## IMPLEMENTING CLINICAL LEARNING IN HEALTH CARE STUDIES IN HIGHER EDUCATION INSTITUTIONS OF LATVIA: THE STUDENT PERSPECTIVE

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Abstract. The purpose of this study was to disclose the opinions of the students on the implementation of clinical learning in health care studies in Latvian higher education institutions (HEIs). The study focusses on the awareness, evaluation, and recommendations of students for the effective adoption of clinical learning in their curricula. The volunteer sample (N=41) was composed of students from two HEIs (82% women) mostly from aesthetic cosmetology and medical massage programmes. A mixed-type structured questionnaire was used to collect the data. To analyse the data, the integration of thematic analysis of qualitative data with the frequency analysis of the data elicited by quantitative questions was applied. The students admitted that clinical learning is implemented in their curricula and explained it as the training in knowledge and practical skills in the workplace. The development of theoretical knowledge, practical skills, and communication with experienced tutors was recognised as the greatest benefit, while the lack of time for this study form was observed as the major hindrance to clinical learning. It was also recommended to prepare clinical tutors for pedagogical work, improve the availability of teaching materials, and increase the opportunities to deal with clinical practice situations. Students also stressed the need for feedback from clinical teaching lecturers, experience of different clinical situations, and support of the team during clinical learning. The results of the given exploration coincide with the results of similar studies conducted in other countries, indicating that experience in the clinical environment and practical work during clinical learning ensure the best study results for future healthcare professionals. The results of this pilot study will pave the way for a larger study on the topic and will have an impact on the implementation of clinical learning in health care curricula in Latvia. Keywords: clinical learning; health care studies; students' views

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#### Introduction

Taking into account trends in the healthcare sector and changes in the regulatory framework for the preparation of future medical professionals, European HEIs have been assigned an increasingly important role to work-integrated learning. This type of learning is becoming increasingly important in health care studies in HEIs of Latvia. For example, as a result of the reform of nursing education, at least half of the studies must later take place in a clinical environment in the form of clinical studies (Latvijas Vēstnesis, 2019). Similar changes are expected in the professional training of midwives, physician assistants and other medical practitioners (Latvijas Vēstnesis, 2017). While prospective physicians and nurses involved in general health care participate in work-based studies for the entire period of their training, a number of students in other health care professions find themselves in real work conditions only during internships. This situation has led to a review of the educational processes of medical professionals in Latvia.

The regulatory framework of the Republic of Latvia stipulates that medical professionals have medical education and are involved in medical treatment (Latvijas Vēstnesis, 1997). Besides primary healthcare providers in Latvia, such as physicians, nurses, and medical assistants, there are several secondary healthcare professions: masseur, podiatrist,

beauty specialist in cosmetology, etc. Until now, the clinical environment in Latvian HEIs has been used only within the framework of work experience placement or not at all. After ten years of stability, the academic years 2020 - 2023 in the preparation of medical professionals in Latvia was marked by the update of professional standards for a number of healthcare professionals, for example, General Care Nurses, Biomedical Laboratory Assistants, Masseurs, Social Caregiver, Physician's Assistant, Beauty Specialist in Cosmetology, Podiatrist, etc. (Valsts izglītības satura centrs, 2022). The standards define the level of acquisition of basic skills and competencies for each profession, which are now complemented by transversal competencies necessary for personal fulfilment, active citizenship, social integration, and employment in the knowledge society in all spheres of life. Transversal skills include communication, self-knowledge, self-management, cooperation and participation, critical thinking and problem solving, digital and media literacy, and the ability to work with information (Krūmiņa & Mihailovs, 2020).

The end of 2022 in the Latvian health care education was marked by the amendments to the Vocational Education Law on the specialisation of professional HEIs. They require, among other things, colleges, in cooperation with industry employers, to implement workbased learning in order to rapidly meet the requirements of the labour market for the preparation of human resources (Latvijas Vēstnesis, 2022). In light of these changes, educational institutions had to review several curricula in the healthcare field to improve their content and teaching approaches and update the forms and methods of study. To ensure workbased studies for students in medical education and those who plan to participate in medical treatment, in other words, to prepare medical professionals, the form of clinical studies must also be used.

