

THERAPEUTIC FEATURES OF ORGANIZING THE FEEDING PROCESS OF PRESCHOOL CHILDREN WITH AUTISM SYNDROME

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ABSTRACT

This work aims to study and identify the difficulties in organizing the feeding process of preschoolers with autism syndrome and the features of the ergo therapy approach.

The methodology of data processing and analysis is entirely based on the approach of quantitative research methodology. Data, obtained through this methodology, are expressed in the form of numbers and percentages, which in turn allow the researcher to interpret the data through numbers, to provide objective and accurate information about it (Sharoyan, 2013).

As part of the research, an electronic survey was conducted, in which 35 parents of children of preschool age with autism syndrome participated.

The level of awareness of the parents regarding the work of the ergo therapist was revealed, in particular, the organization of the feeding process was addressed. Preschool children with autism syndrome mostly used the services offered by an occupational therapist and 14% did not use the service of an occupational therapist; the need for intervention and services provided by an occupational therapist in overcoming difficulties in organizing the feeding process was evident.

Keywords: autism syndrome, sensory integration, sensory integration disorder, food pickiness, behavioral problems, occupational therapy features, occupational therapist.

INTRODUCTION

Autism syndrome is a general developmental disorder that is expressed and manifested at different stages of a child's development, with activity disorders and negatively affects the formation and perception of a complete picture of the world in them (APA, 2013).

Preschool children with autism spectrum disorder also often have fluctuations in feeding behavior, so pronounced that it was previously considered a symptom. Food selectivity develops in children, as a result of which the child refuses various types of food, instead preferring dishes with the same composition, repeated in a row.

Thus, taking into account all this, the purpose of this work was defined: to study and identify the difficulties in organizing the feeding process of preschoolers with autism syndrome and the features of the ergotherapy approach.

As a result, the research question of the work receives the following wording: What are the problems of organizing the feeding process of preschoolers with autism syndrome?

LITERATURE ANALYSIS

According to the concepts presented in the professional literature, the term "autism" is derived from the Greek word "autos" - "yourself" (Azaryan, 2001). It is known that the term "autism" was first used by the Swiss psychiatrist E. Bleuler in 1912.

Autism syndrome is often combined with superpowers of sensory perception and developed attention. Children with autism spectrum disorders often exhibit unusual responses to sensory stimuli, but there is no evidence that sensory symptoms can be considered a basis for distinguishing autism from other disorders (Willey, 2014).

Approximately two-thirds of preschool children with autism spectrum disorder have eating behavior fluctuations so pronounced that it was previously considered a symptom (Harutyunyan, 2010). Choice of dishes is the most common problem, while food refusal is possible, malnutrition is not observed, although gastrointestinal disturbances may be observed in some preschool children with autism syndrome.

Autism syndrome is often accompanied by an increased capacity for sensory perception and attention. According to J. Ayres (senses), feelings provide information about the state of our body and the environment. Every second our brain receives countless amounts of sensory information and not only through the eyes and ears, but through the whole body.

Sensory integration is the ability to receive information through the senses of touch, movement, smell, taste, sight, and hearing, which enables one to combine that information and the knowledge that is already present in the brain so that a person can come to final conclusions (Ayres, 2008).

Thus, trying to refer to the terms proposed by J. Ayres (2008), we can generally say that sensory integration:

- is an unconscious process that takes place in the brain;
- organizes the information we receive through sensory organs (taste, smell, sounds, touch);

- makes sense of human feelings, chooses the information on which attention should be focused (eg: listen to the teacher, not the outside noise);
- helps a person to act consciously and react correctly to the situation.

The term "adaptive response" was also put forward by J. Ayres (1950). It is the ability of individuals to adapt to and successfully cope with environmental problems. It is unique to each moment. Responses to sensory input occur very early in life, five weeks after conception. Those first responses are directed to the tactile stimulus (Ayres, 1974).

