

**Research article**

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## **A Child with ASD in Kindergarten: Resources for Teachers' Psychological Readiness**

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### **Abstract**

**Introduction.** This paper presents a new look at the issue of training preschool teachers and examines the practical training of psychology and education professionals for working with children with autism spectrum disorders (ASD). In recent years, the number of preschools with compensatory groups has increased by an average of 30% over the past decade, requiring the creation of the conditions for the education and development of children with ASD. This study aims to determine the resources of teachers' psychological readiness to work with children with ASD in preschool educational institutions. **Methods.** The study used an analysis of psychological and educational literature, regulatory documents for the organization of the education process and psychological and pedagogical support for children with ASD, as well as an author questionnaire containing 8 questions that assessed psychological and educational knowledge, level of knowledge, difficulties and the necessary support for teachers working with children with ASD. The study included 60 preschool teachers working with children with ASD. The **results** of the survey identified specific aspects of teaching in working with children with ASD and the difficulties in organizing teacher work for compensatory groups. The most difficult is the transition from the theoretical knowledge of children with ASD to practical work with this category of children. **Discussion.** This study confirms previous findings that teachers working with preschoolers with ASD lack special knowledge and skills to deal with these children's problems and improve their skills. **Conclusion.** Based on the results obtained in this study, it is possible to establish a trajectory for the professional training of teachers and educators working with children with ASD and to include the module aimed at forming systemic theoretical knowledge of developmental disabilities and practical skills in working with modern technologies to teach and educate this category of children and to interact with parents in the university curriculum for future teachers.

**Keywords:** children, preschool age, educational psychology, developmental disorders, autism spectrum, autism, mental health, teacher, teacher readiness, compensatory orientation

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## Introduction

The monitoring conducted in 2020, coordinated by the Department of State Policy for the Protection of Children's Rights of the Ministry of Education of the Russian Federation together with the Federal Resource Center for the Organization of Comprehensive Support for Children with Autism Spectrum Disorders (Moscow State University of Psychology and Education), has provided data on the total number of individuals with autism spectrum disorders (ASD). Thus, 32,899 individuals have been diagnosed with autism spectrum disorder. According to the indicators, the number of individuals diagnosed with ASD increased by 42% compared to the previous year (2019). Furthermore, during the monitoring process, data on the number of individuals with ASD receiving education at all levels in the Russian Federation were collected. Thus, 8089 children (24.5%) receive education services at the preschool level (according to the 2020 statistical analysis report on the number of children with autism spectrum disorders in the constituent entities of the Russian Federation, URL: <https://autism-frc.ru/education/monitoring/1265>).

The problems of ASD research are first and foremost related to the constant revision of the content and essence of this group of disorders. In some descriptions, the main focus is on communication disorders and the age at the start of ASD, while in other descriptions, the focus is on understanding this group of disorders caused by distortions and imbalances in the work of the central nervous system. However, the expansion and revision of ASD signs and characteristics enable us to examine individual cases of developmental disabilities in children with ASD in order to fully prepare individual pathways for psychological and educational support (Lauritsen, 2013). The prevalence rate of ASD requires a study of the dynamics of the integration and adaptation of children with ASD to real conditions. Teachers need to apply various methods and working techniques to show the effectiveness of the socialization of children in this group (Sunagatullina, Pustovoitova, & Yakovleva, 2019). An important criterion is to develop strategies for interaction between specialists and teachers (Hart Barnett & O'shaughnessy, 2015). Education professionals should constantly expand their existing experience, improve their practical skills, and constantly learn about the differences between ASD and other developmental disabilities, as well as social support for children with ASD (Able, Sreckovic, Schultz, Garwood, & Sherman, 2015).

We should note that autism spectrum disorder (ASD) is a developmental disorder that causes a wide range of problems related to social interaction, communication and behavior. The 11th revision of the International Classification of Diseases (ICD-11), published in January 2021, defines ASD as a lack of the individual's ability to initiate and maintain two-way communication, i.e. limited or repetitive behavior that is unusual for a specific age or the individual's developmental situation. Authors and researchers studying the support of children with ASD at various stages of social adaptation have identified the main characteristics that determine this type of dysontogenesis (Nikol'skaya et al., 2005; Nikol'skaya, & Baenskaya, 2017; Nikol'skaya, Baenskaya, & Guseva, 2019; Frith & Happé, 1994; Frith, 2003):

- The child does not hear the interlocutor and does not understand speech.
- The child does not notice the interlocutor and does not look into the eyes.

- The child makes monotonous and stereotyped movements.
- There are obsessions and rituals in the child.
- The child has problems with toilet, eating, and sleep.
- The child does not feel pain or cannot understand where it hurts.

For the adaptation and socialization of children with ASD in preschool age, the most effective is the possibility of cooperation intervention and communication between children and educators, children and parents. The mutual social interaction between specialists, parents, and children usually provides the best results (Tachibana et al., 2017). Knowledge of ASD and the methods of working with children in this group can help diagnose and identify the number of children who need constant help and work to correct their mental development. For example, the Centers for Disease Control in the United States published data on the number of children with ASD, which occurs in 44 children aged 8 and is 4.2 times more common in boys than in girls (material from the Centers for Disease Control and Prevention, URL: <https://www.cdc.gov/ncbddd/autism/features/new-autism-spectrum-disorder-report.html>).

The data published in 2021 indicate a significant increase in the number of children with ASD. In 2020, according to the results of the analysis of the data from the above-mentioned monitoring in Russia, it has been found that there is a problem with teaching staff working with children with ASD. The identified problem is related to the training of various specialists working with this category of children, as 24448 teachers need to undergo appropriate advanced training for their activities. The authors examine aspects of the professional competence of teachers working with children with ASD (Tsyurul'nikova, 2016; Khaustov, 2020). It is shown that the socialization of children with ASD can only be performed in systemic and multidisciplinary work of doctors, psychologists, speech pathologists, and teachers (Nesterova, Aisina, & Suslova, 2016; Platokhina, & Abashina, 2018). The training process for working with children with ASD is particularly difficult, especially in terms of the technological component of the professional competence process of a teacher (Platokhina, & Dudnikova, 2016).

The inclusion of children with ASD involves a mandatory and systematic solution to educational tasks, taking into account the specificity of each child's development, which leads to the formation of the ability to belong to a group and to reduce the manifestation of the negative consequences of imbalances in development. (Adelova, & Dyboshina, 2018). A structural and functional model of comprehensive support for pre-school children with ASD is presented, which reflects the special conditions for ensuring their success in learning during the transition from one educational level to another. Comprehensive support for children with ASD in accordance with the requirements of the Federal State Education Standards contributes to the idea of organizing affordable and high-quality preschool education and the successful socialization of this category of children, taking into account their health status (Nigmatullina, Vasina, & Mukhamedshina, 2021). E. A. Chereneva and E. A. Volodenkova (2016) presented an inter-departmental model for organizing a system of support for children with ASD in the Territory of Krasnoyarsk, describing technologies for inter-departmental cooperation between researchers and practitioners from Russia and abroad in the development of children with autism, as well as the experience in the development of parental initiatives and the training of professional staff to work with children with autism.

