



THE EFFECTIVENESS OF CORRECTION OF CHILDHOOD AUTISM BY ABA THERAPY.

Madjidova Yakuthon Nabievna

Professor, MD, Head of the Department of Neurology, Child Neurology and Medical Genetics,
Tashkent Pediatric Medical Institute Republic of Uzbekistan

madjidova1@yahoo.ru

Azimova Nodira Mirvasitovna

Candidate of Medical Sciences, Associate Professor of the Department of Neurology, Child
Neurology and Medical Genetics, Tashkent Pediatric Medical Institute Republic of Uzbekistan

Azimova_nodira@bk.ru

Ergasheva Nargiza Nasriddinovna

Doctor of Medical Sciences, Associate Professor of the Department of Neurology, Child Neurology
and Medical Genetics, Tashkent Pediatric Medical Institute Republic of Uzbekistan

Yunusova Rano Tulkinovna

Candidate of Medical Sciences, Associate Professor of Hospital Pediatrics, Tashkent Pediatric
Medical Institute Republic of Uzbekistan

Akhmedova Elena Aleksandrovna

Assistant of the Department of Pediatrics, Ferghana Medical Institute of Public Health

doi: 10.48047/ecb/2023.12.si4.1306

Abstract: In the treatment of ASD in children with ABA therapy can improve the functioning of those parts of the brain that are responsible for speech and the desire to make contact. This highly effective method provides optimal rehabilitation for children with autistic disorder. Important aspects of successful correction are timely clinical diagnosis, effective treatment with psychotropic drugs, as well as combined restorative procedures with the active participation of the child's parents, specialists in psychiatric, psychological, neurological specialties, together with teachers.

Keywords: autism spectrum disorders, childhood autism, ABA therapy, speech disorders

Introduction

Indeed, current research confirms that autism spectrum disorders (ASD) have a relatively high prevalence in the pediatric population. Data indicate that various types of childhood autism (ChA) occur in the range from 4 to 26 cases per 10,000 children, which is approximately 0.04% to 0.26% of the total number of children (Morozova, 2002). There is also a trend towards an increase in the incidence of diagnosing this developmental disorder. This may be due to improved diagnostic methods and greater awareness of autism among professionals and the public. However, early diagnosis and early intervention in the case of autism is of great importance. Early detection and

14451

support help reduce autism symptoms, improve development, academic and intellectual functioning, and improve social interaction with peers (Stone and Hogan, 1993). It is important to note that with timely correction and support, most children with autism can successfully study in mainstream schools. Some of them may show talent in certain areas of knowledge or art (Lebedinskaya, Nikolskaya, 1991). Many authors emphasize the importance of factors affecting the adaptive mechanisms of children with autism-type dysfunctions, as well as their ability to receive education. Biological, psychological and social factors play an important role in the successful correction of this disorder. The social factor is key, as children with autism are limited in social contacts, and parents play a major social role, affecting other aspects of a child's life [7]. The parents of children with autism have a great responsibility, as they are the main figures in the life of a child with autism. Important aspects of successful correction are timely clinical diagnosis, effective treatment with psychotropic drugs, as well as combined restorative procedures with the active participation of the child's parents, specialists in psychiatric, psychological, neurological specialties, together with teachers. This highly effective method provides optimal rehabilitation for children with autistic disorder. Important aspects of successful correction are timely clinical diagnosis, effective treatment with psychotropic drugs, as well as combined restorative procedures with the active participation of the child's parents, specialists in psychiatric, psychological, neurological specialties, together with teachers. This highly effective method provides optimal rehabilitation for children with autistic disorder. Important aspects of successful correction are timely clinical diagnosis, effective treatment with psychotropic drugs, as well as combined restorative procedures with the active participation of the child's parents, specialists in psychiatric, psychological, neurological specialties, together with teachers. This highly effective method provides optimal rehabilitation for children with autistic disorder.

Purpose of the study: to determine the role and effectiveness of non-drug methods for correcting childhood autism using ABA therapy.

