

# POSSIBILITIES OF SUPPORT OF SPECIAL NEEDS STUDENTS AT THE GRADUATION EXAM - CASE STUDY OF A STUDENT WITH ASPERGER SYNDROME FOCUSING ON THE MODIFICATION OF GRADUATION EXAM CONDITIONS

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**Abstract.** *The aim of the paper is the theoretical anchoring of the autism spectrum disorder focusing mainly on the Asperger syndrome, as well as the classification of disorders according to the International Statistical Classification of Diseases (ICD-10) and the Diagnostic and Statistical Manual (DSM-V). The paper contains an overview of the legal regulations related to the possible modifications of the common part of the graduation exam. The research part is based on qualitative methodology, it includes a case study. Based on an intentional selection (age and diagnosis), a student with Asperger syndrome was chosen for the case study, who applied at the educational support center for the modification of the graduation exam conditions. Regarding the data collection, the research methods included a semi-structured interview with the legal representatives (with the consent of the student of age), and a class teacher, and the study of the documents kept in the educational support center. The research part contains information on the personal and schooling history, as well as on the symptoms reflecting the diagnostic dyad. The conclusion offers an overview of the specific support measures provided to the student for the common part of the national graduation exam. The aim of the study is to explore whether the symptoms of the Asperger syndrome diagnosis reflected in the deficiencies at school may be fully compensated through the modification of the graduation exam conditions.*

**Keywords:** *autism spectrum disorder, Asperger syndrome, modification of graduation exam conditions, supportive measures.*

## Introduction

Despite the fact that the first mention of autism of Kanner's concept appeared more than 70 years ago, even now autism causes widespread discussions. The reason is that due to its increasing occurrence in the population, autism is viewed as an acute health and social problem (Čadilová, Thorová, & Žampachová, 2012). According to the statistical data of the Centers for Disease Control and Prevention (CDC) from 2016, there is 1.5 % of children with autism in the U.S., (Čadilová & Žampachová, 2016). The authors also state that almost 60 % of students with the

autism spectrum disorder are educated within the main stream educational system. During the school year of 2015/2016, there were 837 students with autism in high schools. The students of the high school majors ending with the graduation exam may apply at the educational support center (special education center) for a recommendation modifying the conditions of the common part of the graduation exam. According to the legal regulations in effect, the students with Asperger syndrome are categorized in a group together with individuals with specific learning disabilities. Based on the examination, to which the student of age or the legal representative gives a written consent, the trained expert of the center writes an assessment where according to the deficiencies of the student the expert chooses from a set of possible supportive measures. The main research question is whether the supportive measures stated in the legal regulation fully compensate for the difficulties of the students resulting from the basic diagnosis of Asperger syndrome. The research part of the paper includes a case study of a grammar school student with Asperger's reflecting the deficiencies of the diagnostic dyad affecting in particular the study outcomes.

### **Autism Spectrum Disorder**

The autism spectrum disorder is rated among the children's mental developmental disorders since such a child develops differently right from the early stages. "This category includes serious developmental disorders whose beginning can be traced to early childhood and which are characterized by quantitative malfunction of social interaction, communication, and a tendency towards stereotypical and ritual behavior. Therefore, it is regarded as a pervasive developmental disorder where the term pervasive is interpreted as all-encompassing and it reflects the fact that the child's development has deficiencies that are manifested in many aspects" (Říhová & Vitásková, 2012: 7).

According to Thorová (2012), the autism spectrum disorder represents a grave neurodevelopmental disorder which manifests itself during the first years of the person's life. Cottini and Vivanti (2017: 21) provide the definition of autism as follows: "Autism is an organic disorder caused by genetic predisposition, which together with the risk factors in the environment result in modified development of the brain that manifests itself later on in disturbed cognitive development of various levels and consequently abnormal behavior."

Today, there are two respected and widely used diagnostic systems. According to Thorová (2012), Europe uses the diagnostic criteria published by the World Health Organization, while in the U.S. they employ the criteria published by the American Psychiatric Association. The World Health Organization categorizes the autism spectrum disorder in the 10th revision of the International Statistical Classification of Diseases and Related Health Problems

(ICD-10) under the umbrella of pervasive developmental disorders, which belong to the category of disorders of psychological development. The following pervasive developmental disorders can be found in this classification: Childhood autism, Atypical autism, Rett's syndrome, Other childhood disintegrative disorder, Overactive disorder associated with mental retardation and stereotyped movements, Asperger syndrome, Other disorders of psychological development, Unspecified disorder of psychological development.