Complex models are developed to take into account the complexity and psychological characteristics of working with children with ASD. Recent research suggests that teachers often face psychological obstacles to working with distorted mental development, including negative attitudes and beliefs, and fragmented images of children with autism (Menshchikova, & Pogorelov, 2017). Teachers' psychological

ability to work with children with autism implies the existence of creative orientation and interest in overcoming the negative consequences and correcting ASD (Lobanov, 2022). The above points out that the teacher's personality and competence are factors that have a positive or negative attitude towards inclusive education for children with autism. The following factors were identified as positive factors: awareness, teacher specialized training, interaction with other experts on ASD issues (Aisina, Nesterova, Suslova, & Khitryuk, 2019). In particular, competent teachers and practitioners work with ASD in four main areas – professional knowledge, knowledge of the individual development paths of a particular learner, desire for self-development, and knowledge of the application of generally accepted practices and technologies. With a high demand for specialists in the field of work with DSA, there are global problems related to the lack of educators, teachers, mentors, inadequate training and awareness of personnel in this regard (Teo, Lau, & Then, 2022). In addition to the knowledge component, when preparing an educator or teacher, it is necessary to take into account the formation of teachers' readiness for inclusion, a value-oriented attitude towards educational activity, the adaptability and effectiveness of the application of professional activity strategies. In the process of teacher training and advanced training, it is important to focus on the systematic training of teacher personality in activities and the development of a conceptual model of teacher personality in educational activities (Mazilov, & Kostrigin, 2022).

A comprehensive work with teachers and their training are linked to systemic problems faced by specialists. For example, psychological and pedagogical barriers have been identified that hinder the professional growth of educators working with preschools with ASD, including the lack of teacher readiness to work with ASD, the lack of teacher involvement and the lack of cohesion of the teaching team, the difficulties inherent in the teaching of students with ASD, factors associated with the limitation of teaching time and resources, and administrative decisions that do not contribute to professional development and the insufficient methodological support of teachers.

The most difficult obstacle, according to educators, is the lack of professional preparation to work with ASD, which leads to other problems (Wilson & Landa, 2019). Educators need the support of experienced educators, colleagues and mentors, as well as opportunities to acquire practical skills and exchange experiences in other schools and institutions aimed at overcoming ASD and correcting developmental distortions (Corkum et al., 2014).

It was also concluded that Russian teachers, as well as foreign educators, have created myths about the work with children with ASD (Aisina, Nesterova, 2019; Aisina, Nesterova, Suslova, & Khitryuk, 2019), among which the idea of high intellectual abilities or talent of children with ASD was the most common. Considerable gaps have been identified in the organization of educational conditions for teachers, parents and children with ASD. Thus, the greatest difficulties have been observed in competences, lack of knowledge of working methods and skills to overcome behavioral and speech disabilities in children with ASD. At the same time, teachers indicated that they were internally ready for professional development and work with children with ASD (Manelis, Medvedovskaya, & Subbotina, 2014).

Therefore, difficulties in working with children with ASD include (a) doubts about competence in interaction with this group of children, (b) difficulties in working with parents of children with ASD, and (c) lack of support from specialized specialists, tutors, etc. (Aisina & Nesterova, 2019).

In one way or another, all teachers and preschool education specialists will deal with the development and education of a child with ASD, since at present almost all groups have a child with this type of dysontogenesis. Therefore, training to improve specific skills and awareness

of ASD should be given priority. Faced with the issues of ASD in practice, teacher must be prepared to create the best educational conditions for children. The effectiveness and efficiency of a competent teacher's educational activity will help maintain psychological stability and reduce the risk of emotional exhaustion (Pettersson Bloom, 2021). Professional burnout and loss of interest in working with children with special educational needs are caused by a lack of support for teachers in psychological, pedagogical and methodological terms (Semenova & Semenova, 2019).

Consequently, the aspect of organizing the educational activities of teachers in the preschool organization within the compensatory group for children with ASD has not yet been fully disclosed. This study aims to identify the characteristics of teacher work in the compensatory group of a preschool education organization (e.g. a group of children with ASD).

## Methods

To achieve the objectives, the following tasks were identified as the ones: (a) to determine the difficulties of teachers working in compensatory groups (with children with ASD) in public preschool education institutions; (b) to determine the basic problems, identify the characteristics of the education process, and to determine the need to design university training modules for future teachers working with children with AIDS. The study used the survey method. The survey was conducted on the Google Forms platform, which is the most preferred for the study of teachers working with children with ASD due to its versatility and the ability to collect a sufficient amount of data in a short period of time.

The survey included 60 female teachers aged 20 to 65 (23.3% aged from 41 to 45 years; 15% aged from 31 to 35; 15% aged from 36 to 40; 15% aged from 46 to 50; 13.3% aged from 20 to 25 years; 10% aged from 51 to 55 years; 1.7% aged over 60 years) who worked with children with ASD in compensatory groups of preschool educational institutions (PEI) in Kazan. Education: 56.7% of teachers had pedagogical education, 25% of teachers had education in defectology, 15% of teachers had psychological and pedagogical education, and 3.3% of teachers had psychological education.

The study included 2 stages.

**Stage 1** – Preparation. In the first stage, we developed the research design, formulated the objectives and research questions, determined the samples, and developed the survey. The survey included a few rather extensive questions. The survey took into account basic teacher education. The questionnaire addresses all the necessary aspects of the content of the teaching work on developmental disorders in ASD - psychological and teaching knowledge, assessment of current training levels, difficulties and support needed for teachers working with children with ADD.

**Stage 2** – Collecting, processing and analysis of empirical data. The diagnosis materials helped to understand the existing experience of interaction between teachers and the specific area of the development of children with ASD, which can help to further develop an algorithm for updating the content for the preparation of future teachers.

*Research questions:*

1. What is your education?
2. How old are you?
3. What is your position in an educational institution?
4. What is your teaching experience?
5. What is your experience of working with children with special needs?
6. What is autism spectrum disorder (ASD)?

