

THE INCLUSION OF STUDENTS WITH AUTISM SPECTRUM DISORDERS IN THE REGION OF SOUTHWEST MACEDONIA

Abstract

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Introduction: The education of students with autism spectrum disorders (ASD) is a challenging issue for public schools. Due to legal and educational reasons, many children with ASD are included in the general education setting for all or portions of the school day.

The **aim** of this research is to assess the quality of the functioning of education and upbringing in children with ASD.

Methods: Parents and teachers of children with ASD were included in this study. There were 31 examinees, which are from 3 cities in Macedonia: Bitola, Ohrid and Prilep. The difference between the two groups, teachers and parents regarding these aspects is tested using a Chi square test that compares the differences in the frequency of given response categories in both groups of respondents. Statistically significant difference is considered on the alpha level of $p < 0.05$.

Results: Teachers think significantly different from the parents that the curriculum and the program are not appropriate for the child with ASD ($\chi^2 = 37,01$, $df = 2$, $p=0,000$). There is no statistically significant difference between teachers and parents regarding their attitudes towards the success of the work and the education of the child with ASD ($\chi^2 = 0,485$, $df = 2$, $p=0,785$). Teachers think statistically different than parents that the child should not be included in the regular classes ($\chi^2 = 29,145$, $df = 2$, $p=0,000$).

Conclusions: There is a lack of knowledge about ASD in many of the regular teachers. They are not sufficiently trained in the methods and techniques of work with these students that require great specificity and patience.

Key words: *inclusion, students, autism spectrum disorders, Southwest Macedonia*

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Introduction

Autism is a neurobiological disorder of development within the brain, which causes discrepancies or differences in the way information is processed, and directly affects an individual's ability to comprehend and communicate. The educational inclusion of students with autism spectrum disorders and other developmental disabilities has been a fiercely controversial topic (Harrower, 1999). There has been an increasing trend to include students with autism and other disabilities in general education classrooms along with their typically developing peers (McDonnell, 1998). This trend has stemmed largely from theoretical arguments related to social development and legal issues related to the civil rights movement. Pupils with ASD are viewed as more difficult to effectively include than pupils with other special educational needs (SEN) (House of Commons Education and Skills Committee, 2006) and research indicates that they are more likely to be excluded from school than most other groups of learners (Department for Education and Skills, 2006).

Children with ASD often experience difficulty concentrating and understanding social rules (Humphrey, 2008) and this could lead to teachers reprimanding them for unacceptable behaviour, when in fact this behaviour is a part of their disorder. This questions the reasons why children with ASD are more likely to be excluded. It is unclear whether the characteristics of children with ASD, leads to exclusion, or society and teachers' reactions towards them. A lack of inclusion for pupils with ASD could be leading to the lower attainment of these children.

The inclusion of children with ASD is different to that of children with other SEN due to the specific traits of children with ASD. Children with ASD may not have this sense of belonging due to their difficulties in social communication and forming relationships (Cumine, Dunlop and Stevenson, 2010). Child specific characteristics affect inclusion and its success (Jones and Frederickson, 2010); therefore, children with ASD may face increased difficulties with inclusion due to their individual differences (Kluth, 2003). ASD is a hidden disability, less easily recognised than physical disabilities (Briggs, 2012); therefore, teachers and other pupils may overlook the difficulties that children with ASD experience. The genetic link between parents and children with ASD leads to many parents of children with ASD experiencing traits of ASD themselves (Wolff, 2004). This affects the inclusion of children with ASD, as parental knowledge, experience and involvement are important factors in successful inclusion (Gibb et al., 2007). The level to which parents of children with ASD are able to be involved may be limited; therefore, this limits the inclusion of children with ASD. Harmes (2015) explains that the success of tribunals regarding children with ASD is dependent upon the tenacity of the child's parents. Consequently, if problems arise with the inclusion of a child with ASD, the genetic link may create a barrier to the success of the appeal.

