THE PARTICULARITIES OF THE PSYCHOEMOTIONAL DEVELOPMENT OF THE CHILD WITH AUTISM SPECTRUM DISORDERS

PARTICULARITĂȚILE DEZVOLTĂRII PSIHOEMOȚIONALE LA COPILUL CU TULBURĂRI DIN SPECTRU AUTIST

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Abstract

The article provides an overview of theoretical approaches regarding the symptomatology of children with autism spectrum disorders. A review of the specialized literature confirms that the autistic child develops disharmoniously, with certain dimensions of their personality underdeveloped, while others often exceed typical developmental levels. The lack of understanding from those around them can lead to a series of behavioral crises. Most children with autism spectrum disorders present intellectual deficits: difficulties in attention, memory, and language, as well as significant impairments in the field of social interactions.

Identifying the specifics of psychomotor development in children with ASD has allowed the formulation of personalized therapeutic interventions. These interventions are essential to support the optimization of motor, cognitive and social skills of these children.

Keywords: **autism, autistic language, low memory, social interactions.**

Rezumat

Articolul prezintă o trecere în revistă a abordărilor teoretice privind simptomatologia copilului cu tulburări din spectrul autist (TSA). Analiza literaturii de specialitate confirmă faptul că la copilul autist, există o dezvoltare dizarmonică, unele dimensiuni ale personalității rămân foarte slab dezvoltate, în timp ce altele depăşesc adesea nivelul tipic de dezvoltare. Neînțelegerea copilului de către cei din jur poate genera o serie de crize comportamentale. Majoritatea copiilor cu tulburări din spectrul autist prezintă deficit intelectual: dificienţe de atenție, memorie, limbaj precum şi dificultăţi grave în domeniul interacţiunilor sociale.

Identificarea specificului dezvoltării psihomotorii la copiii cu TSA a permis formularea unor intervenții terapeutice personalizate. Aceste intervenții sunt esențiale pentru a sprijini optimizarea abilităților motorii, cognitive şi sociale ale acestor copii.

Cuvinte-cheie: **autism, limbajul autiştilor, memoria scăzută, interacţiuni sociale.**

Introduction. We define autism spectrum disorder (ASD) as a syndrome consisting of psychosocial isolation, pathological self-absorption and indifference to any type of communication, as a result of the extreme self-concentration of the individual's entire mental activity [3, p.9]. ASD is a pervasive developmental disorder characterized by impaired social interaction and communication, stereotyped and repetitive behavior, with symptoms usually manifesting before the age of 3 years three. Individuals with ASD exhibit difficulties in multiple areas of development, rather than in specific areas. Challenges in one developmental domain (e.g., social interaction) often impact other do-

mains (e.g., communication), resulting in a particularly complex group of characteristics and traits.

From an emotional perspective, individuals with ASD may display either heightened or diminished emotional responses. Intellectual abilities, if not adequately developed, may remain inaccessible due to the individual's social withdrawal. However, individuals with ASD may demonstrate significant competence in areas where they possess particular aptitudes. Their development is often disharmonious, with certain aspects of personality remaining markedly underdeveloped, while others may exceed typical developmental expectations. It is often noted that individuals with ASD retain a certain fragility of character throughout their lives and require support from an environment that is both understanding and accepting.

For sensitive perception, fine motor skills are taken into account - which is precise and harmonious movements of the fingers. The activity of speech and thinking centers of the brain directly depend on the development of fine motor skills. In the preschool period, it is necessary to create conditions for the child to accumulate as early as possible, to develop manual skills, to form the necessary mechanisms for future writing. This means that the intelligence and inventiveness of children is directly proportional to the child's increased or decreased interest in manual work. These theories are supported by V.A. Sukhomlinsky, V.M. Bekhterev, I.M. Schechenov, etc.

Recent data suggest an increase in the incidence of autism worldwide. This makes the study of psychomotor development in these children a priority, as psychomotor development is essential in the development of motor, social and communication skills. Interventions based on psychomotor development can help children on the autism spectrum develop skills that are crucial for social integration and independence. For this reason, the chosen theme aims to address concrete ways of developing psychomotor skills in children with autism spectrum disorders within occupational therapies, promoting an effective and quality intervention model for these children and their families.