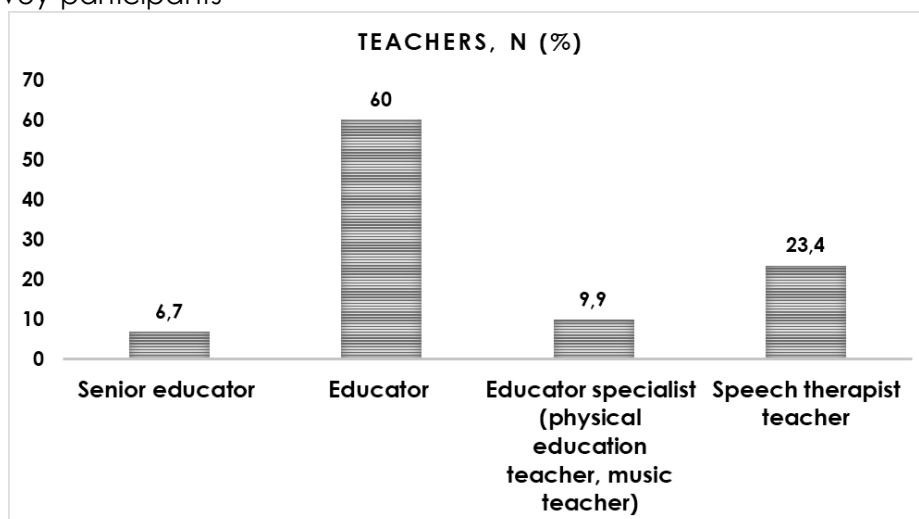
7. What is the classification of ASD syndromes according to K. Gilbert and T. Peters (1998)?
8. Can you describe technologies that can correct disorders in communication and social spheres in the development of children with ASD?
9. What is the non-drug therapy for ASD?
10. What are the methods recommended to work with children with ASD?
11. Can you identify the most effective forms of work with parents who have children with ASD?
12. What is the work with parents of children with ASD?
13. How to organize the education process for children with ASD?
14. Do you have difficulties working with children with ASD?
15. What support do you need for working with children with ASD?
16. Why did you decide to work with children with ASD?
17. Do you believe it is necessary to gain knowledge about the characteristics of working with children with ASD in the training process of the university pre-school education programs?
18. What experts do you work with when implementing the education process with children with ASD in a team?

## Results

The survey showed that the majority of teachers who work in compensatory groups (with children with ASD) are preschool teachers and speech therapists. Most teachers have little work experience (up to 6 years). Another interesting question is how many years of total experience have the survey participants worked with children with developmental disabilities. The results showed that 56.7% had up to one year of work experience, 33.3% performed this activity from one to three years, 5% - four to six years. Only 5% of the participants have been working with children with special needs for more than 10 years. Figures 1, 2 and 3 show the distribution of the number of teachers by these parameters.