During the first 6 months of life, the baby begins to show a strong internal drive to climb against the force of gravity. The child uses tactile and muscular-articular sensitivities to grasp simple objects. The connection between the tactile and visual systems further shapes hand-eye coordination. So, in the course of the child's development, their abilities are formed step by step and their abilities in the sensorimotor field are finally developed at the age of 3-7 years. This is the period when sensorimotor functions begin to work together (Ayres, 1974).

In sensory disorders, information from the outside world is perceived correctly through the sense organs but is not properly analyzed in the brain. These disorders can be considered as a separate problem - "sensory hunger", but very often it is accompanied by another with problems such as early childhood autism, attention deficit hyperactivity disorder, dyslexia, cerebral palsy, speech delay, and other neurological disorders.

In fact, classifying studies of sensory disorders have a number of difficulties. They have a broad clinical picture; they do not have unified diagnostic criteria, as well as effective assessment tools. This is why it is difficult to identify sensory dysfunction in the early stages of a child's development. Even if a specialist notices this form of disorder in a child, he cannot make a diagnosis of "sensory integration disorder" because their medical aspects have not been studied deeply enough either.

Restoration and correction of sensory integration problems is a separate special field of ergotherapy because it deals with the development of psychophysical functions of a person, by involving them in active activities. The goal of occupational therapy is to develop and make the most of a person's abilities and capabilities. An occupational therapist is a specialist who contributes to the improvement of the vital and social skills of children with different developmental characteristics. An occupational therapist promotes the health and well-being of people by providing employment.

The task of the ergo therapist is to ensure the generation of sensory impulses and their maintenance. The goal is to regulate the coordinated and joint work of separate parts of the nervous system.

The task of the ergo therapist is to teach the child to eat what he previously refused for various reasons, as well as to form and develop his ability to eat independently. The specialist helps the child to learn the skills necessary for self-feeding.

The child learns to distinguish which food can be taken by hand (bread) and when it is necessary to use table utensils (knife, fork). During the therapy, the ergo therapist carefully monitors the extent to which the child's physical development allows him to feed himself. At the same time, the following areas are taken into account: the position of the child during meals, visual-motor coordination - hand-eye coordination and skills to correct sensory integration disorder (Косински, 2017).

Thus, taking into account the topicality of the problem, the goal of the work is to study and identify the difficulties in organizing the feeding process of preschoolers with autism syndrome and the features of the ergotherapy approach.

As a result, the research question of the work receives the following wording: What are the problems of organizing the feeding process of preschoolers with autism syndrome?

METHODOLOGY

The quantitative research method was used for data collection and analysis. Quantitative research allows collecting and analyzing data necessary for research through a survey (point-of-care). As a result of using this method, data is obtained which is expressed in the form of numerical patterns.

In other words, in this case, the researcher aims to measure and interpret the phenomenon through numbers. That is why the object studied by the methods of this group is a quantitatively significant unit, which further enables conclusions to be drawn from the obtained data through certain numerical patterns: put forward new hypotheses and confirm or deny existing ones (Harutyunyan, 2010).

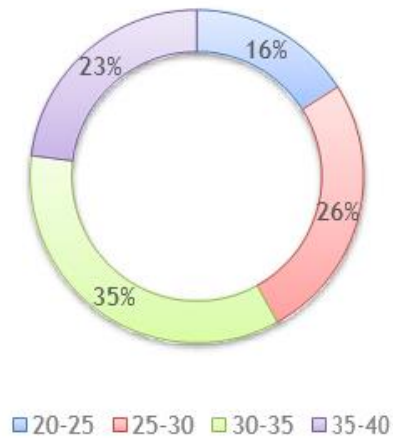
A questionnaire was developed and used to conduct the research. The level of awareness of the parents of the Yerevan "Sunny Child Development Center" regarding the organization of the feeding process was studied and analyzed.