The purpose of this research is to analyze the specialized literature to reveal some landmarks regarding the regarding the conceptual delimitations of the child with autism spectrum disorders and the particularities of his psychoemotional development.

The research problem focuses on identifying the specifics of psychomotor development in children with autism spectrum disorders and methods for assessing their development.

Research hypothesis. Specific interventions in motor development can significantly improve the motor skills of children with autism spectrum disorders, thus contributing to better integration into daily and social activities [8].

Materials used and methods applied. In the development of this scientific article, several diverse research methods were employed to thoroughly investigate the topic. These include the analytical method, synthesis, deduction, systemic approach, historical analysis, and comparative method.

The theoretical and legal basis of the scientific approach includes a comprehensive review of national and international specialized literature, as well as open-access publications available online, which directly or indirectly address the essence and content of the subject under research.

The objectives of this research are the following: analysis and synthesis of specialized literature with reference to the issue addressed; highlighting general aspects of psychomotricity in children with ASD; stating research methods; developing recommendations for the development of motor skills in preschoolers with ASD.

The results obtained based on the scientific analyses carried out. The autistic child survives in the environment, with difficulty controlling events, clinging as best he can to the sensations that offer him a certain security, sensations that over time become stereotypes. He uses stereotypes to fill the field of consciousness and reduce disturbing, unwanted information.

The fact that he is not understood by those around him will cause the child to have a series of "crashes". He will be frustrated and will burst into impressive fits of anger and for no apparent reason. These crises can have a fairly high frequency, even several times a day. The autistic child will succeed in building a relative representation of the environment by looking for landmarks. These will often consist of regularities, sound or visual rhythms.

The *cognitive deficits in autism* are first identified at the level of sensory processing, which present a disorder of sensory modulation. Even if the sensory receptors themselves function normally, the modulation oscillates between over-stimulation and profound inhibition. *Perceptual disorders* are also distinctive: for example, difficulty recognizing visual stimuli is a common challenge for individuals with autism. The ability to differentiate figure from background develops very slowly. Parents often employ techniques such as waving, shouting, or whistling to attract the child's attention. Additionally, peripheral gaze tends to be used more often than central gaze. Most autistic children also exhibit *intellectual deficit*. According to DeMayer, 75% of autistic individuals have an IQ below 52, while only 2,6% have an IQ above 85. Rutter reports that 20% to 25% of autistic children have a normal IQ. Very few of them have exceptional competence in specific domains.

Attention deficits occur in autistic children because they have a different range of interests than we do. Due to the socialization deficit, the difficulty of socializing through others, they do not adopt as important and significant what will seem so to others. Another reason why an autistic person fails to focus his attention is related to the fact that the motivational range that is valid for him is often not called upon. Finally, an additional element that adds to these difficulties is the poor understanding of the notion of time and, through this, of the sequence of events.

In general, *the memory* of autistic children does not appear to be deficient. On the contrary, they are able to memorize very precisely situations that they have known and that they feel the need to recall exactly. [4, p.73-80].

What proves problematic is the classification of information, the encoding. Categorical classification, which underlies conceptualization, is particularly challenging because it requires a certain level of abstraction. Moreover, the preceding stage-object construction-is often of relatively low quality. Consequently, individuals with autism tend to store not the object itself, but rather the emotional impressions associated with it. These impressions become linked to the object's code, resulting in aberrant associations that vary depending on the context.

Language disorders in autism are persistent and often severe. Regarding prelinguistic communication disorders, the most obvious aspects are reduced to the absence of the communication gesture and a lack of gestures aimed at directing a partner's attention to an object or situation, reflecting a communicative gestural poverty. Autistic people express their desires or emotions through atypical behaviors: screaming, hedero-aggressiveness, self-aggressiveness.

Severe difficulties in *social interactions* constitute a core challenge in autism and other forms of pervasive developmental disorder. Social difficulties exert a strong influence on the comprehension of the complexities and continuous changes of social life, with autistic subjects taking refuge in aspects of the world that do not

change. To control their inability to understand and their associated fear, they either cling to objects or rituals, or focus all their energy on specific subjects in which the rules are fixed, and if they are disturbed from these repetitive activities they become agitated, sometimes even aggressive.