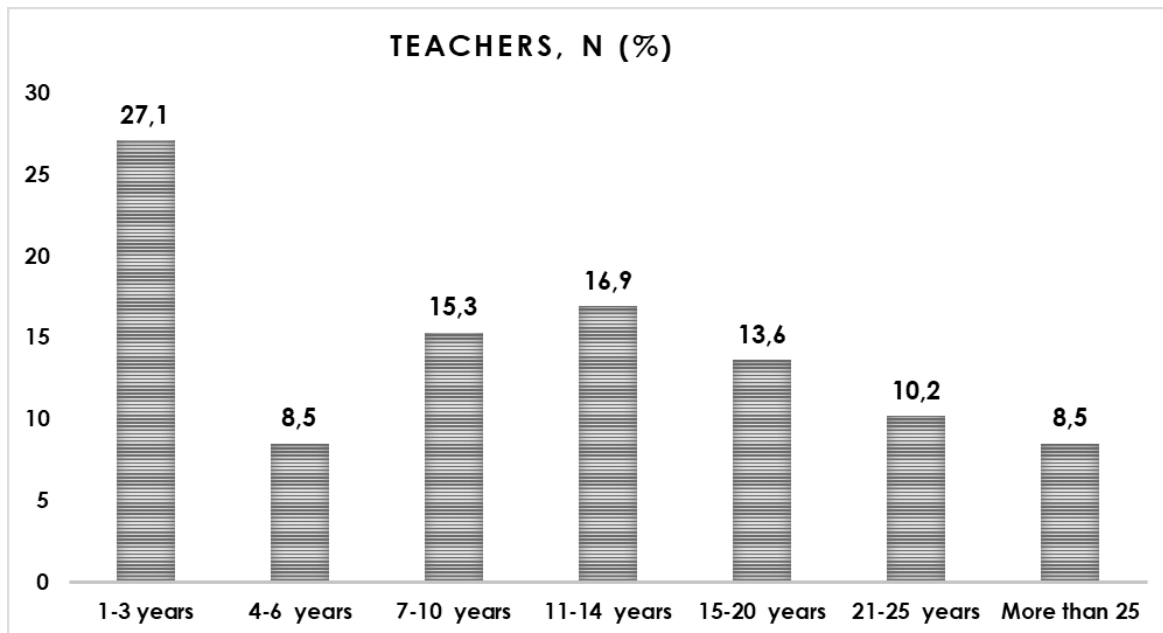
**Figure 1**

Position of survey participants



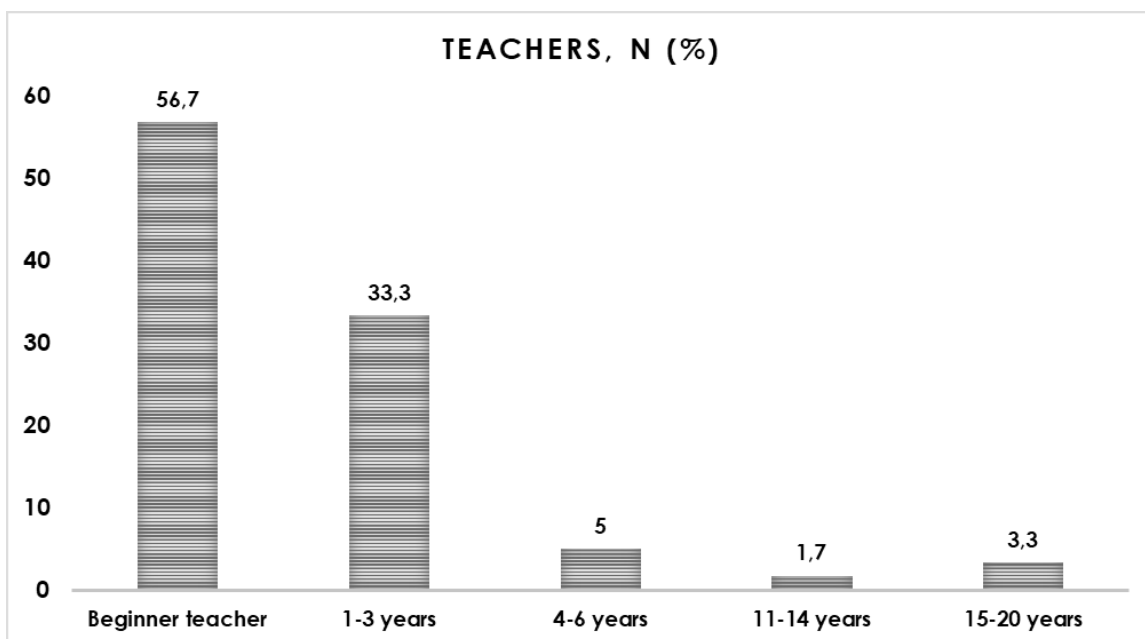
**Figure 2**

*Pedagogical work experience*



**Figure 3**

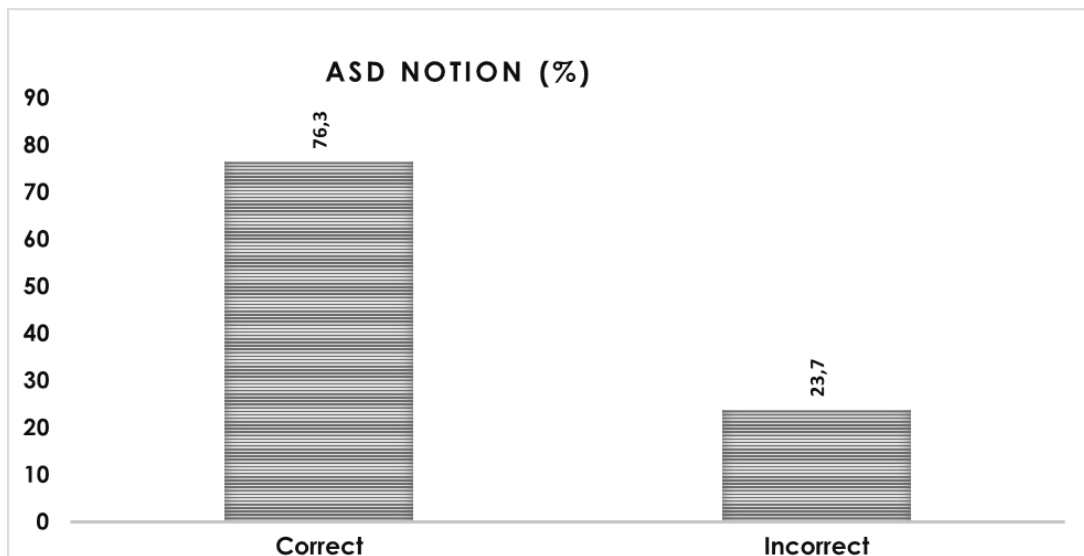
*Experience of work with children with developmental disabilities*



The positive result of the survey is that the majority of the respondents revealed sufficient theoretical knowledge of ASD and the essence of non-drug therapy for ASD. We can talk about a high degree of theoretical training regarding the knowledge of the criteria, classifications of ASD, and the main technologies for non-drug work in this type of dysontogenesis (Fig. 4, Fig. 5).

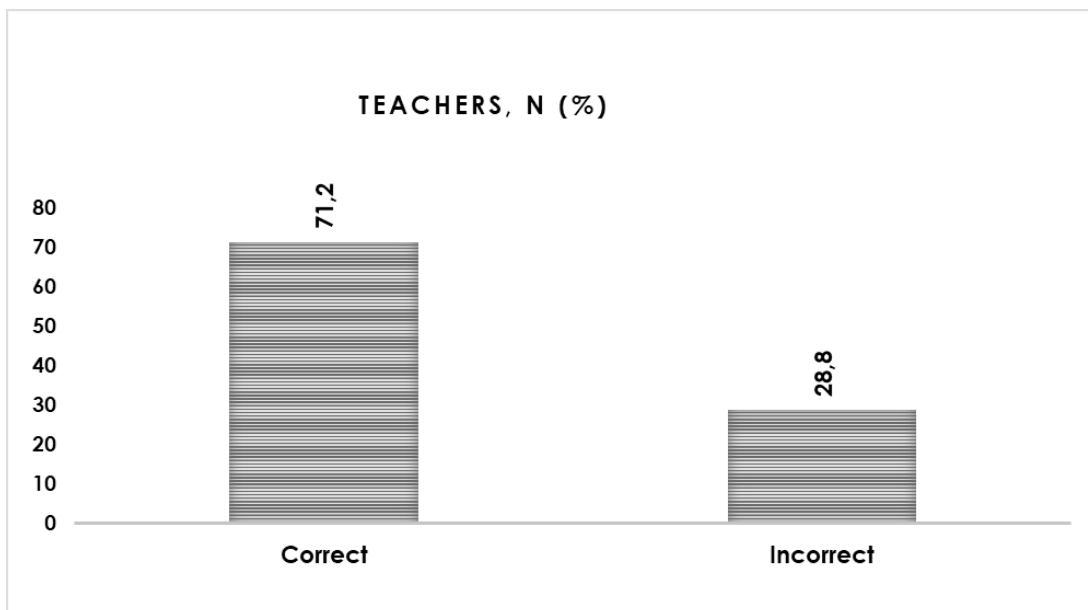
**Figure 4**

*Theoretical knowledge. Definition of RAS*



**Figure 5**

*Theoretical knowledge. Non-drug therapy for ASD*





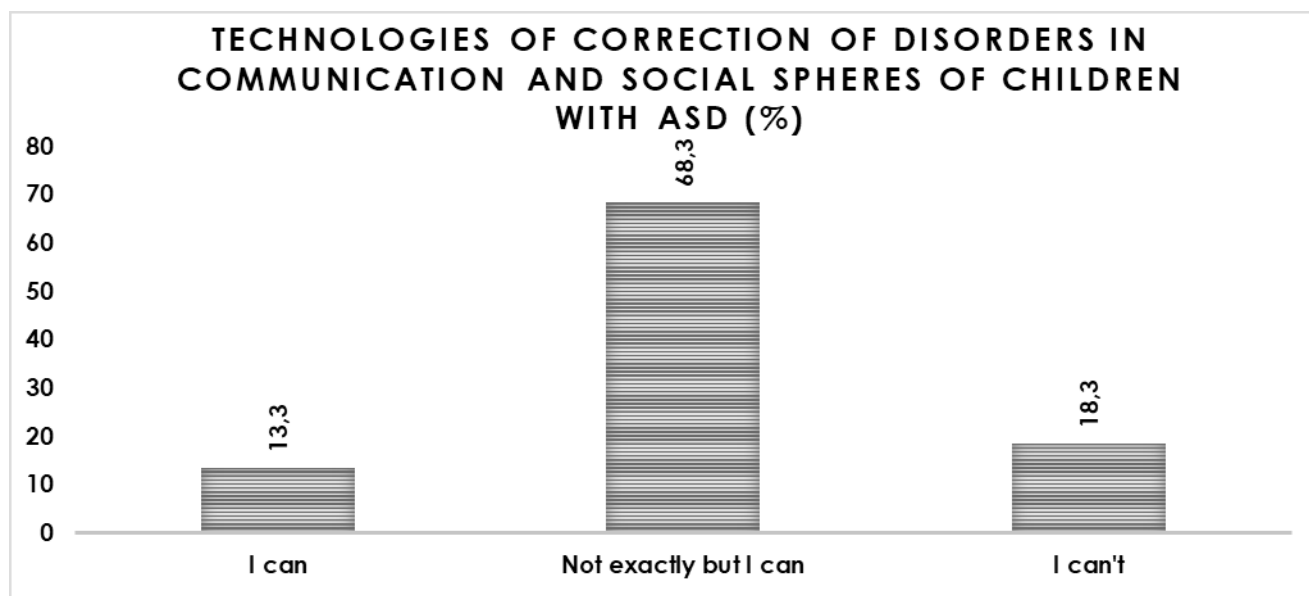
Let us consider the results of the survey on the orientation of teachers and their knowledge of the application of modern practices and methods of work with children with ASD and their parents. Only 13.3% of respondents could name the work technologies that could be used to correct communications and social spheres (Fig. 6).