In general, work-based professional education is considered an effective and suitable form of study to improve the qualification of the healthcare team and to involve students in the conditions of a real work environment (Deatrick et al., 2015). Unlike traditional studies, clinical learning takes place in a complex social context. Students must combine academic knowledge and professional skills with cognitive, psychomotor, and affective skills in real work conditions. The objective of clinical education is the acquisition of knowledge and skills necessary for the development of critical thinking and beliefs (Dafogianni, Alikari, Galanis, Gerali, & Margari, 2015). Participation of students in professional socialisation and patient care is an overriding need to prepare competent health professionals (Nordquist et al., 2019). This conclusion has been reached in studies on the need for a clinical environment to prepare medical professionals, the peculiarities of teaching and learning in such environment, clinical competencies, etc. (Ramani & Leinster, 2018; AlHaqwi & Van der Molen, 2010). Specialist training should be synoptic, understandable, clear, and based primarily on practical examples in the clinical environment. It also needs to be grounded on the principles linking theory and practice (Janusheva, Pejchinovska, Dimitrija, & Talevski, 2018). By developing the knowledge acquired in theoretical classes into abilities and attitudes, students master their clinical competence (Alnaami, Haqwi, & Masuadi, 2022).

Although changes in the regulatory framework in Latvia have a strong impact on the preparation of certain medical practitioners, the introduction of clinical training in the curricula of several other future healthcare professionals is usually based only on a decision of the head of the HEIs, curriculum developers, and responsible employees without legal justification. Quality education is designed in a balance between the autonomy of the educational institution and the state's obligation to guarantee the requirements specified in the educational standards. However, a high-quality clinical environment is possible only in the case of implementing tripartite cooperation, where the educational institution, the student, and the medical institution play an equally important role. Representatives of the working environment, when admitting future specialists, must be knowledgeable and competent in

terms of the content of education within the framework of the specified part of the studies. Meanwhile, the educational institution should aim to prepare specialists that meet the requirements of the labour market, also considering the recommendations of students. Educational institutions must create a student-centred clinical learning environment. This can be done by clarifying the views of the students and developing research-based recommendations for the integration of clinical learning into the studies. By implementing these recommendations, we can increase the quality of the given curriculum, improve the image of the educational institution, and promote public health in general. However, even permanent integration of the work environment into the study process does not yet guarantee the quality of training. Studies have shown that this quality can be influenced by many factors, including the student and his personality, the teacher of the clinical environment and his skills, the department staff and his collaboration, personal relationships between students, patients and other staff, the attitudes of the staff toward students, the physical fitness of students, etc. (Parvan et al., 2018). Researchers from Greece, Italy, Australia, and various Asian countries have identified factors determining the effective clinical environment suggested by students, such as the quality of supervision by teaching staff, contact with different clinical experiences, feedback from clinical tutors, time spent in clinical training (its duration), etc. (Dafogianni et al., 2015; Parvan et al., 2018; Croxon & Maginnis, 2009; Serena & Brugnolli, 2009).

For Latvian HEIs to promote the preparation of professionals meeting the requirements of the labour market in the healthcare sector, a similar study is necessary among Latvian students. Using a mixed-type structured questionnaire, this type of study could provide both a broad and deep understanding of the views of aspiring health professionals in relation to clinical learning. Therefore, based on the above mentioned, the objective of this study is to explore the opinions of students on the implementation of clinical learning in health care studies in Latvian HEIs. The questionnaire will provide answers to the following questions:

RQ1 What is the students' awareness of the clinical form of studies, and how do they describe this form in their own studies?

RQ2 How do students describe the benefits and challenges of clinical learning?

RQ3 How do students assess the factors that influence clinical learning suggested by researchers?

RQ4 What are the students' recommendations for the continued implementation of clinical learning and teaching?

A mixed-type structured questionnarie was used to collect the data. To answer the research questions, the integration of thematic analysis of qualitative data with the frequency analysis of data elicited by quantitative questions was applied.

This empirical study was conducted as a pilot study for the doctoral thesis 'Implementation of clinical studies in health care curricula in Latvian HEIs'. The results of the given study will provide information on the students' views on clinical learning, which will inform the design of the clinical learning implementation model in the healthcare curricula of Latvian HEI.

## Methodology

At the beginning of the study, Latvian HEIs willing to participate in the study were identified. The choice of specific universities was determined by the daily interaction of researchers with students of these institutions, as well as educators and curricula developers. Two small HEIs (the number of students in total is about 380), which implement health care studies, agreed to join the research. In the description below, these HEIs are called School 1 (65% of the participants) and School 2 (35% of the participants), respectively.

