

# Quality Assessment of Preschool Education of Children with Autism

I A Nigmatullina<sup>1</sup> and V Ju Dadakina<sup>1</sup>

<sup>1</sup>Kazan (Volga region) Federal University, RUSSIA

E-mail: irinigma@mail.ru

**Abstract.** This research is devoted to the study of the effectiveness of realization of psychological and pedagogical conditions of preschool education of children with autism, which may contribute to an increase in its accessibility and quality. The purpose of this article is to assess the compliance of the quality of pre-school education for children with autism with the current needs of society in relation to children of pre-school age with autism spectrum disorders and families raising such children. Using a comparative analysis of scientific studies devoted to the issues of modern characteristics of the "autism" phenomenon, effectiveness of modern technologies and models of complex support for children with autism, as well as quantitative and qualitative assessment of the quality of pre-school education of children with autism, we were able to identify difficulties in organizing educational conditions that take into account special educational needs of preschoolers with autism spectrum disorders and contribute to their effective and comprehensive support in terms of educational organization and successful socialization. As a result of the research, the authors created a model of education for preschoolers with autism which includes the system of early assistance to families raising children with autism, traditional and variable forms of their education, and teaching techniques.

## 1. Introduction

The relevance of this work is determined by general world trends in the development of the system of preschool education for children with autism aimed at increasing its accessibility and quality, the need to spread innovative experience in developing and implementing modern educational models of integrated support not only for children with autism, but also for their parents, the creation of innovative platforms for dissemination of innovative educational experience for children with autism. On the other hand, the relevance of this work is also determined by the increased modern needs of the society in successful socialization of individuals with autism. However, at the current moment, the effectiveness of psychological and pedagogical conditions of preschool education for this category of children and the existing educational models for organizing their complex accompaniment in Russia is not sufficiently scientifically substantiated. At the present stage, psychological and pedagogical study of the phenomenon of autism is associated with the analysis of existing practices and the search for new effective models and technologies of assisting children with autism. Studies by S.V. Alekhina, M.L. Semenovich, S.A. Morozov, N.G. Manelis, I.L. Svalbard, A.B. Sorokin, A.V. Khaustov, O.A. Vlasova, E.V. Morozova, A.I. Cozorez, Z.Z. Iskhakova, Y.I. Chernykh identify and analyze the main tasks in the field of education of children with autism, at which the efforts of all countries of the world are directed. One of the main objectives is to organize a comprehensive system of assistance to people with autism spectrum disorders from an early age to the end of life. The second objective is to estab-

lish interdepartmental interaction of ministries and departments, coordination of the actions of specialists and services in systemic organization of special assistance to families who raise children with ASD. Next, we single out the tasks associated with organizing a screening survey for the early detection of children at risk of ASD and organization of early aid by specialists trained in ASD for individual education at home and in educational institutions. One of the main tasks defined by the authors are the tasks of organizing the system of training and retraining of specialists and training of parents who raise children with ASD, special methods of effective interaction with such children, as well as organization of continuity of psychological and pedagogical assistance to children in ASD transitional stages. Another important task is to organize a system of the supported residence of individuals with ASD. The role of public organizations of parents who raise children with ASD in creating national and international system of people with autism spectrum disorders (ASD) is also worth to be emphasized [1].

## **2. Literature review**

### *2.1. Analysis of educational models for children with autism*

Analysis of existing practices in Russia, conducted by G.V. Don, S.A.Morozov, E.S. Grinina showed that the following models of education for children with autism are relevant today: inclusive group / class; inclusive group / class using the resource zone technology; integrated group / class; Specialized group / classroom for children with autism and home-based education [9, 11, 20]. Studies by I.E.Akhmedova, V.N. Feofanova, A.N. Chygrynets, TB Uvarova, S.E., Inevatkina, N.V. Lazareva show that the conditions for the implementation of these models are: the creation of a specially organized environment that allows to compensate for the missing skills and facilitate the adaptation of a child, psychological and pedagogical support of all subjects of inclusive (special) education, teamwork with autism specialists of a different profile (teacher - psychologist, speech therapist, defectologist) [2, 6, 24]. The substantive component of these models includes working with a child with autism in order to facilitate their adaptation to society and minimize behavioral difficulties when interacting with adults and peers, working with the family as an active participant in the educational process, working with a pedagogical team aimed at raising awareness about the specifics of education of this category of children and formation of their special competencies, allowing not only to understand and take into account the peculiarities of the development of children with autism, but to master techniques allowing to develop social interaction skills and eliminate unwanted behaviors [26]

