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2020 Muhammed Emin Karadeniz

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Self-Regulation in Autism Spectrum Disorder

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Author: Muhammed Emin Karadeniz

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Supervisor: Mgr. Štěpánka Lauková

Opponent: PhDr. Petra Bendová, Ph.D

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Autor:	**Muhammed Emin Karadeniz**
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This thesis presents the general view of autism spectrum disorder (Definition-Causes-History-Aspects-Interventions) and self-regulation in autism spectrum disorder. The text includes structured interviews with special education teachers about the methods they use to teach self-regulation to their students. Observations concerning the methods the children?s teachers use and analyses of their results are also presented.

Buron, K. D., & Curtis, M. (2012). The incredible 5-point scale: Assisting students in understanding social interactions and controlling their emotional responses. Shawnee Mission, Kan.: AAPC Pub. Howlin, P. (2004). Autism: Preparing for adulthood. New York: Routledge. Bogdashina, O. (2006). The theory of mind and the triad of perspective on autism and Asperger Syndrome: A view from the bridge. London: Jessica Kingsley.

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Declaration

I hereby declare that this Bachelor Thesis was produced independently under the supervision of the supervisor of the Bachelor thesis and that all the used sources and bibliography are referenced.

In Hradec Králové on June 27, 2020

Declaration

I hereby declare that the Bachelor thesis meets the requirements set in the Rector's Decree No 13/2017 (Rules for handling Bachelor, Diploma, Rigorosum, Dissertation and Habilitation Theses at UHK)

Date: June 27,2020 Signature: Muhammed Emin Karadeniz

Anotace

KARADENİZ, Muhammed Emin. *Samoregulace při poruše autistického spektra.* Hradec Králové: Pedagogická fakulta Univerzity Hradec Králové, 2020. 53 s. Bakalářská práce.

Tato práce představuje obecný pohled na poruchu autistického spektra (Definice-Příčiny-Historie-Aspekty-Intervence) a samoregulaci v poruchách autistického spektra. Text zahrnuje strukturované rozhovory s učiteli speciálního vzdělávání o metodách, které používají k výuce samoregulace svých studentů. Uvádí se také pozorování metod používaných učiteli dětí a analýzy jejich výsledků.

Klíčová slova: porucha autistického spektra, samoregulace

Annotation

KARADENİZ, Muhammed Emin. *Self-Regulation in Autism Spectrum Disorder*. Hradec Králové: Faculty of Education, University of Hradec Králové, 2020. 53 pp. Bachelor Thesis.

This thesis presents the general view of autism spectrum disorder (Definition-Causes-History-Aspects-Interventions) and self-regulation in autism spectrum disorder. The text includes structured interviews with special education teachers about the methods they use to teach self-regulation to their students. Observations concerning the methods the children's teachers use and analyses of their results are also presented.

Keywords: Autism spectrum disorder, Self-regulation

CONTENT

1 INTRODUCTION

As a person who is planning to work with students with mental disabilities, I find autism spectrum disorder a fascinating area. There are many different types of mental disorders, ranging from severe to mild ones, that affect different cognitive properties. Each type of mental disabilities has its own traits that affect an individual in a specific way. Autism spectrum disorder is one of the most common developmental disorders.

As a disorder it has many aspects. In my paper, I want to focus on emotional and behavioural self-control in autism spectrum disorder because I know that in my planned future career I will encounter many students with these sorts of problems. I am eager to be a good teacher for them, a teacher who supports them in facing their dysregulation problems in emotions and behaviours.

In my submitted thesis I also deal with the issue of emotional self-regulation and behavioural issues in typically developed individuals. These are fundamental principles for discussing disorders of self-regulation in autism.

The reason that I decided to write my bachelor thesis on emotional regulation and self-control in the autism spectrum disorder is that I had the chance to observe some students with this disorder. One of them is still a student in a Czech primary school. He attends a school which applies so called inclusion system. I had an opportunity to work in the school as a volunteer teacher assistant last year. While I was working there, I had a chance to observe that particular student. He is a person with high-functioning autism. He is very talented at picking up languages; he also has very good memory skills. However, unfortunately, he has some behavioural issues. Sometimes he loses his control and exhibits aggressive behaviours. His conditions impacted me, and I started thinking about how often I could experience this kind of situation in the future as a special education teacher. Dysregulation in emotional self-regulation and disability to control oneself are big problems that affect the learning processes and its quality. These problems also reduce the quality of students' social lives and cause them to be less social and maybe even excluded from other people´s company from time to

time. Getting aware of existing teaching methods which can help such students with emotional self-regulation is extremely important even if it makes only a little difference in their lives.

The issue of co-regulation is also mentioned in the text because teachers play a very important role in the process of helping students with self-regulation.

The aim of my thesis is to make research into methods that are used to help students who have dysregulation problems. In the Conclusion, teachers and parents are provided with useful recommendations concerning potential implementation of a child's self-regulatory skills training.

2 AUTISM

2.1 Definition of Autism

Autism is a lifelong developmental condition. A developmental disability is one of the forms of disabilities that are diagnosed early in life. These disabilities can affect an individual physically, mentally or in a combination of both. A person with autism spectrum disorder is an example of a person with mental developmental disability (Steinbrenner, 2019, p. 2).

Even though some difficulties of autism are experienced by all people with this condition, it affects every individual differently (The National Autistic Society, 2017, p. 8). For this reason, autism is considered to be a spectrum disorder referring to a wide variety of symptoms that can fall under this diagnosis. Autism spectrum disorder is an umbrella term which covers different forms of autism, such as childhood integrative disorder and Asperger syndrome (WHO, 2013, p. 6).

One characteristic feature of autism is a noticeable abnormal or impaired development in an individual’s social and communication skills (Spek et al, 2012, p. 246). Often, people

affected by it show unusual restricted behaviours and interests (McPartland & Volkmar, 2012, p. 675). Individuals with autism spectrum disorder differ from other people in the way in which they perceive their surrounding environment and in which they interact with it and with people around them. Among the conditions that can occur together with autism spectrum disorder are learning disabilities or mental health problems. These additional challenges explain the different levels of support that individuals on autism spectrum need in their daily lives (The National Autistic Society, 2017, p. 8).

2.2 Typical Behaviour in Children with Autism Spectrum Disorder

A child with autism spectrum disorder displays some specific patterns of behaviours. Some of these behaviours can be considered abnormal, exaggerated or prolonged. How much people can see these behaviours depends on the severity of the autism spectrum disorder.

Lorna Wing identified children with autism spectrum disorder on the basis of a triad of impairments. These impairments were recognizable by three manifestations: impairment in mutual social interaction, impairment in communication, and impairment in imagination which led to repetitive behaviours. Lorna Wing also noticed that many children who had the triad did not fit into Kanner's description for his syndrome. Lorna Wing investigated many students with a range of intellectual disabilities from mild to profound, and some of them had average intelligence. But the remarkable thing was that she found that all these students who had different levels of intellectual abilities had the triad. (Wing, 1993 p. 62). Nowadays, the most recent version of DSM- 5 has two main criteria for autism spectrum disorder. DSM-5 combines social communication deficit and social interaction into one criterion. DSM-5 also adds sensory problems into the category of imagination in 2013 (American Psychiatric Association, 2013).

Some children with autism spectrum disorder do not make typical eye contact with others even when someone tries to get their attention. Children with autism spectrum disorder avoid social interactions or are not able to initiate them. They may prefer being left alone. In some

cases, it can be necessary to teach a child to say ‘hi’ or ‘goodbye’. They may act very isolated, hiding themselves from other people. These kinds of behaviours are a good example of having a social deficit (Silverberg, 2014, p. 143).

Children with autism spectrum disorder either do not initiate social games at all or only partially initiate them. A child may play with toys in a manner different from that one which is appropriate for his/her age. Children may not be able to understand imaginative plays. A child with autism spectrum disorder can have an atypical voice. He may sound high-pitched or too low. She may not adjust the volume of her voice. He may talk—or scream instead (Silverberg, 2014, pp. 144-145).

People with autism spectrum disorder need a routine. The sameness and certain order are very important for them. Even little changes could make a child with this disorder upset. The child may get also annoyed and upset because of certain sensory experiences or texture. Changes in sensory conditions could also negatively affect the child.

Some children with autism spectrum disorder have eating issues. They may not like the texture of the food, or they may only eat certain foods when they are served in a certain way.

Echolalia, self-injurious behaviours, and delays in language are also among the most common signs of being on autism spectrum disorder. Children with autism spectrum disorder may be unable to concentrate on something for a long time; conversely, they may have the ability to focus on something intensively for a long period of time (Silverberg, 2014, p. 147).

Children with autism spectrum disorder may throw temper tantrums that are aggressive, exaggerated, prolonged and hard to control. Children with autism spectrum disorder may also have obsessive behaviours and insistence on doing the same things. These types of behaviours differ from the obsessive-compulsive disorder because children with autism obsessive-compulsive disorder knows that the things they do obsessively are wrong (Silverberg, 2014, p. 148).

2.3 History of Autism

Throughout the whole history of autism diagnostics, there have been many misconceptions about this condition. The reason is that autism spectrum disorder itself has a big number of forms, and that its diagnostic criteria depend heavily on descriptions and behavioural observations of the individual spectrum disorder do not know that their behaviour is wrong. However, the person with the with autism spectrum disorder. Although there are a lot of scientific proofs showing that autism spectrum disorder is a neurodevelopmental disorder, there are no biological tests used in the diagnostic process (Feinstein, 2012, p. 2).

There have been numerous persons who have helped to develop a further understanding of autism spectrum disorder. The following text focuses on those who made really important contributions to this sphere.

Eugene Bleuler was a Swiss psychiatrist who coined the terms schizophrenia and autism. He was the first person to use the word `autism´. He used the Greek word `autos´, meaning `self´, to describe his patients with schizophrenia. These patients were trying to cope with external perceptions or experiences that annoyed them.