A total voluntary sample (N = 41) included health care students (82% female) of different study years 18-64 (M=34; SD=4.68). Of all research participants, 35% represented the first year of study, 44% the second year of study, 13% the third year of study, and 6% the fourth year of study, 2% did not answer the question. The majority of the sample represented programmes of aesthetic cosmetology (38%) and medical massage (38%). Students in the Nursing (12%), Podology (9%) and Medical Treatment (3%) programmes were represented in smaller numbers. The responses of the students of two HEIs were evaluated as equivalent, since both institutions have similar admission criteria and implement at least two of the study programmes represented in the responses.

The ethical approval for the study has been provided by the Ethics Committee for Humanities and Social Sciences Research of the University of Latvia. For the conduct of the survey, permission was received from the heads of the Health Care study programmes of the participating universities. The survey was sent electronically to student emails with an explanation of the context, purpose, research procedure, and ethical issues of the survey. The students were invited to complete the survey and return it to the researchers no later than two weeks after receiving it. In the introductory part of the survey, the students were assured of the confidentiality and anonymity of the data. Responses received electronically were stored in a blocked file with access to the data only by researchers. Data collection was carried out in September and October 2023.

#### **Materials and Data Analysis**

Research data were collected using a mixed-type structured questionnaire consisting of five parts: 1) an introduction that outlines the essence of the study, explains the terms and purpose of the study, and provides the contact details of the researchers; 2) the principles of research ethics; 3) instructions to complete the questionnaire; 4) sociodemographic data survey (age, gender, HEI, study programme, study year, current level of studies); 5) the main part of the survey, consisting of six qualitative and two quantitative questions. The questions of the main part of the survey were designed based on the studies mentioned above and the set of research questions.

The six qualitative questions of the survey were designed to clarify the awareness of clinical learning in students, the positive and negative dimensions of this form of studies, suggestions for improvement, and factors that would contribute to the effectiveness of clinical learning. One of the quantitative questions (using four-point Likert scale) allowed one to verify the implementation of clinical training in the study programme represented by the student. The other (using five-point Likert scale) asked to evaluate six factors related to effective clinical learning: quality of supervision by the teaching staff, opportunity for various clinical experience, feedback from clinical trainers, duration of clinical training, communication and support of the team (trainers and staff of the clinical environment) during clinical training, student motivation for clinical learning. These six factors were borrowed from studies, recognising them as the most significant aspects ensuring the effectiveness of the clinical work environment (Parvan et al., 2018; Croxon & Maginnis, 2009; Serena & Brugnolli, 2009; Masha, Malana, Blitza, & Edwardsa, 2009). Thus, RQ1 was answered by qualitative and quantitative questions of the questionnaire, RQ2 was answered by qualitative question of the questionnaire, RQ3 was answered by qualitative and quantitative questions of the questionnaire, while RQ4 was answered by qualitative questions of the questionnaire.

Initially, data analysis was performed separately for qualitative and quantitative data. Quantitative data was collected and analysed by percentage analysis of response rates, while qualitative data was analysed using thematic analysis (Braun & Clarke, 2006). The answers to each research question were then compiled by integrating a thematic analysis of the relevant qualitative questions with the quantitative results (percentage). In the presentation of the results, the answers will be illustrated with quotes from the student responses (in italics).

#### **Results and Discussion**

The study results will be presented in line with the research questions and will reflect the students' understanding of clinical learning in general and in their educational programme in particular, their views on the challenges and advantages of clinical learning, the evaluation of factors that affect clinical learning, and recommendations for more effective clinical training organisation. The profile of the study results is similar for the students in School 1 and School 2, confirming the implementation of a unifying approach to clinical learning in these educational institutions.

#### Awareness of the clinical studies of the students and description of their own studies

When describing clinical training, students emphasise that such training is based on their acquired knowledge, skills, and competencies. All students indicated that clinical training is the implementation of practical skills or practice in a medical institution or other equivalent conditions of the working environment typical for the relevant profession under the guidance of experienced specialists. This suggests that students understand the nature of clinical learning and are aware that such studies require the application of knowledge and skills in a practical setting. The perspective of the students coincides with the conclusions of other studies that, in the opinion of the students, this part of the studies allows them to develop the knowledge gained in lectures into abilities and attitudes, contributing to the perfection of clinical competence (Alnaami, Haqwi, & Masuadi, 2020). The answers of the students indicate that clinical training is implemented at least in two Latvian HEIs and the students understand its essence and nature of actions. A similar conclusion was reached in a study conducted in the United Kingdom on quality indicators of the clinical learning environment, suggesting that students perceive clinical training as a process of developing various elements such as role modelling and attitude towards patients and colleagues (Roberts, Cleland, Strand, & Johnston, 2018). Studies show that students' perception of clinical learning and its environment influences their ability to achieve the required outcomes of studies (Mitchell et al., 2005; Hoff, Pohl, & Bartfield, 2004). Thus, examining students' awareness of the nature of clinical learning can be viewed as an important prerequisite to design a model for the implementation of clinical learning in health care study programmes in Latvian HEI. At the same time, students' responses (35%) read that clinical learning is implemented only in clinical study courses or professional study courses delivered in the field, i.e. only in the segment of studies ensuring the acquisition of professional manipulations. This, in turn, leads to the conclusion that the acquisition of non-clinical courses in examined HEIs has usually not been provided through clinical training. The authors believe that clinical training should not be limited to studies related to the acquisition and improvement of professional skills and abilities. To prepare efficient future medical professionals, acquisition of at least some of the non-clinical study courses should also be provided in the clinical setting. This view of the authors coincides with the suggestions from other clinical education researchers that academic education, which is based on theoretical and conceptual references to philosophy, including the acquisition of skills, develops the clinical competence of the student and helps to master the new perspectives on their clinical career (Vieira, Batista, Franco, & Silveira, 2011).