Evaluation of teacher training programmes for teachers working with pupils with ASD have found that training can result in increased awareness of ASD (Leblanc, Richardson, & Burns, 2009) alongside a significant improvement in the classroom behaviour of pupils with ASD and reduced teacher stress (Probst & Leppert, 2008). In terms of SEN more generally, training can also result in teachers having a more positive attitude towards inclusion (Horrocks, White, & Roberts, 2008). This is important as positive attitudes toward inclusion are cited as a second important prerequisite to successful inclusion of pupils with ASD. Direct experience of inclusion can also raise positive attitudes (Avramidis, Bayliss, & Burden, 2000), particularly with pupils with ASD (McGregor & Campbell, 2001). However, many teachers still feel that additional support from a teaching assistant (TA) is important, not only for the pupil with ASD, but for their peers as well (Sincz, 2004).

To educate students with ASD, teachers require an understanding of the unique cognitive, social and behavioural characteristics of this population, and of their individual students (Simpson, 2004). These characteristics may include, but are not limited to, disordered receptive and expressive language skills, sensory processing challenges including the processing of multiple sensory stimuli, difficulty in combining or integrating ideas, difficulty with interpreting the meaning or relationships between events, and a pronounced resistance to unpredictability and change (Mesibov, Adams and Shea, 2006). Because of these multiple challenges, engaging and educating students on the

spectrum can be particularly difficult (Simpson, deBoer-Ott and Smith-Myles, 2003). It has been recognised that teachers with a positive attitude, high levels of experience and specialist ASD-specific training, are required for the effective inclusion of students with ASD within mainstream educational institutions (Roberts, Keane and Clark, 2008).

The **aim** of this research is to assess the quality of the functioning of education and upbringing in children with ASD.

Methods

Hypotheses of the Study

This study was designed to answer the following questions. General hypothesis was that the education of children with autism in regular schools should be improved due to insufficient training and knowledge of working with a child with autism by the regular teacher.

Sub-hypotheses of the study were:

1. Teachers and parents believe that the curriculum and program are appropriate to the child's abilities.
2. Teachers and parents think that the work and education of the child with ASD is successful.
3. Teachers and parents believe that pupils with ASD show success in the teaching subjects.
4. Teachers and parents consider that children with ASD can be included in regular classes.
5. Teachers and parents think that children with ASD agree well with their peers.
6. Teachers and parents believe that children with ASD are well accepted by peers from the school.

Sample

The participants in this research were recruited from regular schools in the region of southwest Macedonia. This research covered 2 groups of respondents: parents of children with ASD, and teachers of children with ASD. The two groups consist of 31 examinees and they come from three cities in southwest region of Macedonia: Bitola, Ohrid and Prilep. Children with ASD were from 11 different primary schools. The survey was conducted by filling in questionnaires by both groups of respondents, teachers and parents of children with ASD.

Instrumentation

This survey was conducted by completing 2 questionnaires:

1. The questionnaire to parents who have a child with ASD included in regular school. This questionnaire consists of 16 questions, of which two were demographic type, two open questions that require descriptive response, and the remaining twelve were from closed-type questions. The questionnaire contains questions that assess attitudes of parents regarding the quality of education and educational process of the school in which the child learns, assessment of the work of teachers, assessment of inclusion and acceptance of the child with autism, as well as the specific problems and challenges parents of a child with an autistic spectrum of disorders were facing.
2. The questionnaire to teachers who teach children with ASD. This questionnaire consists of 18 questions, two of which were of demographic type, six were open questions requiring a descriptive response, and the remaining ten were from closed-type questions. The questionnaire contains questions that assess teachers' perception regarding the difficulty faced by the children with autism, the quality of education and educational process of the school in which the child learns, assessment of curriculum and their own retraining, assessment of involvement and acceptance of the child in inclusion, as well as to the specific problems and challenges they face.

Statistical data analysis

The data obtained by this research were coded and entered in the SPSS for Windows 20.0 version. Furthermore, for the needs of this research, a descriptive analysis was performed, which examined the frequencies and the mean values of the received responses. Descriptive analysis included a percentage distribution of a given category of responses. The difference between the two groups, teachers and parents

regarding these aspects is tested using a Chi square test that compares the differences in the frequency of given response categories in both groups of respondents. Where it was not appropriate to use Chi square test (because of the presence of fields with frequencies less than 5), the so-called Yates's correction Chi square test was used (Yates, 1934). Statistically significant difference is considered on the alpha level of $p < 0.05$.