When selecting methods for working with children with ASD, 10% of teachers chose holding therapy, which is not recommended for use in this category of developmental disorders because of its unproven effectiveness (Osin & Ustinova, 2020); 11.6% of teachers chose the DIR/Floortime intervention; 76.6% - picture exchange communication method (PECS); and 93.3% - ABA therapy (fig. 7).

The teachers' knowledge of the effectiveness of interaction and work with parents of children with ASD was not sufficient (35%). Most teachers (56.7%) doubted their ability to properly determine and apply psychological and teaching methods to families (Figure 8). Most teachers were aware of the methods of working with children with ASD, but only a minority of respondents could independently identify the focus of the methods on a particular problem. The greatest difficulties were observed in working with parents.

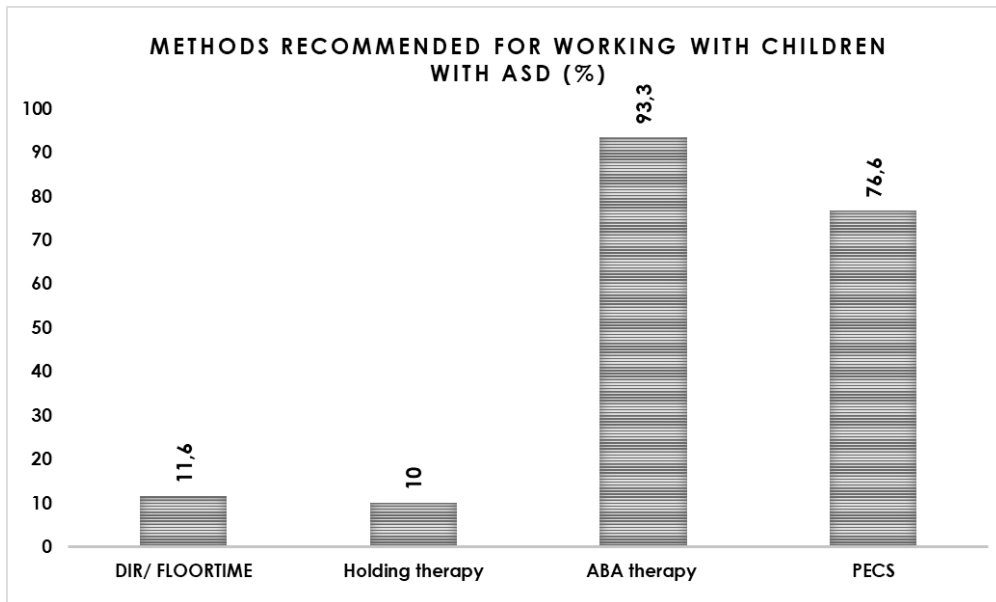
**Figure 6**

Theoretical knowledge of correction technology for communication and the social sphere



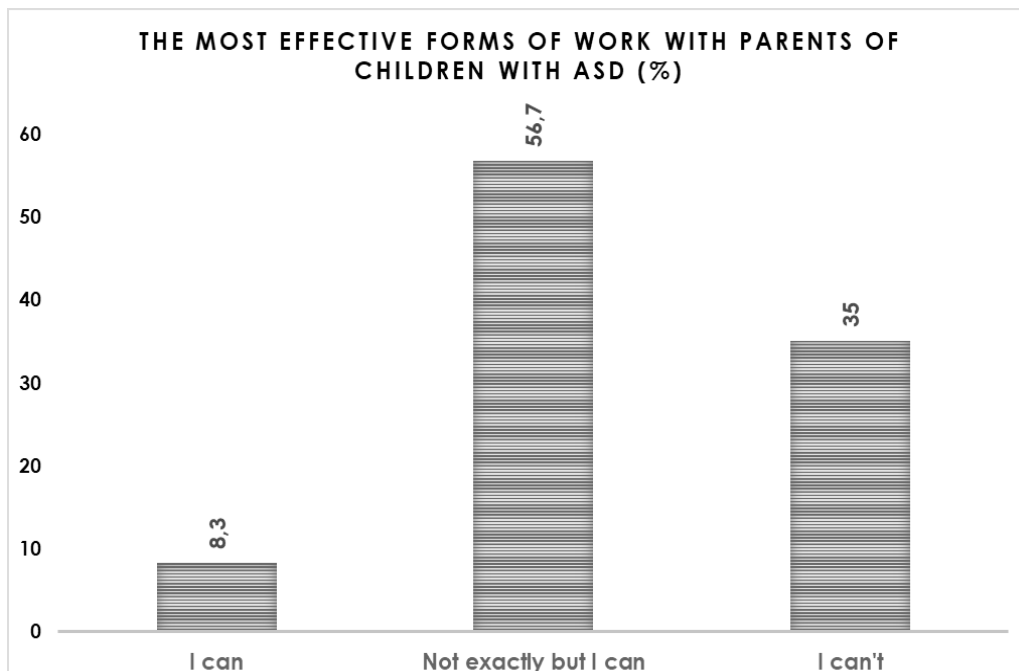
**Figure 7**

*Theoretical knowledge of the methods of correction of developmental disorders in children with ASD*



**Figure 8**

*Answers to the question, "Can you identify the most effective forms of work with parents of children with ASD?"*



Let us examine teachers' assessments of the difficulties and specificities of the educational process in working with children with ASD. Most teachers found it difficult to work with children with ASD or occasionally encountered difficulties (95%). Only 5% of the respondents coped (dealt) with children' disharmonic development and the correction of disorders associated with ASD (Fig. 9). The complexity of the practical application of theoretical knowledge and its the connection with practice is the most insurmountable for teachers.