Participants

In the current study 35 parents of preschool children with autism syndrome have been participated filling the proposed electronic survey. The latter the age limit varied from 25 to 40 years old (Figure 1).

Figure 1.

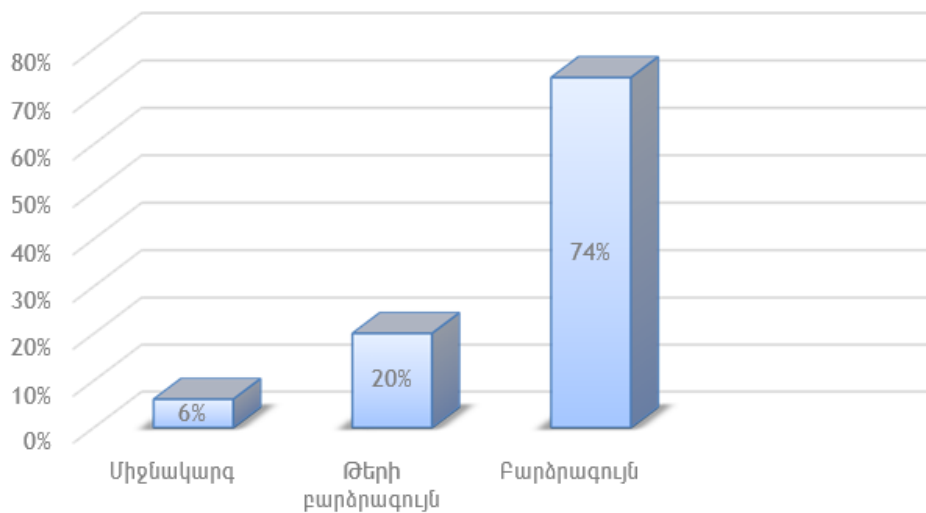
Age of the parent participating in the study



The study of the data of the participants shows that the majority of the parents who took part in the survey are representatives of the female gender, 89%, and the other 11% are male. Majority of the participants - 75% of the parents have higher education, 18% have incomplete higher education and 7% have secondary education.

Figure 2.

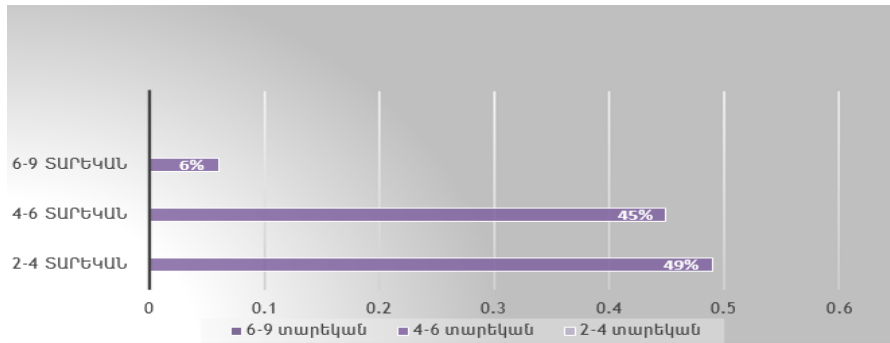
The educational level of participating parents



The age group of the children of the parents who participated in the survey ranges from 2-9 years old (Figure 3).

Figure 3

Age of the children



Data analysis

In order to carry out the research, a questionnaire was developed which included open and closed questions. Research participants were expected to give positive and negative responses, as well as some personal opinions. Quantitative data analysis was carried out using the EXCEL system, using the appropriate program.

The questionnaire was sent to the parents of the "Arevamanuk Children's Development" center. The questionnaire was filled in by the parents of the above-mentioned center. The questionnaire responses were then calculated and analyzed and presented in the results section.

RESULTS

As a result of the analysis of the research data, it became obvious that the majority of the parents who participated in the survey were female representatives (87%). The results of the survey prove that mothers are more involved in child care and education in the Republic of Armenia. Despite the fact that the role of the father is also extremely important for the overall development of the child.