Materials and methods of research: In order to obtain the set results, a survey of 50 pediatric patients with autism (F84) in the age group from 4 to 6 years was carried out. The main group (n=25) consisted of children with childhood autism who, in addition to traditional therapy, received ABA therapy sessions. The comparison group (n=25) consisted of children with childhood autism (ChA) who received conventional therapy. Clinical and neurological examination, assessment of cognitive and speech disorders, neurophysiological (EEG of the brain) and neuroimaging (MRI of the brain) research methods were carried out.

Research results: To make a diagnosis of autism, all children were consulted by a child psychologist and a speech therapist; to confirm the diagnosis of ASD, a rating scale was used to determine the early forms of childhood autism (ChA).

One of the main tasks of parents and professionals is the development of independence in children with ASD. The ABA methodology is designed for all forms of autism, Down syndrome and intellectual disability. ABA therapy is necessary in case of uncontrolled behavior of the child, lack of response to requests and prohibitions, response to the name, lack of desire for communication, lack of speech or poor development of speech, with the severity or impossibility of expressing one's thoughts and desires.

ABA therapy, using psychotherapeutic programs based on expert observations and brain activity studies in patients with autism, is a treatment method aimed at changing behavior and developing social skills in children with autism [2].

In the course of the study of children, neurological abnormalities were registered, which were manifested by the presence of dissociation of muscle tone, changes in the reflex sphere, difficulty in speech production, and socialization.

In the process of studying the cranial nerves, the following microsymptoms were found: a weak degree of convergence dysfunction, lateral positioning nystagmus is noted, mild strabismus, slight facial asymmetry is detected during the study of the facial nerve, it is also worth noting the

presence of tongue deviation in 42% of children in the main group and 36% children in the comparison group. In addition, 14% of the control group and 8% of the main group had comorbid conditions.

In the course of the study of the cranial nerves, such deviations were found as: a violation of the processes of innervation was expressed by the presence of asymmetry and smoothing of the folds of the nasolabial triangle, violations of the symmetry of the palpebral fissures, as well as changes in the position of the tongue relative to the midline;

every fifth child had a dysfunction of convergence and accommodation processes; in 14% of cases, there is a smoothing of the folds of the nasolabial triangle, as well as a pair of nasolabial folds on the right side, while these manifestations on the left side were noted only in 12% of cases; in 2% of cases, changes in the position of the tongue relative to the midline are noted; in 14% of cases, which is 7 children, food retention in the oral cavity was recorded in the presence of a swallowing reflex.

At the same time, no bulbar or pseudobulbar symptoms were found.

Children with autism have certain physical characteristics. They experience instability in the Romberg position, show uncertainty and slight intention when performing tasks, especially in complex versions of the Romberg position. In addition, nystagmus (rhythmic fluctuation of the eyes) is observed in the extreme positions of the gaze. These physical features may be associated with mild insufficiency of the cerebellum and subcortical structures. These symptoms were observed in 24% of the studied children with autism and indicated the presence of mild insufficiency of the cerebellum and subcortical structures.

In 40% of children with autism, any sleep disorders were detected (dyssomnia, insomnia, somnambulism, nightmares), enuresis and encopresis occurred in 42% of children with autism. Speech disorders occurred in 100% of cases.

As a result of the studies carried out after taking ABA therapy and pharmacotherapy, we determined an improvement that was not significant, but was more pronounced in the main group of children with autism who were involved in ABA therapy (Table 1.).

Table 1.

Mental development of the examined children with DA from 4 to 6 years

Indicator of mental development	Main group		Comparison group	
	(n=25)	(n=25)	(n=25)	(n=25)
	Before treatment	After treatment	Before treatment	After treatment
Echolalia	28%	20%	24%	20%
The absence of the pronoun "I" in the lexicon	20%	12%	24%	12%
Violation of the grammatical structure of speech	12%	0%	12%	4%
Lack of neatness skills	12%	12%	4%	4%
Inappropriate emotional development	8%	16%	8%	12%

Presence of anxiety and phobias	8%	12%	8%	12%
Difficulty in communication functions	36%	16%	40%	24%
Aggressiveness	20%	16%	16%	16%
Motor stereotypes	12%	8%	8%	8%
The need for the presence of the mother before falling asleep	16%	20%	16%	16%
Lack of play activity	28%	20%	28%	24%
Gaming stereotypes	64%	44%	60%	52%

In the course of our study, we studied the dynamics of various indicators, such as visual and auditory memory, as well as auditory-verbal type, attention, thought processes, and the emotional sphere of children. In order to study these areas, a methodology has been developed such as research through difficult-to-verbalize figures, the provision of five words, the implementation of correction-type tests, the use of Koos cubes, as well as testing the "fourth extra" as well as testing through drawings, including tasks for drawing a house, a tree and person. These techniques helped us evaluate changes in these cognitive and emotional areas in children.