The ideas mentioned above can be illustrated by the quantitative results of the questionnaire. Most of the respondents (62%) have indicated that *clinical training is more likely to be implemented in their study programme, as several study courses are delivered in* 

*the form of clinical training.* A relatively large number of respondents (24%) believe that *clinical training is rather not implemented in their study programme, because only one/two study courses are delivered in the form of clinical training, or so far, clinical training has not been implemented within the framework of the respective program (14%). The results of the last answer are obtained from students in the first semester of the first year of study. Clinical studies are often introduced in health care study programmes only in the second semester of the first year or in the second year of study. Consequently, it is inappropriate to conclude that clinical training is not carried out in the relevant study programme. Not a single student has indicated that a <i>large amount of study time is devoted to clinical learning*.

Describing clinical training in their study programmes, the majority of students (86%) provided a positive overall assessment, indicating that *clinical training is at the highest level* or during clinical training I realised that I really want to become a representative of the healthcare industry, or clinical training is organised according to the requirements of the study course and provides all the necessary skills. At the same time, most future healthcare professionals questioned (74%) have emphasised the insufficient duration of clinical training in their chosen programme: The time allotted in the clinical setting is not enough to acquire skills and develop competencies. These findings coincide with the results of other European studies indicating that from the point of view of students, the time spent on clinical training should be increased (Croxon & Maginnis, 2009). The answers obtained in this study also complement the conclusions of several other studies that the insufficient time allotted for studies in a clinical setting is one of the reasons for 'reality shock' or a situation in which graduates of health care studies often are not equipped to face difficult situations in clinical practice (Mæland, Tingvatn, Rykkje, & Drageset, 2021; AlHaqwi & Van der Molen, 2010). Based on the results of a given study and the conclusions of other researchers, the authors suggest that the duration of clinical training is one of the most important factors affecting the effectiveness of this training, which should be considered in the model for the implementation of clinical training in health care study programmes in Latvian HEI.

## Student opinions on the benefits and challenges of clinical learning

Most of the responses (91%) suggested the development of theoretical knowledge and practical skills as one of the benefits of clinical learning. Communication with an experienced tutor and the opportunity to ask him questions, thus receiving answers from a real-life practitioner, is a significant advantage of clinical learning for a large share of students (38%). In answering this question, the students repeatedly mentioned teamwork and building working relationships with the team and patients (21%). A smaller number of students (15%) believed that adaptation to the real work environment and getting to know its infrastructure are important benefits of clinical learning. Furthermore, individual responses, indicating the possibility of educating patients, the opportunity to develop and implement a proper disinfection plan, and building self-confidence, were emphasised as the strong points of such training. The students' responses complement the results of other similar studies, in which the students emphasise the benefits of clinical training, such as individual supervision by teachers, the student's own responsibility for applying his knowledge to practice, the ability to participate in the solution of various clinical problems during studies, and teamwork (Johansson, Vardinghus-Nielsen, & Nøhr, 2022; Tore, Hall-Lord, Wangensteen, & Ballangrud, 2022). Other studies indicate that clinical learning can affect student confidence, sense of respect and belonging to the professional team, as well as motivation for professional self-development, organisational skills, and readiness to qualify in the speciality (Dobrowolska, Mcgonagle, Jackson, & Palese, 2015). Entrusting decision making and taking critical responsibility for patient care to a student is at the heart of clinical learning. Such careful and deliberate decisions mould the understanding of the nature, expected risks, and

difficulties of the future profession (Olle et al., 2016). Based on the answers given by the students, it can be concluded that clinical learning is a major component of the learning experience of the students.