The above stated classification systems highly corresponded with each other up until 2013. The current Diagnostic and Statistical Manual of Mental Disorders, Fifth edition (DSM-V; Czech edition: Raboch, Hrdlička, Mohr, Pavlovský, & Ptáček, 2015) introduces a range of changes regarding not only the terminological concept, but also the classification of this group of disorders. Unlike ICD, this system establishes the term of the autism spectrum disorder to label these types of disorders. The category further distinguishes the disorders: With or without accompanying intellectual impairment; With or without accompanying language impairment; Associated with a known medical or genetic condition or environmental factor; Associated with other neurodevelopmental, mental, or behavioral disorder; With catatonia.

Some individuals with the autism spectrum disorder, including children, teenagers, and adults with good cognitive abilities would lose the diagnosis based on DSM-V. Therefore, people diagnosed according to the criteria of DSM-IV can keep the diagnosis. The new classification criteria will be applied only to the newly diagnosed individuals. Also, DSM-V defines a new diagnosis – social communication disorder – for people with deficiencies mainly in the pragmatic aspects of language (Volkmar & Wiesner, 2017).

Autism spectrum disorder describes a diverse group of disorders. The individual disorders differ from one another by the severity and frequency of the symptoms. It is possible to state that the typical feature of the autism spectrum disorder is an unbalanced development. The autism symptoms may vary, however, they tend to be permanent. In cases of appropriate educational intervention it is possible to observe some reduction of the symptoms in several areas of development (Cottini & Vivanti 2017; Čadilová et al., 2012).

As mentioned above, the child's development is severely impaired in many aspects; the crucial areas of deficiencies are referred to as the triad of symptoms. The term triad of impairments was first used by a British psychiatrist Lorna Wing who defined the problematic aspects that are essential for the diagnosis of the autism spectrum disorder. Despite the progress of science with respect to our knowledge about the biology of development and psychology, currently there is no diagnostic methodology or biological test based on which it would be possible to determine the autism disorders. Therefore the diagnosis of autism is always determined based on the child's behavior with respect to the major problem areas

(Bogdashina, 2017; Říhová, 2011; Thorová, 2012). When we analyze the child's behavior, we should be able, according to Cottini and Vivanti (2017), to register the impairment both in social communication and interaction with others, as well as in the abilities to organize one's conduct – flexibly, not stereotypically.

The specific symptoms, the so called diagnostic triad, include an impairment of imagination, social interaction, and communication. The concept of symptomatologic triad was redefined under DSM-V resulting in a symptomatologic dyad, see Figure 1. Thus the deficiencies in social interaction and communication were united in one common category since the impairment in these two areas do not reflect two different deficiencies but only one. Social communication includes both the deficiencies in verbal and non-verbal communication and the defects in social area including limited ability to start any social interaction and the ability to react to other person's initiative. The deficiencies in imagination manifest themselves in the form of limited repertoire of activities and interests, and stereotypical, repeating behavior (Cottini & Vivanti 2017).

Based on the assessment of functionality, there is also a classification of autism spectrum disorder of high-functioning and low-functioning autistic individuals. However, this categorization is not a widely recognized classification system. The low-functioning autism refers to children whose intellectual abilities and communication skills are below average. The high-functioning autism includes children whose cognitive and communication abilities are average. Asperger syndrome comes under this category (Cottini & Vivanti, 2017).

### **Asperger Syndrome**

In 1944, Hans Asperger, a psychiatrist from Vienna, published an article based on his dissertation about young boys who had serious social problems but also decent language and all-encompassing bizarre interests. He described the Asperger syndrome which he considered a personality disorder at that time (Volkmar & Wiesner, 2017; Thorová, 2012). Currently, Attwood (2005) comments that it is the most discussed autism spectrum disorder, which is characterized by disharmonious personality development with predominant deficiencies in communication and social interaction. Thorová (2012) states that the prevalence of the syndrome is 8:1; it is diagnosed more often for boys. The category of Asperger syndrome was officially recognized in DSM-IV in 1994; in DSM-V, however, this nosological unit is dropped altogether. DSM-V also defines a new category – social communication disorder – for people with difficulties mainly with respect to the pragmatic use of language (Volkmar & Wiesner, 2017). The specifics of the pragmatic aspect among people with the autism spectrum disorder are the focus of e.g. Vitásková and Kytnarová (2017).