Thirty years after Eugene Bleuler used the term autism in his work, Hans Asperger introduced his terminology of autistic psychopaths that was originally adopted from Bleuler's terminology used in a lecture he gave at the Vienna University Hospital. Asperger published his second thesis in 1944, in which he described a group of children and adolescents with deficits in communication and social skills, as well as restricted and repetitive behaviour patterns. He wrote a paper on autism called `Autistic Disturbances of Affective Contact´ which is considered a classic today. Asperger´s paper was originally published in German. It became more widely known when Lorna Wing brought it to the attention of English speakers in 1967 (Fuentes J. et al, 2012, p. 2).

Asperger worked with a team of professionals, including physicians and schoolteachers, observing and then writing about children with autistic characteristics. They were strongly influenced by Erwin Lazar, whose approach is still accepted as innovative even today. In 1911, Lazar established the children's clinic at which Asperger worked. Lazar did not see children at the clinic as broken or sick; rather, he had a different approach towards children.

He saw them as children who suffer from a lack of the required special education that is suitable for their special needs (Silberman, 2016, p. 88).

Asperger and his team followed Lazar's approach toward the children. His approach included diagnosis based on observations and required an intensive level of attention from the person who was responsible for diagnosis (Silberman, 2016, p. 90).

Hans Asperger is the first person in history who gave a public talk on autism. In his lecture at Vienna University Hospital, he especially aimed at drawing people's attention to the fact that the children were considered abnormal. In his speech he said that these children should not be counted as inferior, and he also discussed the importance of helping them. He emphasized the fact that their special abilities and their disabilities were connected to each other. As there was a Nazi superior present while he was giving his speech, he decided to mention children who were not profoundly impaired in order to get a positive response from this superior (Silberman, 2016, p. 126-128).

In 1943, at the same time when Hans Asperger used Eugene Bleuler's terminology, the American psychiatrist Leo Kanner described 11 children who showed the behaviour similar to that described in Asperger´s paper. The only difference was that the children who were described by Kanner had no significant delays in their cognitive and language development, but the children Asperger had worked with showed delays in their language development and cognitive skills. Most of the behavioural traits described by Leo Kanner, such as `autistic aloofness´ and ´insistence on sameness´, continue to be part of the criteria used to diagnose children with autism spectrum disorders today (Fuentes J. et al, 2012, p. 2).

Although it has been considered a coincidence that Kanner and Asperger both published papers about autism at the same time, Kanner must have been familiar with Asperger's work. Kanner helped Asperger's diagnostician Georg Frankl flee to the United States, and Frankl wrote up the report for the first child with autistic characteristics referred to Kanner (Silberman, 2016, p. 163).

Later, in the 1950s and early 1960s, it was believed that the cause of autism was defective upbringing of children by cold and rejecting parents. This phenomenon was called

Refrigerator Mother Theory to express the opinion that autism is caused by a lack of maternal warmth. The terms "refrigerator mother" and "refrigerator parents" were created around 1950 as a label for parents of children with autism and schizophrenia. When Leo Kanner first identified autism in 1943, he noted the lack of motherly warmth among the parents of autistic children. Parents, particularly mothers, were often blamed for children´s atypical behaviour, which included rigid rituals, speech difficulty, and self-isolation (Fuentes J. et al, 2012, p. 4).

Bruno Bettelheim also claimed that toxic parenting is the cause of autism. There was a school named the "Orthogenic School", in which children with autism spectrum disorder were educated according to the practice of psychoanalysis. This is also where Bettelheim carried out his works that changed the course of history of autism. This school and the staff working there were seen as a new community for children with autism spectrum disorder; this community was a kind of family for these children. Bettelheim became a famous professional on autism in the United States, especially thanks to his books called "Love Is Not Enough" and "Truants from Life", and due to his important work at the Orthogenic School. His fame meant that his claim that autism was caused by toxic parenting was accepted as the primary cause of autism in the United States (Silberman, 2016, p. 191-197).

The ideas of Asperger became more well-known through the works of Lorna Wing, an English psychiatrist and physician. She was also one of the founders of the National Autistic Society. Lorna Wing has an important place in the history of autism because her works promoted the concept of autism. She promoted the term Asperger syndrome in 1981 and made a great change in the history of autism (Fuentes J. et al, 2012, p. 4). She also did much for parents through organizations and writings and contributed to the general treatment and care of those with autism and their families (Wolff, 2004, p. 204).

After Lorna Wing read Asperger's paper, she noticed that many years before, Asperger had already found things similar to what she found (Silberman, 2016, p. 324). She used the term autistic continuum to describe children with autism spectrum disorder. She eventually started to use the term of autism spectrum disorder because she thought that this term better explained the varieties of and different severity levels in autism spectrum disorder. She also came up with the term Asperger's Syndrome because she thought it would be an easier

diagnosis for people to accept than autism. Lorna Wing is one of the writers of the DSM 3 revision. She expanded the description criteria of an individual with autism spectrum disorder to help professionals who are responsible for making diagnoses. Her goal was to get more people included in the diagnosis so that more people could receive treatment. Thanks to her work on DSM 3-R, she made it possible for professionals to diagnose people with autism spectrum disorder who would not have been diagnosed before because of the lack of identifying criteria in DSM 3 (Silberman, 2016, p. 330-365).

There were other professionals claiming that autism can come in less severe forms than previously described. These forms were officially accepted in 1980 and were called pervasive developmental disorders. Even though Asperger´s Syndrome had been described earlier than 1990, it was officially recognized only in the 1990s.

The theory of mind also played an important role in the history of autism. It is a theory about the abilities that are indigenous to human beings. The theory of mind is a term used to explain how a person infers different mental states that make people behave accordingly such as beliefs, emotions and intentions. One of the identifying deficits in autism spectrum disorder is that individuals have difficulty with understanding others' minds (Baron-Cohen, 2001, p. 3).

The difference between Asperger´s Syndrome and other forms of autism is an issue still discussed by experts nowadays. It is still unclear what the differences between them are (Feinstein, 2012, p. 4). In 2013, the latest revised version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) brought some changes by bringing subtypes of autism together under the term of autism spectrum disorder (Feinstein, 2012, p. 4). Also, Asperger Syndrome is no longer viewed as a separated childhood disorder, but one of the types of autism spectrum disorders (Wolff, 2004, p. 204). Finally, one of the most complicated childhood disorders, autism, has been accepted as a spectrum disorder.

2.4 Diagnosis of Autism Spectrum Disorder

Children on the autistic spectrum are normally diagnosed with autism spectrum disorder before the age of five, with the earliest diagnostic processes in general starting when the children are between 18-24 months old. Even if signs of behaviour typical for individuals with autism spectrum disorder can be observed at an earlier age, infants cannot be diagnosed when being younger than 8-12 months. It is not possible to give a reliable and clear diagnosis to babies younger than this (Dur, 2018, p. 46).

Some observation criteria for the diagnosis such as a child´s developmental regulation, their behaviour, and how they use language are made by psychiatrists or a diagnostic team of different experts (Dur, 2018, p. 47). The final diagnosis is usually given by a psychiatrist. To make a correct diagnosis, it is very important that children be observed periodically and under different conditions. The most comprehensive diagnostic tools are tools that are accepted by the World Health Organization, contained in the ICD (International Classification of Diseases) and in the criteria from the DSM (Dur, 2018, p. 47).

The American Psychiatric Association has established criteria that are listed in the DSM. Their diagnostic criteria are based on communication skills, social interaction, repetitive behaviour, and stereotypical behaviour. During the diagnostic process, the child is observed by a psychiatrist in an examination room. In addition to this observation, doctors can get necessary information from the parents. They may also ask the child´s teachers and family to fill in a form with a behavioural checklist to understand the child´s situation. In order to give the diagnosis of autism spectrum disorder to a child, the American Psychiatric Association names some criteria in the DSM-5 to be observed in the child (Hallahan et al, 2014, p. 286).

The first criterion is based on a deficit in communication abilities. This deficit must be clinically significant and permanent, and the individual should show a deficit in their non-verbal as well their verbal communication. Another important sign is a lack of social reciprocity and a failure to develop and maintain relationships with peers. These must be

lower than the normal development level if the autism spectrum disorder diagnosis is to be given.

The second criterion is that the child shows restricted, repetitive patterns of behaviour and interests. According to the description of the DSM, an individual with autism spectrum disorder should show a repetitive pattern of interests and activities that are manifested by stereotypical motoric or verbal behaviour, unusual sensory behaviour, or the strong need of having routines and ritualized patterns of behaviour as well as fixated interests. (APA, 2013, p. 1).

The third criterion concerns the occurrence of the symptoms. They should be noticeable in the early years in life. These symptoms should also be affecting the individual enough to be considered a clinical impairment in some areas of individual life such as social or occupational (APA, 2013, p. 1).

When clinicians diagnose children with autism spectrum disorder, they follow a comprehensive, systematic and structured process. This process not only involves the identification of the disorder but also provides important information about the child´s strengths and weaknesses, abnormal behaviour, and other additional difficulties that the child experiences. The diagnostic assessment also clarifies how the child´s condition affects the family (Brentani et al, 2013, p. 64).

The Autism Diagnostic Observation Schedule (ADOS) and Autism Diagnostic Interview (ADI-R) are both diagnostic assessments that are considered the golden standard for the autism diagnosis, because of their reliability and their extensive and detailed content for observations on behavioural and developmental traits of an individual (Brentani et al, 2013, p. 65).

There are some checklists which are used to observe the behaviour of a child who is diagnosed with autism spectrum disorder. These scales and checklists are commonly used by health care providers to give information to the child's family. The Checklist for Autism in Toddlers (CHAT), the Comprehensive Autism Ratings Scale (CARS), and the Observation Scale for Autism (OSA) are the checklists which are used to evaluate a child's situation. The

National Autistic Society (NAS) and the American Academy of Pediatrics (AAP) both emphasize the importance of developing these kinds of scales and checklists because of the increased prevalence of autism and the need for well thought out intervention plans (Dur, 2018, p. 47).