In the context of this scientific research, we can define psychomotricity as the sum of all movements that express the mental activity of man. And these movements are classified into different areas that are complementary:

• *Sociomotricity* – whichh represents manifestations of movements that reflect human existence in groups and individual social situations. It is a motor response to stimuli in the social sphere including movement, behavior, actions and reactions of the person in the family, colleagues. It is a prerequisite for social communication;

• *Sensorimotor* – represents the synergy of perception and movement. It is a motor reactivity of an individual to stimuli captured by hearing, vision and other receptors;

• *Neuromotor* – represents the executive component of psychomotricity and includes reflexive and reflexive conditioned movement activities, both voluntary and involuntary movements, regardless of the type of stimulus that determines it. Regarding the following subdivisions: coordination of movements, body scheme, laterality, balance and orientation in space.

Psychomotor in the narrower sense – represents a summary of the physical activities performed by man, which have psychological and emotional characteristics.

Motricity is one of the most important aspects of the psychophysical development of the child. And motor skills represent all the movement, coordination and balance abilities of the child's body. Motricity as a neuromotor function manifests itself in three hypostases:

• *Gross or global motricity* – consists of the muscle groups responsible for maintaining the vertical position of the human skeleton, holding the head, moving the limbs, sitting, walking, general muscle coordination;

• *Fine motricity* – includes the small muscle groups, which are responsible for eye-motor coordination, the development of hand and finger movements, the development of manual dexterity;

• *Articulatory motricity* – consists of the muscle groups that ensure the functioning of the articulatory apparatus, the development of the act of speech and speech activity.

Psychomotricity appears as an aptitude as well as a complex function of regulating individual behavior. Psychomotricity includes the participation of various mental processes and functions that ensure the perception of information, as well as the immediate performance of response acts [7, p.136-142].

Completely cut off from others and immersed in their own inner world, children with autism frequently develop idiosyncratic rituals such as tiptoe walking or spinning around on their body axis, which makes their behavior seem even more bizarre to the uninitiated observer. These children may spend much of their time obsessed with a particular toy or object - usually one that can be twisted or spun or that reflects light in an interesting way. They may also exhibit characteristic repetitive hand and finger movements, which seem to provide a sense of security and control over a small, predictable part of their environment, a world that otherwise appears chaotic and unpredictable to them.

Three elements are defining for the *symptomatology of autism*: inability to socialize; inability to use the personal pronoun in the first person; existence of ritualistic and compulsive aspects.

E. Verza grouped autism-specific disorders into 5 categories [8]:

1. language and communication difficulties;

2. discontinuity in development and learning;

3. perceptual and relational deficiencies;

4. action and behavioral disorders;

5. dysfunctions of psychic abilities and functions.

1. *Language and communication difficulties* in autistic children appear in early childhood and have as a common denominator the lack of interest of these children in the development of language. The characteristic manifestations of autistic language refer to:

• lack of response to verbal commands and to calling by name;

• presence of delay in speech development and defective pronunciation;

• existence of echolalia – in the form of more frequent repetition of the ends of words and sentences;

• change of the order of sounds in words, substitution of words and lack of connecting words;

• presence of a poor vocabulary and economical speech, lack of intonation and flexibility (inexpressive).

2. *Discontinuity in learning* and development can manifest itself in various contradictory forms of cognitive behaviors.

For example, there may be aspects related to the inability to count, but exceptional performance in multiplication, difficulties in learning letters, but ease in learning numbers and, in general, the presence of an interest in acquiring some information to the detriment of others.

3. *Perceptual and relational deficiencies* can also take on very diverse manifestations. Some individuals with autism may be frequently whiny and agitated, while others may appear inhibited and show little interest in their surroundings. Similarly, some autistic individuals exhibit a strong desire to touch and explore objects through tactile sensation, whereas others may display aversion to touch, including certain types of caresses. Additionally, some show a particular attraction to objects with specific sensory properties-such as tinfoil or shiny surfaces-while others tend to ignore such stimuli.

4. *Behavioral and behavioral disorders* refer to a series of aspects, the most common of which are bizarre behaviors, characterized by actions of self-mutilation, self-destruction or self-stimulation. Self-mutilation or self-destruction occurs through actions of moving parts of the body with other objects.

Self-stimulation takes several forms:

• kinesthetic – rocking back and forth, rubbing the earlobe;

• tactile – hitting the thigh with the palm of the hand, scratching;

• auditory – clicking the tongue or continuously emitting a certain sound;

• visual – spinning an object in front of the eyes or continuously looking at the fingers.

