecumam pēc "Eurofit" testa kritērijiem lielākā daļa rādītāju atbilst vērtējumam – vidējs līmenis. Tas nozīmē to, ka treneriem joprojām jāpievērš uzmanība vispārējai fiziskajai sagatavošanai un pastiprināti jāattīsta tās fiziskās īpašības, kas ir ar vērtējumu vidējs līmenis, kurām ir 3,5 punkti un mazāk (skat. 1. attēls). Pēc sensitīvo periodu tabulas fizisko īpašību attīstīšanai 14 – 15 gadu vecumā (Jansone & Fernāte, 2009) tieši pastiprināta uzmanība ir jāpievērš spēka un eksplozīvā spēka attīstīšanai.

Analizējot un izvērtējot hokeja komandas „Rīga 2000” uzbrucēju un aizsargu, vārtsargu vidējos antropometriskos parametrus (augums, ķermeņa masa, ķermeņa masas indekss un tauku daudzumu organismā) kopumā varam teikt, ka uzbrucēji ir mazāka auguma, vieglāki svarā ar ķermeņa masas indeksu zem normas un izvērtējot šos rādītājus atbilstoši savam vecumam pēc "Eurofit" testa kritērijiem uzbrucēju rādītāji atbilst vērtējumam – zem vidējā līmeņa. Tas nozīmē to, ka treneriem pastiprināti jāizglīto savi audzēkņi par pareizu uzturu sportistiem. Ja sportisti ievēros pareizu uzturu, tad viņu svars, ķermeņa masas indekss un tauku procentuālais daudzums organismā palielināsies, kas papildus veicinās audzēkņu pilnvērtīgu atjaunošanās procesu un fiziskās sagatavotības paaugstināšanu (Boreham et al., 2004).

Secinājumi **Conclusions**

Pēc iegūtajiem testēšanas vidējiem rezultātiem un izvērtējot tos atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem uzbrucēju vājās puses fiziskajā sagatavotībā ir maksimālā spēka rādītājos (rokas tvēriena absolūtais un relatīvais statiskais spēks), eksplozīvā spēka rādītājos (tāllēkšana no vietas) un spēka izturībā (vēdera muskulatūras testā). Savukārt uzbrucēju stiprās puses fiziskajā sagatavotībā ir roku muskulatūras statiskajā spēka izturībā un kustības ātrumā, līdzsvara izjūtā, lokanībā un aerobajās darbspējās attiecībā pret savu ķermeņa masu.

Komandas aizsargu un vārtsargu vājās puses fiziskajā sagatavotībā arī ir maksimālā spēka rādītājos (rokas tvēriena relatīvais statiskais spēks), eksplozīvā spēka rādītājos (tāllēkšana no vietas) un spēka izturībā (muskulatūras statiskajā spēka izturībā). Savukārt aizsargu un vārtsargu stiprās puses fiziskajā sagatavotībā ir vēdera muskulatūras spēka izturībā, roku kustības ātrumā, līdzsvara izjūtā, lokanībā un aerobajās darbspējās attiecībā pret savu ķermeņa masu.

Pēc antropometrijas mērījumu vidējiem rezultātiem izvērtējot tos atbilstoši savam vecumam pēc “Eurofit” testa kritērijiem gan uzbrucējiem, gan aizsargiem un vārtsargiem vājās puses ir visos antropometrijas (augums, ķermeņa masa, ķermeņa masas indekss un tauku daudzumu organismā).

Pētījuma laikā izveidotais hokeja komandas „Rīga 2000” uzbrucēju un aizsargu, vārtsargu funkcionālās sagatavotības un antropometrisko parametru profils ļauj konstatēt sagatavotības nepilnības un priekšrocības. Dod iespēju katram audzēknim, atkarībā no individuālās funkcionālās sagatavotības attīstīt viņa vājās puses, tādējādi paaugstinot fiziskās sagatavotības treniņa procesa efektivitāti, kas kopumā veicinās komandas spēles kvalitātes izaugsmi.

Summary

Training process of many kinds of sport in general preparation period is base for future sporting results. In each kind of sport, the training process is based on increasement of overall physical condition, but depending of the specific kind of sport, training process can be different. In one kind of sport the main focus is to increase endurance, but in other kinds of sports main focus are on strenght or speed abilities. To assess the functional preparedness of their athletes need at least 2 times a year to carry out the mandatory physical fitness tests, as well as additional training to use a variety of special control tests in order to be able to control and individualize athletes overall functional fitness preparedness process, depending on the athletes individual characteristics. For the individualization of the training process it is necessary to direct the workload toward developing each athlete's or team inadequate abilities and characteristics, but in the case in athlete's or team development are not identified any shortcomings, the workload should be directed toward the development of main physical

characteristics of the kind of sport. The Aim of the Study is assessment the hockey players of team „Riga 2000” overall functional fitness preparedness and anthropometric parameters indicators according to their age. In study voluntarily participated 23 ice hockey players: 12 of them were forwards – players (first group), 8 of them were defenses – players and 3 of them were – goalkeepers (second group). For physical fitness testing of ice hockey team „Riga 2000” we used „Eurofit” method. To determine aerobic work capacity, hockey players executed complex load test on the veloergometr – PWC₁₇₀ (Physical Working Capacity). Testing was executed in Latvian Sport medicine center beginning overall preparation period of the season 2015/2016th, end of July. Evaluating the ice hockey players of team „Riga 2000” overall functional fitness preparedness between forwards players (first group) and defenses players and goalkeepers (second group) in general we can see that the 2015/2016th season preparation at the beginning they were differences and averages results of forwards players was: hand grip (absolute maximal statics strenght) – 32,1±1,8 kg; hand grip (relative maximal statics strenght) – 58,6±2,7 kg/weight; flamingo balance test – 5,4±1,8 times; plate tapping test – 9,9±0,3 sec.; sit and reach test – 22,8±1,7 cm; standing board jump test – 214,6±3,3 cm; sit – ups test – 27,0±0,8 repeats/30 sec.; bent arm hang test 34,9±4,2 sec.; physical working capacity test PWC₁₇₀ – 3,0±0,1 w/kg. Averages results of defenses players and goalkeepers was: hand grip (absolute maximal statics strenght) – 40,0±2,6 kg; hand grip (relative maximal statics strenght) – 59,4±1,5 kg/weight; flamingo balance test – 4,6±1,2 times; plate tapping test – 10,0±0,3 sec.; sit and reach test – 25,4±1,8 cm; standing board jump test – 210,2±6,1 cm; sit – ups test – 27,7±0,7 repeats/30 sec.; bent arm hang test 25,7±2,7 sec.; physical porking capacity test PWC₁₇₀ – 2,9±0,2 w/kg. Evaluating the hockey players of team „Riga 2000” of forwards players (first group), defenses players and goalkeepers (second group) overall functional fitness preparedness indicators according to their age after „Eurofit” criteria we can see that the most part of indicators comply with the assessment – medium level. Evaluating the ice hockey players of team „Riga 2000” anthropometric parameters indicators between forwards players (first group) and defenses players and goalkeepers (second group) in general we can see that the 2015/2016th season at the beginning of overall preparation period averages anthropometric parameters of forwards players (first group) was: height – 169,4±2,8 cm, body weight – 55,2±2,6 kg, body weight index – 19,2±0,5 kg/m², fat in the body 9,7±1,2 %. Averages anthropometric parameters of defenses players and goalkeepers (second group) was: height – 174,0±3,7 cm, body weight – 67,5±4,7 kg, body weight index – 22,1±1,1 kg/m², fat in the body 14,7±2,1 %. Evaluating the ice hockey players of team „Riga 2000” of forwards players (first group), defenses players and goalkeepers (second group) average anthropometric parameters indicators according to their age after „Eurofit” criteria we can see that the most part of indicators comply with the assessment – under medium level. Coaches of hockey team „Rīga 2000” should pay attention to the general physical preparation and increasingly develop physical abilities, which is the average level of assessment, which is 3.5 points and less. Training process in addition to educate their athletes about proper nutrition for sports. If the athletes will follow a proper diet, their body weight, body mass index and percentage of fat in the body increase, which further facilitates the athletes in full recreation process and physical training increases.

