

Research of the Problem of Autism and Autistic Disorders: Theoretical Aspect

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Abstract: The causes of autism remain insufficiently differentiated. It is unlikely that any single disorder can be considered as the only cause of various symptoms and severity of autistic disorders. Although the specific causes of autism remain unclear, significant progress has been made in understanding the possible mechanisms of the disease. Turning to historical sources, we find that the origin and origin of the term "autism" are associated with forming a system of knowledge on the problem of diagnosis and further therapeutic work with children who need unique approaches to learn and educate. Analysis of the classifications of autism reveals the ambiguity of approaches to them. The first attempts at differentiation in the middle of childhood autism syndrome were clinical classifications based on the syndrome's etiology. They play a significant role in developing adequate approaches to providing medical care to children with autism. Psychological and pedagogical tasks required other approaches to determine, depending on the specific situation, the specialization, strategy, and tactics of correctional work. First of all, there was a search for prognostic signs that would assess the possibilities of mental and social development of children in this category. To this end, some scholars have put forward criteria for assessing speech and intellectual development. The analysis of difficulties of the unanimous possibility of classification on separate indicators of mental development of the child (intelligence, speech, behavior, self-regulation, etc.) can be explained by parallel existence of classifications operating today in world practice.

Keywords: *Mechanisms of disease, intellectual development, therapeutic work with children, clinical classifications, etiology of the syndrome, correctional work, social development of children.*

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Introduction

The history of domestic correctional pedagogy and particular psychology shows that, despite the lack of a comprehensive, multifaceted, purposeful system of medical, psychological, and pedagogical correctional work aimed at overcoming autistic disorders in Ukraine and the post-Soviet space, the urgency of creating a complete system of correctional and pedagogical assistance pervasive disorders in all spheres of their social and personal life causes an increase in interest in the study of scientific and theoretical foundations of the problem of correction of autistic disorders in children (Behas et al., 2019; Bekh, 2008; Bessmertna, 2008; Bondar, 2000; Demchenko et al., 2021; Sheremet et al., 2019). The current literature sources show it can be noted that the scientific search in the domestic correctional pedagogy and particular psychology in the last decade is characterized by increased activity of research on the development, learning, and socialization of children with autistic disorders (Bazyma et al., 2020; Bazyma et al., 2021; Duska, 2013; Konopliasta & Kosynkina, 2013; Kret, 2007). According to statistics, as of the end of 2012 in Ukraine, 2652 people with autism (Berezina & Obukhivska, 2012). From the point of view of experts, these data have increased significantly in recent years.

Based on the analysis of modern literature and studying the scientific heritage of the classics, who described in detail autism as a spectral disorder (Bessmertna, 2008; Schopler et al., 1990; Williams, 1994; Wing & Gould, 1979), we conclude that the problem of autism requires more in-depth and detailed research and study. According to scientists, children with autism are a heterogeneous group united by the need for early systematic medical and pedagogical work to prepare them for learning and master the primary forms of communication and interaction with others.

Historical aspects of the study of autistic disorders

In recent decades, it is in the Ukrainian correctional pedagogy and particular psychology that the stage of formation of the study of autism has stood out, represented by the scientific school of Sinyov and Bondar (2011) (in particular, Khvorova, 2010; Ostrovska, 2013), where the solution of the most actual questions on a problem of autism is put: correction of intellectual development, formation of social competences, development of the communicative sphere. The relevance of these areas is confirmed by applied results and a significant contribution to the modern innovative global system of approaches and areas of research on the problem of autism.

Turning to historical sources, we find that the origin and origin of the term "autism" are associated with forming a knowledge system on diagnosis and further therapeutic work with children who need unique approaches to learn and educate.