Results

We made comparative analysis of the obtained data in this research in order to compare attitudes and differences in attitudes between parents and teachers in terms of education, the success in education of children with ASD, and acceptance in the school environment. Although the part of the questions that are being compared are not identical for the two groups of respondents, they are homogeneous, i.e. referring to the same dimension, the same aspect of the involvement of children with ASD in the educational process.

When testing hypothesis 1, i.e. teachers and parents attitudes about "the adequacy of the curriculum and the program according to the capabilities and abilities of the child", the results of the answers to this question in the form of the frequency of responses in the given categories are given in the Table 1.

Table 1. Contingency table on the appropriateness of the curriculum and program according to the capabilities and abilities of the child

	Yes	No	I don't know	Total	Yates' Chi square	df	p
Teachers	0	26	5	31	37.01	2	0.001
Parents	19	2	10	31			
Total	19	28	15	62			

The difference in responses between the two groups of respondents was tested using the Chi square test with Yates correction due to the presence of fields with a frequency less than 5. This result shows that there is a statistically significant difference between teachers and parents in terms of their attitudes about the appropriateness of the curriculum and program according to the abilities of the child. The teachers considerably thinks that the curriculum and the program are not suitable for the child with ASD, while the parents significantly have the opposite attitude ($p < 0.01$). With this finding, we concluded that hypothesis 1 is rejected.

Hypothesis 2 was regarding teachers' attitudes and "the success of the work and education of the child with ASD". The results of the answers to this question in the form of the frequency of responses in the given categories are given in Table 2.

Table 2. Contingency table for the success of the work and the education of the child with ASD

	Yes	No	I don't know	Total	Yates' Chi square	df	p
Teachers	16	5	0	31	0.485	2	0.785
Parents	20	4	7	31			
Total	26	9	7	62			

The difference in responses between the two groups of respondents was tested using Chi square test with Yates correction due to the presence of fields with a frequency less than 5. This result shows that there is no statistically significant difference between teachers and parents regarding their attitudes towards the success of the work and the education of the child with ASD ($p > 0.05$). With this finding the conclusion is that hypothesis 2 is accepted.

Hypothesis 3 was about teachers' and parents' attitudes regarding "the success of the teaching subjects according to the needs of the child with ASD". The results of the answers to this question in the form of the frequency of responses in the given categories are given in the following Table 3.

Table 3. Contingency table for the success of the teaching subjects according to the needs of the child with ASD

	Yes	No	I don't know	Total	Yates' Chi square	df	p
Teachers	16	5	0	31	3.548	2	0.182
Parents	11	8	2	31			
Total	27	13	2	62			

The difference in responses between the two groups of subjects was tested using the Chi square test with Yates correction due to the presence of fields with a frequency of less than 5. This result shows that there is no statistically significant difference between the teachers and the parents regarding their attitudes towards the success of the teaching subjects according to the needs of the child with ASD ($p > 0.05$). The two groups most of the time consider that they have success in the teaching subjects according to the needs of the child with ASD. It can be concluded that hypothesis 3 is accepted.

Hypothesis 4 tests the teachers' and parents' attitudes about "involving the child with ASD in regular teaching". The results of the answers to this question in the form of the frequency of responses in the given categories are given in the table 4.

Table 4. Contingency table about involving the child in regular classes

	Yes	No	I don't know	Total	Yates' Chi square	df	p
Teachers	0	26	5	31	29.145	2	0.001
Parents	13	4	14	31			
Total	13	30	19	62			

The difference in responses between the two groups of participants was tested using the Chi square test with Yates correction due to the presence of fields with a frequency smaller than 5. This result shows that there is a statistically significant difference between teachers and parents regarding their attitudes to the child's inclusion in regular classes ($p < 0.01$). Teachers considerably think that the child should not be included in the regular classes, while the parents considerably think that their child is ready for inclusion in the regular classes. With this finding hypothesis 4 is rejected.

Hypothesis 5 is about the attitude of teachers and parents regarding "how well the child agrees with the peers of the class". The results of the answers to these questions in the form of the frequency of responses in the given categories are given in the table 5.