73% of the parents who participated in the research have higher education, 20% have incomplete higher education and 7% have secondary education.

As a result of the analysis of the research data, it became clear that the majority of the parents who participated in the survey have higher education but are not informed about the necessary services and needs of their child.

52% of the children of parents participating in the research are male and 48% are female. This figure proves once again that autistic disorders are more common in boys. The results of the conducted research confirm that the number of boys predominates compared to girls. Similar studies in recent years have also found that autistic disorders are more common in boys (Goldman 2014).

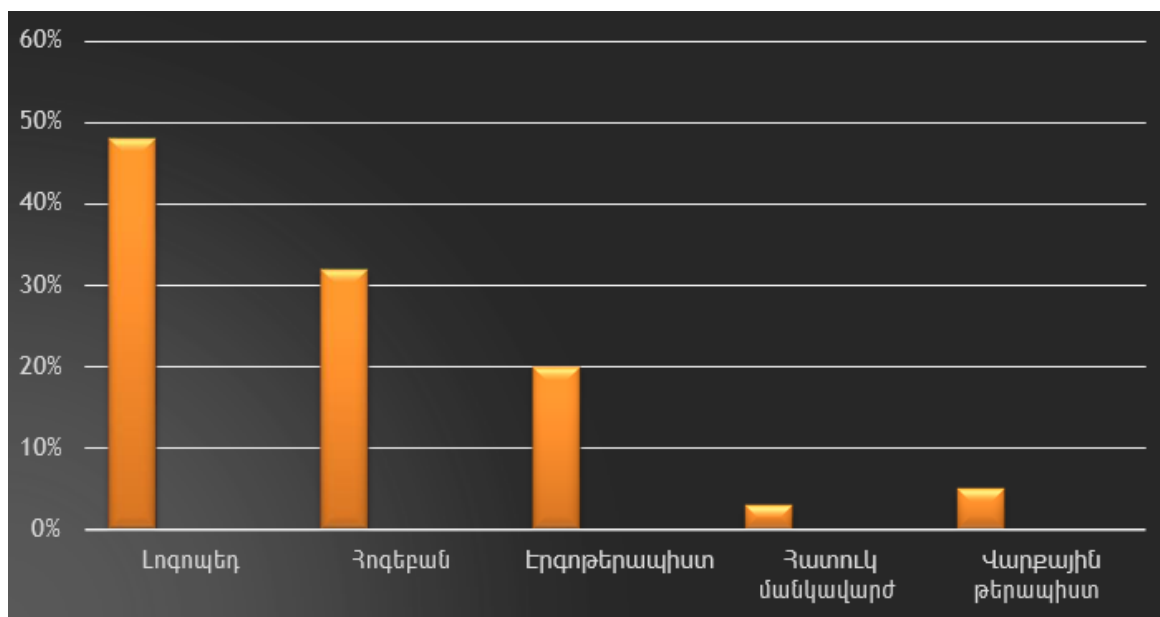
Children of all parents participating in the study attend a developmental center.

From the results provided by the parents, it can be concluded that the majority of children with an autism spectrum disorder in the Republic of Armenia use the following services: 48 speech therapists, 32% psychologists, 20% occupational therapists, 3% special educators and 5% behavioral therapist.

It is known that children with autism spectrum disorder face a number of other difficulties related to self-care, self-management and negative behavioral manifestations in their daily lives, but the results of the study showed that the services offered by occupational therapy, behavioral therapy, physical therapy and special education are used by few children. It should be noted that the need for the services offered by those professionals is obvious, but most parents are not aware and have no idea how the above professionals can support or help their children's development process (Figure 4).

Figure 4.

What kind of service does your child use?