2.5 Prevalence and Causes of Autism Spectrum Disorder

The prevalence of autism spectrum disorder has increased noticeably in recent years. The first epidemic survey of autism was conducted in 1960. Experts found a prevalence rate of 0.04 which means 1 out of 2,500. In 1970 and 1980 there were other surveys that were carried out to find the rates of autism. These also found very similar results to the first one.

However, in the many surveys that have been carried out since 2000, experts have found considerably higher rates for autism spectrum disorder. The United State Center for Disease Control and Prevention (CDCP) conducted surveys and found a rate of 1 in 110 in 2006. When the figures for autism are compared, there is a 57% increase from 2002 to 2006. In 2014 the prevalence of autism spectrum disorder in the Unites States was found to be 16.8 per 1000 (1 in 59) for children who were 8 years old ("Data and statistics on autism spectrum disorder | CDC," 2020).

Experts explain the reason for this great increase with two different factors. The first one results from the changes in, and widening of, the criteria that are used to diagnose autism. Asperger Syndrome started to be recognized as a mild form of autism. The other factor results from the fact that with time there has been a greater awareness of autism in medical, psychological and educational fields. This has led to more individuals getting a correct diagnosis, individuals who previously would have been diagnosed as mentally retarded or as having a language disorder (Hallahan et al, 2014, p. 280).

Opinions about the causes of autism have changed considerably over the years. Hans Asperger assumed that biological and hereditary reasons caused autism. Likewise, Leo

Kanner thought that people have autism because of biological reasons. On the other hand, Leo Kanner also looked at the importance of parenting style. He said that some parents who had children with autism spectrum disorder were not warm-hearted. Bruno Bettelheim is the psychiatrist who is known for claiming the cause of autism is unresponsive and cold parenting. He coined the term “refrigerator mother.” In those days, parents were blamed for their child’s autism. This theory was accepted for a certain period of time. It is true that parents who have unresponsive babies might display some signs of being cold parents, because families and parents of children with autism spectrum disorder go through greatly stressful situations having a child with such a disability. However, these kinds of unresponsive behaviours of parents are not the cause of autism (Hallahan et al, 2014, p. 283).

In past years people have assumed that there is a connection between autism and the measles, mumps, rubella vaccine. The MMR vaccine has been used for the prevention of many of these diseases all over the world. In 2000 the Institute of Medicine at the National Academy of Sciences carried out a survey aimed at finding out if there is a link between MMR vaccine and the autism spectrum disorder. They didn't find any evidence supporting that idea. The American Academy of Pediatrics also investigated autism and the MMR vaccine and found no evidence of any link between them (Preiserowicz, 2015, p. 99).

Genetic factors are considered the biggest possible cause of autism. According to studies, more than one type of genes causes autism. Interaction between these genes causes developmental differences in certain parts of the brain and in neurons. These areas of the brain or neurons are not able to transmit messages like normal developed brain cells do. A person with autism spectrum disorder lacks transmitter cells or has more of them than they need due to developmental dysfunction (Ekici Kilic, 2013, p. 31).

There are numerous studies which are intended to find the relation between the age of the mother and having a child with autism spectrum disorder. In 2012, a meta-analysis using ten studies analyzed data from more than 25,000 people with autism spectrum disorder. According to their results, mothers who are 35 and older have a 1.5-fold increased possibility of having a child with autism spectrum disorder compared to mothers who have a child between the ages of 25-29. Concerning fathers, they went through eleven studies and found

that fathers who are 40-49 years old have a 1.8-fold increased possibility of having a child with autism spectrum disorder in comparison with fathers who were 29 and younger (Preiserowicz, 2015, p. 104).

2.6 Autism and Comorbidity

Individuals with autism spectrum disorder are really different from each other, which is caused by the fact that this disorder can often be found in combination with other mental conditions.

Epidemiological studies show that 54 -70% of people with autism spectrum disorder also have another mental condition. ADHD, anxiety disorders, depression, schizophrenia and bipolar disorders are some of the most commonly occurring additional mental problems (Autism Speaks, 2013, p.14). As some of these conditions have symptoms that overlap with autism spectrum disorder, it can be difficult to diagnose additional mental conditions in individuals who suffer from autism spectrum disorder. ADHD, schizophrenia and bipolar disorders are all neurodevelopmental disorders that very likely have their cause in the early brain development, which also applies to autism spectrum disorder. In addition, side effects of autism spectrum disorder can be increased by stress in daily life and experienced social isolation. This could be a reason why depression or anxiety disorders can occur. If a person with autism spectrum disorder has any other mental health conditions, and if these conditions are not treated, the behavioural challenges of autism spectrum disorder can be greatly worsened (Autism Speaks, 2013, p. 14). An example of this phenomenon of mental conditions often existing in combination with autism spectrum disorder is ADHD. Studies done by the Centre for Disease Control estimate that 6-7 % of the population have ADHD. Among individuals with autism spectrum disorder, the percentage increases up to 30-61% (Autism speaks, 2013, p. 15).

3 SELF-CONTROL AND CO-REGULATION

In order to understand how self-regulation works in children with autism and what the teacher's role in developing self-regulation in these children needs to be, it is important to understand what self-regulation is and how essential it is in typical children.

Self-regulation is a general term which is used to describe managing one's thoughts and feelings to fulfill certain actions. Success in school, workplace and relationships with people are examples of these sorts of actions. Self-regulation has become a well-known term because it has very important beneficial sides for good physical, emotional, social well-being and educational achievements (Murray & Rosanbalm, 2017, p. 1). Self-regulation can also be defined in this way: It is a complex notion which includes different components each of which plays a particular role in several functions such as motor physiological, social-emotional, cognitive, behavioural and motivational. Self-regulation is related to the assertion of these functions and processes and also the coordination between them (Janelle et al 2016, p. 2).

Development of self-regulation is a continuous process starting in infancy. Children first develop self-regulation skills as separate domains to organise their behaviours and over the years they start to use them as integrated skills (Janelle et al, 2016, p. 3).

The development of self-regulation starts from birth and is really intensive during the period of early childhood. Usually after age of 4, it is evident that children can self-regulate themselves. The very first example of self-regulation in childhood is building good and healthy relationships with peers. Children interact with each other and in this way they develop an understanding of the rules and values of the society that they live in (Pazarbasi & Cantez, 2018, p. 269).

Language is a factor which plays an important role in self-regulation development in early childhood. Children can name things and states. They can identify things using expressive language. Another benefit of being able to use expressive language is that children start to manage to keep things in mind in order to fulfill what they are asked to do. Usually children

who managed to achieve a higher level of language develop self-regulation rapidly compared to others who show average or lower development of language (Janelle et al 2016, p. 6).

Mid-adolescence refers to the period of time when a person is between age 11 and 15. In this period, the brain system which seeks rewards and which processes emotions develops. Mid-adolescents start to have a better cognitive control system such as future planning and decision-making. Self-regulation skills keep developing throughout young adulthood. It means that it is possible to support individuals by improving their self-regulation skills further (Murray & Rosanbalm, 2017 p. 1).

Self-regulation has great importance for child's socioemotional and cognitive development. Children who achieve an optimal level of self-regulation are more likely to be individuals who fulfill social expectations. Self-regulation is essential for optimal educational achievements. When a child does not develop his/her self-regulation skills sufficiently, it brings lifelong consequences that keep influencing the individual in many aspects of life, such as life satisfaction, social behaviour, and physical health. Briefly, these consequences determine the quality of an individual's life. (Jaramillo et al, 2017 p. 1).

There is a study which was carried out to understand the relation between regulation skills and relationships. The study found children whose ability to pay attention received a high score and whose ability to control impulsive behaviours and regulate their own behaviours was also scored high. Furthermore, the children who received good scores for controlling impulsive behaviours also received good scores for self-regulation. As expected, children who had good scores for self-regulation also obtained good scores for being social with their peers. According to the test results, the children who could not get a good score for self-regulation also felt excluded, worried and fearful. Sadly, these children also had low scores for being social with their peers (Pazarbasi & Cantez 2018 p. 280-281).

Most people consider self-regulation as something internal. However, self-regulation develops through interaction with other human beings such as caregivers and parents; this is called co-regulation. A predictable, responsive and supportive environment plays a very important role in developing self-regulation. For this reason, teachers and parents have great

responsibility for an individual's self-regulation development. Parents of infants should be aware of the fact that their active participation in co-regulation is vital for the development of their infants' self-regulation. Parents have to meet infants' needs such as eating, sleeping and cuddling. For an older youth, parents and teachers should provide co-regulation when needed such as when the youth faces complex life transitions and overwhelming situations (Rosanbalm & Murray, 2017, p. 1-2). Co-regulation varies from culture to culture because cultures are different from each other. A specific behaviour which is accepted as a desirable one in one culture may not be as important in other one. For this reason, parenting theories, goals and practices for teaching the child how to regulate himself may show some differences from place to place (Jaramillo 2017, p. 3). Unfortunately, relationships can be stressors, so help is needed to tolerate stress better. Positive social support such as providing assistance and comfort are a great help for people who suffer from stress (Melucci, 2009 p. 263-264).

4 ASPECTS OF AUTISM THAT AFFECT SELF-CONTROL

4.1 Sensory Issues

Sensory perception issues have a number of factors which cause stress for individuals with autism spectrum disorder. Recent research has proved that people with autism have sensory problems (Grandin, 2020, ch. 3). Many individuals with autism spectrum disorder mention that there are unusual behaviours in the way that they compensate themselves when they are dysregulated because of the sensory conditions that are overwhelming for them (Bogdashina, 2016, p. 32).