It is generally accepted that clinical training has many advantages in clinical education. This is confirmed both by the above-mentioned studies and by the answers provided by the students in this study. Clinical training provides an opportunity to acquire clinical knowledge, develop clinical and communication skills, playing an increasingly important role among students, trainees, and practitioners. However, clinical training is related to the series of professional requirements that must be carefully identified and addressed accordingly (Duarte et al., 2022). In the following outline of challenges associated with clinical learning, they will be listed and described in descending order, starting with the most frequently mentioned problems – lack of time allotted for clinical training and ending with large groups of students during clinical training.

In terms of the challenges observed during the acquisition of clinical training, the students most often (44%) mentioned the insufficient time for this training, indicating that clinical training is generally organised as some practical classes. The students explain that the allotted time is insufficient to master certain procedures and the students need more time to fully embrace the clinical experience. Additionally, the lack of educators' competence is often mentioned (29%) in students' responses, indicating that clinical tutors are often good specialists in the field, but lack the know-how to transfer their knowledge to students. The students comment that in clinical training, students often find themselves in an environment where the tutor performs his/her daily duties in a medical institution simultaneously with teaching; thus, there is a short time left to carry out high-quality training, as well as students require teaching, not showing. It is noted that in such situations, students are often forced to acquire the relevant skills even through self-study. Quite a large number of students (26%) mention the attitude of clinical staff (admitting that students often feel a tense and disturbing attitude from other employees of a given medical institution), lack of available literature and teaching materials (21%), and patient attitudes (18%) as obstacles to effective clinical learning. In their responses, the students reveal that patients are reluctant to allow or do not tolerate young specialists' care. Additionally, a pedagogically equipped clinical environment appears to be a problem from the point of view of the students (15%). In a real work environment, future specialists do not feel comfortable if they lack the space and time to ask questions, take notes, and analyse the situations they have seen. Insufficient theoretical knowledge of students (12%), consequences of Covid-19 pandemics (9%), which have completely or partially prevented several students from attending clinical training in a medical institution, and large groups of students, limiting the performance of individual tasks (6%), were also cited as obstacles and problems. Most of the questionnaire responses indicate problems that arise directly in the clinical environment or in their educational institution. However, students have also highlighted the obstacles caused by their own attitude, lack of learning motivation (12%), and reasons for their absence due to illness or other (often workrelated) reasons (15%). The answers to the question on clinical learning problems also suggested a positive view of the situation, indicating the lack of obstacles and problems during clinical training (18%). In the relevant part of the studies, the students have participated in appropriate practice with adequate time allotted and a supportive team (15%). However, such answers are more indicative for the internship than for the clinical form of studies within the framework of certain study courses.

Researchers, identifying clinical learning problems through the perspectives of students, admit that the clinical experience of students depends on the quality of the clinical environment, determined by all factors mentioned by students, with a particular emphasis on the role of clinical tutors in the preparation of the future healthcare professional. In the

literature, the lack of an efficient professional tutor in clinical training is described as one of the basic problems (Dafogianni et al., 2015; Parvan et al., 2018; Croxon & Maginnis, 2009; Serena & Brugnolli, 2009). Identification of the above mentioned problems in the responses of the students in the given research and also in other studies clearly indicates the main factors that affect the effectiveness of clinical training, which should be included in the model for the implementation of clinical training in health care studies in Latvian HEI.

### Student assessment of factors that affect clinical learning

The formulations of potential factors that affect clinical learning (from quantitative questions of the questionnaire) will be inserted in italics. Prospective healthcare professionals (79%) agree that the most important requirement for effective clinical training would be *feedback from clinical trainers*.

A little less number of respondents (71%) expressed their opinion that *contact with different clinical experience, communication in the team (university teachers and clinical environment)*, and *support during clinical training* would increase the quality of education. Almost as important (65%) for students is *their own motivation for clinical learning* and *the time spent in clinical training (duration)*. The opposite opinion is held by 4 students (12%), who completely disagree with a statement of their own motivation. A small number of future professionals (9%) do not believe that the time spent in clinical training affects the effectiveness of the training.

Giving their opinion on additional factors necessary for effective clinical training, the students indicated that they need *competent and experienced teachers in the relevant field, more complex and detailed work tasks, an individual approach to each student,* and *greater availability of teaching materials during clinical training.* Other responses amplified or repeated the factors already proposed by the researchers. This survey question was left unanswered by 3 students (9%).