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ВОПРОСЫ ЗДОРОВЬЕСБЕРЕЖЕНИЯ В ОБРАЗОВАНИИ ВЗРОСЛЫХ

Questions Health Saving in Adult Education

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Abstract. *The article actualizes the problem of decreasing of the physical activity of a modern man, describes the results of the research of the adult population with application of the International questionnaire for assessing physical activity (IPAQ). Based on the analysis of the obtained results a model of the education of adults to healthcare issues. Possible ways of socialization and recreation of the adult population through the implementation of educational programs are discussed.*

Keywords: *continuing education, education of adults, healthcare, physical activity.*

Введение

Introduction

Идея здоровьесбережения населения за последние годы приобрела особую актуальность, поскольку во всём мире отмечается тревожная тенденция гиподинамии, связанная прежде всего со снижением двигательной активности современного человека. Научно-технический прогресс существенно изменил образ жизни людей: доля физического труда взрослого населения существенно снизилась по сравнению в прошлым веком, тотальная автомобилизация привела к существенному снижению двигательной активности как мужчин, так и женщин. Питание современного человека характеризуется обилием жиров и сахара, что ведет к повышению общей калорийности ежедневных приёмов пищи, при этом энергозатраты, ограниченные низкой двигательной активностью, ведут к избытку веса, что, в свою очередь, является причиной целого ряда заболеваний. В связи с этим определение оптимального режима движения для лиц зрелого возраста и внедрение его в образовательные практики взрослых людей относится к ряду особо актуальных научных проблем, в том числе в сфере здоровьесберегающего образования.

Целью исследования является проведение исследования физической активности взрослого населения России и Латвии с применением Международного опросника по оценке физической активности IPAQ (Biernat & Stupnicki, 2007) и разработка на основании его результатов образовательной программы для взрослого населения по здоровьесбережению.

Теоретическое обоснование проблемы *The theoretical rationale the problem*

Двигательная активность является базовым компонентом деятельности человека и она должна быть высокой для того, чтобы формировать высокий уровень здоровья. Всемирной организацией здравоохранения (ВОЗ) были рекомендованы коэффициенты физической активности для взрослых лиц в зависимости от классификации их профессиональной деятельности. Так, для взрослого человека уровень физической активности считается недостаточным, если он составляет ниже 150 минут умеренной или 75 минут интенсивной аэробной нагрузки в неделю или же их эквивалентного сочетания. (World Health Organization, 2013). В бюллетене ВОЗ отмечается, что низкие показатели физической активности в мире свидетельствуют о неэффективности мер, принимаемых для её пропаганды, а общество недооценивает важность активного образа жизни.

Интересной представляется дифференциация мотивов активного досуга, выявленная Ивоной Качмарек (Kaczmarek, 2006). Она отмечает, что возрастную категорию 25 – 35 лет привлекает популяризация здорового образа жизни и польза двигательной активности. Стремление к внешнему совершенству фигуры, красоте движений, активному жизненному стилю для этой возрастной группы часто имеет прямую связь с современным течением моды, возможностью самоутверждения в обществе, успешной карьерой. Эта категория населения широко использует туризм, проявляет активную деятельность в области путешествий. В качестве рекреации часто выступают лыжные курорты, горные путешествия, гребля и парусный спорт. Женщины обычно занимаются фитнесом, аквааэробикой, посещением аквапарков.

Женщины в возрасте 36-55 лет в качестве основных выдвигают оздоровительные мотивы (35 %), а мужчины развлекательные (36 %). Большинство женщин этого возраста связывают улучшение состояния здоровья с профилактикой заболеваний и снижением избыточного веса, устранением недостатков фигуры, снятием нервно-психического напряжения. Для мужчин большое значение имеет организация свободного

времени, снятие эмоциональных перегрузок после рабочего дня, желание заняться хобби.

Для людей более старшего возраста огромное значение имеет активный отдых вместе с семьей. В качестве основных мотивов выдвигаются мотивы оздоровительные. Причем, у женщин старшего возраста стремление улучшить свое здоровье и профилактика заболеваний стоят на первом месте (35 %). У мужчин на первый план выдвигаются развлекательные мотивы с целью проведения свободного времени, желание общения с новыми людьми, расширение познания и кругозора.

Проанализированные данные свидетельствуют, с одной стороны, о наличии интереса взрослого населения к физической активности, а с другой, об отсутствии продуктивного опыта её реализации.

Продуктивной представляется идея Ю.П. Кобякова (Kobyakov, 2003) о значимости социальной функции в жизни человека и её вкладе в ежедневные энергозатраты. Действительно, затраты времени на учебную, а в дальнейшем и производственную деятельность происходят за счет сокращения свободного времени, порождая тем самым проблему в том числе и активного досуга. Невозможность в этих условиях полной реализации естественной потребности человека в движениях может компенсироваться ежедневными обязательными занятиями физической культурой у учащихся и самостоятельными занятиями у взрослого населения.