Every person has their unique individual perception. Culture, experiences, interests and motivations affect the ways in which a person perceives the world. Each of us sees the world a bit differently. A lot of things are connected to each other, but unlike others, individuals with autism spectrum disorder are not able to comprehend these normal connections between things and events. This is why they feel confused, scared and overwhelmed in the face of simple daily things (Bogdashina, 2016, p. 55). In some cases, we see that the perception of an individual with autism spectrum disorder is dramatically different from the perception of typically developed people. A typically developed brain is capable of filtering the unwanted stimulus coming from the environment to perceive the targeted stimulus. However, some people on the spectrum are not able of such filtering. For example, whereas neurotypical people are affected little or not at all by certain stimuli, people with autism spectrum disorder sometimes feel extremely annoyed by loud noise or the texture of some clothes (Grandin, 2020, ch. 3). Also, some people with autism spectrum disorder may not be able to communicate with others using multiple senses at the same time, such as making eye contact while listening (Grandin, 2020, ch. 3).

Children with autism spectrum disorder are not capable of paying the required attention in their learning process due to disordered sensors. A lot of people with autism spectrum disorder claim that sensory problems are the most difficult issue of having the disorder

because they deal with these challenges on the daily basis. It is thought that sensory problems are the reason why some non-verbal children tend to touch, tap or smell objects (Grandin, 2020, ch. 4). Finally, one of the most complicated features of autism spectrum disorder is that two people on the spectrum do not experience the world in exactly the same way due to individual sensory perceptual experiences (Bogdashina, 2016, p. 56). Olga Bogdashina lists 15 different sensory experiences and teachers should look for and should see what sensory experiences an individual student may be having (Bogdashina, 2016, p. 56).

People with autism spectrum disorder may have either hyper or hypo responsiveness (Fazlioglu & Gunsen, 2011, p. 345). Sensory disorders can be caused by hypersensitivity. Because of a hypersensitivity problem, children with autism spectrum disorder may feel a stimulus in a painful way. The child who suffers from a hypersensory perception problem can give the following responses: withdrawal or screaming and yelling. In some worst cases, a child may shut himself down because of his inability to deal with sensory problems (Grandin, 2020, ch. 3). Sensory disorders can also be caused by hyposensitivity, in which the person seeks stimulation (Fazlioglu & Gunsen, 2011, p. 359).

Sensory perception issues may cause painful experiences and fear for a person with autism spectrum disorder. Memories are connected to emotions; whenever we recall the things, we also experience the feelings that we went through. Parents and teachers may not understand why a child displays some behaviours. The reason could be that the child is caught up in memories which affect him/her intensively. It is as if the child is experiencing the event all over again. In some cases, memories could be traumatizing for a child and they may cause a meltdown or extreme panic. The triggers could be hard to find because they vary. They could be a visual image, a sound or even a simple name (Prizant & Fields-Meyer, 2016, p. 95-98). Some children might avoid certain objects or places because of the painful sensory experiences that they once had. Fear may be the reason causing a non-verbal child with autism spectrum disorder to have a tantrum (Grandin, 2020, ch. 4).

4.2 Social Issues

Social situations are another stress factor for individuals with autism spectrum disorder. People suffering from autism spectrum disorder have trouble communicating with others in the mutual way. Some people with autism spectrum disorder hardly make friends or maintain relationships. People on autism spectrum disorder have many social deficits leading them to feel confused and overwhelmed. Professionals agree that for some people with autism spectrum disorder it is hard to identify others' emotions and non-verbal expressions (Donvan & Zucker, 2016, p. 91).

The social symptoms of anxiety in autism spectrum disorder were first noted by Hans Asperger and Leo Kanner. They noticed that children they observed were fearful towards social situations and obsessed with particular things (Kent & Simonoff, 2017, p. 7). There is also recent evidence showing that people on autism spectrum disorder experience negative feelings more than non-disabled individuals do. The situation is the opposite for positive feelings: People with autism spectrum disorder experience positive feelings less than non-disabled people (Samson et al, 2014, p. 903).

One problem is that social interaction often leads to such a situation that children with autism spectrum disorder are bullied. Seventy percent of children on the spectrum are bullied. Unfortunately, non-disabled children tend to bully the children with autism spectrum disorder verbally and to use also other forms of bullying. Some individuals with autism spectrum disorder want to build friendships with others, and if they fail to establish friendships it causes them to feel highly distressed (Donvan & Zucker, 2016 p. 92). Bullying can even cause the children on the spectrum to leave school (Grandin, 2020, ch. 1).

Some people on the spectrum find out that it is easier to deal with intellectual complexity rather than emotional complexity. Others learn social rules without understanding or feeling the emotional aspect of them. Finally, it should be considered that some people with autism spectrum disorder could be introverted just in the same way as some non-disabled people are. It doesn't mean that all withdrawal behaviours come from autism spectrum disorder (Grandin, 2020, ch. 6).

4.3 Communication Issues

Regarding communication, people assume that persons with autism spectrum disorder are not intelligent. Non-verbal children with autism spectrum disorder are usually assumed to have no intelligence or to have very low intelligence because intelligence is commonly thought to be related to speech. In the past, professionals assessed non-verbal children to get their IQ score. They believed that 75% of non-verbal children were at the level of being mentally retarded. They made this assumption relying on IQ tests. However, this test score should not be the indicator of how children can learn because learning depends on other factors and children's other abilities as well (Grandin, 2020, ch. 4).

Catherine Lord from the University of Michigan carried out research in 2004. It was commonly assumed that about 50% of people with autism spectrum disorder were non-verbal. However, Lord found out that only 14% of the sample of children that she examined were non-verbal. Moreover, 35% to 45% of the children were able to speak the language fluently (Grandin, 2020, ch. 4). The source of frustration for those with autism spectrum disorder is usually the disability to communicate with others effectively. Because of disabilities stopping a child from talking, the child may tend to try to use his behaviour as a compensatory communication way (Grandin, 2020, ch 4).

Sometimes, methods and interventions used for non-verbal children with autism spectrum disorder to alleviate their behavioural problems do not work because the children are not able to say how they feel. In these cases, behaviour is the only communication means that they can use to express what they feel (Grandin, 2020, ch.4).

5 INTERVENTIONS AND ATTITUDES

5.1 Types of Interventions

There has been a great increase in the prevalence of autism spectrum disorder over the decades. This fact has brought about the need for effective treatments for people on the spectrum. Over the last decades scientists have made a great effort to develop intervention programs for young children with autism spectrum disorder that could be as effective as possible for them. Despite the fact there are so many different approaches to treatment of individuals on the spectrum, there is no particular intervention program which is specifically working for all children who are treated (Magán-Maganto et al, 2017, p. 12).

Over time, therapists and teachers have used many different methods in the treatment of children with autism spectrum disorder. Many therapists use a widely-known method called ABA (applied behavioural analysis). B.F. Skinner was a behavioural psychologist, and his theory on human behaviours claims that behaviour is something to be manipulated and controlled by others and by conditions. ABA is a method that is based on Skinner's Theory (Rosenblatt & Carbone, 2019, p. 68). Lovaas, who helped develop ABA, used electric shocks as a punishment to produce desired behaviours (Silberman, 2016, p. 291). However, in 1988 the board of directors of the Autism Society of America decided that punishment techniques were banned (Silberman, 2016, p.304).

Another treatment method is known as Pivotal Response Training. This training used to be known as "Natural Language Paradigm" and targets to help individuals to develop their behaviours which affect their other behaviours, such as motivation and self-management. Pivotal Response Training focuses on a group of behaviours, not only a specific one. Successful outcomes of this training are that children have better playing skills and better social skills and are more easily able to control their own behaviours (Rosenblatt & Carbone, 2019, p. 72) Increasing the child's motivation is the essential feature of this therapy, and activities chosen by the children themselves are used in this therapy. There is some evidence

showing that Pivotal Response Training is a helpful intervention for children with autism spectrum disorder (Lei & Ventola, 2017, p. 1614). This method is different from the ABA therapy, which requires many hours and causes children not to participate in the therapy sessions. Thus, there are mainly two reasons that experts developed Pivotal Response Therapy. The first reason is that they wanted to prevent children from skipping therapy sessions. Secondly, they wanted to measure a child's emotional development (Koegel & Koegel, 2019, p. 4- 5).

Another treatment approach is the sensory integration therapy, which was founded by Jean Ayres, who worked as an occupational therapist in the 1970s. Sensory integration refers to children's ability to feel the emotional stimulation originating from their own body and in the environment where they live. When the brain processes information, it uses the information to form perceptions and enhance the learning process. When sensory integration works properly, the body functions harmoniously through the stable processing of sensory integration. In this case, it is easier for children to learn and exhibit expected proper behaviours (Kurt & Yurtcu, 2017, p.159). There are a lot of different therapies used in sensory integration therapy such as body brushing (which involves brushing the arms and legs with a firm brush) and specially designed swings. Sensory integration therapy helps the child to be more responsive and tolerate the environment better (Rosenblatt & Carbone, 2019, p. 80).

Another therapy is cognitive behavioural intervention (CBI), which is a therapy that is based on the belief that behaviours can be changed when the emotions and cognitive processes causing the behaviour are targeted. For this therapy, individuals' intelligence level matters for the sake of interactions between the therapist and the individual who is being treated. In this therapy, an individual is basically taught to realise his thoughts and emotions because the way of thinking determines the behaviour (Wong, 2016, p. 52).

Research has also found that exercises might possibly be helpful for children with autism spectrum disorder to improve their social-emotional functioning cognition and attention (Bremer et al, 2016, p. 912).