The term "autism" belongs to the Swiss psychiatrist Bleuler (1911). It was first used to define egocentric thinking in schizophrenia, characterized by active refusal of contact with the outside world, immersion in their fantasies, experiences, detachment from real life. They were ignoring genuine relationships. However, Bleuler's (1911) views on the essence of the autistic phenomenon, despite the general recognition, were ambiguous and served as a basis for the original concepts of autism, which differed significantly from the original interpretation. The most significant were the views of Mikirtumov and Zavitaev (2008), who interpreted autism as a particular form of mental life caused by loss of vital contact with reality, "painfully rationalistic" perception, "loss of vital contact," "internal emptiness," and distinguished between primary and secondary autism. And Kretschmer (1922) saw autism as an acute symptom of schizophrenic temperament. Thus, already in these concepts, the synthetic autistic phenomenon Bleuler (1911) was fragmented into two essentially opposite types of autism, which have different psychopathological significance. This separation further contributed to terminological ambiguity and made it difficult to determine the diagnostic value of autism. In further research, the dominant trend was the narrowing of the concept of autism. Autism was seen as a symptom of various procedural states, social ties, characterized by loss of emotional resonance, communication need, and the desire for isolation (Mikirtumov & Zavitaev, 2008).

Analyzing scientific research on this problem, we note that from the beginning, autism was considered only in the structure of the pathological process of early schizophrenia or in connection with schizophrenic psychopathy: Kraepelin (1902), Sukhareva (1925). Childhood autism syndrome as an independent clinical unit was first identified in 1943 by Kanner (1943), who owns the term "early childhood autism" due to the early (from birth) manifestation of this syndrome. Kanner (1943) described autism as a particular condition with disorders of communication, speech, motility, which was attributed to the states of the so-called "schizophrenic" spectrum. The main manifestations of the syndrome of early childhood autism Kanner (1943) identified a triad of symptoms: autism with autistic experiences; stereotypical, monotonous behavior with elements of

obsession; peculiar disorders of speech development. Almost simultaneously with Kanner (1943), Asperger (1944) came to the formulation of similar clinical problems, describing the approximate condition in children, calling it autistic psychopathy.

Attention to the problem of autism, attracted by Kanner (1943) and Asperger (1944), contributed to the emergence of numerous studies (Rutter, 1978; Wing & Gould, 1979 etc.), which found that autism can be part of the structure of various nosological forms, possible at children's schizophrenia, oligophrenia, residual-organic, psychogenic conditions, etc. (Kagan, 1996; Vrono & Bashina, 1988). Intensive research, the study of childhood autism in many countries, the analysis of accumulated observations, and the expansion of biological and genetic experiments have confirmed the clinical and biological heterogeneity of early childhood autism and distinguished its forms from schizophrenia and previously undifferentiated groups of autistic disorders). Wing and Gould (1979) introduced the term "autism spectrum disorder," which shows that there is a whole range of problems and subtypes of autism. In 2004, the term "autism spectrum disorder" (ASD) was introduced.

Causes of autism

The causes of autism remain insufficiently differentiated. It is unlikely that any single disorder can be considered as the only cause of various symptoms and severity of autistic disorders. Although the specific causes of autism are still unclear, there has been significant progress in understanding the possible mechanisms of the disease (Gilbert & Peters, 2002). A systematic analysis of the literature on the topic of the study revealed that the researchers identified the main mechanisms of autism as follows: Kanner (1943) – congenital insufficiency of biological mechanisms of efficiency, which causes "affective blockade"; Asperger (1944) – the primary weakness of instincts and disorders of perception, leading to "information blockade"; Mnukhin (1968) - violation of activating influences from the formations of the brain stem; Isayev & Kagan (1975) and Kagan (1996) – violation of front-limbic functional connections, which plays a vital role in the emergence of disorders of the system of organization and planning of behavior; Gilbert & Peters (2002) – heredity, early brain damage, infectious diseases of the mother during, infections transmitted by the child during the first five years of life. Rozhdestvenskaya and Konopliasta (2004) followed that the anamnesis often indicates intrauterine

or birth pathology or secondary (after measles, chickenpox) encephalitis, skull injuries. Scientific research of Shulzhenko (2009), aimed at determining the root causes of autism, revealed the following reasons: genetic influences and structural disorders, and functional disorders of the brain based on biological research results (Mesh & Wolf, 2007; Tkacheva, 2005).