According to the results of treatment, there was a positive trend. Children showed greater cognitive interest in the world around them, fatigue and excitability decreased, and manifestations of aggressiveness also decreased. The amount of operative memory in the visual modality increased by 1.93 times, and in the auditory-speech modality - by 1.76 times. Voluntary attention became more stable, the number of errors decreased by 1.28 times. After completing the treatment, the children, on average, could perform 2.95 more tasks, their thinking productivity increased by 3.57 times.

Analyzing the data from Table 2, we can conclude that after the course of treatment, there was an improvement in the mental sphere of the child. Based on the results of comparing the dynamics of mental development, which was set out in Table 5, we divided the children into 4 groups, based on the following indicators:

Group 0 points: children with a lack of activity in the mental sphere.

- Group 1 point: children with weak dynamics in the mental sphere, as well as small progress in the studied areas.
- Group 2 points: children with little progress in all areas studied.
- Group 3 points: children with a pronounced positive effect in all areas studied. This made it possible to determine changes in the mental sphere of children and identify groups with different levels of dynamics after the course of treatment.

Table 2

Comparative analysis of the dynamics of children's mental activity.

Indicators	0 points no dynamics	1 point weak dynamics	2 points moderate dynamics	3 points pronounced dynamics
Main group	8%	40%	44%	8%
Comparative group	28%	36%	28%	8%

From Table 2 it can be concluded that the majority of children (92%) from the main group who underwent ABA therapy showed a positive progress in the child's cognitive abilities in a medium and high degree. In 40% of cases, there was a small positive trend, while only in 8% of positive cases, progress had no manifestations. It should also be noted that in 8% of cases, positive dynamics was observed with a pronounced background, with the presence of large positive changes in the emotional sphere of the child, as well as a decrease in the duration of motor stereotypes and manifestations of the social speech task. This indicates the effectiveness of ABA therapy in achieving positive dynamics and improving various aspects of functioning in children with autism.

As a result, the results show that only 8% of children who underwent standard treatment showed positive dynamics of a pronounced degree. In 28% of children, moderate dynamics of cognitive activity was noted, in 36% - little progress, while in 28% of cases the dynamics was not registered. As a result, in 64% of cases, the absence of pronounced processes was noted, while only in 36% of cases 36% moderate and pronounced dynamics were observed.

Conclusions: There were significantly significant improvements in social adaptation and neuropsychological performance in children with autism after adding correction sessions using ABA therapy to the traditional treatment program.

Literature:

1. Zavadenko N.N., Pechatnikova N.L., Simashkova N.V., Zavadenko A.N., Orlova K.A. Neurological disorders in children with autism // Russian Bulletin of Perinatology and Pediatrics. 2015. V. 60. No. 2. S. 14-21

2. Evaluation Of The Effectiveness Of Microcurrent Reflexotherapy In Autism.// Gavrilova Tat'yana Alekseyevna , Madjidova Yakuthon Nabievna, Khusainova Nodira Turgunovna, Azimova Nodira Mirvasitovna , Ergasheva Nargiza Nasriddinovna , Babadjanova Umida Tadjimuratovna. Journal of Pharmaceutical Negative Results | Volume 13 | Special Issue 9 | 2022.

3. Method of ABA therapy in the rehabilitation of children with autism spectrum disorder. Majidova Y.N., Mamarasulov S., Ergasheva N.N., Azimova N.M., Varfolomeeva T.A., Khusenova N.T. 5TH INTERNATIONAL CONFERENCE ON RESEARCH IN HUMANITIES, APPLIED SCIENCES AND EDUCATION. Published 2022-08-17 pp.79-81.

4. Novosyolova O.G. Prospects for the diagnosis of autism spectrum disorders in children / Novosyolova O.G. [and others]// Questions of modern pediatrics. - 2014. - No. 3. – P.61–68.