Participants of the study - 68% of parents answered yes and the other 32% said no when asked if their child has difficulties with feeding. Analyzing the data provided by the parents, it became clear that children with autism spectrum disorder most have various problems related to food selectivity, which are also manifested by a preference for repeated dishes and refusal of other foods. Many parents are concerned about the fact that their children refuse soups, vegetables, fruits and colorful dishes, preferring to eat gata, candy, Nutella and other sweets.

These children want to eat the same food for days and months, which causes great difficulties and problems in their lives as well as in their parents' lives.

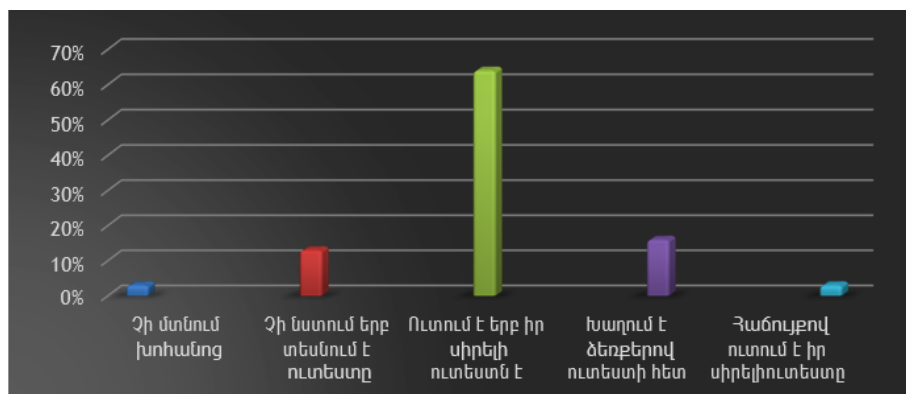
As a rule, children who refuse to eat a variety of foods and prefer the same foods for many years develop a number of health problems and their consequences, which affect the child's growth and development.

Many children with autism spectrum disorder often develop food pickiness due to sensory impairment. Many authors have addressed the food selectivity caused by "Sensory Integration Disorder" in these children and the resulting difficulties with which occupational therapists.

To the question, what kind of problems do children encounter when organizing the feeding process? 65% of the respondents answered that when they have their favorite food, 16% answered that they play with the food with their hands after eating or not eating. 12% answered that they do not sit down whenever they see the dish, especially when it is their disliked dish. 3% stated that they enjoy eating familiar and favorite food. 4% stated that they do not enter the kitchen at all and eat the food where it is convenient and pleasant for them (Figure 5).

Figure 5.

What problems do you encounter when organizing the feeding process for a child?



Majority of of the interviewed parents (84%) indicated that their child uses the services of an occupational therapist and 16% indicated that they do not use the services of an occupational therapist. Although the majority of the interviewed parents stated that their child uses the services of an ergo therapist, they do not know what functions the occupational therapist has and what he/she works on with the child.

To the question, what does the occupational therapist work on with your child, 17 out of 35 parents answered that the work is carried out in the direction of expanding the diet. 8 of the parents stated that an occupational therapist works to develop self-care skills. 7 of the parents stated that they are working towards sensory integration and 2 parents stated that they do not know what the occupational therapist is working on. One parent mentioned that the occupational therapist is not working.

To the question, how do you overcome the problems related to the child's feeding process, 12 out of 35 parents answered that despite the circumstances and the problem the child has, they often have to feed the food with a cartoon. 8 of the parents stated that they forcefully feed the dish, if they do not force the child may remain hungry for several days or eat only sweets.

Several parents mentioned (7) that they give the child the food that the child likes: it is mostly sweets (gata, candy, waffles, Nutella). Some of the parents (5) mentioned that they scold the child with some things, they are basically, for example, "Eat, I'll give you candy" or when the child has a stickiness with numbers, for example, they say "You know there are a lot of numbers in your food". Few parents (3) mentioned that they mix the child's favorite food with a very small amount of another unloved food, even if the child does not understand it.