**Figure 9**

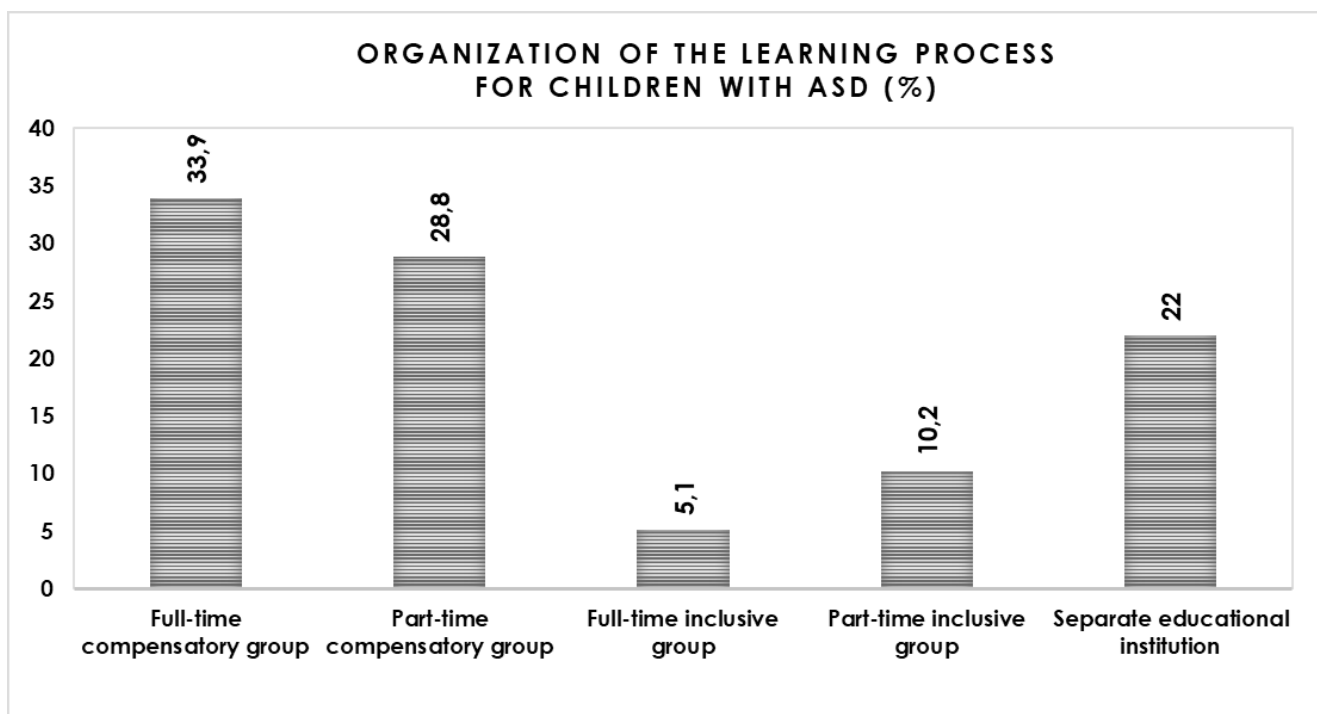
Answers to the question, "Do you have difficulties in working with children with ASD?"



According to 33.9% of the teachers interviewed, the education process of children with ASD should be organized in full-time compensatory groups; 28.8% of teachers believe that children need to be taught in part-time compensatory groups; 5.1% of teachers believe that children need to be taught in full-time inclusive groups; 10.2% of teachers believe that children need to be taught in part-time inclusive groups; and 22% of teachers believe that children need to be taught in a separate educational institution (Fig. 10). As can be seen from the responses of teachers, there is a dispersion of opinions. Teachers rely on their personal work experience and personal preferences in choosing the form of organization of the learning process and correcting the development of children with ASD.

**Figure 10**

*The teachers' opinion on the organization of the educational process*



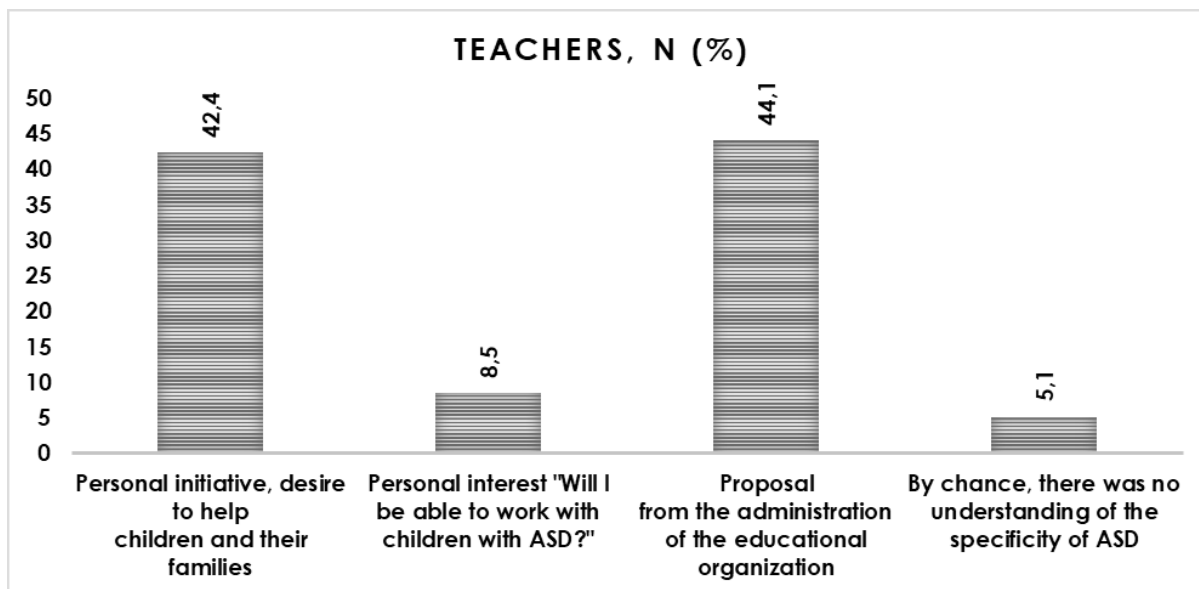
In the study, we found what contributed to the teachers' choice to work with children with ASD, including personal initiatives (42.4%), motivational proposals from the administration of the educational organization (44.1%), personal interests (8.5%). In our study 5.1% of teachers agreed that they did not know the specificity of working with children with ASD (Table 11). In other words, half of the teachers were motivated and possessed a professional interest in working with this category of children.

Finally, let us summarize the results and point out the most important points of the study.

According to the survey, 88.3% of teachers indicated that they needed to learn about the specificity of working with children with ASD in the training process. Teachers need first and foremost methodological support, which is confirmed by 71.2% of teachers' answers; 18.6% of respondents believe that administrative support is necessary. Furthermore, 10.2% of teachers need psychological support (Figure 12).