Table 5. Contingency table about whether a child agrees well with peers

	Yes	No	I don't know	Total	Yates' Chi square	df	p
Teachers	5	22	4	31	26.175	2	0.000
Parents	18	1	12	31			
Total	23	13	16	62			

The difference in responses between the two groups of respondents was tested using the Chi square test with Yates correction due to the presence of fields with a frequency of smaller than 5. This result shows that there is a statistically significant difference between teachers and parents regarding their attitudes about how much the child agrees with the peers in the school. At the same time, the teachers think that the child disagrees with the peers in the school, that the appearance of inadequate behavior negatively influences the relations with the peers, while the parents considerably more in their opinion that their child agrees well with the peers of the school ($p < 0.01$). We can conclude that hypothesis 5 is rejected.

When testing Hypothesis 6, i.e. teachers' and parents' attitudes regarding "how well a child is accepted by peers from the class". Although the determination of the answer was clear, some of the answers did not clearly indicate the category to which they belonged or included positive and negative elements, because the results of the analysis of this issue should be taken with reserve. The results of the answers to this question in the form of the frequency of responses in the given categories are given in the following table 6.

Table 6. Contingency table about whether a child is well accepted by peers

	Yes	No	I don't know	Total	Yates' Chi square	df	p
Teachers	18	9	4	31	5.875	2	0.053
Parents	22	1	8	31			
Total	30	10	12	62			

The difference in responses between the two groups of subjects was tested using the Chi square test with Yates correction due to the presence of fields with a frequency of less than 5. This result shows that there is no statistically significant difference between teachers and parents regarding their attitudes about how well a child is accepted by peers in the school, with both groups considerably to the extent that the child is well accepted by the peers in the school ($p > 0,05$). Hypothesis 6 is accepted.

Discussion

As some students with ASD present with unique combinations of mental, social and behavioural challenges in varying degrees, one might expect that full inclusion of these students in mainstream schools still present considerable challenges. Much has been written about the inclusion of students with ASD in mainstream schools from an operational perspective, illustrating best practice to address the behavioural, therapeutic and educational needs of students with ASD (Busby, Ingram, Bowron, et al., 2012; Coman, Alessandri, Gutierrez, et al., 2013).

The process of inclusion in Macedonia started in 1998. The fact that our teachers in that time felt the need of establishing appropriate inclusive methodology, technology and strategies in the inclusive practice imposed initiation of activities for education of teachers in regular schools through realization of project activities aimed to apply inclusive practice (Jachova, 2004).

There is a lack of studies regarding the process of inclusion of pupils with ASD in Macedonia. It is a real challenge for the practitioners, parents and stakeholders in our community.

Inclusion is a transformation of the attitudes of people, schools, the system and the society. Inclusive education involves involvement of all children in teaching and extracurricular activities in the field. Inclusive education provides an approach that meets the learning needs of all students in one educational system. His principles are based on the fundamental principles of the Convention on the Rights of the Child. Inclusive education aims to create systems that are flexible and offer sufficient support to meet the needs of various students of different backgrounds in regular schools and classrooms. The implementation of inclusive education at the national level is supported by several other international agreements. For example, the 2007 Convention on the Rights of Persons with Disabilities states that the right to education is realized when persons with disabilities have access to inclusive, quality and affordable primary and secondary education on an equal footing, as well as those who live in their communities and have the right to a free-of-charge education and have the right to study in their mother tongue in kindergartens. In addition, teaching in mother tongue is regulated in the Law on Primary Education (Јачова et al., 2002).

Combinations of methods for working with pupils with ASD are used in order to meet their needs and to use the educational potentials. Montessori's method of work and Montessori's materials are used in work with children with autism, individually in acquiring knowledge to meet basic everyday needs. Also, these materials can be used in the adoption of new knowledge in the subjects Macedonian, Mathematics and Natural Sciences. Every day, in order to provide visibility in work, it is necessary to use images. The method of communication through the exchange of images allows for the visibility in teaching in children who do not communicate through speech, and have developed speech. This method encourages the use of speech during communication. The pictures provide an opportunity for enriching the program and adapting the teaching units to different levels of weight. Also in teaching children with autism, nowadays it is inevitable and unavoidable to use assistive technology. Because children with autism have problems processing, integrating and modulating sensory stimuli, it is necessary to visit a sensory room, sometimes during the course of instruction, sometimes after completing the sciences for overcoming or adapting the problem. Unfortunately, all these methods of working can be used in some special schools in Macedonia, but only some of them can be found in regular schools.