Материалы и методы исследования *Materials and methods*

Нами в 2014-2015 годах проведен опрос 520 взрослых граждан Российской Федерации и 506 взрослых граждан Латвии с использованием Международного опросника по оценке физической активности (IPAQ). Возраст респондентов составил 25 – 70 лет, соотношение лиц мужского и женского пола примерно равное, среди опрошенных были представители как профессий, связанных с физической активностью, так и люди, в силу своей профессиональной деятельности ведущие преимущественно сидячий образ жизни. Результаты исследования представлены в таблице 1.

Полученные результаты свидетельствуют о том, что физическая активность взрослого населения обеих стран может быть оценена как недостаточная. Так, порядка трети респондентов (34 % опрошенных россиян и 31 % латышей) набрали количество баллов, указывающие на наличие у них гиподинамии. Оптимальная физическая активность отмечена лишь у четверти респондентов.

Таблица 1. Оценка физической активности взрослых граждан России и Латвии (% опрошенных)

Table 1 Evaluation of physical activity in Russia and Latvia adult citizens (% of respondents)

Уровень физической активности	Российская Федерация	Латвия
Гиподинамия	34	31
Низкая физическая активность	21	24
Оптимальная физическая активность	25	27
Высокая физическая активность	20	18

Подавляющее большинство опрошенных (78 % граждан России и 71 % граждан Латвии) не имеют интенсивной физической нагрузки за исключением случаев, связанных с их профессиональной деятельностью. Неинтенсивную физическую нагрузку имеют 60 % россиян и 56 % латышей, при этом её продолжительность в течение дня у латышей несколько выше (в среднем 58 минут в день по сравнению с 49 минутами у респондентов из России). Ежедневно ходят пешком фактически все опрошенные, но продолжительность этой ходьбы в среднем менее 40 минут. Следует отметить, что статистических значимых различий между выборками двух стран не выявлено.

Для уточнения полученных результатов нами дополнительно были выявлены мотивы занятия физической культурой среди представителей той же выборки (респонденты могли назвать несколько мотивов), результаты опроса представлены в таблице 2.

Таблица 2. Мотивы занятия физической культурой взрослых граждан России и Латвии (% опрошенных)

Table 2 Motives for physical training of adult citizens of Russia and Latvia (% of respondents)

Мотив	Российская Федерация	Латвия
Досуг	32	36
Укрепление здоровья	71	72
Удовольствие	28	35
Другое	18	14

Изучение мотивации показало, что лишь 32 % опрошенных в России и 36 % респондентов из Латвии используют физическую активность для проведения досуга. Несмотря на такой, казалось бы немалый процент, большинство из них посвящают движению всего лишь 1-2 дня в неделю. При этом преимущественным видом активности среди россиян называется

ходьба (прогулки), для жителей Латвии этот перечень более разнообразен и включает помимо ходьбы езду на велосипеде, бег и плавание.

При этом мы не констатируем низкое качество двигательной активности россиян, а лишь говорим о большем её разнообразии у жителей Латвии. Роль ходьбы, как наиболее доступного и простого способа физической активности оценена в недавно выполненных системных метаанализах (Boone-Heinonen, 2008; Oguma, 2004; Zheng, 2009), в то время как однозначной оценки езде на велосипеде в подобных анализах не даётся.

Нами также выявлено, что порядка 70 % взрослых лиц обоего пола в обеих странах отмечают важность двигательной активности для укрепления здоровья, хорошего самочувствия, долголетия. Среди лиц пожилого возраста часто отмечается гедонистический эффект движения - получение телесного удовольствия (тонус, возбуждение, улучшение эмоционального состояния и др.).

Также мы опросили представителей той же выборки о причинах низкой физической активности взрослого населения (респонденты могли назвать несколько причин), результаты опроса представлены в таблице 3.

Таблица 3. Причины низкой физической активности взрослых граждан России и Латвии (% опрошенных)

Table 3 Reasons for low physical activity of adult citizens of Russia and Latvia (% of respondents)

Причина	Российская Федерация	Латвия
Отсутствие свободного времени	47	40
Отсутствие приемлемых условий	31	18
Лень	47	52
Низкая переносимость физических нагрузок	25	18
Отсутствие интереса	10	14

Как видно из таблицы 3, причинам низкой физкультурно-оздоровительной активности опрошенные относят отсутствие свободного времени (47 % россиян и 40 % латышей) и отсутствие приемлемых условий (удаленность парковых зон, отсутствие велосипедных дорожек и т.п.) – здесь неудовлетворенность российских респондентов существенно выше: 31 % по сравнению с 18 % в латвийской выборке. К внутренним причинам низкой двигательной активности респонденты относят лень (47 % и 52 %), плохое состояние здоровья и (или) низкую переносимость физических нагрузок (25 % и 18 %), отсутствие интереса к данному виду досуга (10 % и 14 %).

Полученные нами данные фактически совпадают с результатами исследования проведенного более 10 лет назад О.С. Шустером (Schuster, 2003). Так, по его данным, в исследовании причин, препятствующих занятиям физической культурой и спортом, на первое место вышли отсутствие свободного времени, занятость на работе, домашние обязанности (41 %), затем следовали такие причины как: отсутствие подходящих условий для занятий желаемым видом спорта, удаленность спортивных центров от дома, отсутствие хороших тренеров (18 %), на третьей позиции оказались лень и отсутствие силы воли (13 %).

Предложения по решению проблемы *Proposals for solving the problem*

По результатам проведенного исследования нами была разработана программа дополнительного образования для взрослого населения по вопросам здоровьесбережения и оптимизации физической нагрузки. В основу проектирования программы положена стратегическая концепция социализации взрослых средствами образования, сформулированная И.Ю. Тархановой (Tarkhanova, 2015). Согласно данной концепции одним из основных принципов образования взрослых является принцип социальной адекватности образовательного процесса, требующий соответствия содержания и средств создания социальной ситуации, в которой организуется данный процесс. Задачи образования при этом должны быть ориентированы на реальные социально-экономические условия и предполагают формирование у взрослых обучающихся прогностической готовности к реализации разнообразных социальных, профессиональных и жизненных задач, в том числе задач здоровьесбережения.