In general, most scientists recognize that the basis of autism is a disorder of the central nervous system (CNS) (Mesh & Wolf 2007; Shulzhenko, 2009). In particular, Morozov (1998) studies found in most children diagnosed with "early childhood autism" signs of organic CNS damage. It is noted that approximately half of people with autism have abnormal functioning and neural organization of the brain, including the development of dendrites and axons, the formation of synaptic contacts, programmed cell death, blockage of neural processes, dysfunction of the medial temporal and orbital frontal lobes (including, weakened blood circulation), cerebellum, neurotransmitter disorders, etc. These disorders cause characteristic symptoms that manifest in developing socially critical cognitive skills and information processing, particularly social. Courchesne et al. (2001) and others investigated the relationship between pathology of the amygdala and hippocampus and the manifestation of early deficiency of skills to focus on social stimuli, problems of adaptation to new stimuli and situations, inability to learn associated with recognizing dangerous situations, social alienation, behavioral perseverance, problems with switching attention from one stimulus to another, co-directed empathy. At the First Moscow International Conference, "Autism: Challenges and Solutions" were presented studies of recent years in biology, genetics, and medicine, which prove the genetic condition of autism. Currently, the view is advanced that autism is a disorder of developing neural structures, which has a biological basis and numerous causes (Trottier et al., 1999).

The polymorphism and inconsistency of the clinical picture determine the diversity of approaches to interpreting the term "autism." Thus, scientists, in particular Lebedynska and Nikolskaya (1991), understand "autism" as "separation from reality, immersion in oneself; lack of reactions to external influences or paradoxicality of these reactions; passivity and excessive vulnerability in contact with peers. However, some characterize autism as the absence of significant reduction of contact with others, "retreat" into their inner world, the fullness and nature of the content of which depends on intellectual development, age, and age child. Morozov (1998) draws attention to the fact that in cases of early childhood autism, it

is implied that autism as a symptom is observed very early (in the first years and even in the first months of life), occupies a central, leading place in the clinical picture and has a severe negative impact on the entire mental development of the child. Next we find the definition of autism as immersion in the world of personal experiences with a weakening or loss of contact with reality, loss of interest, in reality, lack of desire to communicate, poverty of emotional manifestations. In Belarus, *autism* is defined as a painful state of mind, characterized by a person's focus on their experiences, a departure from the real outside world often disturbed orientation in time, when current events are mixed with the past, and the real with the fantastic (especially in children) (Rozhdestvenskaya & Konopliasta, 2004). According to the American Autism Association, the term "autism" refers to a serious congenital disorder that is bio-neurological, which usually manifests itself during the first three years of life. In the United Kingdom, the interpretation of the term "autism" emphasizes language and speech difficulties to a greater extent. In particular, Newson et al. (2003) define *autism* as a profound disorder in which the main role is played by the decay of language coding (or the allocation of the meaning) of any verbal construction. However, with different interpretations of the term "autism," in the vast majority of studies, autism is understood not as a disease with a common etiology for this category but as a syndrome described as a combination of atypical behavioral characteristics.

Increased interest in the problem of autism and autistic disorders in Ukraine can be observed by analyzing the content of dictionaries. In particular, in 2003 (edited by Bondar, 2000) it was noted that autism is a painful state of the human psyche, characterized by a weakening of ties with reality; manifested in the focus on their own experiences, limiting communication with other people. And already in 2011 (edited by Bondar, 2000; Sinyov & Bondar, 2011) the disclosure of the concept of autism and autistic disorders, authored by Shulzhenko (2009), is significantly expanded. In particular, definitions of such concepts as "autism", "autistic activity", "autistic disorder", "autistic spectrum disorder", "autistic spectral disorder", "autistic mental disorders in children", "autistic psychological markers" are given. In Ukraine, autism is considered to be a spectral disorder, ie that patterns of disease symptoms, children's abilities, and other characteristics of autism occur in a variety of combinations, and the disease can have varying degrees of severity (Shulzhenko, 2009).