Planning the educational work for students with autism is complex, because these students differ greatly from other students in the way of learning, communicating and developing social skills, as well as their often troublesome behavior. There are great differences in the way of influencing those characteristics of an individual person. It is necessary for the programs to be individualized and grounded on the unique needs and abilities of each individual student. For planning, it is extremely important to recognize how autism affects the ability to process information and communicate with the student. The educational program for work with the student may include a combination of educational activities in the regular curriculum and program based on the specific goals and tasks for each particular individual, which are listed in the individual educational plan. Some of the needs of students with autism and the help they need to meet those needs sometimes go beyond the prescribed education system. For full effectiveness and achievement of students' best results, all activities require a collaborative approach to give students full support (Vukajlović, 2004).

Our findings are similar with those of Jachova who conducted a survey with children with other than ASD developmental disabilities 15 years ago. She found that teachers have more positive attitudes than parents towards acceptance of children with special needs in regular schools by their classmates. In that study both parents and teachers found the architectonic barriers not overcome. Both groups found the support of mobile special educators in the inclusive process very necessary.

Parents and teachers thought that the social community does not take enough care of children with special needs in Macedonia (Jachova, 2004).

Other study about inclusion of children with ASD was conducted on 79 municipalities in Macedonia by the office of Ombudsman in 2015. From the answers of 256 primary schools, the Ombudsman found that children with an ASD are included in the regular primary education, but not every school is prepared to provide adequate education for the child with autism, according to his needs. Schools are not staffed, spatially or materially equipped with the necessary teaching materials / auxiliary materials. On the other hand, teaching staff is not enough (in some schools it is not at all) trained to work with children with an autistic spectrum of disorder. The Ombudsman found that in 67 primary schools the number of children with autism included in the regular primary education ranged from 1-17 students. In addition, not all children are deployed in regular classes with other students. In some schools these children are in special classes for children with an autistic spectrum or in a classroom for children with special needs. A small number of schools have a special educator working only with children with autism. In most of the primary schools, the special education specialist is mobile (municipal) and covers several primary schools, either working generally with all children with special needs, including children with autism or working with children with autism once, two or three times in week, that is, not every day. There are also primary schools where autistic children work only with the teaching staff that keeps teaching for all students, although it is not adequately trained to work with these children. In some of the elementary schools, the parents of these children provide at their own expense a special teacher for working with their children, and there are cases when the parents themselves accompany the children during the classes. There are no trainings for the teaching staff for working with children with autism, which is why they mostly face problems with working with these children. As a result of insufficient expertise, the teaching staff can not adequately implement the educational process and overcome the difficulties in maintaining the concentration of these children during the teaching process. Then, establishing and maintaining communication with children with autism, etc., can not provide effective education for the child with autism. There is still no full sensitivity of the teaching staff on this issue, so there are teachers who refuse to work with children with an autistic spectrum of disorder and consider that children with ASD should not be part of the regular primary education, i.e. consider these children to enroll in special classes or in special primary schools. There is no full and continuous cooperation on school-parent/child relationships with an ASD, and the influence of the environment or the environment is also important whether or not the child with autism in some elementary school will be accepted (Ombudsman Office, 2015).

The philosophical movement of inclusive education has affected changes in educational policies with the support of schools, educators and parents of children with disabilities (Ferraioli and Harris, 2011). Despite of very few Macedonian studies about inclusion of children with special needs there are plenty of studies in the western world. In the following text some of them will be shown.