Программа направлена на ценностно-смысловое личностное самосовершенствование взрослого человека (трансформация старых и порождение новых, более высоких профессионально-личностных смыслов, смысловых ориентаций), что обеспечивает потенциал постоянного развития и самообновления смысловой сферы личности на основе её способности к смыслотворчеству. Так, отмечая всеобщий рост экзистенциального вакуума, чувства бесцельности и пустоты, В. Франкл (Frankl, 1946) подчеркивает, что основная задача современного образования состоит не в том, чтобы довольствоваться передачей традиций и знаний, а в том, чтобы совершенствовать способность, которая дает человеку возможность самому находить уникальные смыслы.

Предлагаемая программа носит модульный характер, её содержание и структура построены на основе выводов, сделанных по результатам проведенного нами исследования. Так, в качестве первого модуля

программы используется диагностический блок, в котором обучающиеся имеют возможность оценить свой наличный уровень двигательной активности, определить наиболее предпочтительные мотивы активизации своего образа жизни, выявить препятствующие этому барьеры. Далее следует психологический модуль программы, в него включены тренинги по формированию ценности двигательной активности и мотивационное консультирование. Следующий модуль информационный, в ходе его освоения обучающиеся знакомятся с теоретическими вопросами проектирования оптимального для себя режима физической активности, формируют представления о её видах и физиологических эффектах, изучают основы здорового питания. В данный модуль включены также вопросы профилактики сердечно-сосудистых заболеваний. Основное время освоения программы отведено практическому модулю на котором отрабатываются навыки грамотного движения, обучающиеся осваивают приёмы скандинавской ходьбы, бега трусцой, езды на велосипеде, совместно с преподавателем разрабатывают комплексы упражнений для утренней гимнастики, изучают приемы снятия мышечного напряжения, вызванного сидячей работой.

Опыт реализации образовательных программ для взрослого населения показал, что сам процесс обучения активизирует человека, так как энергозатраты на умственную деятельность нельзя не учитывать. Мы согласны с мнением В.Г. Зилова (Zilov, 1998) о том, что современные представления об информационном гомеостазе в большей мере носят гипотетический характер, хотя важность информации, поступающей в центральную нервную систему от многочисленных рецепторов, о состоянии «вещественных» констант, ее кодирование и срочная информация о работе исполнительных органов и регуляторных механизмов не вызывает сомнений. В условиях повседневной действительности все три процесса – обмена веществ, энергии и информации находятся в непрерывном и тесном взаимодействии друг с другом, проявляясь в каждый момент времени одной из своих граней.

Summary

The study revealed a low level of physical activity of the adult population of Russia and Latvia. The main reasons respondents referred to the lack of free time and a reluctance to make efforts.

Increased physical activity of adults contributes to their viability, so the problem of reduced physical activity of modern adult must be addressed, including through the introduction of educational practices, including in the field of health-education.

School health education of middle and senior citizens should be focused on the real socio-economic conditions and to assume the formation of students' readiness for the implementation of health saving tasks like life tasks. The main content of these programs should be given a working off of skills literacy movement and the development of techniques increase motor activity.

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SIEVIEŠU MOTIVĀCIJA NODARBOTIES AR NŪJOŠANU

Women`s Motivation to Engage with the Nordic Walking

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Abstract. *Physical activity beneficial effects on human health in various aspects are proved by many research. In woman's health status maintenance and strengthening the important role has physical activities. People engage with physical activities encourages a number of factors. Nordic walking as a physical activity has many benefits that would motivate women of different ages to engage with the Nordic walking. The research group was formed of 100 women between the ages of 25 - 82 years. According to the World Health Organisation female age division (20), was created the following age groups (women from 25 to 44 years, 32 participants, women from 45 to 59 years, 35 participants, women from 60 to 82 years, 33 participants). Respondents attitude measurement was used Likert scale (Likert Scale, 2007) with 15 allegations. The obtained results show that the motivating factors as location outdoors in the fresh air, the joy of physical activity and health improvement is important for women of any age to engage with the Nordic walking. There are more differences between the participants of the age groups view about the factors as a stress reduction, pleasant instructor presence, society attitude, socialization process. For the younger women more important motivating factor is a stress reduction, middle-aged women, the weight adjustment, and older women, the opportunity to socialize or meet other people, compared with the other age groups. Literature data and the results of research allow to recommend Nordic walking for women regardless of age.*

Keywords: *age, Nordic walking, motivation, women.*

Ievads

Introduction

Hipodinamija paaugstina veselības problēmu risku, ko pierāda arī vairāki pētījumi. Apjomīgā pētījumā par Eiropas iedzīvotāju nāves gadījumu saistību ar nepietiekamas fiziskās aktivitātes izraisītajām sekām, pētnieki apgalvo, ka vairāk kā pusmiljons nāves gadījumu gada laikā izskaidrojami ar mazkustīga dzīvesveida sekām (liekais svars, sirds un asinsvadu saslimšanas u.c.) (Ekelend et al., 2015). Fiziskās aktivitātes cilvēkiem jebkurā vecumā ir ļoti nozīmīgas veselības saglabāšanā un uzturēšanā. Lielbritānijas Onkoloģisko saslimšanu

pētījuma centra statistika norāda, ka nepietiekama fiziskā aktivitāte var palielināt risku saslimt, piemēram, ar krūts vēzi (Statistics on Preventable Cancers, 2014). Latvijas iedzīvotāju fiziskās aktivitātes veicināšana ir viens no svarīgākajiem primārās slimību profilakses uzdevumiem un ir būtiska hronisko slimību ārstēšanas sastāvdaļa. Tādēļ veselības aprūpē strādājošajiem būtu pēc iespējas vairāk sabiedrībā jāpopularizē ieguvumi no fiziskajām aktivitātēm (Priedīte et al., 2014).

Sievietes veselības stāvokļa saglabāšana un nostiprināšana jebkurā vecumā ir viens no mūsdienu svarīgākajiem jautājumiem (Kažoka, 2014). Diemžēl Pasaules Veselības organizācijas dati vēsta, ka 34 % pasaules sieviešu ir nepietiekami fiziski aktīvas, bet Amerikā 50 % sieviešu nav pietiekami fiziski aktīvas (PVO, 2014). Eiropā ar fiziskām aktivitātēm nenodarbojas 47 % sieviešu (European Commission, 2014), Latvijā 48 % sieviešu (Iedzīvotāju sportošanas paradumi, 2013).