We use the definition of "autism" to mean a severe developmental disorder characterized by significant shortcomings in the formation of social and communicative connections with reality; manifests itself in focus on their own experiences, limited communication with other people, as well as manifestations of stereotypical interests (Sinyov & Bondar, 2011) and "autistic disorders (autistic disorder)" as a severe form of the pathology of mental development with social, communicative, speech, regulatory disorders (Sinyov & Bondar, 2011).

Analysis of autism classifications

Analysis of the classifications of autism reveals the ambiguity of approaches to them. The first attempts at differentiation in the middle of childhood autism syndrome were clinical classifications based on the syndrome's etiology. They play a significant role in developing adequate approaches to providing medical care to children with autism. However, psychological and pedagogical tasks required other approaches that will determine, depending on the specific situation, the specialization, strategy, and tactics of correctional work. First of all, there was a search for prognostic signs that would assess the possibilities of mental and social development of children in this category. To this end, some scholars have put forward criteria for assessing speech and intellectual development. Consider some classifications in more detail.

Wing and Gould (1979) used the idea of classifying children with autism by the nature of social maladaptation and divided autistic children according to their ability to enter into social contact into "lonely," "passive," and "active-but-meaningless." All three groups are inextricably linked and cannot be separated, in the process of development it is possible to move from one group to another (Wing & Gould, 1979). The proposed classification successfully links the nature of the child's social maladaptation with the prognosis of its further social development but is based on a derivative manifestation of the disorder (Wing & Gould, 1979). The criteria for distribution are the child's accessibility to specific ways of interacting with the environment and people and the quality of the developed forms of hyper-protective compensation - autism, stereotypes, self-stimulation.

Kovalev (1995), focusing on the views of the time, when much attention was paid to early childhood schizophrenia and especially intensively developed the relationship between it and early childhood autism, with psychopathological features of children with early childhood autism in

schizophrenia was not associated with lack of need in contacts, and with the child's painful experiences, which are manifested in pathological fantasies and rudimentary mental formations, distinguishes two primary forms of early childhood autism: procedural (schizophrenic) and non-procedural (children's behavior is pronounced pretentiousness, eccentricity, and dissociation).

Researchers at the Mental Health Research Center in 1987 proposed classifications of early childhood autism: 1. by types of early childhood autism: Canner's early infantile autism syndrome/classic variant of early childhood autism, Asperger's autistic psychopathy, endogenous, post-seizure due to seizures autism, a residual-organic variant of autism, autism with chromosomal aberrations, autism with Rett syndrome, autism of unknown origin; 2. by the etiology of early childhood autism: endogenous-hereditary (constitutional, procedural), schizophrenic, schizophrenic; exogenous-organic; in connection with chromosomal aberrations; psychogenic; indefinite; 3. on the pathogenesis of early childhood autism: hereditary-constitutional dysontogenesis, hereditary-procedural dysontogenesis, acquired-postnatal dysontogenesis.

Nikolskaya et al. (2005) considered the nature and degree of primary disorders, secondary and tertiary dysontogenetic formations, including hyper-compensatory ones, as criteria for children's belonging to a particular group, and divided them into four groups, from the most severe to the mildest. The first group of children is characterized by alienation from the environment, complete lack of need for contact with others, field behavior, autism, lack of self-care skills. The second group is characterized by a predominant number of stereotypes, often a symbiosis with the mother. Children of the third group are characterized by excessive enthusiasm for their stable interests, fantasies, increasing inclinations, manifested in a stereotypical form. Finally, children of the fourth group are characterized by increased vulnerability, inhibition of contacts, seeking protection from loved ones, the desire to develop socially positive stereotypes of behavior, underdevelopment of forms of communication.