### *2.2. Analysis of effective technologies for working with people with autism in Russia*

The studies of S.A.Morozov, O.V.Meleshkevich, E.S.Grinina, Y.M.Erts emphasize that the most popular techniques include early intensive behavioral intervention based on the principles of applied behavioral analysis (ABA), early intervention model (ESDM), DIR / Floortime, sensory integration, emotional-level approach, TEACCH, PECS. [11, 19, 20].

Applied behavioral analysis (ABA) makes it possible to study child's behavior, measure and describe it objectively, determine the cause of unacceptable behavior, and make a reasonable plan for correction [4, 5, 19]. O.V.Meleshkevich, Y.M.Erts write that this method is focused primarily on the specific problems and opportunities of a child, which allows using individual approach in the work with autistic children. The effectiveness of this approach in working with children with ASD has been proven by a number of studies [8, 13, 15, 18, 24]. According to R.Leaf, the goal of behavioral intervention is to teach children skills that contribute to their development and further improve the quality of life. [17].

The next approach is based on the Early Start Denver Model (ESDM). It is based on strategies that transform almost any day-to-day routine, procedures, and regime points into effective gaming interaction, communication, and learning techniques. The main task is to accelerate the development of a child through the development of social communication, social attention and motivation and the ability to establish interpersonal interaction [15, 23].

The model built on development, individualization and relationship building used at an early age (DIR / Floortime), is based on the belief that child’s mental development and learning directly depend on the emotional interaction that takes place during communication between child and mother. Grinina’s study notes that this approach implies the involvement of an adult (mother, teacher, therapist, etc.) into child’s activities, and any actions of an autistic child, including stereotyped ones, resemble joint interaction. This results in stimulation of emotional, cognitive development of an autistic child and formation of interpersonal interaction skills [11].

DIR model’s goals are aimed at creating healthy foundation for social, emotional, and intellectual skills. DIR Floortime (Floortime) is the application of the DIR model in practice, it is a special method that allows to both follow natural emotional interests of a child (to lead), and at the same time to encourage children to become more skilled in social, emotional and intellectual capabilities. The implementation of this method involves the establishment of an emotional contact between a psychologist and a child – his involvement in the most attractive activities and giving them a socially significant meaning. It is assumed that according to the results of the correction, the further development of a child with ASD will be more harmonious [22, 27].

The method of sensory integration suggests that behavior, learning, communication, etc. are determined by the ability of the human brain to process sensory information. Improving the ability of the brain to process sensory information using this method will have a positive impact on the development of the child [10, 11].

PECS alternative communication system is based on interaction with the help of symbolic cards. An introverted child with ASD selects and displays cards of objects or activities. The use of various types of visual support helps to normalize the behavior of an autistic child, reduce anxiety, and develop independence [21].

The presented materials help to clarify psychological and pedagogical conditions of education and socialization of children with autism.

**3. Materials and methods**

Based on the results of the comparative analysis of modern research on the problem of autism, we have conducted an experimental study aimed at evaluating the quality of education of children with autism in a preschool educational institution which teaches 6 children with autism. For assessment, we used ECERS-R Scale technique developed by T. Harms, R.M. Clifford, D. Cryer [12].

**4. The results of the study**

The results of the assessment of the quality of education of children with autism on the example of a single pre-school educational institution are presented in table 1.

**Table 1.** The results of the assessment of the quality of education of preschoolers with autism spectrum disorder.

<b>Subscale</b>	<b>General point</b>	<b>Average point</b>
Subject-spatial environment	37	4,6
Child care and supervision	24	4
Speech and thinking	15	3,75
Types of activities	28	2,8
Interaction	20	4
Program structuring	16	4
Parents and staff	24	4
Total	164	3,8

The study provided the following results.