The characteristic stereotyped actions are related to arm rotation, spinning in place and walking on tiptoe. Specialists have also found that autistic people have a reduced need for sleep, have diminished reactions to pain and cold, and change their mood without explanation. Typical autistic behavior seems to be highlighted between the ages of 3-5 years.

5. *Dysfunction of mental processes* and functions includes several levels:

- The affective-motivational level – which is characterized by a lack of interest in social contacts and the experiences of those around them. Affective immaturity is expressed through infantile behavior, sporadic contacts with those around them and a tendency to isolate.

- The level of thinking and intelligence – presents an aspect similar to severe men-

tal deficiency, which greatly limits the nature of cognitive acquisitions based on understanding and more on a relatively developed mechanical memory.

The most and most detailed semiological categories were, however, made available by the British diagnosis, in the 1960s a committee of British psychiatrists was formed that established 9 important elements in establishing the diagnosis of autism:

✓ Strong and sustained inability to establish emotional relationships with other people. This includes the presence of a habitual and profound loneliness of the subject and an abnormal behavior towards other members of society viewed as impersonal parts of the self. The existence of long-standing and visible difficulties in playing and collaborating with other children.

✓ Lack of awareness of one's own identity. This signifies the presence of an abnormal behavior towards oneself, embodied in the exploration or prolonged gaze of parts of one's own body.

✓ The existence of pathological preoccupations towards particular objects and their characteristics without awareness of general functions.

✓ The presence of a sustained resistance to any changes in the environment and the attempt to restructure similar situations that lead to the establishment of a perceptual monotony.

✓ The existence of an abnormal perceptual experience, explainable by the presence of excessive or diminished and unpredictable responses to sensory stimuli, materialized by the avoidance of certain auditory or visual experiences.

✓ The persistence of excessive and (apparently) inexplicable anxiety. This is accentuated when changes occur in the environment, in established habits (habits) or in the attachment of the people around. Sometimes certain ordinary objects or phenomena seem to be invested with terrifying qualities. At other times, a lack of fear may be manifested in the face of an obvious danger (e.g. lack of fear of fire).

✓ The absence of speech or the presence of delays in its development or the impossibility of overcoming a certain level in the development of communication. There may be confusion in the use of personal pronouns, echolalia phenomena or mannerisms. Although some words and phrases can be pronounced, they are often not formulated and used in ordinary communication.

✓ The presence of distortions of motor patterns with:

- elements of hyperkinesia;
- elements of immobility specific to catatonia;
- bizarre postures or ritualistic mannerisms (spinning, rocking objects or oneself).

✓ The persistence of a background of serious delays in the development of mental functions within which there may be functions or skills developed normally or above average.

To date, no specific cause of autism has been discovered [5, p.199]. The etiology of autism is governed by hypotheses. For example, its much higher incidence in male subjects than in female subjects [1, p.242].

The causes underlying the emergence of autism spectrum disorders remain incompletely understood; however, it is widely assumed that both hereditary predispositions and a complex interplay of factors contribute to a range of brain pathologies. One of the most important discovery in autism research over the past 25 years, has been the increased concentration of serotonin discovered in a third of autistic individuals and the fact that, in some of them, following the adminis-

tration of drugs that inhibit serotonin, behavior improved significantly. Other more recent studies on the pathogenesis of autism and - have drawn attention to certain immunological deficits which, correlated with the abnormal concentration of certain brain chemicals (serotonin), may play an important role in the abnormal development of the brain of the person with autism [2, p.231].

Theories regarding the etiology of autism can be classified into 3 major categories, namely: organic theories; psychogenic theories; behavioral theories [1, p.242]. Regarding organic factors, numerous studies highlight genetic and acquired anomalies (somatic and functional) that would underlie autism.

Various neurological abnormalities, including subcortical lesions, dysfunctions of the ASR (ascending reticular activating system), biochemical anomalies (high levels of serotonin, dopamine, etc.) can be incriminated, without being considered determining causes, because they are also found in many other types of diseases [1, p.243].

Psychomotor development includes stages that occur throughout the first years of life, from head control to standing and, later, to complex coordination of movements. In the case of children with ASD, these stages may be delayed or may occur differently. The purpose of the observational experiment was to investigate the impact of psychomotor activities on motor development in children with Autism Spectrum Disorders.