The findings of the presented study confirm the evidence provided by other medical education researchers that the quality of the clinical environment and the results of clinical learning are influenced by many factors, including the student and his personality, the clinical environment trainer and his skills, the department staff and his cooperation, the physical fitness of the student and other factors (Alnaami et al., 2022; Parvan et al., 2018). The results of the survey show that students are well aware of the nature of clinical learning and are able to properly discern the benefits and challenges of clinical learning. At the same time, students want to increase the duration of clinical learning, diversify the clinical experience during their studies, and receive feedback from the tutors. Although the curricula of health care studies envisage different methods of evaluating students in the clinical environment, research has shown the lack of this component of studies or the formal implementation of the evaluation. Students, once in their work environment, perform the work tasks of the practising specialist. Thus, students are deprived of the opportunity to identify their errors and inaccuracies, which, in turn, leads to the process of self-education, which in the future may negatively affect patient care. The results of medical education research show that the feedback and evaluation process during clinical training is especially important to students (Dafogianni et al., 2015; Croxon & Maginnis, 2009).

# Student's recommendations for further implementation of clinical learning and teaching

The respondents supplemented the benefits and challenges described by clinical learning with their recommendations for necessary improvements in the implementation of clinical training. Among them, the suggestion of increasing *the time allotted for clinical training* was the most common (76%). Approximately half of the sample believe that it would

be necessary to increase the diversity of clinical experience or *to give the student greater opportunity to meet real patients and their complaints* (47%), fewer students suggested conducting training and preparing clinical environment tutors for pedagogical work (33%), to ensure greater availability of teaching materials (26%), to offer several clinical learning environments (12%), emphasising the increase in the choice of internship places, as well as to improve the communication of the clinical team with students (9%). The opinion on the improvements necessary for clinical training was also given by first-year students and students indicating the lack of experience in clinical training. Only one student states that *it is difficult to judge because they do not yet know the course of these studies*. A fairly large number of students (18%) are satisfied with the current situation during clinical training and do not believe that any improvements would be necessary in this study process.

Despite the problems identified by this small sample of students and also confirmed by the findings of other researchers, clinical training is a tool of medical education that affects learning outcomes, student preparation for practice, and their satisfaction with the chosen profession. This conclusion obtained by the authors coincides with the opinion expressed by students in other clinical education studies that it is an experience in the clinical environment and practical work during clinical training that ensures the best learning outcomes for future health care providers (Johansson et al., 2022).

#### Conclusions

The purpose of the study has been achieved by finding students' perspectives on the effective implementation of clinical health care studies in Latvian HEIs. The results of the study have provided answers to research questions, intended to clarify the awareness of clinical learning of students and the characteristics of such training in the educational programme they represent, to identify the views of students on the benefits and challenges of clinical learning, and to provide an opportunity for students to give recommendations for the effective implementation of clinical learning.

In total, the results of the study show that students are aware of the nature of clinical teaching. Students describe this form of study as the application of knowledge and practical skills in a medical institution or other equivalent working environment under the guidance of experienced specialists. Students mention the development of theoretical knowledge and practical skills, as well as communication with experienced clinical tutors, as the greatest benefits of clinical learning. Among the most significant issues, respondents indicated the short duration of this part of the study process. For the further implementation of clinical training, the respondents recommend a longer engagement with the clinical environment, pedagogical training, and preparation of clinical tutors, a greater availability of teaching materials for work procedures, greater access to real patients and encounter with their complaints.

This study has provided qualitative and quantitative results that in several respects are quite similar to those obtained in previous studies. Future healthcare professionals have indicated that their study programme implements clinical training, since several study courses are implemented in the form of clinical studies. Students consider clinical training an integral part of their studies, indicating the need to enhance the intensity of clinical training in the curriculum of their studies. Therefore, it seems that the time allotted for clinical training in health education programmes in Latvian HEIs should be increased from the point of view of students. At the same time, it is emphasised on the part of students that clinical lecturers often are experienced specialists in the field; though, they need a better understanding how to transfer their knowledge and skills to students. Consequently, it can be concluded that HEIs should invest in the development of the pedagogical competence of clinical tutors. Based on

the results of the presented study, it would be optimal to introduce practical recommendations such as the provision of regular feedback from clinical tutors, diversification of student clinical experience, ensuring a more complex and detailed performance of work tasks, as well as improving communication and support from staff (in university and clinical environment) by applying a more individual approach to each student. At the same time, universities should promote greater availability of teaching materials during clinical training.