Another common method that is used is TEACCH (Treatment and education of autistic and communication handicapped children), which is one of the best-known educational programs all over the world. It was developed by Eric Schopler especially to teach the child on autism spectrum disorder. TEACCH aims to teach and train children in many different things that need improving, such as perceptual skills, imitating and motor skills, proper communication ways, and social skills. It also aims to help children to be independent as much as possible without expecting them to be completely "normal". TEACCH is designed to teach the child skills which help him to integrate himself into society at a possible level. TEACCH also emphasizes autistic culture in the way that people on the spectrum communicate and perceive life, and identifies some typical patterns of behaviours they display (Kurt & Yurtcu, 2017, p. 158)

Educators also use a method called Floortime-DIR (developmental individual differences relationship-based), which is the model developed by the child psychiatrist Stanley Greenland and his colleagues in the 1980s in the US. In this model, therapists focus on skills that are very critical in child development. In this sense, therapists train the child to build social relationships with others, to communicate purposefully and meaningfully, and to think creatively and logically. At the same time, therapies are performed based on the principle of interaction between the therapist and the child, which supports the child to develop emotionally. (Kurt & Yurtçu, 2017, p. 160)

The last approach on our list is Early Intensive Behaviour Intervention (EIBI), which targets developmental areas such as playing, communication, and emotional and cognitive development. This program aims to teach the child to be more adaptive and functional in these areas. It is also used to minimize some undesirable behaviours such as aggressive behaviour and sleep and eating disorders. Usually a team that consists of three to six people work with the child with autism spectrum disorder. People in the team are especially educated on autism spectrum disorder. Children who are under the age of 3 are expected to join the therapies for 10-15 hours a week in the beginning and the team gradually increases the amount of time that they work with the child. Children aged from three to five are asked to attend therapies 5-7 days a week and 5-8 hours a day (Kurt & Yurtçu, 2017, p. 162)

5.2 Underlying Attitudes toward Autism

The way you choose treatments and interventions depends largely on how you view autism. One underlying idea about autism is that it is bad and people with autism harm society. Because of this idea, one response to autism was eugenics. Eugenics means directing human evolution. The goal is developing a better race of human beings. The result of this idea was that 30% of the states in the United States made laws that mentally disabled people should be sterilized so that the next generation would not be disabled (Silberman, 2016, p. 110-116). Another example of the perspective of seeing disabled people as a problem is the approach taken by Hitler, who wanted to kill all disabled people. He set up a program using hospitals and clinics to do this (Silberman, 2016, p. 131). In the past, the American government also put disabled people into special institutions to separate them from the society because in those days disabilities were something to be ashamed of (Silberman, 2016, p. 164).

Autism has also been seen as a psychological problem. Leo Kanner and Bruno Bettelheim believed that autism is caused by bad parenting and that psychoanalysis is the best treatment for autism spectrum disorders (Silberman, 2016, p. 182-184).

Another view of autism is that it is a sickness and can be cured. In the early 1900s, parents were fooled because they had a strong hope and desire for the cure of autism. Some companies created interventions to make money (Grandin, 2020, ch. 7). More recently, Bernard Rimland strongly believed that a cure for autism would be found. Sadly, it was a great distraction from getting doable work done that would have been helpful for children with autism spectrum disorder to live a better life (Silberman, 2016, p. 311) Also, Autism Speaks created a website in the early 2000s. On the website it was written that autism is an illness and this illness could be defeated. The organisation and its writings presented autism as an enemy to be defeated (Donvan & Zucker, 2016, p. 518).

Another common idea is that the goal of treatment is for the child to appear normal. Thus, some treatments teach children to appear normal through teaching them to make eye contact with others and thus to look normal. However, this could bring unexpected consequences;

for example, a person with autism spectrum disorder may be more anxious and less regulated because of being forced to make eye contact (Prizant & Fields-Meyer, 2016, p. 128).

Another approach is that treatment should help the child by lightening the load of sensory issues. One method of this kind is desensitization, which is a way of teaching children to tolerate a difficult stimulus. Children are in control, and the stimulus gradually increases. Also, educators and other caretakers help the child make some changes in the environment, such as shielding the child from fluorescent light or keeping the child's environment quiet (Grandin, 2020, ch. 3).

Another way to deal with autism is to target the treatment at the child's functionality and a higher quality of life. Educators' goals for the education of children with autism spectrum disorders should be developing their potential, so the interventions should not be against it. In other words, we should not try to get rid of autism spectrum disorder (Bogdashina, 2016, p. 38). Similarly, teachers should not try to stop the speech patterns that children use because echolalia is the way that children with autism spectrum disorder communicate and connect with the world (Prizant & Fields-Meyer, 2016, p. 39). An example of this is a child who uses lyrics and songs from a movie to express his feelings and connect with his family (Suskind, 2016, p. 7). Also, we should not get rid of a child's special interests or passions; instead of doing this, we should expand and use them to develop useful skills (Grandin, 2020, ch. 2).

In addition, a child's aggressive behaviours can be a barrier to his functioning at home and in the community. Thus, it is important to minimize behaviours like aggression because according to research, 50% of children who have autism spectrum disorder have aggression problems. It is important to choose what behaviours to change; not all behaviours should be changed (Rosenblatt & Carbone, 2019, p. 69).When we consider autistic behaviours, the very first thing that we need to do is to find the underlying causes of these autistic behaviors (Prizant & Fields-Meyer, 2016, p. 17).

Additionally, if the goal is for children to be functional, they will need to be directed. For example, it is not good if the child is allowed to engage in self-stimulatory behaviours all day

because he /she cannot learn anything. An educator should make sure that the child is engaging with the world (Grandin, 2020, ch. 4).

The last approach to be mentioned claims that autism is different, not worse, and society should change. In 2006 ASAN (The Autistic Self-Advocacy Network) argued that people with autism spectrum disorder require support but that autism spectrum disorder is not a sickness and does not require a cure (Rosenblatt & Carbone, 2019, p. 520). The ASAN association emphasizes changing society so that autistic people's needs are met but does not think autistic people should be changed in any way (ASAN, 2020). (Note: ASAN prefers the term “autistic people” to the term “people with autism”.)

6 THE ROLE OF THE TEACHER

A child´s achievements and progress in his/her education depend quite a lot on the person working with that child. The teacher should never forget or ignore that the child comes to school as a student lacking social thinking. Children with autism spectrum disorder need a teacher who is a good detective and tries to understand the reasons causing the child to have difficulties with learning (Grandin, 2020, ch. 3).

In addition, Asperger himself gave the following advice to teachers: In short, the teacher has to become somehow ‘autistic’ (Silberman, 2016, p. 47).

Being aware of the importance of the teacher in helping the child with self-regulation, I wanted to learn from experienced teachers, from their ways in which they interacted with their students with autism spectrum disorder in order to help them to learn self-control.

7 A QUALITATIVE INVESTIGATION OF SELF-REGULATION IN AUTISM SPECTRUM DISORDER

7.1 Why Qualitative Research

In my thesis I decided to do qualitative research because I wanted to see what teachers were doing practically in the classroom. Downsides and benefits of qualitative research are discussed below, as well as reasons why qualitative research was chosen for this thesis.

It is true the qualitative research has some downsides. Qualitative research is used, unlike quantitative research, for smaller groups of respondents. Research results are subjective because the researcher analyses the collected data. Qualitative research cannot be replicated. Another downside of qualitative research is that it is time-consuming; it requires more time to collect the data ("Qualitative vs quantitative research," 2008).

However, there are a number of reasons why qualitative research worked well for my research. One of the strengths of qualitative research is that it helps the researcher reach practical goals. On the other hand, quantitative research is ideal for intellectual goals, such as when you want to understand something (Bazeley, 2013, p. 7). In my thesis, I had a practical goal, which was to look at methods of teaching self-control and self-regulation. Specifically, I hoped to learn about what methods were effective for achieving these results. Another strength of qualitative research is that researchers are very involved in the process of collecting data. For this reason, researchers can pick up the things that can be missed by quantitative research. Qualitative analysis is closer to the real-life situation; in other words, qualitative analysis shows real-life situations with descriptions and a narrative style (Bazeley, 2013, p. 28); and my purpose in this study is to research real-life situations. Another benefit of qualitative research is that it provides detailed information from people who participate in the research. Qualitative research is a suitable method to collect information in terms of the human side of the topic of research. It is possible to collect information about behaviour, opinions, emotions and relationships that people have (Family Health International et al.,

2005, p. 1). This worked well for my research because the participants were more involved in the answers. For example, one participant said about her student, "He knows that I truly love him and want the best for him." Quantitative research does not provide information like that. Finally, qualitative researchers deal with individual experiences and relationships. We see open-ended questions in the qualitative research which individuals participating can answer in their own way. It shows that qualitative research allows for flexibility in collecting information from participants (Family Health International et al., 2005, p. 3-4).

7.2 Method of Research and Analysis

I carried out the qualitative analysis by writing a structured interview with 15 open-ended questions. The interviews were carried out through the e-mail communication with professionals working in Mona Shores Public School District in Michigan in the United States. (Note – The United States does not have a national school system. Mona Shores Public School District is one of many districts overseen by the Michigan Department of Education.) The Mona Shores Public District has a high school, a middle school, and four elementary schools. (Mona Shores District, n.d.) Mona Shores Public School District provides special education through many different services. Early-On and Early Childhood Special Education Programs provide special education to preschool children through home visits and classrooms. For kindergarten to 12th grade there are three levels of special education support: Teacher Consultant Services for children attending general educational classes, Special Education Resource Programs for children who are in general classes but need direct support in certain areas, and Special Education Classroom Programs for children who require a self-contained classroom. Every child has an Individualized Education Program and participates with non-handicapped classmates as much as possible. (Mona Shores District, n.d.) My data are from 12 interviews with Mona Shores Public District employees. For privacy reasons, no teachers' or students' names were used. The interviewees represented all of the different special education services offered by Mona Shores Public School District. I also acquired

structured interview results from a teacher who worked at Škola Svítání in Pardubice in the Czech Republic. (Svítání, n.d.) Svítání is a state institution in the Czech Republic and it includes both an elementary school and a practical school. It provides children, young people and adults with disabilities with education and other services aimed at developing their personality and involvement in everyday life.

