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Autism spectrum disorders and a systematic review.

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Abstract. The social aspects of the problem of helping people with autism are becoming more and more important, relating to various spheres of society and individual families, and every year the number of families in need of help increases. Assistance to children with ASD in Uzbekistan is organized at the state level and is becoming more and more extensive.

In recent years, the prevalence of autistic disorders has increased significantly - from 16 to 56 per 10,000 child population. Without specialized care, up to 95-97% of children with autism spectrum disorders (ASD) become severely mentally disabled. The vast majority of these children need systematic corrective assistance. Most patients with autism associated with mental retardation require social and educational support throughout their lives (1).

Keywords: autism spectrum disorders.

Autism Spectrum Disorder (ASD) is a group of brain developmental disorders characterized by stereotypical behaviors and deficits in communication and social interaction. Initially, ASD was thought to be of ecological origin. However, it is now generally accepted that the development of ASD is the result of multiple factors, including environmental, genetic, and neurodevelopmental factors (Rylaarsdam and Guemez-Gamboa, 2019). The prevalence of ASD in child development and in society is an economic burden for families, where the main costs are associated with special education and loss of parental productivity (Buescher et al., 2014; Christensen et al., 2018). In addition, it has been reported that over the past decades there has been an increase in the prevalence of ASD, reaching 1 case per 132 people worldwide (Matson and Kozlowski, 2011; Baxter et al., 2015; Hansen et al., 2015).

The etiology of ASD is rather complex. Genetic, epigenetic, infectious, autoimmune, metabolic, nutritional, and toxic factors may be involved. Various areas of the brain, neural pathways, neurotransmitters, neuropeptides, cytokines, synaptic molecules, and signal transduction processes can be affected (1). The etiology of autism can be identified in about 40% of cases, the cause of the rest is unknown (2). According to some authors, the risk of autism increases with increasing age of the father at the time of conception (3, 4, 5).

Until recently, it was believed that autism spectrum disorders are a violation of neurotransmitter metabolism, in particular serotonin. Currently, the following main hypotheses of autism are being considered: 1. Increased excitability of the brain as a result of a violation of the ratio of excitation and inhibition processes in nerve synapses (5) 2. Abnormal development of the neuron itself and, as a result, abnormal formation of synapses (6).

But in both cases, the currently dominant cortical-disconnective model of autism is unifying (4), according to which ASD arises due to an increase or decrease in the activity of functional connections and neuronal synchronization of nerve pathways. It has been proven that this activity significantly correlates with communicative, social, cognitive and sensorimotor disorders in children with autism (3,6).

A key problem in children with ASD is impairments and difficulties in interacting and communicating with other people. If communication is built, then adaptation mechanisms in society begin to form, after which conditions for socialization appear. Difficulties in communication do not mean that the child does not have a powerful need for relationships, for affection, for a sense of community with other people. It's just that his difficulties are a barrier to the realization of the basic need for relationships (1,5). After school, a child with autism will have to live in the same society as regular school graduates. The sooner they get to know each other, the higher the chances that understanding and interaction will develop between them. It will be much easier for a child with autism who goes to school with ordinary children to feel part of society than a graduate of a special school. The ability to communicate can only be realized in a situation of a group of people (6).

Advances in autism research have contributed to bridging the gap between evidence and practice in some countries, but little systematic information is available on the impact of the condition on most of the world's population.

Often considered important for advancing basic research and strategic for informing policy and developing services, epidemiological research has become a clear priority in several global initiatives. The charity Autism Speaks, in partnership with the US Centers for Disease Control (CDC), launched the International Autism Epidemiology Network, bringing together researchers from around the world with a focus on improving care in developing countries (7).

PDD prevalence studies are ongoing in Australia, Mexico, Finland, Portugal, Iceland, India, Vietnam, Taiwan, South Africa, and Uganda, according to the network. By focusing on a broader context than autism, the Global Mental Health Movement has identified a clear treatment gap, particularly in low- and middle-income countries (8).

Epidemiological data on the burden of mental and neurological disorders and systematic mapping of related services in low- and middle-income countries prompted the World Health Organization (WHO) to launch the Mental Health Gap Program (mhGAP) [WHO, 2008]. In addition, the Global Alliance for Chronic Diseases, which brings together several agencies including the National Medical Research Council of Australia, the Canadian Institutes of Medical Research, the Chinese Academy of Medical Sciences, the UK Medical Research Council and the US National Institutes of Health, has announced a program to identify "big problems in areas of global mental health" (9). The reasons for prioritizing epidemiological surveys are not limited to the need for objective and reliable prevalence estimates. This has additional valuable benefits as it often leads to systematic information about existing services and can help in assessing the needs and priorities for each

community. In the long term, the availability of comparable estimates from different geographic regions may also allow complex hypotheses about the etiology of PPD to be tested.

It has been proven that progress in understanding the nature of childhood autism can only be achieved with the understanding of the common logic of impaired affective and cognitive development of the child. Understanding that the formation of this type of mental dysontogenesis is associated with such profound violations of the organization of the child's relationship with the world brings to the fore research focused on the earliest age. However, a number of the most important aspects of the early mental development of children with autism are still insufficiently studied (1,7,9).

Analysis of the studied scientific and medical literature, materials of state registration and accounting of R&D showed that there are no clear criteria for diagnosing ASD in the literature. It is necessary to study in comparative aspects mental and neuropsychological, behavioral disorders in ASD. To develop the correct diagnostic method in children with ASD will prevent the development of further deviations, correct existing disorders in a timely manner, significantly reduce the degree of disability and achieve the highest possible level of social adaptation for each child.

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