"Subject-spatial environment". The room for group activities is equipped with all necessary furniture, concentrated in the four centers of children's interests (a place for reading, a place for designing, a place for outdoor games, a place for board games). The room has a lot of games, materials for the

development of fine motor skills. The room is well lit, it has ventilation and sound-absorbing objects, small toilets and low sinks. During the process of learning kids acquire self-care skills as much as they can. The room provides space for privacy. All pieces of furniture are arranged in such a way that children can use them at any time they like.

There is enough space on the territory of the kindergarten for games that develop major motor skills. "Child care and supervision" subscale. The staff of the educational organization is always polite with children and their parents and makes the most of the time to exchange information with parents. The pedagogical staff anticipates security threats and takes necessary measures.

"Speech and Thinking" subscale. During classes and in free activities, there is a visible stimulation of communication between children. The staff keeps a balance between listening and speaking, the process of teaching children involves speech to develop their thinking skills. In addition, the staff draws attention to the daily use of speech by children. Teachers often hold conversations, ask questions that require detailed answers, complement the answers of children.

"Types of Activity" subscale in this group has quite a lot of games and materials for the development of fine motor skills. Paints and plasticine are available to children for 1 hour a day; they are given some freedom in choosing colors. All art classes are controlled by the teacher. Children's works rarely vary, that is, children do not have the opportunity for self-expression. There is a sufficient amount of gaming material in the group; the space on the floor is used for games. Math and counting are also paid much attention.

"Interaction" subscale. Teachers provide positive interaction with children, adhere to the single line of education, their methods are similar and they require the same forms of behavior. Interaction between the staff and the children is warm, teacher tries to help children, he shows respect for them, listens to them, and shows interest in their activities. Children with autism spectrum disorders often do not interact with each other, they ignore peers and contact mainly with adults. But teachers tend to encourage communication between children, interrupting negative communications (quarrels, conflicts).

"Program structuring" subscale. Kindergarten group has a day regimen which is familiar to children; it is presented in the form of pictures in a visible place of the game room. A free game is available for children both outdoors and indoors and they are given plenty of time. In this kindergarten, many classes are held in small groups or on an individual basis. Small groups provide a change of pace throughout the day, the staff participates in the developmental interaction with small groups or with children individually the same as with the whole group.

"Parents and staff." There is enough space in the kindergarten group for storing folders and materials, a separate room is provided for the program administrator, and the meeting room is in good condition. The group is characterized by a good communication between all program participants, that is, employees always exchange information about the success of children – they exchange information on who couldn't cope with a task and why. Parents are provided with full information on what kind of corrective work is being carried out with their child. Parents and staff always share information about the success of children. The head of the kindergarten constantly supervises the activities of each member of the staff.

However, the following factors may be improved in the educational organization: poly-functional use of premises for group work; flexible balance between professional planning of time and openness for improvisation and different skills of children, which would take into account their individual needs and interests; programs based on a balance between general classes under the guidance of an adult and the activity of children of their free choice.

## **5. Discussion and conclusions**

The lack of a common understanding in psychological and pedagogical science concerning the necessary psychological and pedagogical conditions that ensure the effectiveness of the processes of education and socialization of children of preschool age and the lack of research on success factors is especially noticeable in relation to the education of children with autism which is determined by their spe-

cific peculiarities manifested in the lack of social communication and social interaction and repetitive patterns of behavior, interests and activity.

Our analysis helped to reveal the polymorphism of views and directions in the study of psychological and pedagogical conditions of education and socialization of children with autism. Variable models of the organization of education and upbringing of children with ASD, timely comprehensive support and social adaptation of people in this category have been carefully reviewed. The presented materials allow to clarify psychological and pedagogical conditions of socialization of children with autism as well as to identify the difficulties of their provision.

## 6. Acknowledgments

This study was carried out within the framework of the federal innovation platform under the Ministry of Education of the Russian Federation on the implementation of the project «Development and implementation of an adapted basic educational program for preschool education of children with autism spectrum disorder».

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