Nūjošana ir fizisko aktivitāšu veids, kas piemērojams jebkurai fiziskai sagatavotībai un sniedz pozitīvu efektu veselības saglabāšanai un dzīves kvalitātes uzlabošanai (Niebauer et al., 2013). Dažādos literatūras avotos ir dažādi dati par nūjošanas ietekmi uz veselību. Nūjošana efektīvi mazina hipertensiju (Knowles et al.; 2012 Latosik et al., 2014). Nūjošana var būtiski ietekmēt ķermeņa kompozīciju, ķermeņa masas indeksu, muskuļu spēka pieaugumu, kā arī holesterīna līmeni (Song et al., 2012; Latosik et al., 2014), stabilizē centrālo nervu sistēmu, radot psiholoģisko labsajūtu, palīdzot atbrīvoties no stresa, nemiera un depresijas (Baltā, 2009; Kundziņa, 2015; Suija et al., 2009).

Nūjošana pasaulē kļūst arvien populārāka – pēc Starptautiskās nūjošanas asociācijas (INWA) datiem, pasaulē ar nūjošanu nodarbojas ap 10 miljoniem cilvēku, savukārt, piemēram, Somijā ar nūjošanu nodarbojas 26 % sieviešu (INWA, 2010).

Veiktais pētījums par sieviešu motivāciju nodarboties ar nūjošanu dažādos vecuma periodos, atklāj un aktualizē viņu motivāciju nodarboties ar nūjošanu, kā arī viņu viedokli par šīs fiziskās aktivitātes lietderību un priekšrocībām.

Darba mērķis ir izpētīt dažāda vecuma Rīgas sieviešu motivāciju nodarboties ar nūjošanu.

Materiāli un metodes *Materials and Methods*

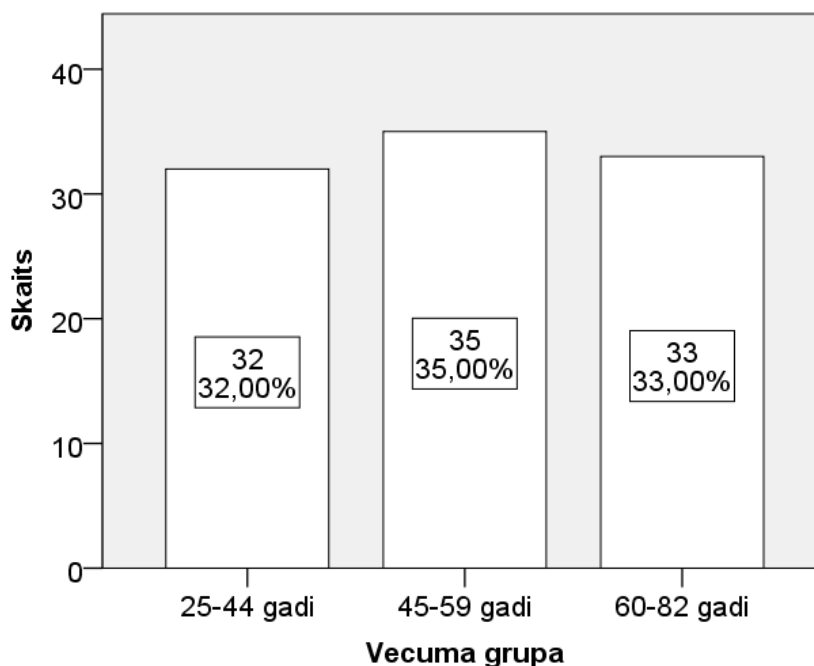
Pētījuma grupu veidoja 100 sievietes vecumā no 25 - 82 gadiem. Balstoties uz Pasaules Veselības organizācijas sieviešu vecuma iedalījumu (PVO, 2013), izvēlējās izveidot šādas vecuma grupas (sievietes no 25 līdz 44 gadiem, 1. grupa, 32 dalībnieces, sievietes no 45 līdz 59 gadiem, 2. grupa,

35 dalībnieces, sievietes no 60 līdz 82 gadiem, 3. grupa 33 dalībnieces). Respondentu attieksmes mērījumam tika izmantota Likerta skala (Likert Scale, 2007) ar 15 apgalvojumiem. Pētījuma dalībniece var paust savu attieksmi, atzīmējot „pilnībā piekrītu”, „piekrītu”, „ne piekrītu, ne nepiekrītu”, „nepiekrītu” un „pilnībā nepiekrītu”. Likerta skalā minētie motivējošie faktori veidoti, pamatojoties uz literatūras avotos minētajiem pētījumiem par nūjošanas ietekmi uz dažādiem aspektiem: veselība, emocionālā labsajūta, fizisko spēju uzlabošana, kā arī motivāciju veicinošie vai kavējošie iekšējie un ārējie faktori (Kaupužs, 2012), (Song et al., 2012), (Takeshima et al., 2013.), (Chen & Li, 2014), (Molanorouzi et al., 2015). Ieslēgšanas kritēriji: sievietes, kas sasniegušas vismaz 18 gadu vecumu, prot lasīt un rakstīt latviešu valodā, nodarbojas ar nūjošanu Rīgā un piekritušas dalībai pētījumā. Izslēgšanas kritēriji: nav sasniegušas vismaz 18 gadu vecumu, neprot lasīt un rakstīt latviešu valodā, nenodarbojas ar nūjošanu, nepiekrīt dalībai pētījumā. Tika izmantota aprakstošā statistika un secinošā statistika.

Rezultāti

Results

Pētījuma grupu veidoja 100 sievietes, kuras tika sadalītas 3 vecuma grupās. Pētījumā piedalījās 100 respondenti, to minālais vecums 25, bet maksimālais 82 gadi, vidējais vecums (M=51,91; SD=13,66 gadi).

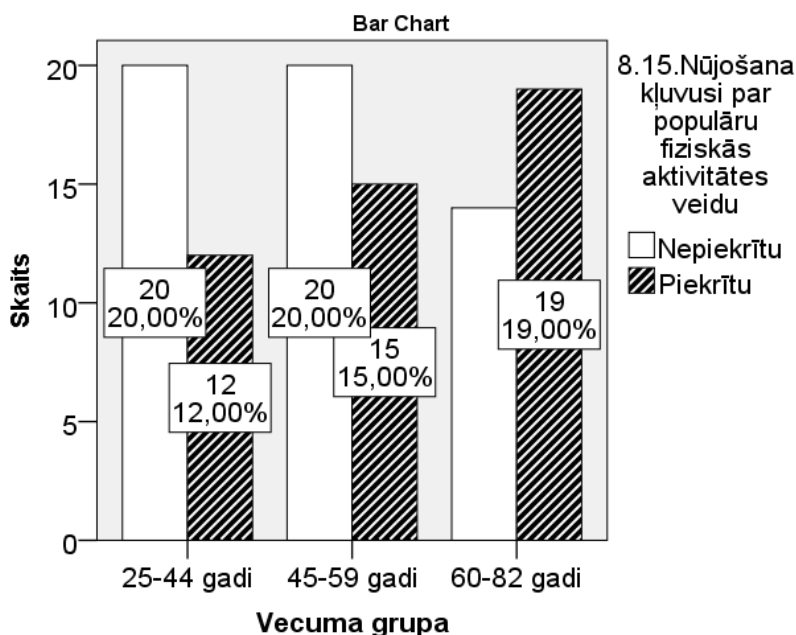


1.att. Pētījuma dalībnieču procentuālais sadalījums pa vecuma grupām
 Fig. 1 The percentage breakdown of research participants by the age groups