In France, the classification of autism was introduced in 1987, where Canner's early childhood autism and other types of autism are very clearly distinguished, without a corresponding etiology, and the autism-related conditions do not belong to the autism group. The following were identified: 1. types of early childhood autism: early infantile autism such as Canner, other types of infantile autism; 2. types of psychoses in children: early

deficient psychosis, schizophrenic psychoses that occur in childhood, disharmonious psychotics. In the same year in the American classification of diseases (DSM-III-R, American Psychiatric Association [APA], 1987), which replaced DSM-III (APA, 1980), we find a variant of systematization of early childhood autism, in which autism is removed from the rubric of "psychosis" and refers to developmental pathology. With mental retardation (varieties of early childhood autism: "pervasive developmental disorders": autistic disorders; pervasive developmental disorders without additional definitions).

Vrono and Bashina (1988) at the VIII All-Union Congress of Neurologists and Psychiatrists identified the following clinical forms of autism: Kanner's syndrome, autistic psychopathy Asperger, a residual-organic variant of autism, psychogenic-reactive childhood autism, early childhood with early childhood schizophrenia. Studying the causes and manifestations of autism, identifies five variants of early childhood autism based on the etiopathogenetic approach: early childhood autism in various CNS diseases; psychogenic autism; early childhood autism of schizophrenic etiology; early childhood autism in metabolic diseases; early childhood autism in chromosomal pathology (Mamaychuk, 2004).

In 1991, the World Health Organization identified autism as a significant developmental disorder in ISD-10 (WHO, 1993). Researchers Bashina and Tiganov (2005) note that the term "pervasive," first introduced in DSM-III (APA, 1980), seems somewhat inaccurate. However, denoting a mental development disorder, it emphasizes a special kind of its distortion, allowing to distinguish from mental retardation, mental retardation, and psychosis, so it can be considered correct in comparison with the concept of "general developmental disorder," which is used when translating the term "pervasive." Pervasive developmental disorders include 1. typical autism (autistic disorders, infantile autism, infantile psychosis, Kanner's autism syndrome), 2. atypical autism (atypical childhood psychoses, mental retardation with autistic traits), 3. Rett syndrome.

Bashina and Tiganov (2005) in 1993 gave a list of classifications of early childhood autism in order to show different approaches to the definition of autism, which included classifications: 1. by types (early Kanner's syndrome of early infantile autism) (a classic variant of early childhood autism), autism psychopathy Asperger; endogenous, post-seizure autism (due to attacks of schizophrenia); residual-organic variant of autism; autism with chromosomal aberrations; autism with Rett syndrome; autism of

unknown origin); 2. by etiological features (endogenous-hereditary (constitutional, procedural), schizoid, a schizophrenic form of autism; an exogenous-organic form of autism; autism due to chromosomal aberrations; a psychogenic form of autism; an indeterminate form of autism); 3. on pathogenetic grounds (hereditary-constitutional dysontogenesis; hereditary-procedural dysontogenesis; acquired-postnatal dysontogenesis).

Research of the Scientific Center of Mental Health of the Academy of Medical Sciences based on the analysis of the results of clinical-psychopathological, psychometric, neurophysiological and neurobiological (genetic, immunological, biochemical) and other areas of work allowed in 2005 to formulate an updated classification of childhood autism proposed by Bashina and Tiganov, 2005), where the following were singled out: 1. childhood autism of endogenous genesis: Kanner syndrome - evolutionary (classic variant of childhood autism), Asperger syndrome - constitutional (autistic psychopathy), procedural childhood autism (in early childhood schizophrenia and other infantile psychoses); 2. childhood autism of exogenous origin: autistic disorders that develop in organic lesions of the CNS (in cerebral palsy, after severe brain injuries, etc.), autistic psychogenic disorders; 3. autistic disorders in genetically determined (chromosomal, metabolic, etc.) and other pathologies: Rett syndrome, Down syndrome, fragile X-chromosome syndrome, phenylketonuria, phacomatosis (tuberculous sclerosis), other diseases; 4. autistic disorders of unknown origin.