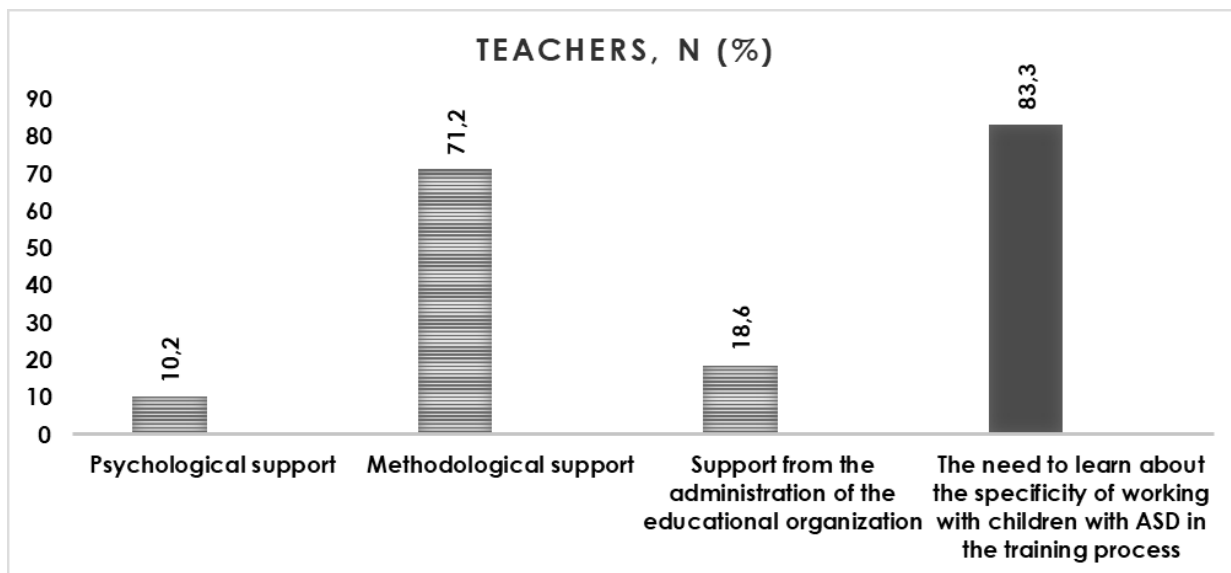
**Figure 11**

*Motivation to work with children with ASD*



**Figure 12**

*Types of support needed for teachers working with children with ASD*



## Discussion

A study of the staff of the compensatory groups showed that there were no severe staff shortages, and several teachers worked in the group for children with ASD: educators, speech

therapists, psychologists, and specialists (physical education teacher, music teacher). Motivation for participating in the survey and the results show teachers' interest in the need for professional growth, especially young professionals working with children with ASD. The specificities of the work of teachers with children with ASD include having theoretical knowledge of autism spectrum disorders and a relatively high level of training skills for their practical application. In general, teachers have knowledge of modern special diagnosis methods, correctional methods, development and educational methods and training programs. Participants in the study are able to develop and implement individual correctional programs for children with ASD and create the necessary special conditions for the educational process. These programs were introduced into the work of teachers in groups of children with ASD. At the same time, of course, an important feature of preschool teachers is the psychological readiness to work with children with ASD.

The psychological readiness to work with children with SSD involves a combination of internal and external conditions and the teacher's personal qualities. Psychological readiness to work with children with ASD involves the formation of cognitive, voluntary and emotional characteristics that constitute a system of important professional qualities of a teacher.

However, teachers in compensatory groups with children with ASD have difficulties in working. The system of organizational conditions has been successful, but to date it is only in the initial phase, because teachers and parents of this category of children face several problems. Children with ASD have the opportunity to attend preschools, but for various reasons children do not receive high-level professional pedagogical help and support. The results of the study indicate some of them. For example, we identified the lack of deeper practical knowledge, special abilities, and abilities for working with children with autism. We concluded that both teachers and parents were still in a situation of insufficient psychological and educational support. In this respect, we should emphasize that the purpose of compensatory groups is to organize educational activities, because working with children with ASD is not only to provide care for children with special needs, but also to support the child during mental and personal development. In order to improve the effectiveness of the educational process for children with ASD in compensatory groups, we offer the following recommendations:

- Creation of a free learning platform for the continuous education process of teachers working with children with ASD;
- Creation of a psychological support system for teachers working with children with ASD;
- Expansion of training programs for future educators and teachers of the direction of "Preschool education";
- Development of advanced training courses and professional retraining as part of support and education for children with ASD.

### **Conclusion**

Therefore, in this paper, we (a) described the relevance of the study of the psychological readiness of teachers and specialists working with children with developmental disabilities (children with ASD); (b) analyzed the results of the survey on theoretical and practical professional training of educators, teachers and specialists working with children with ASD; and (c) identified positive aspects of teacher professional development and the main difficulties of working in compensatory groups for children with ASD.

### Limitations of the study

During the survey, the teacher's desire to answer questions anonymously emerged, with some questions being excluded. This study provides a short list of questions. To design training programs and develop a system of psychological, pedagogical and methodological support for teachers, more teachers should be interviewed, more detailed surveys should be carried out, and research methods should be expanded (including psychodiagnostic tests, solution of pedagogical problems, pedagogical experimentation, and observation). In further research on this subject, we plan to work with future teachers and determine the readiness to work with children with ASD among students in teaching, psychological education, and psychological directions.

### References

- Able, H., Sreckovic, M. A., Schultz, T. R., Garwood, J. D., & Sherman, J. (2015). Views from the trenches: Teacher and student supports needed for full inclusion of students with ASD. *Teacher Education and Special Education*, 38(1), 44–57.
- Adelova, A. A., & Dyboshina, E. A. (2018). Organizational experience of psychological and pedagogical support of the inclusive process in kindergarten. *Autizm i narusheniya razvitiya (Autism and Developmental Disorders)*, 17(4), 47–51. <https://doi.org/10.17759/autdd.2018160407> (in Russ.)
- Aisina, R. M., & Nesterova, A. A. (2019). Myths about autism as a source of teachers' negative attitude toward inclusive education of children with ASD. In V. L. Sitnikov (Ed.). *Family and children in the modern world: Proceedings of the conference*, 5. RSPU. (in Russ.)
- Aisina, R. M., Nesterova, A. A., Suslova, T. F., & Khitryuk, V. V. (2019). Teachers' attitudes towards inclusive education of children with ASD: A review of Russian and foreign Research. *Obrazovanie i nauka (Education and Science)*, 21(10), 189–210. <https://doi.org/10.17853/1994-5639-2019-10-189-210> (in Russ.)
- Chereneva, E. A., & Volodenkova E. A. (2016). An interdepartmental model for organizing the support system for children with autism spectrum in the Krasnoyarsk region. *Autizm i narusheniya razvitiya (Autism and Developmental Disorders)*, 14(4), 19–26. <https://doi.org/10.17759/autdd.201614> (in Russ.)
- Corkum, P., Bryson, S. E., Smith, I. M., Giffin, C., Hume, K., & Power, A. (2014). Professional development needs for educators working with children with autism spectrum disorders in inclusive school environments. *Exceptionality Education International*, 24(1), 33–47.
- Frith, U. (2003). *Autism: Explaining the enigma*. Blackwell Publishing.
- Frith, U., Happé, F. (1994). Autism: Beyond «theory of mind». *Cognition*, 50(1-3), 115–132.
- Gillberg, C., & Peeters, T. (1998). *Autism: Medical and educational aspects*. Institute of Special Pedagogy and Psychology. (in Russ.)
- Hart Barnett, J. E., & O'shaughnessy, K. (2015). Enhancing collaboration between occupational therapists and early childhood educators working with children on the autism spectrum. *Early Childhood Education Journal*, 43(6), 467–472.
- Khaustov, A. V. (2020). On the teaching staff training for the organization of education for students with autism spectrum disorder (ASD) in the Russian Federation. *Vestnik prakticheskoi psikhologii obrazovaniya (Bulletin of Practical Psychology of Education)*, 17(2), 79–86. <https://doi.org/10.17759/bppe.2020170207> (in Russ.)
- Lauritsen, M. B. (2013). Autism spectrum disorders. *European Child & Adolescent Psychiatry*, 22(1), 37–42. <https://doi.org/10.1007/s00787-012-0359-5>