Regarding my structured interview, I asked a few general questions and then focused on self-regulation related questions. The first two questions were asked to find out about the context that the teachers and students were in. The following question focused on the social relationships that students had with peers and others, because these have a large effect on children's self-regulation. Finally, the rest of the questions were directly related to self-regulation and children's emotions. The questions included in the structured interview are presented in Appendix A.

Regarding the teachers who participated in the interview, they taught children from different grades. The children mostly ranged in age from kindergarten to 8th grade. However, two of the teachers who participated in the interview worked with younger children who were between 2 and 4 years old. Many of the teachers who participated in the interview had been working with their students for a number of years.

Regarding the students who were discussed in the interviews, they were at various academic levels. It is possible to say that all of the children who the teachers worked with were able to learn at certain level. Some students were even considered good students due to their high level of academic performance. On the other hand, according to some teachers' answers, some students on autism spectrum disorder were doing poorly academically. Some students had particular learning deficits causing them to fall behind in their academic work in comparison with their peers and some were using a simplified curriculum designed for students with cognitive impairments. Some teachers made special comments concerning the fact that the students who they worked with needed special supportive equipment and techniques in the learning process.

Regarding the students' social abilities, only one of the teachers described his student as a social student. The other teachers mentioned social problems that their student have, activities and things which their students are not capable of doing, and kinds of supports the students need to communicate properly. Many teachers indicated that their students sometimes are not able to understand social relationships and clues.

In the text below, the results of the structured interviews have been analyzed in three different ways. The first analysis is a personal reaction of how I met my goal of learning from teachers. The second analysis concerns the common issues that came up in the interviews. My third analysis concerns the interview responses in light of the theoretical part of my paper. At the end of these analyses, I present my conclusions and offer some recommendations for people working with children with autism.

7.3 Analysing My Reactions to the Teachers' Responses

When I looked at the results of interviewing the teachers, I gained a greater understanding and better awareness of a number of issues related to teaching children with autism spectrum disorder.

One of the things I realized more clearly was that each child with autism spectrum disorder is different. There are some problems and needs that I thought all child with autism spectrum disorder have in common. However, I was struck by the fact how unique the needs of each child were and, as a result, by the fact that solutions that worked for one child did not work for another child. For example, one teacher wrote, "I have tried many things that haven't worked!! It seems to be different for each child."

Having gone through the answers that the teachers gave, I also realised that children not only have unique deficits but also unique abilities. It shows that autism is a spectrum, and that each child on that spectrum is unique. For this reason, all children are affected differently and their teachers must take a different approach to help each child. For example, for one

student who was more anxious and aggressive in the afternoon, her teacher said. “We have her take a nap (especially in the afternoon).” For a different student, the teacher had found a different technique was successful: “Sometimes we match her emotion and then teach her how to bring it down by example.” One final unique approach was for a student who enjoyed drawing; her teacher said, “Have her draw about what is wrong” for helping the child express her anxiety or frustration.

Another thing that struck me was that a number of teachers said that when they work on students’ individual problems, it usually takes them a long time to teach the child a new pattern of behaviour. Changes do not happen quickly. One teacher wrote, “It takes many months to develop a new behaviour, especially with students with cognitive impairments. Any progress is something to celebrate. He wouldn't respond well the first week, but would start to respond better after he got used to the new changes.”

Another thing that surprised me was that for some children's particular problems, there may be times when nothing works. This fact was very striking because it is a possible situation that every special needs education teacher might face. One teacher reported, “Some days these strategies work and other days it is a constant battle.” Another teacher agreed: “But sometimes those (strategies) do not work and it seems as if nothing works.”

I also realized that self-regulation is targeted toward more than one area in a child's life. All the teachers who participated in the interview stated that they teach children self-regulation using a variety of methods. One of the most common ones was called “The Zones of Regulation”. Personally, I found it to be a very useful practice because it can be useful both for a children’s educational achievement and for helping the child to be functional in society as an individual.

I also learnt that teachers use a large number of methods and techniques that I was unaware of to help children with autism spectrum disorder. Many teachers stated that they use things like a weighted blanket or gentle squeezing techniques for children's sensory issues. For example, one teacher mentioned, “We have tried squeezes where we squeeze her arm seven

times from her wrist to her shoulder just applying enough pressure." They also allow child self-stimulation times when they are needed.

I was also surprised to learn that most of the teachers said that their students feel anxious for some reasons almost every day. I thought it must be really hard to always have to deal with a child who is helplessly feeling anxious. In addition, this situation stops the child from learning new skills and implementing practices that he/she has learnt previously.

I was also impressed by how important it is to keep the child's mood stable during the time he/she is at the school whenever possible. One teacher wrote, "She feels this daily. If she hasn´t slept, she is incredibly hard to work with. She is also triggered by needing to work on a hard task." About another student, a teacher wrote, "When she is anxious or upset she will get a stubborn angry face and say she is mad. Then she may go into screaming, crying or yelling." Regarding an especially difficult student, a teacher wrote: "I feel she is angry probably 75% of the time out of a regular school week… Some days it (working with her) is like walking on eggshells."

Although dealing with such students must be difficult, one teacher wrote about the progress he made with such a student:

> He expresses emotions by crying, yelling, or becoming physical (hitting, kicking, throwing things). He is somewhat aware of emotions but often not enough to stop them at the beginning before he becomes upset. But he is getting better at leaving his general education classroom when he is beginning to be upset and coming to the special education classroom for support before becoming explosive. He is working on strategies to calm himself (cool water or cloth, sensory items to use, weighted blanket to lay with, etc.)

I also became more aware of how common aggressive behaviour is. Aggression was another problem that teachers mentioned commonly. Some of them suffered from children's aggressive behaviours such as biting, kicking, and hitting. In my university classes, we learned about aggression problems from a book or lecture and we comprehended what it was. However, in practice things are not as easy as reading about this problem in a book. Teachers

encounter a great many difficulties because of the problem of aggression on a daily basis. Here are some of the things that they wrote: "(Common behaviors for this student are) yelling, running after us with swinging arms, biting us, kicking us, and scratching us. Sometimes she will even start destroying school property such as ripping up books, throwing things, and destroying the calm down tent by ripping it down." For another student a teacher wrote, "She will yell at us from across the room if she needs help and becomes very agitated. She will then begin to bite herself if she does not get her way." Happily, one teacher also wrote about the progress she had seen in the student in dealing with her aggression, although there were still issues that she was dealing with: "She expresses her emotions by crying, screaming, yelling and throwing things. She used to hit and kick, but that was not happening when school closed. She is aware of her emotions, but can't always accurately identify them or why she is feeling that way."

Also, as I read the answers, I better understood the idea that a child with autism spectrum disorder has his or her own personality despite the deficits he/she specifically has in some areas of his/her life. For example, some of them prefer to be social with others and this pleases them; it is just similar to the fact some people are naturally extroverted. For example, one teacher wrote "She likes her peers and they like her. She likes to play and work with them but doesn't always understand when she can't: be first in line, get to read the part she wants to read, or play the game that she wants to play. She does well with adults that she knows and feels close to." For another student, her teacher wrote, "She likes to interact with her peers - but makes inappropriate comments and noises. She does the same with adults - mom has shared that at the supermarket she has asked people why they are so fat / why they are so old / etc. She does not understand social expectations or behaviour." One student had this interesting trait: "He enjoys reading name tags, meeting new people and introducing himself." For another student, a teacher wrote, "He really wants to be like the other students."

I was also surprised by the limited number of students most teachers were dealing with. According to the difficulties that teachers mentioned, I think that they must have at most five students in the classroom. They often mentioned that it was challenging to teach the child

every day due to the child's changing mood. One teacher reported, “Depending on the day she can come in happy or very moody. Sometimes the littlest things can set her off.”

Finally, I was encouraged by parents who cooperated with teachers. One interview question was about the cooperation between parents and the teacher. I asked this question because I believe there should be certain consistency between what the teacher and the parents do. Most teachers said that parents of children cooperate with them well in terms of the child’s education. One teacher said, “Yes, parents are excellent about carrying over school interventions and vocabulary into the home.” Another teacher had a similar experience: “This past year we did monthly meetings with mom to work on emotional management strategies. She is very good at communicating and carrying over strategies at home.”

7.4 Analysing Common Issues in Teachers’ Responses

There were four issues that I found in the interview responses and I would like to give some details about each one of them.

7.4.1 Emotional Dispositions

One of the issues revealed by the interviews was that children on autism spectrum disorder have a wide variety of emotional dispositions. The children who the teachers talked about were certainly not standard. For example, one child had issues with anger, and her teacher said she was angry 75 percent of the day. Even small events could be triggers for aggressive behaviours such as kicking, yelling scratching, and even running after the teachers. Only one of the students was a people pleaser who expressed his emotions well. Another student had a completely different emotional make up; he was either happy or upset, but he was rarely anything in between. When he was not very happy, he seemed to be crying, yelling and/or

refusing to do anything. Another student with a limited language ability was able to express her emotions but only when she had the opportunity to use pictures to do this. On the other hand, another student seemed to be constantly aware of his emotions, but he still became anxious, angry, or upset two or three times per day. Unlike other students, he would usually respond to getting angry by crying, and it was very important to him to have physical reassurance such as a hug or pat on the back when he experienced these emotions. Two of the teachers said that the students are willing to use strategies and methods to regulate themselves. One of students learnt how to use the zones of regulation (explained below) effectively when he got anxious or needed to use it for other types of emotional control. Another student said that he wanted to be like other students; as a result, he was eager to use mindfulness strategies. Another example is a student who was able to express his happiness and sadness, but when he got anxious he tended do self-harm, become physical and applied hitting, kicking, and scratching. Another type of the emotional disposition occurred in a student who shut himself down whenever he felt anxious. He preferred not to talk and listen to anyone; mumbling to himself was the way he calmed himself down.

Because of this wide range of emotional responses, it was clear that children on autism spectrum disorder have their unique emotional makeups. It was also clear that each child needs to be approached differently by his/her teacher. The approach the teacher uses must be appropriate for that child's unique emotional disposition.