Avramidis and Norwich (2002) undertook a meta-analysis of peer-reviewed articles between 1984 and 2000 which examined teachers' attitudes towards inclusion in general. They reported that teachers were more positive towards the inclusion of students with mild physical disabilities such as sight, speech and hearing impediments, as opposed to students that presented with mental health, behavioural or learning disorders. This supported the findings of an earlier smaller scale meta-analysis into teachers' perceptions of mainstreaming from 1958 to 1995 (Scruggs and Mastropieri, 1996) that reported more positive attitudes towards the inclusion of students with mild disabilities than for students with more complex or severe disorders. The combined findings of these literature reviews summarize teachers' attitudes and beliefs regarding inclusion over a period of five decades: inclusion as a practical undertaking was viewed more favourably by teachers for students with mild physical disabilities than inclusion of students with more complex physical, intellectual or behavioural disorders.

These attitudes of partial inclusion were echoed in a fourteen nation United Nations Educational and Scientific Cultural Organisation (UNESCO) study (Bowman, 1986). The UNESCO study also noted that teachers espoused more positive attitudes towards inclusion in countries that operated

within a highly integrated educational system, compared to their segregated education system counterparts. Worthy of note was the fact that teachers who espoused negative attitudes towards the inclusion of students with disabilities, did so mostly during an era where there existed high levels of segregation between mainstream and special education facilities (Avramidis and Norwich, 2002). These attitudes could then be considered as a reflection of the influences of the policies of the time which resulted in general education teachers receiving limited to no specialist training and possessing minimal, if any, experience of teaching students with a wider range of disabilities. The discussions within these studies highlighted two important influential factors regarding teachers' attitudes towards inclusion: 1. the degree of inclusive practices within each teachers' respective educational system, and 2. the specific nature of students' disabilities.

Inclusion for children with autism is important because education and socialization for children with autism is important. It can be argued that our failures to produce quality inclusion for these students are tantamount to our failures to provide them with a quality education. Our successes possess an analogous equivalency. With a concerted focus on relevant research and a diligent approach to application, combined with a philosophical commitment to optimal and socially inclusive outcomes, we can anticipate further progress in our efforts to support students with autism in appropriate educational settings. Children with autism can benefit from participation in inclusive classroom environments, and many experts assert that inclusion is a civil right and is responsible for nurturing appropriate social development. However, most children with autism require specialized supports to experience success in these educational contexts (Harrower & Dunlap, 2001).

One study in England found that children with ASD are not fully included in mainstream primary schools; they experience higher rates of exclusion, lower attainment and higher rates of bullying. In order to increase the inclusion of children with ASD in mainstream primary schools, teachers need to address the complexity and individuality of these children and adapt their strategies accordingly. The main barriers to educational and social inclusion are a lack of financial support and autism specific training for teachers (Daniels, 2015).

Inclusion within mainstream school may not be the best option for all children with ASD, depending upon their placement on the spectrum. Those at the lower end of the spectrum may require more specialized care that is not possible within mainstream schools. However, inclusion within mainstream schools is important for children with Asperger Syndrome, as they require the educational provision available within mainstream education. Therefore, the individual child must be considered. Children with Asperger Syndrome are in need of more support to aid their social inclusion as they experience higher levels of bullying (Reid and Batten, 2006). Upon saying this, the culture and attitudes towards difference needs to change and social inclusion needs to be improved. Children with ASD also need to be given the opportunities to improve their own social skills in order to develop the important friendships that will aid their social inclusion.

The findings of the newest Australian study suggest that within this sample of Australian primary schools teachers, attitudes towards the inclusion of students with ASD are generally highly positive. This would imply that teachers are committed to the inclusive principles contained within the Australian Standards for Disability Act (Australian Attorney General's Department, 2006). Therefore, the ongoing positive promotion of inclusive education should continue to support teachers' positive attitudes towards students with ASD in inclusive education environments. In this study in relation to ASD-specific training levels 39% of respondents reported they had not attended even a single workshop or in-service training sessions specifically addressing ASD. About 13% of respondents had attended one ASD-specific training session, with 49% of participants indicating they had attended more than one ASD-specific training workshop. Essentially just over half of the participants demonstrated little to no training addressing the specific needs of students with ASD. These figures suggest that a majority of the respondents possessed high levels of experience ($n = 83$) and low levels of training, with 41 respondents indicating they had never received any ASD-specific training (Garrad, Rayner & Pedersen, 2019). The low correlation demonstrated between levels of training and years of specific experience have on teachers' attitudes towards the inclusion

of students with ASD, signifies there has been substantial improvement in attitudes towards the inclusion of students with ASD in general.