Among the limitations of this pilot study, one can cite a small sample of students from only two universities, leading to confined results. That's why the conclusions in the article cannot be generalised and applied to all Latvian universities offering healthcare programmes. Furthermore, only volunteers participated in the study, which may indicate the readiness of more positively minded students to provide their answers. At the same time, the study involved a non-homogeneous sample, which included students of different study years and specialities, which may indicate a contextualised understanding of clinical teaching among students. Among the limitations of the study is the disproportionate gender distribution, with a primarily women participation.

Some of the future research directions on this topic would be related to improving the sample surveyed in the same way as in the current study and triangulation of student data with the opinions of teachers and experts/employers of health care programmes on clinical learning. The results of this pilot study will ground the ideas in relation to further research and will be applied as preliminary results for a broader study on the implementation of clinical learning and the factors influencing clinical learning in health care curricula, thus contributing to the faster and more effective entry of young professionals into the health care system.

#### References

- AlHaqwi, A., & Van der Molen, HT. (2010) Achieving clinical competence. Saudi *Medical Journal*, 31(4), 357-358.
- Alnaami, N., Haqwi, A.A., & Masuadi, E. (2022). Clinical learning evaluation questionnaire: a confirmatory factor analysis. Advances in Medical Education and Practice, 11, 953-961. DOI: https://doi.org/10.2147/AMEP.S243614
- Alnaami, N., Haqwi, A.A., & Masuadi, E. (2020). Clinical learning evaluation questionnaire: a confirmatory factor analysis. Advances in Medical Education and Practice, 1, 953-961. DOI: https://doi.org/10.2147/AMEP.S243614
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2). 77 101.
- Croxon, L., & Maginnis, C. (2009). Evaluation of clinical teaching models for nursing practice. *Nurse Education in Practice* 9(4), 236-243. DOI: <u>https://doi.org/10.1016/j.nepr.2008.06.004</u>
- Dafogianni, C., Alikari, V., Galanis, P., Gerali, M., & Margari, N. (2015) Nursing students' views on their clinical placement in pediatric hospitals of Athens, Greece. *International Journal of Caring Sciences*, 8(3), 673.

Retrieved from: http://internationaljournalofcaringsciences.org/docs/19 Dafogianni original 8 3.pdf

- Deatrick, J. A., Lipman, T. H., Gennaro, S., Sommers, M., de Leon Siantz, M.L., Mooney-Doyle, K., Hollis, G., & Jemmott, L. S. (2015). Fostering health equity: clinical and research training strategies from nursing education. *Kaohsiung Journal of Medical Sciences*, 25(9), 479-485. DOI: https://doi.org/10.1016/S1607-551X(09)70554-6
- Dobrowolska, B., Mcgonagle, I. M., Jackson, C., & Palese A. (2015). Clinical practice models in nursing education: implication for students' mobility. *International Nursing Review*, 62(1), 36-46. DOI: <u>https://doi.org/10.1111/inr.12162</u>
- Duarte, I., Costa, C., Cristina, S., Santos, C., Gil-Santos, I., & Environ, J. (2022). Medical education: patients perspectives on clinical training and informed consent. *International Journal of Environmental Research and Public Health*, 19(13), 7611. DOI: https://doi.org/10.3390/ijerph19137611
- Hoff, T. J., Pohl, H., & Bartfield, J. (2004). Creating a learning environment to produce competent residents: the roles of culture and context. Academic medicine: journal of the Association of American Medical Colleges, 79(6), 532–539. DOI: <u>https://doi.org/10.1097/00001888-200406000-00007</u>