7.4.2 The Zones of Regulation

Another common issue that came up was that almost all of the teachers talked about a method called The Zones of Regulation. Here are some of the teachers' comments about this method:

- (Due to this approach) we can see less intensity, duration, and frequency in his major physical aggressions.

- This student responds well to this curriculum. He is able to identify what zone he is in, and we are working on what strategies he can use when he is in those zones.
- We started with this two years ago and have found it to be VERY helpful.

Because of the teachers' positives comments about this method, I was inspired to learn more about it. I found out that The Zones of Regulation is an educational method which is used by teachers to teach children how to manage themselves and how to manage their emotions. This method originally comes from the cognitive behavioural therapy. Here is a basic description of the method: Zones of Regulation has four different colours and each colour has a bunch of different emotions that a student is feeling. The student is asked to identify what zone he/she is in to help him/her to understand what his/her emotional state is. If the student can identify his/her emotional state, it is hoped that he/she can try to regulate himself/herself or ask for necessary support from others. With time and practice, the child starts to be more aware of what is happening in his/her body and of causes of these changes. He/she also starts to be aware of how his/her behaviours influence other people who he/she interacts with. The expected result is that the child may start to improve his/her ability to regulate himself/herself emotionally, his/her self-regulation skills improve, and the child becomes more self-aware. The Zones of Regulation method is designed as an educational material that is rich in visual learning clues and which is suitable for children with autism spectrum disorder. ("The zones of regulation: A curriculum designed to foster self-regulation and emotional control," n.d.)

7.4.3 Awareness of Sensory Issues

The third issue concerned sensory items. Almost all the teachers mentioned that they allowed their students to have a self-stimulatory time. The teacher used a variety of sensory techniques to calm the child down. The methods that the teachers used included: weighted blankets, the squeezing technique, and allowing the child to spin in a chair. It was especially

surprising that this was a common issue because I didn't ask any specific question about sensory experience or the sensory interventions that teachers apply, yet this issue came up often in the interview responses. Many classrooms or special education rooms have a box which they called the sensory box or the sensory toolbox. Most of the teachers mentioned that they have sensory break time scheduled into their program to keep the child calm and to prevent an outburst.

7.4.4 Social Issues

The final issue concerned students' social interactions with their peers and other people. Again, there was a great variety in the way that children on autism spectrum disorder interacted with those around them. Most of the behaviours and the ways in which students interact with others were typical of children with autism spectrum disorder. Here are some ways that teachers reported students' interaction with others:

- ignoring peers
- repeating the same word
- preferring to stay alone
- talking with himself or herself
- misinterpreting
- having wrong assumptions about people's feeling
- playing on his/her own
- difficulty with making eye contact while having a conversation
- echolalia
- making inappropriate comments and noises
- not having friends
- tolerating only those that he/she likes
- spending his/her free time at home usually by himself

Sadly, one of the teachers said that even though his student longs for peer interaction, he is not able to do it because he tends to repeat what he hears from his peers and others. Another teacher said that her student wants to have a conversation with other people, but she often makes inappropriate comments and she does not understand which comments are socially acceptable.

According to the answers, some students have special interests that they want to talk about and use in their communication. However, one teacher said the downside of talking about the same things is that the child's peers are not really patient with listening to the same things over and over again.

7.5 Analysing Teachers' Responses in Light of My Paper

In this section of my paper I would like to make connections between the teachers' responses in the interviews and the theoretical part of my paper.

7.5.1 Lazar and Asperger

To begin with, I understood from the teachers' answers that all children that they work with follow a special curriculum which is designed to meet their unique needs. In the theoretical part of my paper, when I wrote about the history of autism, I learned that Erwin Lazar, who established the clinic that Asperger worked at, did not see the children as sick or broken. Rather, he figured out that children with special needs needed a special way to learn. Lazar and Asperger concluded that it is necessary to give an intense level of attention to these children. From the teachers' answers in the interviews, I can understand that they must be giving this type of intense and specialized attention to the children on autism spectrum disorder who they work with, just as Lazar and Asperger suggested.

7.5.2 Children Under Five

Another theoretical issue which was confirmed during my research was that children with autism spectrum disorder are usually diagnosed before the age of five. In my interview, I did not specifically ask any questions about young children, but two of my respondents gave the information specifically about children in the under-five age range. I learned that at this age teachers are not only able to diagnose autism but also able to start teaching self-regulation as well.

These two respondents stated that they worked with preschoolers. One of them trained very young children between the age of 24 and 36 months, and the other one discussed a four-year-old child that she worked with. Both teachers wrote about "Conscious Discipline", a method that provides strategies to teach children how to become aware of their emotions and also how to help them prevent outbursts. More specifically, Conscious Discipline is an evidence-based methodology combining social, emotional, physical, cultural and cognitive learning in one curriculum. It can be used in all types of classes, not just special education ones. It focuses on adults learning self-management for themselves in order to teach children *(Conscious Discipline, 2020).*

In addition to the Conscious Discipline method, the teacher who worked with the four-year-old preschooler said she used solution cards, calming items, breathing techniques and social stories. She stated that all these interventions were useful. Conversely, the teacher who worked with even younger children said some of the methods that she had tried had not worked. She also claimed that some of the things that worked for children in this age range included swinging, firm pressure, and weighted lap pads. The same teacher also said that social stories and the Conscious Discipline method were beneficial for children who were this age.

7.5.3 Co-Regulation

Another issue connecting my theoretical research and the interview responses was the issue of co-regulation. In my research I mentioned the importance of co-regulation and its impact of the development of self-regulation in a child. In the interviews, I asked two different questions dealing with the teachers' own emotions and the trust between teachers and learners. Referring to the answers given to those two questions, I can say that almost all of the teachers say that it is absolutely crucial to stay calm while teaching.

In addition to the importance of remaining calm, the respondents also mentioned the following factors: staying positive, using a soft tone of voice, and telling the child about his or her own emotions using the zones of regulation. These answers are also connected with the importance of teachers' own emotions. Using these techniques, the teachers were able to gain their students' trust.

The teachers also mentioned other factors that were important for gaining the students' trust. These factors are: being consistent, creating a safe environment, apologizing whenever it is necessary, allowing the child to do his/her preferred activities, and having a chat with the child. These all added to establishing and strengthening the bond of trust between the teacher and the child.

Finally, the factor that was related to the trust issue was giving a space for a child's special interests and using this as a way to start communication. In my research, I mentioned the importance of focusing on what the child was interested in. The teachers confirmed that this was true, saying that allowing students to talk about what they like was helpful in building a healthy relationship and increasing the bond of trust between the student and the teacher. I believe these positive outcomes in relationship and trust greatly affect a child's learning performance.

7.5.4 Sensory Issues

Another connection between my research and the responses given in the interviews is related to sensory issues. In the research part of my paper I wrote about the writings of Temple Grandin, who is the author *The Way I See It*. She wrote about the sensory issues that she had when she was a child. However, in those days these issues were not recognized by the professionals in autism. She wrote that her mom allowed her to have self-stimulatory time every day by herself for an hour when she was a child. She states that this time was beneficial to her as a child. (Grandin, 2020, Ch 3).

In the preface to the second edition of her book, Olga Bogdashina says that between the first edition and the second edition of her book ideas about sensory issues had changed greatly. When she first decided to write a book about sensory issues related to autism spectrum disorder, she was criticized by other academic people. She was also told that no one would read her book. They told her that autism spectrum disorder was related to cognitive and behavioural issues (Bogdashina, 2016, p.13).

However, there has been a large increase in research related to sensory perception differences since the early 2000s. Teachers involved in the interviews were aware of this research. The majority of these teachers mentioned that they recognized sensory issues either as a trigger to emotional outbursts or as something that needed to be dealt with in calming a child with autism. Although sensory issues in autism spectrum disorder are newly emphasised, the teachers who participated in the interviews really pay attention to the child's sensory issues and a child's need for self-stimulatory time. I have already mentioned that teachers used the zones of regulation in their curriculum. This approach includes methods which encourage children with autism to self-regulate their sensory needs.

Regarding sensory intervention, Temple Grandin says, "It's difficult to test the effectiveness of sensory therapies because of how varied sensory issues are in autism spectrum disorder (Ch3)." As Temple Grandin says, even if these therapies only work for four out of twenty people, they are still very important for those four people. I understand from the responses

in the interviews that the teachers have accepted this approach. Many of them reported trying different therapies and methods to deal with students' sensory problems. If one sensory therapy did not work, they tried to find another one. Similarly to what Temple Grandin said, even though a therapy might not work well for all their students, they still tried to find a therapy that works for each individual child.

7.5.5 Social Issues

My research also mentioned the social difficulties that these children have. Several of the respondents also mentioned these social difficulties, and one common solution to these struggles that they mentioned was using some social stories. These stories were mentioned twice when the teachers were talking about teaching emotions, three times when the teachers mentioned teaching self-regulation, once in preventing loss of control, and once in dealing with triggers.

Social Stories were first produced by Carol Gray in 1991. These stories are used to explain and describe a specific situation, activity, or event. These stories provide information about why this event is important and the way of behaving that is acceptable. Social stories can be used for multiple purposes. They can be used to help the person adapt himself to changes that he/she doesn't expect and finds distressing. Another way of using them is to teach a person how and when to display correct feelings. They can also be useful to help a person find a way to deal with obsessions ("Social stories and comic strips - National Autistic Society," n.d.)

One respondent claimed in the interview that she used social stories to explain changes to the child. She found that doing this helped the child tolerate changes better. However, if she did not do this, the child would not be able to deal with the change successfully and would be affected by it in a negative way.