Motivējošie faktori kā atrašanās ārpus telpām svaigā gaisā, prieks no fiziskās aktivitātes un veselības uzlabošana ir svarīgi jebkura vecuma sievietei, lai nodarbotos ar nūjošanu un tiek sniegtas piekrītošas atbildes (sk. 1. tab.).

Pētījuma rezultāti liecina, ka pastāv lielākas atšķirības starp vecuma grupu dalībnieču viedokļiem par tādiem faktoriem kā stresa mazināšana, patīkama instruktora klātesamība, sabiedrības attieksme, socializēšanās process. Procentuāli, dažādu motivējošo faktoru vērtējums pa vecuma grupām (sk. 1. tab.). Jaunākām sievietēm svarīgāks motivējošais faktors ir stresa mazināšana, vidēja vecuma sievietēm svara koriģēšana un vecāka gadagājuma sievietēm socializēšanās jeb iespēja satikt citus cilvēkus, salīdzinot ar pārējām vecuma grupām.

Netika konstatēta statistiski ticama asociācija starp vecuma grupu un respondentu pārliecību par to, ka nūjošana ir kļuvusi par populāru fiziskās aktivitātes veidu (Hī2 tests; $p > 0,05$), tomēr var novērot, ka 60-82 gadu vecuma grupā, pārliecība, ka nūjošana ir populāra, ir lielāka nekā jaunākās vecuma grupās.

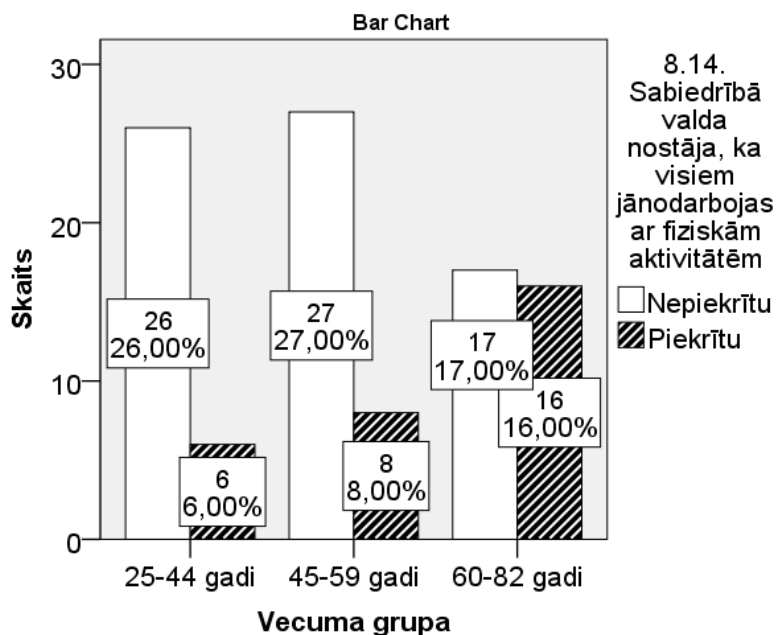


2.att. Respondentu atbilžu salīdzinājums pa vecuma grupām jautājumā par nūjošanu kā populāru fiziskās aktivitātes veidu

Fig. 2 Respondents answers comparison by the age groups about the question of the Nordic walking as a popular type of physical activity

Tika konstatēta statistiski ticama asociācija starp vecuma grupu un respondentu nostāju, ka sabiedrībā valda pārliecība, ka visiem jānodarbojas ar fiziskām aktivitātēm (Hī2 tests; $p > 0,05$)

Rakstā piedāvājam tabulu par visiem motivējošiem faktoriem, nodarboties ar nūjošanu un dažādām vecuma sievietēm.



3.att. Respondentu atbilžu salīdzinājums pa vecuma grupām jautājumā par sabiedrības nostāju, ka visiem jānodarbojas ar fiziskām aktivitātēm

Fig. 3 Respondents answers comparison by the age groups about the question which affect society attitude that everybody should engage with physical activities

1.tab. Motivāciju, nodarboties ar nūjošanu, ietekmējošo faktoru salīdzinājuma īpatsvars visām vecuma grupās %

Table 1 Motivation, engage with the Nordic walking, effected factors compared % majority in all ages groups

	Pilnībā nepiekrītu			Nepiekrītu			Ne piekrītu, ne nepiekrītu			Piekrītu			Pilnībā piekrītu		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
	1.gr. (25-44 g.)	2.gr. (45-59 g.)	3.gr. (60-82 g.)	1.gr. (25-44 g.)	2.gr. (45-59 g.)	3.gr. (60-82 g.)	1.gr. (25-44 g.)	2.gr. (45-59 g.)	3.gr. (60-82 g.)	1.gr. (25-44 g.)	2.gr. (45-59 g.)	3.gr. (60-82 g.)	1.gr. (25-44 g.)	2.gr. (45-59 g.)	3.gr. (60-82 g.)
1. Nūjošana uzlabo vispārējo veselības stāvokli							3%	3%	3%	19%	28%	27%	78%	69%	70%
2. Nūjošana uzlabo garīgo pašsajūtu							3%	14%	3%	44%	49%	48%	53%	37%	48%
3. Nūjošana sagādā prieku							3%	9%	3%	31%	40%	33%	67%	51%	64%
4. Nūjošana mazina stresu				3%	9%	9%	16%	40%	30%	53%	26%	45%	28%	26%	15%
5. Nūjošana uzlabo ķermeņa biomotoros rādītājus - izturību, lokanību, spēku							19%	26%	6%	41%	46%	52%	41%	28%	42%