As Čadilová et al. (2012) explains, Asperger syndrome represents qualitative deficiencies in the diagnostic triad like in autism, but without the cognitive impairment since intelligence of people with Asperger's ranges from average to high average. Vosmik and Bělohávková (in Pastieriková, 2013: 45) specify how the Asperger syndrome is manifested. "Mental development is impaired similarly to childhood autism in the area of social interaction, communication, and imagination. Social skills are substantially limited and accompanied by delayed emotional maturity. What is characteristic of this syndrome is the unbalanced arrangement of the person's abilities."

Lorna Wing (in Říhová, 2011) specifies the clinical symptoms of the Asperger syndrome as follows: lack of empathy, difficulties with adaptation to the social context, pedantically precise language, inability or limited ability to make friends and maintain relationships, deficiencies in non-verbal communication, motor clumsiness, inadequate motor positions, atypical interests in specific phenomena or objects.

The deficiencies associated with the Asperger syndrome manifest themselves in practice by the difficulties when forming new relationships with others, as well as when integrating oneself in the group of peers. People with Asperger's form strong friendly bonds only very rarely. They have difficulties understanding the social rules. Similarly, grasping the meaning of non-verbal communication is also usually quite complicated. Facial expressions and hand gestures are only limited for individuals with the Asperger syndrome; they engage in unusual interests, they may react negatively to any changes. Typically, they employ quite a specific way of thinking and logic. Furthermore, these people more often suffer from anxiety, depression, behavioral disorder – aggression, destructivity, self-injury. The problem behavior may be accompanied by impulsivity, attention deficit hyperactivity disorder, and compulsive behavior (Thorová, 2008). A study from 2007 cited by Čadilová, Jůn and Thorová (2007) pointed out that Asperger syndrome occurs in the population more often than the childhood autism.

### **Educating the Special Needs Students**

An important change in the possibilities of support that can be provided to children, pupils, and students with health disabilities came with the amendment of the education law no. 561/2004 of the Code and the regulation no. 27/2017 of the Code on educating students with special educational needs and gifted students. The term "child, pupil, and student with special educational needs" replaced the previously used term "child, pupil, and student with health disability". The phrase describes a person "who needs to be provided various supportive measures to fulfill his/her educational possibilities or to employ or use his/her rights of equal

nature with other people.” The aforementioned legal regulations did not modify only the terminology, but also the range of possible support for the children, pupils, and students with special needs. The supportive measures of 1<sup>st</sup> to 5<sup>th</sup> level were introduced which represent an assistance to the teacher who works with a child whose education requires certain modification of the educational process. The supportive measures represent a modification of the teaching methods, content, and output of the schooling process, alteration of the education organization, individual education plan, providing personal support, adjustment of the child’s evaluation, providing intervention, modification of conditions for the enrolment in a school and for ending the school, expanding the length of education, use of teaching aids and special textbooks.

The level of the provided support is assigned to the children, pupils, and students with special needs by the educational support center, i.e. the pedagogical-psychological center and the special education center. According to the article 2 par. 1-3 of the regulation no. 27/2017 of the Code, the supportive measures of the 1<sup>st</sup> level represent minimal modification of the methods, organization, and evaluation of the educational process. These supportive measures do not have assigned any standardized financial costs, i.e. they are not paid from the state budget. On the other hand, the supportive measures of the second to fifth levels are provided based on the educational support center’s recommendation and with the informed consent of the student of age, or his/her legal representative. These measures are financed by the government.

Counselling services and care for special needs students, in our case children, pupils, and students with the autism spectrum disorder, are provided by the special education center with the consent of the legal representative or the student of age. Based on the written, personal, or phone request the client gets an appointment where his/her educational needs are assessed. Underage student needs to come with his/her legal representative who provides the special education center with reports from doctors and clinical experts. To assess the client’s special needs comprehensively, information from the school needs to be obtained through an educational report form filled out by the client’s teacher. On the basis of all the acquired information and the results of the examination, the specialized staff writes the Recommendation for Education, which is sent to school afterwards through the data box. The headmaster of the school is then obliged to discuss the recommended supportive measures with the legal representatives who confirm their consent with their signature. After that, the supportive measures are applied immediately. In the Recommendation for Education the educational support center states the exact period during which the supportive measures need to be provided, while the period cannot exceed two years.