SUMMARY/DISCUSSION

As discussed earlier, many children with autism spectrum disorder often exhibit food pickiness which is accompanied by refusing food offered to them during meals and showing negative or aggressive behavior. According to Rudolph and Link (2002), 25% - 35% of children with normal development may have picky eating problems and 40% - 70% of children who were born prematurely and have any developmental problems. Eating disorders can be in the norm and children will be able to overcome this problem; or it can be out of the norm (severe) and if no work is undertaken, can accompany children throughout life.

According to the scientific theory of picky eating, there are many ways to classify eating disorders. According to Wolsten (1991), the most common classification of eating disorders is the extension of organic and non-organic food. Organic eating disorders include functions associated with other structural and physiological problems. Non-organic eating disorders involve functions related to the social environment (Burklow 1998).

Food pickiness can be both sensory and behavioral. Behavioral problems stem from psychosocial difficulties and negative food behavior is due to external and internal stimuli (Burklow, 1998). Environmental factors play a major role in the emergence of food selectivity difficulties.

Stress or external negative factors can cause a child to dislike food occasionally. An example is an Ayan child whose parents have hectic work schedules that result in family members eating at different times of the day. The latter can cause additional difficulties for the child (Asperger, Stegen-Hanson, 2004; Hanna, Rodger, 2002).

It should be noted that the parent's attitude towards feeding the child can have a negative effect, which will lead to negative behavior in the child. For example: "Don't play with food", "Use a spoon instead of your fingers", etc. (Asperger, Stegen-Hanson, 2004).

Occupational therapist and pediatrician Grogan (2012) has been studying this issue professionally for years. According to him, food selectivity and food aversion will be formed in the child from the first years of life and it is due to the child's obesity or lack of sensitivity.

Rehabilitation and correction of disorders related to child feeding is a separate, special field of ergotherapy. In this case, the goal of the ergo therapist is to teach the child to eat what he previously refused for various reasons as well as developing and forming the ability to eat independently and other self-care skills in the child (Grogan, 2012).

APPLICATION IN PRACTICE AND FURTHER WORK

The results of the study revealed that most parents of children with autism spectrum disorders are not aware that food selectivity in their children may be the result of a sensory or behavioral integration disorder and they were also unaware that the child's diet can be improved and corrected with early ergotherapy intervention through.

1. In order to inform parents, it would be desirable to involve them in the work process. This step would contribute not only to increasing the level of parents' awareness but also to the effectiveness of therapy, as it would ensure the continuity of the specialist's work.

2. To look for ways of cooperation with medical institutions, pediatricians and neurologists, so that if necessary they make professional referrals. The parent may not know that, for example, if the child does not allow combing his hair, it is not his willfulness, but a consequence of tactile hypersensitivity. This applies mainly to cases when there are no other developmental disorders and the parents have not dealt with rehabilitation centers.

3. It would also be desirable to finance individual occupational therapy classes, providing home visits, which would also have a positive effect within the framework of the issues discussed above.

4. To create sensory integration rooms in various development, care and rehabilitation centers because being there, the child is unwittingly included in a process that is pleasant to him and contributes to his multifaceted development.

5. Develop (redevelop) and apply various methods based on the working structure of sensory integration, in order to maximally contribute to the elimination of the existing disorder in the child.

6. Involve the child's family members in the work process to ensure the continuity of the work carried out by the specialist.

CONCLUSION

Thus, in order to carry out this research, many scientific sources and articles were studied, and then the actual research work was carried out, as a result of which the obtained quantitative data allowed to reach the following conclusion.

If a problem is confirmed, an individual intervention plan should be developed for each child. Conduct follow-up work with therapy aimed at correcting sensory disturbances and improving diet. If possible, organize therapy not only during individual sessions in care and rehabilitation centers but also at home. In order to strengthen the effectiveness of the therapy, involve the child's family members in the process as much as possible.

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