The International Statistical Classification of Diseases and Related Health Problems of the 10th Revision (ICD-10) (WHO, 1993) was approved in January 2007 and contains the "Classification of Nervous System Lesions in Children and Adolescents" used by neurologists and psychiatrists in Ukraine. Autism is a group of disorders characterized by qualitative anomalies of social interaction and communication and a limited, stereotypical set of interests and activities:

1. Childhood autism (P84.0): childhood autism caused by organic diseases of the brain (P84.01); childhood autism as a result of another genesis (P84.02);

2. Atypical autism (P84.1): atypical autism with mental retardation (P84.11); atypical autism without mental retardation (P84.12);

3. Rett syndrome (P84.2);

4. Disintegrative disorder typical of childhood (P84.3);

5. Hyperactive disorder, combined with mental retardation and stereotyped movements (P84.4);
6. Asperger's syndrome (P84.5);
7. Other general developmental disorders (P84.5);
8. General developmental disorders are not defined (P84.9):
9. Schizophrenia with unusually early-onset (P-20);
10. Disorders of attention (P-90.0);
11. Hyperkinetic behavioral disorder (P-90.1).

Shulzhenko (2009), based on an experimental study of the typology of the autistic personality of the child, which is based on the personal meaning of autistic child, developed a psychological classification of types of autistic personalities and identified seven different types: type of symbiotic personality, type of linguistic orientation type of intellectual orientation of personality, type of communicative orientation of personality, type of dynamically-oriented orientation of personality on the development of abilities, type of indifferent orientation of personality and type of reactive-anxious orientation of personality. In addition, two groups of children with autistic disorders of preschool age were identified about the level of their mastery of speech: 1. Children who do not speak and who are diagnosed by nonverbal methods: with mental disorders; with behavioral disorders; with violations of self-regulation; psychogenic-deaf and psychogenic-blind; with a preserved need for communication; with the manifestation of vocalizations and cries that replace active speech; indifferent to surrounding living and inanimate objects; 2. Children who have speech and who are diagnosed by verbal methods: with mental disorders; with autonomous speech; with unconstructive speech activity; with active obsessive speech; with the resonant contour of verbal thinking; with weakly modulated, quiet, telegraph speech; with preserved speech ("elective mutism") (Shulzhenko, 2009). In addition, the main diagnostic criteria for autism were identified (Shulzhenko, 2009), which determine the need to take into account all possible features in the mental development and behavioral manifestations of children with autistic disorders of older preschool age in the examination and correctional work.

The analysis of difficulties of the unanimous possibility of classification on separate indicators of mental development of the child (intelligence, speech, behavior, self-regulation, etc.) can be explained by the parallel existence of classifications operating today in world practice. In organizing the study, we focused on the classifications of Nikolskaya et al.

(2005) and Shulzhenko (2009) as those that consider the indicators of speech development of children with autism.

Conclusions

The modernization of the system and content of special education is currently taking place in the context of a new understanding of civil rights and human freedoms, humanity's awareness of the need for education and training of all children, regardless of health and mental and physical development. Psychological and pedagogical research on the problem of autism and observation of the peculiarities of autistic manifestations in people of different ages in the field of the post-Soviet space (Bessmertna, 2008; Isayev & Kagan, 1975; Kagan, 1996; Mnukhin, 1968) and on the territory of independent Ukraine (Khvorova, 2010; Ostrovska, 2013; Rozhdestvenskaya & Konopliasta, 2004; Shulzhenko, 2009; Sinyov & Bondar, 2011) testify to the relevance of the study of autism as a particular disorder of mental development, the most striking a manifestation of which is a violation of social interaction, communication with other people, which can not be justified only by a reduced level of cognitive development of the child and stereotypes of behavior, actions, and interests. Specialists' knowledge of the essential criteria for early detection of autistic dysontogenesis is an essential aspect of further correctional work.

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