One of the supportive measures that may be recommended is the modification of graduation exam conditions. For the purpose of the graduation

exam of special needs students there has been introduced the term – student with acknowledged modification of the graduation exam conditions. Any changes of the graduation exam are possible only based on the request submitted to the educational support center by the student of age, when the trained staff releases a Recommendation based on which the student’s graduation exam takes place in a way corresponding to his/her educational needs. For the purpose of the modification of graduation exam conditions, students with autism spectrum disorder get included in the category of students with specific learning disabilities and other, referred to by an abbreviation SPUO.

The modification of graduation exam conditions for students with acknowledged changes of the exam is possible according to the reg. 177/2009 of the Code in the following ways – modification of the environment, prolonging the time limit, changes to the test documents, use of compensation aids, and assistance. Specific options of modifications for students with Asperger syndrome are depicted in Table 1. According to the level of support, these students fall either in Group 2 or Group 3. The target group of students that fall in the Group 1 based on the level of the provided support are children with specific learning disabilities.

Table 1 **An overview of the modifications of the common part of the graduation exam**

<b>Category of students</b>	<b>Modifications acc. to 177/2009 Code</b>
Group 2	<ul style="list-style-type: none"> <li>• prolonging the time limit by 50 %</li> <li>• formal and content modification of the test documents</li> <li>• option of writing the results directly to the test booklet</li> <li>• compensation aids</li> </ul>
Group 3	<ul style="list-style-type: none"> <li>• prolonging the time limit by 100 %</li> <li>• same modifications like for Group 2</li> <li>• assistance</li> </ul>

### **Research Study – Methodology**

The main research method was a case study within a purposely selected sample. The research sample was chosen based on age, type of high school, and diagnosis. The research study focuses on a young man with the diagnosis of Asperger syndrome who is in the fourth year at a grammar school.

The principal methods of the research used to collect the information about the student with Asperger’s was a semi structured interview with the legal representatives (with the consent of the student of age) and with the student’s class teacher, as well as a study of the documents.

## **Case Study**

Young man from the first pregnancy of the mother, spontaneous birth at full term, for a short period the boy was placed in an incubator. Breastfed up to 18 months of age. Both parents have college degrees. All family members are healthy; the boy has a younger sibling.

The early psychometric development was slightly delayed as regards the motor activity, independent walking commenced around 18 months of age. On the other hand, the speech development was on higher level, when at the age of two he used complex sentences and managed to listen to long texts that were read to him. In the infant period, he wept often and he had troubles with sleep. When reaching the toddler stage he seemed like a quiet child. Since early childhood, his parents observed bizarre interests and special way of thinking.

The boy started attending a kindergarten when he was three and he had no significant problems with the adaptation. Due to his difficulties with graphomotor activity as well as considerable psychomotor restlessness the boy was advised a postponement of the compulsory education. In the first grade, there were problems with fine and gross motor skills, slow working pace in mathematics, difficulties with reading and writing. There were obvious problems with integration in the peer group. The boy achieved excellent study results in the elementary school, however he needed individual approach of the teachers. After finishing the compulsory education, he continued studying at the multi-year grammar school. During the second year at the grammar school, there appeared some inappropriate reactions; during the breaks between lessons he had conflicts with his schoolmates which then resulted in depressive moods and self-harm behavior. It was possible to mitigate the symptoms only with medication. Especially due to the elimination of the problematic behavior and training of communication and social skills, the educational support center recommended the support of a teaching assistant who the student has had available until today.

Since he was 6, he has been under a regular psychological care. He has been monitored especially because of the difficulties in social contact but also the learning disabilities at school. Based on the examination in the pedagogical psychological center, a learning disability was diagnosed – dysgraphia. Repeated psychological examination revealed above average intellectual abilities of the boy. When he was 13, based on a psychiatric examination the boy received the diagnosis of Asperger syndrome (grave symptomatology, active in social contact but bizarre). After the diagnosis was determined, the boy became a client of the special education center.