6. Nūjošana ļauj korigēt ķermeņa svaru	3%	6%	9%	13%	6%	15%	38%	37%	33%	16%	23%	21%	31%	29%	21%	
7. Nūjošana ļauj pašam dozēt fiziskās slodzes intensitāti						6%	19%	26%	9%	50%	49%	42%	31%	26%	42%	
8. Nūjošana sniedz man iespēju satikt citus cilvēkus	16%	17%		18%	14%	9%	25%	26%	33%	22%	23%	18%	19%	20%	39%	
9. Nūjošanas nodarbības vada patīkams instruktors	6%	23%	3%	12%	9%	9%	22%	37%	24%	28%	17%	33%	31%	14%	30%	
10. Man patīk sacensties ar citiem cilvēkiem	31%	46%	24%	41%	31%	33%	28%	17%	33%		6%	6%			6%	
11. Nūjošanas nodarbības notiek ārpus telpām, svaigā gaisā							3%	3%			19%	40%	27%	78%	57%	73%
12. Lai nodarbotos ar nūjošanu, nav jādodas tālu no manas dzīvesvietas	6%	6%	3%	13%	6%	6%	16%	17%	15%	40%	34%	42%	25%	37%	33%	
13. Lai nodarbotos ar nūjošanu, nav jātērē lieli finanšu līdzekļi	6%	6%		9%	6%	3%	13%	26%	18%	41%	28%	36%	31%	34%	42%	
14. Sabiedrībā valda nostāja, ka visiem jānodarbojas ar fiziskām aktivitātēm	25%	20%	6%	38%	20%	9%	18%	37%	36%	13%	14%	24%	6%	9%	24%	
15. Nūjošana kļuvusi par populāru fiziskās aktivitātes veidu	16%	9%	3%	16%	17%	9%	31%	31%	30%	28%	29%	30%	9%	14%	27%	

Diskusija *Discussion*

Motivācija veidojas dažādu faktoru ietekmē. Ir daudzi faktori, kas izraisa cilvēka aktivitāti. Tā motivācijā tiek iekļautas personības vajadzības, vērtības, intereses, priekšstati par sevi un pasauli, cilvēka individuālās īpatnības, funkcionālie stāvokļi un pārdzīvojumi, griba, zināšanas par apkārtējo vidi un prognoze par tās izmaiņām, kā arī citu cilvēku novērtējums, dažādu notikumu seku gaidas utt. (Ābele, 2009).

Zinātniskajā literatūrā tiek definēti vairāki faktori, kas ietekmē cilvēku iesaistīšanos fiziskajās aktivitātēs. Tos var iedalīt divās kategorijās - fizisko aktivitāti veicinošie un kavējošie faktori. Galvenie veicinošie faktori ir iekšējā motivācija, ārējais atbalsts, veselības ieguvumi, pozitīvā iepriekšējā pieredze,

pozitīvs emocionālais fons. Faktori, kas negatīvi ietekmē iesaistīšanos fiziskajās aktivitātēs ir veselības ierobežojumi, apkārtējā vide, sociālā attieksme, resursu trūkums, individuālā reakcija (Kaupužs, 2012).

Motivācija nodarboties ar fiziskām aktivitātēm ir pētīta vairākos pētījumos. A. Kaupužs savā promocijas darbā „Fiziskās aktivitātes veselības veicināšanai 60-75 gadus veciem cilvēkiem” pētījuma gaitā secināja, ka grupu nodarbībās realizējas arī viens no būtiskiem aspektiem, ka viens no personas pašefektivitātes paaugstināšanas veidiem ir uzvedības modelēšana vērojot. Cilvēks, redzot sev līdzīgus un veiksmīgi veicot uzdevumus, paaugstina ticību arī savām spējām (Kaupužs, 2012).

Tāpat autors pēc iegūtajiem interviju datiem secināja, ka fizisko aktivitāti veicinošie faktori visbiežāk atspoguļojas sociālās vides un individuālās izpausmes līmenī. Kā viens no galvenajiem veicinošajiem faktoriem individuālās izpausmes līmenī ir iespējamie veselības ieguvumi. Sociālās vides līmenī, kā iespējamais motivējošais faktors, ārējais atbalsts tika minēts visbiežāk. Pamatojoties uz apkopoto interviju datiem, var secināt, ka personas iekšējās barjeras ir primārie fizisko aktivitāti kavējošie faktori. Visbiežāk tika minēti veselības ierobežojumi un individuālās reakcijas formas, tādas kā enerģijas trūkums un pašizolēšanās. Apkārtējās sociālās vides līmenī visbiežāk, kā kavējošie faktori tika minēti negatīvā attieksme un resursu trūkums. Vispilgtāk tas izpaudās kā apkārtējo neizpratne un stereotipi par vecumdienām (Kaupužs, 2012). Izvirzot mērķus un izdarot izvēli, cilvēks bieži vien saskaras ar vairāk nekā vienu motivācijas avotu. Ja vairāki motivācijas avoti rada vienu un to pašu ievirzi, tie summējas, paaugstinot kopējo motivācijas līmeni un padarot skaidru konkrētas rīcības izvēli (Borns & Ruso, 2001).

Tas parādās arī pētījumos par fiziskām aktivitātēm – cilvēkiem ir vairāk nekā viens motīvs, lai nodarbotos ar fiziskām aktivitātēm (Allender & Cowburn, 2006).

Nūjošana ir fizisko aktivitāšu veids, kas piemērojams jebkurai fiziskai sagatavotībai un sniedz daudz pozitīvu efektu uz veselību un dzīves kvalitāti (Meterniha, 2010). Mūsdienu literatūrā norādīti daudzi pozitīvi nūjošanas aspekti. Nūjošanas pozitīvo ietekmi uz cilvēka fizisko un garīgo veselību apstiprina arī daudzi pētījumi.

Nūjošana uzlabo vispārējo veselību. Sistemātiskajā pārskatā par nūjošanas ietekmi uz veselību autori, izpētot vairākus pētījumus, secina, ka nūjošana ir atzīstama par veselīgu, profilaktisku un noderīgu fiziskās aktivitātes veidu, kas normalizē asinsspiedienu, sirds kapacitāti, sirds ritmu, maksimālo skābekļa patēriņu, kā arī uzlabo dzīves kvalitāti daudzu slimību gadījumā (2. tipa cukura diabēts, hroniski obstruktīva plaušu slimība, parkinsonisms u.c.) (Niebauer et al., 2013).