- Janusheva, V., Pejchinovska, M., Dimitrija, J., & Talevski, J. D. (2018). Students' survey for assessing HE teachers' work advantages and disadvantages. *Educação*, 43(3), 369-391. DOI: https://doi.org/10.5902/1984644430084.
- Johansson, N., Vardinghus-Nielsen, H., & Nøhr, S. (2022) Clinical problem-based medical education: a social identity perspective on learning. *Dansk Universitetspædagogisk Tidsskrift Pædagogiske eksperimenter*, 17(33), 79-96. DOI:10.7146/dut.v17i33.132130
- Krūmiņa, A., & Mihailovs, I. (2020). Izglītības organizācijas pamatjautājumi un izglītošanās iespējas Latvijā. Rīga: NordLynx.
- Latvijas Vēstnesis (1997). Ārstniecības likums. Latvijas Vēstnesis 167/168, 1997. Retrieved from: <u>https://www.vestnesis.lv/ta/id/44108-arstniecibas-likums</u>
- Latvijas Vēstnesis (2017). Konceptuālais ziņojums "Par veselības aprūpes sistēmas reformu". Ministru kabineta rīkojums Nr. 394. Rīgā 2017. gada 7. augustā (prot. Nr. 37 34. §). Retrieved from: https://www.vestnesis.lv/op/2017/157.1
- Latvijas Vēstnesis (2019). Par konceptuālo ziņojumu "Par māsas profesijas turpmāko attīstību". Ministru kabineta rīkojums Nr. 537. Rīgā 2019. gada 29. oktobrī (prot. Nr. 50 25. §). Retrieved from: https://www.vestnesis.lv/op/2019/222.2
- Latvijas Vēstnesis (2022). *Grozījumi Profesionālās izglītības likumā*. Latvijas Vēstnesis 2022/187.6. Retrieved from: <u>https://www.vestnesis.lv/op/2022/187.6</u>
- Masha, R., Malana, R., Blitza, J. & Edwardsa J. (2009) Improving the quality of clinical training in the workplace: implementing formative assessment visits. *South African Family Practice*, 61(6). 264–272. DOI: <u>https://doi.org/10.1080/20786190.2019.1647639</u>
- Mæland, M. K., Tingvatn, B.S., Rykkje, L., & Drageset, S. (2021) Nursing education: students' narratives of moral distress in clinical practice. *Nursing Reports*, 11, 291–300. DOI: <u>https://doi.org/10.3390/nursrep11020028</u>
- Mitchell, M., Srinivasan, M., West, D. C., Franks, P., Keenan, C., Henderson, M., & Wilkes, M. (2005). Factors affecting resident performance: development of a theoretical model and a focused literature review. Academic medicine: journal of the Association of American Medical Colleges, 80(4), 376–389. DOI: https://doi.org/10.1097/00001888-200504000-00016
- Nordquist, J., Hall J., Caverzagie, K., Snell, L., Chan, M., Thoma, B., Razack, S., & Philibert, I. (2019). The clinical learning environment. *Medical Teacher*, 41(4), 366-372. DOI: <u>https://doi.org/10.1080/0142159X.2019.1566601</u>
- Olle, C., Hart, D., Ankel, F., Busari, J., Englander, R., Glasgow, N., Holmboe, E., Iobst, W., Lovell, E., Snell, L., Touchie, C., Van Melle, E., & Wycliffe-Jones, K. (2016). Entrustment decision making in clinical training. *Journal of the Association of American Medical Colleges*, 91(2), 191-198. DOI: <u>https://doi.org/10.1097/ACM.00000000001044</u>
- Parvan, K., Shahbazi, S., Ebrahimi, H., Valizadeh, S., Rahman, A., Jabbarzadeh, F., & Esmaili, F. (2018). Nurses' lived experience of working with nursing students in clinical wards: a phenomenological study. *Journal of Caring Sciences*, 7(1), 41-45. DOI:10.15171/jcs.2018.007
- Ramani, S., & Leinster, S. (2018). AMEE guide no. 34: teaching in the clinical environment. *Medical Teacher*, 30(4), 347-364. DOI: <u>https://doi.org/10.1080/01421590802061613</u>
- Roberts, R., Cleland, J., Strand, P., & Johnston, P. (2018). Medical students' views of clinical environments. *The clinical teacher*, 15(4), 325–330. DOI: <u>https://doi.org/10.1111/tct.12691</u>
- Serena, P., & Brugnolli, A. (2009). Italian nursing students' perception of their clinical learning environment as measured with the CLEI tool. *Nurse Education Today*, 29(8), 886-90. DOI: <u>https://doi.org/10.1016/j.nedt.2009.05.016</u>
- Tore, K., Hall-Lord, M.L., Wangensteen, S., & Ballangrud, R. (2022). Bachelor of nursing students' attitudes toward teamwork in healthcare: the impact of implementing a team STEPPS® team training program a longitudinal, quasi-experimental study. *Nurse Education Today*, 108, 105180. DOI: <u>https://doi.org/10.1016/j.nedt.2021.105180</u>
- Valsts izglītības satura centrs (2022). Obligāti piemērojamo profesiju standartu un profesionālās kvalifikācijas prasību (ja profesijai nav nepieciešams izstrādāt profesijas standartu) saraksts. Retrieved from: https://www.visc.gov.lv/lv/obligati-piemerojamo-profesionalo-kvalifikaciju-saraksts%C2%A0
- Vieira, A., Batista, Franco, T., & Silveira, L. (2011). Clinical training and the production care in health and nursing. *Trabalho Educacao Saúde*, 9(1), 9-24. DOI: 10.1590/S1981-77462011000100002