When he was 15.5 years old, the boy underwent an examination by the clinical psychologist in an association supporting people with autism (APLA) where the diagnosis of Asperger syndrome was repeatedly confirmed; regarding

the adaptability he is highly functional with deficiencies in social skills, which is compensated by the above average intelligence. The boy was also diagnosed with attention deficit hyperactivity disorder (ADHD) on the basis of another examination.

Currently, the young man is in the last year at the grammar school. In the school, he studies with the support of a teaching assistant and his education follows the individual education plan which is based on the School Education Program. In the school he has no problems with managing the curriculum, he achieves excellent study results. Currently, the symptomatology of the autism spectrum disorder prevails in the area of social behavior, communication, and interests. There are obvious limits in social pragmatic skills, markedness in social-communication contact, reduced spontaneity, rigid attitudes, limited ability of social reciprocity.

Symptoms manifested in the area of verbal expression are as follows – the intonation of a sentence is abnormal, he tends to interpret all information literally, he chooses inadequate words for the given communication situation, has troubles with the understanding of abstract terms, irony, and exaggeration. In specific communication situations he uses unusual or inadequate ways of formulating his thoughts, he has difficulties when describing his emotions and experiences, in the reciprocity of communication; he is afraid of speaking to or in front of strangers. His verbal expression does not always correspond to the social context of the given situation. He has difficulties with establishing and maintaining eye contact. His social communication is unusual. He applies the social rules that he has learnt without any regard to the actual social situation; he has deficiencies in noticing the non-verbal signals of the communication partner and comprehending their meaning. His control of emotions is weak, adaptability is lower, he has hard time coping with changes in the usual order and routine. Hypersensitivity or excessive fear, even anxious reactions to various impulses can be also observed. When modifying his graduation exam conditions, the student was included in the SPUO-3 category.

For the final state exam, under the recommended supportive measures, the young man was provided a support in the form of the time limit prolonged by 100 %, formal adjustment of the didactic test, content modification of the didactic test, assistance, being tested in a separate room, written part of the test was done on PC, and the diagnosed symptoms were tolerated in his writing.

### **Conclusion**

The first part of the paper focuses on the theoretical introduction of the autism spectrum disorder, mainly the Asperger syndrome which represents a separate nosologic unit in the 10<sup>th</sup> revision of ICD. It is characterized by

qualitative impairment of the reciprocal social interaction and repeated, limited, and stereotypical set of interests and activities (Vitásková et al., 2016; Thorová, 2012). The research part of the paper was performed in the form of a case study and offers a closer look at the possibilities of supportive measures recommended by the educational support center with respect to the modification of the graduation exam conditions.

As a part of a specific grant research titled “The research on impairment and deviations of communication ability and orofacial system in a speech and language therapy perspective“ (IGA\_PdF\_2017\_026), this paper was compiled under the title *The Possibilities of Support of Special Needs Students at the Graduation Exam*.

The presented paper offers a theoretical introduction to the issue of the autism spectrum disorder, especially focusing on the Asperger syndrome, its anchoring in the classification systems, discussing the symptoms of the diagnosis, as well as an overview of possible modifications of the graduation exam conditions in accordance with the legal regulations of the Czech Republic. The topic of educating the individuals with Asperger syndrome in high schools of the main education stream, and subsequent ending of the study is a current issue. It is the subject of a wide discussion of the lawmakers. The findings of the present study and similar researches might help adjust the legal regulations in such a way that they are more convenient to the special educational needs of the students.

The research part reveals that the symptoms of the basic diagnosis – Asperger syndrome – are not possible to fully compensate for by the educational support staff when modifying the graduation exam condition. The reason is that that legal regulations in effect offer only several specific areas that may be modified at the graduation exam. Contrary to that, the recommendation for education issued by the special education center during the schooling process to compensate for the special needs, makes it possible for the expert to individually specify the possibilities of support for each student. The case study within the research focuses on a student of the fourth grade at a grammar school, who will sit the graduation exam this school year, i.e. 2017/2018. Further research will be performed after passing the graduation exam when it is possible to assess whether the selected supportive measures were sufficient and the student passed the common part of the graduation exam.

To conclude, it is possible to state that the possibilities of the graduation exam modifications is an issue requiring further studies and research with the aim to achieve such legal regulations that would enable the educational support staff to provide individual support that would fully compensate for the deficiencies resulting from the basic diagnosis of the student.

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