Sievietes veselības stāvokļa saglabāšana un nostiprināšana jebkurā vecumā ir viens no mūsdienu svarīgākajiem jautājumiem (Kažoka, 2014). Nepastāv vienotas vecuma klasifikācijas, kā iedalīt cilvēka vecumu. Pasaules Veselības organizācija sievietes vecumu iedala šādos posmos: bērnība (0-9 gadi), pusaudžu vecums (10-19 gadi), reproduktīvais vecums (15-44 gadi), pieaugusi sieviete (20-59 gadi) un novecošana un vecums (60 un vairāk gadi) (PVO, 2013). Katrā vecumposmā sievietēm jāaskaras ar dažādiem fizioloģiskiem un psiholoģiskiem aspektiem, kas ietekmē viņu veselību.

Secinājumi **Conclusions**

1. Nūjošana ir kļuvusi par populāru fiziskās aktivitātes veidu. 60-82 gadu vecuma grupā, pārliecība, ka nūjošana ir populāra, ir lielāka nekā jaunākās vecuma grupās.
2. Gandrīz puse vecākās grupas sieviešu uzskata, ka sabiedrībā valda nostāja, ka visiem jānodarbojas ar fiziskām aktivitātēm, turpretī tikai neliela jaunākās grupas sieviešu daļa uzskata, ka sabiedrībā valda šāda nostāja.
3. Sievietēm vecumā no 25 – 44 gadiem iespēja mazināt stresu ar nūjošanas palīdzību ir salīdzinoši svarīgs motivējošais faktors, vecumā no 45-59 gadiem svara koriģēšana, savukārt sievietēm vecumā no 60-82 gadiem, socializācijas iespējas.
4. Svarīgi motivējošie faktori, kas veicina vēlmi nodarboties ar nūjošanu jebkura vecuma sievietēm, ir atrašanās svaigā gaisā „dabas sporta zālē”, gūstot prieku, uzlabojot garīgo un fizisko veselību.

Summary

Introduction. Hipodinamija increases the risk of the health problems, which proves several studies. In extensive studies of the European inhabits deaths due to insufficient physical activity consequences, researchers claim that more than half a million deaths causes in a one year explained with the effects of a sedentary lifestyle (obesity, cardiovascular diseases etc.). 1 (Ekelend et al., 2015) Physical activity for the people of all ages are very important for health maintenance. Women`s health status maintenance and consolidation in any age is one of the nowadays important questions. (Kažoka, 2014) Unfortunately, the World Health Organisation facts reports that 34 % of the world women are not sufficiently physically active, but in America 50 % of the women are not sufficiently physically active (WHO, 2014). In Europe 47 % womens are not engaged with the physical activities. In Europe is not engaged in physical activity 47 % of women (European Commission, 2014), in Latvia 48 % of women. (Iedzīvotāju sportošanas paradumi, 2013.) Nordic Walking is a physical activity type, which applies to any physical readiness and gives a positive effect of maintaining health and quality of life. (Niebauer et al., 2013). The research about women`s motivation to engage with Nordic walking in the different age groups, detect and update their

motivation to engage with Nordic walking, as well as their views about this physical activity usefulness and benefits.

Objective of the research. The objective of the research is to find out the motivation of doing Nordic walking among the women of different ages.

Materials and Methods. 100 women took part in the research. Research design: non-experimental, descriptive, quantitative, cross-sectional research. The research method is for work made survey questionnaire which views at the issues such as Nordic walking training organization: frequency, duration, habits, etc., as well as 3 socio-demographic questions about the age, education and occupation. Most of the women have a higher education and they are dealing with Nordic walking once a week, more than one hour. Nordic walking lesson frequency, duration is not related to the women of the different age groups motivation to engage with Nordic walking.

In the questionnaire are inserted Likert scale (Likert Scale, 2007) with 15 statements that reflect respondent`s attitude measurement. To the each statement participants of the research notes, that how much they agree that, specific statement (motivating factor) is motivate to engage with the Nordic walking. In the top of the Likert scale are the sentence: „My motivation to engage with the Nordic walking is that...” After that follows the a table of the motivating factors in the affirmative. The research participants expressed their attitude, noting „strongly agree”, „agree” „neither agree nor disagree”, „disagree” and „strongly disagree”. If could to compare different age women`s motivation to engage with the Nordic walking, participants of the research had to be divided into groups. The youngest participant of the research was 25 years, oldest participant – 82 years. The work authors, based on the World Health Organisation women`s age division (WHO, 2013), chose to set up the following age groups: from 25 to 44 years (Group 1), from 45 to 59 years (Group 2), from 60 to 82 years (group 3). Women`s in the age in group from 25 to 44 years. The World Health Organization describes this age as the age of reproductive age. The total number of the participants in this age group is 32 members. In the following text was mentioned also as group No. 1. Women in the age group from 45 to 59 years, or middle-aged women, which is characterized by a variety of changes in the woman's body, especially in the hormonal level. The total number of the participants in this age group is 35 members. In the following text was mentioned also as group No. 2. Women in the age group from 60 to 82 years. Age group, which inherent by faster aging processes. The total number of the participants in this age group is 33 members. In the following text was mentioned also as group No. 3.

Results. Inquired women`s, which engages with Nordic walking, the age range is wide. (25-82 years). First group women opportunity to impair stress with the help of the Nordic walking is a comparative important motivating factor. The second group women weight adjustment is relatively more important factor than the younger and older women. The third group older women, opportunities of the socialization, engage Nordic walking is relatively more important than the younger women of the first and second group. Relatively more important motivating factor third and second women`s group is pleasant instructor presence and some financial resources investment in this health-promoting activity. Important motivating factors that contribute desire to engage with the Nordic walking women of the all ages, is located in the fresh air „natural gym”, by improving mental health through joy, reducing stress and physical health by improving biomotoric capacity.

Conclusions

1. Nordic walking has become popular type of physical activity. In the 60 to 82 year age group, the belief that Nordic walking is popular, is greater than in the younger age groups.
2. Nearly half of the older group of women believe that society has a attitude that all should deal with physical activities, while only a small part of the youngest group women believe that society has this attitude.
3. Women aged 25 - 44 years the opportunity to relieve stress with the help of Nordic walking is a relatively important motivating factor, in age 45-59 years, weight adjustment, while women in age 60 to 82 years, socialization opportunities.
4. Important motivating factors that contribute to the desire to engage with the Nordic walking for the women of all ages, is beeing in the fresh air „natural gym”, gaining pleasure, improving mental and physical health.

Important motivating factors that contribute desire to engage with the Nordic walking women of all ages, is beeing in the fresh air in the „natural gym”, gaining pleasure, improving mental and physical health.

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