7.5.6 Communication Issues

Another issue that I talked about in the research part of my paper was the difficulties that children with autism spectrum disorder have with mutual communication. The teachers who participated in the interview agreed that children with autism spectrum disorder had a hard time understanding others' emotions and their non-verbal expressions. Two of the teachers said that they wanted to make their own emotions clear to their students. One of them used a particular expression to tell her student she needed a rest. She called it her "Pepsi face" because she used Pepsi when she needed to give herself energy. As a result, the child did not get offended by his teacher's emotions. The other teacher told his student how he felt using the zones of regulation. Using these methods, these teachers shared their own emotional state and taught their students how they could be aware of others' emotions.

Another topic that I discussed in the theoretical part of my paper is the stereotypical opinions that people have about the communication abilities of children with autism spectrum disorder. I also mentioned that there is a connection between self-regulation and communication because one important reason why children with autism spectrum disorder feel frustrated is that they are not able to communicate. A different communication issue that some teachers talked about was the way in which they dealt with a child who was anxious or upset. From the teachers' answers I understood that their attempts to communicate can be a source of frustration because the child is not ready for this communication when he/she is feeling anxious. One of the teachers mentioned a specific case: She said that it was overwhelming to use too many words when her student was already feeling overwhelmed. This response shows that a verbal intervention does not always work with a child with autism spectrum disorder and a method which uses less talking is a better choice sometimes.

7.5.7 Interventions

In the theoretical part of my paper, I wrote about the fact there is a great increase in the prevalence of autism spectrum disorder. The higher prevalence of this disorder has brought about the need for more effective treatments for children with autism spectrum disorder. As I look at the teachers' answers, I can see that they are using a large variety of methods to meet the children's needs. The method that was most commonly used was The Zones of Regulation, but there were many other methods applied as well. This made me think of the individuality of each student with autism spectrum disorder. It also made me aware of the fact that professionals are helping to develop children's lives further and help them improve as much as possible.

In my paper, I looked at some of these treatments and interventions. Some of these programs were comprehensive ones and others were skill focused. None of the teachers who were involved in the interview were participating in a comprehensive program. Regarding the intervention methods mentioned by the respondents, the methods most frequently used resembled these approaches: sensory integration theory, cognitive behavioural intervention, and exercise.

Sensory integration therapy trains the child to feel stimulation from outside of his/her own body. This type of therapy includes techniques such as body brushing and specially designed swings. Referring to the responses given by the teachers, I see that almost all of them use similar techniques to help their students feel better. Specific therapies they mentioned were firm pressure and squeezing techniques.

The Zones of Regulation is an example of a cognitive behavioural intervention. The interviewed teachers use it because they want to teach the students to realize their own thoughts and emotions. Another reason for using it is that the way children think and feel determines the way that they behave. As in the traditional cognitive behavioural therapy, interaction between the teacher and the student is necessary in The Zones of Regulation because the child has to explain to the teacher how he/she feels. The Zones of Regulation

actually simplify the ideas of cognitive behavioural intervention, which enables the teacher to easily explain different types of emotions, and which enables the student to be able to understand them more easily.

Regarding the issue of exercise, some of the interviewed teachers encourage their students to do physical activities like walking. Walking was the only form of exercise mentioned specifically by the teachers.

7.5.8 Underlying Attitudes

In my paper I pointed out that underlying attitudes affect the methods and actions of the teachers. As I look into the teachers' answers, I understand that their underlying attitudes are connected with a desire to lighten the sensory load of the children as well as a desire to increase the quality of their lives. All of the teachers are aware of the fact that children suffer from sensory overload. The teachers also allow their students to have self-stimulatory time, which indicates that teachers do not expect students to behave like typically developed children. In other words, they do not ignore the special needs of a child with autism spectrum disorder.

In the theoretical section, I mentioned that the aim of therapies should not be to make a child appear "normal". On the other hand, I mentioned that it is important to help a child minimize his/her aggressive behaviour as this behaviour is an obstacle to being a good learner and to functioning successfully in society.

The teachers mentioned in their responses that they are trying to change the students' aggressive behaviours because the children may physically harm the teachers, other students, and even themselves. As a result, they see such a kind of behaviour as something that must be minimized or stopped. However, there is a common misconception that self-stimulatory behaviours need to be stopped. From the teachers' responses, it is clear that they agree that

self-stimulatory behaviour is acceptable because they say that self-stimulatory time for their students is beneficial.

In addition to aggressive behaviour, teachers also work on some other kinds of behaviour which prevent students from being functional. For instance, one of the teachers was teaching her students how to put things away and to act respectfully. Another teacher said she worked with her student for a long time to enable him to be able to sit for more than one minute. Teachers want their students to learn these positive behaviours and to learn to stop wrong activities, but they do not want to make their students "normal" but rather to help their students function better in the society.

One teacher gave an example that clearly showed her underlying respect for her student. She said, "If I upset my student by accident, I apologize to him." This answer struck me because her student knows that she truly loves him and he trusts her. It shows that the teacher sees her student as an individual who deserves an apology for a problem that they had together. This is very encouraging to me because teachers are also human beings who may make mistakes when interacting with their students. However, due to the above-mentioned teacher's respect for her student as a person, she was able to maintain a good relationship. In my opinion, it is very important to communicate to a child that he/she has the right to an apology just like a typically developed person.

8 CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

As a person who is planning to work with mental disabilities, I have found all the research I did to be very fruitful. I have learnt a lot from the resources I studied while working on the theoretical part of my thesis, as well as from the answers given in the interviews which were included in the practical part of my thesis.

One thing I discovered while doing my research is that self-regulation in autism is not a common research topic. One of the most helpful things I discovered in my research was the curriculum called The Zones of Regulation.

I believe the best way to improve myself in this sphere is observing people or asking them to share their experiences concerning the topic that I want to learn about. I believe that when I learn from experienced professionals about their professional practice and about their ways of obtaining the best outcomes, then the things that I have learned theoretically start to make sense.

One thing that was both interesting and surprising was how a small intervention could have a significant positive effect on a child's life. For example, teachers reported that using a weighted blanket really helped some children with sensory issues and using a visual chart had a very big impact on children who had a difficult time adjusting to change. These small interventions brought a significant relief or helped a child adapt significantly better.

Another aspect of the research that I found encouraging was the positive relationships between teachers and students. Teachers made a great effort to get involved in their students' inner world and to gain their trust. As I did my research, I found a book called *Uniquely Human*, which was written by an experienced teacher. He encouraged his readers to understand the functionality of the behaviour of children with autism spectrum disorder. This helped change my perception of autism spectrum disorder.

A final thing that I am happy about is the fact that I had a chance to learn about the history of autism. I realized how the concept of autism has changed over time and how the rights and needs of children with autism have become more important over the years. A result of this is that interpersonal interactions matter. The teachers who participated in the interviews confirmed the importance of personal relationships with their students.

8.2 Recommendations

Based on my theoretical and practical research, I would make the following recommendations: Firstly, I would suggest that respecting the child is very important. Maybe it feels like nonsense to see a child spinning around when he/she is in a stimulatory break,

but it is so important to accept the child as a person who experiences life with special needs. Similarly, when teaching a child emotional-regulation and self-regulation or some other skills, it is so important to see the child as an individual, to try to understand the reasons for why he/she behaves how he/she does, and to consider how he/she can be helped as a person.

Another recommendation is towards deepening cooperation between students and their teacher; this cooperation is the most important thing in the education of a child with autism spectrum disorder. It is really crucial for a teacher to encourage a child to be a person who can regulate himself / herself because the key point of all these treatments is to help the child be an individual who is as independent as possible.

My final recommendation is to maintain a healthy balance while teaching emotional-regulation and self-regulation. Allowing a child with autism spectrum disorder to always apply his/her way of doing things is not beneficial for the child. On the other hand, if you are too forceful as a teacher or a parent, this will not be helpful for the child either. Thus, from both my theoretical research and from teachers' interview responses, I understand that a good balance between challenging the child and understanding his/her unique needs is the key to successful intervention.

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APPENDIX A: THE STRUCTURED INTERVIEW

Hi, my name is Emin Karadeniz. I am a Turkish student studying Special Education in the Czech Republic. I am writing my Bachelor's thesis on *Self-Control and Emotional Regulation in Autism Spectrum Disorder*. As part of my thesis I am doing qualitative research to learn from practicing teachers´ experience. I would appreciate it if you could answer the following questions. Thank you for your time.

Interview questions for Special Ed teachers of students with autism spectrum disorder

What school do you teach at?

Please answer the following questions about a student with ASD that you have worked with.

1. How old is he/she? What grade is he or she in? What is his/her diagnosis? How long has he/she been in this school? How long have you taught him/her?

2. How does he/she do academically? Is he/she following an academic curriculum?

3. How would you describe his/her social interaction with his/her peers and with other people?

4. How would you describe him/her in an emotional sense? Is he/she usually happy? Is it easy to make him/her happy?

5. How often does he/she feel anxious, angry, or upset? What causes him/her to feel that way? Are there any specific triggers that you've noticed?

6. How does he/she express his/her emotions? Is he/she aware of these emotions? How do you help him/her express his emotions?

7. How does he/she typically act when he/she is anxious or upset? Does he/she use any kind of behaviors to calm himself/herself?

8. Are you teaching him/her emotional self-regulation? What methods do you use? Have you seen any progress?

9. When he/she feels angry or upset without a reason you can see, what do you do for him/her? What methods have you found working to help him/her control his/her emotions? Have you tried anything that hasn't worked?

10. Are there things you do to try to prevent his/her loss of control?

11. What is the role of your own emotions in helping him/her to regulate his/hers?

12. Do you feel that he/she trusts you? What things do you do to establish trust?

13. Is there a behavioral problem that you have been trying to change? What kind of methods do you use to bring about the desired change? How long does it take to develop a new behavior? How does he/she respond emotionally to attempts to change his behavior?

14. If he/she does something wrong to someone else, does he/she have an emotional reaction? Does he/she show regret or does he/she feels guilty? Does he/she respond to others' feelings?

15. Do you and his/her parents use the same emotional management strategies?