- Lobanov, D. V. (2022). Features of the creative potential of teachers working with children with ASD. In A. I. Savenkov (Ed.) *A child in the modern educational space of a megalopolis: Proceedings of the 9th All-Russian Scientific and Practical Conference with international participation*. MSPU. (in Russ.).
- Manelis, N. G., Medvedovskaya, T. A., & Subbotina, E. V. (2014). Analysis of problems in a pre-school educational institution when creating special educational conditions for children with ASD: The results of the survey. *Autizm i narusheniya razvitiya (Autism and Developmental Disorders)*, 12(1), 1-18. (in Russ.).
- Mazilov, V. A., & Kostrigin, A. A. (2022) *The personality of the future teacher: A review of foreign studies*. *Russian Psychological Journal*, 19(2), 89-105. <https://doi.org/10.21702/rpj.2022.2.7> (in Russ.)
- Menshchikova, I. A., & Pogorelov, D. N. (2017). Socio-perceptual aspects of professional barriers of teachers working with students with autism spectrum disorders. *Vestnik Akademii entsiklopedicheskikh nauk (Bulletin of the Academy of Encyclopedic Sciences)*, 3, 49–56. (in Russ.).
- Nesterova, A. A., Aisina, R. M., & Suslova, T. F. (2016). The model of support for positive socialization of children with autism spectrum disorders (ASD): Complex and interdisciplinary approaches. *Obrazovanie i nauka (Education and Science)*, 3(132), 140-155. (in Russ.).
- Nigmatullina, I. A., Vasina, V. V., Mukhamedshina, Y. O. (2021). *Development of a Structural–Functional Model for Comprehensive Support of Children with Autism Spectrum Disorders. Proceeding of the International Science and Technology Conference «FarEastCon 2020»*. Springer, Singapore. [https://doi.org/10.1007/978-981-16-0953-4\\_7](https://doi.org/10.1007/978-981-16-0953-4_7)
- Nikol'skaya, O. S., & Baenskaya, E. R. (2017). Childhood autism as a systemic disorder of a child's mental development. *Voprosy psikhologii*, 2, 17-28. (in Russ.).
- Nikol'skaya, O. S., Baenskaya, E. R., & Guseva, I. E. (2019). Goals and methods of correctional aid to a child with autism. *Konsul'tativnaya psikhologiya i psikhoterapiya (Counseling Psychology and Psychotherapy)*, 27(1), 140-152. <https://doi.org/10.17759/cpp.2019270109> (in Russ.)
- Nikol'skaya, O. S., Baenskaya, E. R., Libling, M. M., Kostin, I. A., Vedenina, M. Yu., Arshatskii, A. V., & Arshatskaya, O. S. (2005). Children and adolescents with autism. *Psikhologicheskoe soprovozhdenie (Psychological Support)*. Terevinf. (in Russ.).
- Osin, E., & Ustinova, N. (2020). *Evidence-based approaches to the management of children with autism spectrum disorders in pediatric practice*. In A. Portnova (Ed.). Association of Psychiatrists and Psychologists for Evidence-based Practice. (in Russ.).
- Petersson Bloom, L. (2021). Professional development for enhancing autism spectrum disorder awareness in preschool professionals. *Journal of autism and developmental disorders*, 51(3), 950–960.
- Platokhina, N. A., & Abashina, N. N. (2018). Pre-school teachers' professional competence development for organization of work with children diagnosed with early childhood autism. *Nauchno-metodicheskii elektronnyi zhurnal «Kontsept» (Scientific and methodological electronic journal "Concept")*, 1, 11-21. (in Russ.).
- Platokhina, N. A., & Dudnikova, S. A. (2016). *Theory and practice of training the professional ethics of teachers of preschool education organizations*. Foundation of Science and Education. (in Russ.).
- Semenova, L. E., & Semenova, V. E. (2019). The main professional difficulties: the version of pre-school teachers working with children with disabilities in inclusive education. *Nizhegorodskii psikhologicheskii al'manakh (Nizhny Novgorod Psychological Almanac)*, 1(1), 73-84. (in Russ.).
- Sunagatullina, I. I., Pustovoitova, O. V., & Yakovleva, L. A. (2019). The problem of formation of communication skills in children with autism spectrum disorders using game techniques. *Sovremennoe pedagogicheskoe obrazovanie (Modern Pedagogical Education)*, 8, 119-123. (in Russ.).



- Tachibana, Y., Miyazaki, C., Ota, E., Mori, R., Hwang, Y., Kobayashi, E., ... & Kamio, Y. (2017). A systematic review and meta-analysis of comprehensive interventions for pre-school children with autism spectrum disorder (ASD). *PloS one*, 12(12).
- Teo, J. X., Lau, B. T., & Then, P. (2022). Autism Spectrum Disorders in Sarawak: An Overview and Analysis of Educator Awareness, Training, Development Opportunities, and Challenges. *International Journal of Disability, Development and Education*, 69(2), 623–639. <https://doi.org/10.1080/1034912X.2020.1731433>
- Tsyru'nikova, E. L. (2016). The role of the special education teacher in the inclusion of preschoolers with ASD in the inclusive educational process: Two illustrations. *Psikhologicheskaya nauka i obrazovanie (Psychological Science and Education)*, 21(3), 105–110. <https://doi.org/10.17759/pse.2016210312> (in Russ.)
- Wilson, K. P., & Landa, R. J. (2019). Barriers to educator implementation of a classroom-based intervention for preschoolers with autism spectrum disorder. *Frontiers in Education*, 4(27). <https://doi.org/10.3389/feduc.2019.00027>

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#### Author Contribution

**Irina Alexandrovna Nigmatullina** contributed to the experimental design of the study and prepared the manuscript for publication.

**Valeria Alexandrovna Stepashkina** wrote the overview part of the article and prepared the text of the manuscript.

**Lilia Danilovna Pavlova** conducted empirical research and collected data.

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#### Conflict of interest information

The authors have no conflicts of interest to declare.