Identifying the specifics of psychomotor development in children with ASD will allow the development of personalized therapeutic interventions, adapted to their individual needs, so as to support the optimization of motor and cognitive skills, while promoting social integration and improving the quality of life of these children. To achieve the proposed goal and objectives, we used the following methods of assessing children with autism spectrum disorders: Portage Scale; A. De Meur Test – knowledge of body parts; Labyrinth Test. [6].

The Portage Scale is a scale for assessing the level of development of children aged 0-6 years. Overall, the scale presents the main behaviors, abilities and skills that a child should demonstrate or possess at a certain stage of development in their existence, in order to establish the existence of a concordance between their chronological age and mental age. These abilities are presented in the natural chronological order of their appearance, as they follow each other in the course of normal development. Following the assessment, the correlation between chronological and mental age will be calculated, resulting in a development coefficient (QD), which will reveal the degree of development of the child. In the assessment grid, the answer must be given starting with the first item in each section. The affirmative answer is noted by circling the respective item on the response grid; if the answer is negative, then the item is not marked in any way.

The A. De Meur test is an oral test for children and aims to find out if they know their body parts. Thus, at the age of 0-4 years, children must show the following body parts: hair, hands, feet, mouth, nose, ears, back, belly, knees, teeth (minimum 7 correct answers out of 10); 4-5 years: cheek, forehead, beard, neck, fingers, nail, lips, shoulders, heels (minimum 6 correct answers out of 9) and at the age of 5-7 years they must show: elbows, eyelashes, fist, eyebrows, nostrils, thigh, eyelids, ankle, hip, tongue (minimum 7 answers out of 10).

The Labyrinth Test is a test that is applied in order to establish the degree

of development of visual analysis, visual perception, and coordination of the child's movements. Labyrinth models on cards are used as material. The model is placed in front of the child and the execution of the task is demonstrated. After that, he is asked to do a similar thing. Additional explanations are given: not to take the pencil off the paper, not to get stuck, to take into account the fact that it is impossible to pass through the wall. The analysis of the results/their assessment is done as follows: if the child completed the task within the set time and did not make any mistakes – 2 points; if the child completed the task within the set time and made only one mistake – 3 points; if the child completed the task within the set time and made two mistakes – 1 point.

Conclusion. In children with autism, body image is seriously affected (the child does not recognize his own body) and there are frequently marked discrepancies between the motor abilities these children possess and those expected for their chronological age.

From a theoretical perspective, the paper addresses current and relevant topics for understanding the mechanisms and factors of psychomotor development in children with autism spectrum disorders. This paper contributes to expanding theoretical knowledge regarding psychomotor development and to improving understanding of the specific characteristics of children with autism spectrum disorders.

It is well established that autistic children present deficits in motor coordination, postural instability, lack of energy and muscle strength, poor balance control, incompetence in overcoming obstacles. They also demonstrate poor speed control, difficulty organizing their entire body into a single integrated motor action, hypotonia, index-thumb opposition, speech articulation and a poor motor imitation capacity. Furthermore, these children experience pronounced difficulties in motor planning-the ability to conceive, initiate, and predict the course and outcome of a movement. These impairments adversely affect not only social imitation tasks but also simple, goal-directed, non-imitative motor activities.

Following the research conducted and the conclusions stated above, we submit the following **recommendations**: the use of complex psychopedagogical and social recovery programs for children with autism and the application of developmental correctional methods and specialized early intervention; adapting the curriculum, instructional and educational activities to the child's possibilities and needs; continuous training of teaching staff in strategies for approaching children with ASD, including assessment and intervention methods adapted to individual needs; collaboration of educators with therapists and child development specialists to create an integrated program that supports the holistic development of children with ASD; monitoring and evaluating the progress of children with ASD on a regular basis, in order to adjust therapeutic interventions according to their evolution; developing activities that encourage social interaction between children with ASD and those with typical development, in order to facilitate social integration and the development of communication skills; involving parents in the assessment and intervention process, being informed and supported in activities at home that can contribute to the development of their child's skills.

These conclusions and recommendations emphasize the importance of a comprehensive and personalized approach to supporting the development of children with ASD, aiming to improve their quality of life and social integration.

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