Conclusions

Inclusion for children with autism is important because education and socialization for children with autism is important. A number of studies have demonstrated encouraging findings for some children with autism in some inclusive classrooms. The studies have explored and implemented a diverse technology of behavior analysis, with interventions ranging from antecedent manipulations to delayed contingencies, peer-mediated strategies and programs of self-management. Together, these studies provide a rich source of intervention options, and it is likely that one or more of the options could be used to improve the responding of any child identified as being in need of systematic support.

Results obtained from the survey indicate a lack of knowledge about ASD in many of the regular teachers. They are not sufficiently trained in the methods and techniques of work in these people that require great specificity and patience. Due to the specific problems and needs that they have, special conditions are needed for the work and application of special methods in different situations that unfortunately we do not have. These materials also require a specific organization of space and time. Such an organization is often disabled because of the large number of children in the class. This leads to negative attitudes about the inclusion of students with ASD. On the other hand, regular teaching provides excellent opportunities for learning children with autism by imitation from other children and creates conditions for spontaneous socialization, if there are conditions for it. The expert team shows, however, a higher level of knowledge and positive attitudes towards inclusion. We had good cooperation with the teachers during the research, which unfortunately can not be confirmed by the parents of these people. They are still closed and afraid to answer questions, they were often both aggressive and unprepared for cooperation and communication with me. So the conclusion is that we still do not have a solid basis for true inclusion. Teachers in regular schools, professional teams in the same should be the driving force of the complex process "inclusion". If it is invested in the basis, we will have real chances to build a system of successful inclusion for all children with developmental disabilities, as well as for children with ASD.

There is an increasingly urgent need for professionals working with students with ASD to have a full understanding of the exceptionality and its many complexities. Given the demands of the profession and of education curriculum in particular, and with the increasing prevalence of ASD, it is critical that professionals in the field of education increase their knowledge and understanding of ASD and that they be easily able to access the supports and resources required to meet the diverse needs of all students diagnosed with the disorder.

Future directions

Next steps for improving the condition with inclusion in Macedonia could be: organizing compulsory trainings by special educators for acquainting the rest of the professional team (teacher, psychologist, etc.) with the characteristics of the specific needs of the persons with ASD and working with them. There is a need to organize meetings between the parents of children with neurotypical development and the parents of children with ASD by the teacher for advising on the importance of the inclusion of the children with ASD. Further steps are to organize children's workshops by a professional team that will have a heterogeneous composition among children with neurotypical development and children with ASD, through which they will correct children's disagreements in communication and social interaction. The government should increase the financial resources in the schools in order to supply better and special teaching materials for children with autism. Society should adjust the space and the conditions in which the teaching takes place (removal of physical barriers, preparation of a special schedule of activities, devising specific forms of activities. Special educators and at the same time teachers as part of the professional team for successful inclusion, should follow the new trends in education by participating on the conferences and getting information from organizations dealing with children with autism. There is

also need of handbook - a teacher guide which will enable teachers to get to know the basic characteristics of children with ASD, tips on how to prepare the unit for accepting the child with ASD as an equal member of the school community. Teachers should establish a good realistic perspective that children with ASD can realistically achieve and work well with them as part of a team for successful inclusion. To take a broader perspective, our findings seem to indicate that even a small amount of “professional development” opportunity can have a measurable influence on the lives of both beginning teachers and, by extension, the students with ASD they will be required to teach in the fully integrated classroom. The next step will be to implement a study with the population that was specifically designed to engage (i.e., educational assistants, current teachers, special education teachers, resource teachers, school administrators, and school board personnel). Research is also needed at the systems level. Inclusion can only work well if the educational system (at the district, school building, and classroom levels) is designed to encourage and support its success. For instance, systems need to have workable strategies for delivering the ready availability of experts in autism and behavior analysis in inclusive classrooms, and the teachers responsible for implementing special strategies need to have adequate resources and social support, or they are likely to burn out and fail to address the need for systematic interventions.

Conflicts of interest

The authors declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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