International Journal of Medical Sciences And Clinical Research

VOLUME Vol.05 Issue07 2025
PAGE NO. 24-28
DOI 10.37547/ijmscr/Volume05Issue07-06

# To the Question of Determining the Cognitive Status and Non-Specific School Maladaptation in Children with Attention and Hyperactivity Syndrome

Zakirova Feruza Nodir qizi
Tashkent State Medical University, Uzbekistan

Madjidova Yakutkhon Nabiyevna
Tashkent State Medical University, Uzbekistan

**Received:** 31 May 2025; **Accepted:** 29 June 2025; **Published:** 31 July 2025

**Abstract:** We conducted our own research to determine the cognitive status and non-specific school maladaptation in children with attention and hyperactivity disorder.

**Keywords:** Methods, corrections, children, status.

**Introduction:** Determining the cognitive status and specific school maladjustment in children with attention deficit hyperactivity disorder (ADHD) involves assessing various cognitive functions such as attention, memory, executive functions, as well as examining the problems the child encounters at school.

This allows us to identify the difficulties that the child faces in learning and communication and to develop appropriate methods of correction and support.

Despite the fairly large volume of research studies in this area, the problems of the etiological and pathogenetic factors of ADHD remain to this day not fully disclosed, that is, the authors do not have a unified opinion on them.

There are many scientists who suggest a genetic basis for the syndrome, citing the frequent presence of similar behavioral characteristics in close relatives in such children, as well as the presence of a large number of neuropsychiatric syndromes in the family of these patients.

Hereditary components occupy a significant place among the factors in the formation of attention deficit hyperactivity disorder. In this situation, there is also a lot of evidence demonstrating a fairly high degree of correlation relationships for this syndrome in monozygotic twins, amounting to 80 to 100%), as well as higher rates of hyperactivity among relatives of hyperactive children.

There are many authors who attribute the main and most important influence on the processes of etiopathogenesis to prenatal, perinatal and postnatal risk factors, such as various pathological processes during pregnancy, hypoxic-ischemic and infectious manifestations that affect the activity not yet ompletely the formed brain of the fetus and newborn, various traumatic processes during the period of labor and at the end of the child's illness in the first year of life.

In addition, regarding these factors, there are opinions that their outcomes largely depend on the socio-psychological situation surrounding them. For example, in children from families with high socio-economic status, the functional consequences of prenatal, birth and postnatal periods, by 6-7 years, have almost complete recovery, whereas in patients from families with a low socio-economic level, this is not observed and, as a rule, functional deviations persist.

Currently, according to the majority of scientists, the fundamental basis of pathogenetic processes in ADHD is a failure in the activity of the activating system of the limbic-reticular complex (LRC), since it is this complex that plays the main role of regulating learning, memory, attention, emotional experiences, as well as

in the processing of incoming endogenous and exogenous information.

Patients in this category experience a certain dysfunction in the system, which leads to incorrect information processing, causing overload and chaos of incoming information, with overload and overstrain of the child, which in turn forms general anxiety, irritability and aggressiveness.

The initial signs of the clinical picture of attention deficit hyperactivity disorder in children can essentially be observed already in the first months of life (the importance of identifying diseases in the first year of life) of the child. Such children are usually distinguished by their high susceptibility and increased response to stimuli.

In addition, the child may show his anxiety absolutely groundlessly, in particular by very loud and frequent crying, he has a sleep disorder and, most importantly, a sleeping position, namely, with the body arched backwards, such children do not fall asleep for a long time and wake up at any insignificant sound.

In terms of motor skills, general lags from healthy peers of 1.5-2 months may be detected. As a rule, in the context of the formation of speech skills, these children are inert, inhibited, and indifferent.

The first rather difficult period of a child's development occurs at the age of three, since this is the time of one of the crisis stages of the development of the brain in general and cognitive activity in particular.

It is during this period of time that the formation and development of memory and attention functions occurs, in addition, it is marked by the formation of one's own "I", as well as excessive importance and independence, along with increasing signs of stubbornness, obstinacy and denial.

At this stage of development, clear signs of attention deficit hyperactivity disorder are determined with almost 100% certainty; here, the nervous system is no longer able to optimally manage the flow of incoming information, which, moreover, is aggravated by an increase in both physical and emotional stress.

In this regard, the most important aspect on the part of adults is the understanding that a child in most cases cannot understand the consequences of his behavior; there is a backlash to comments or scolding.

He becomes more confused, his self-esteem drops, he stops recognizing the authority of adults, the impulsiveness and aggressiveness of such children comes out. All this further contributes to the deterioration of the situation.

Signs of attention deficit hyperactivity disorder in preschool children include difficulties in perception and thinking, excessive activity in a new, unfamiliar situation, and delays in development of fine motor skills, spontaneous occurrence of various tic hyperkinesis or nocturnal enuresis is possible in such children; in 100% of cases, emotional lability and manifestations of negativism are noted.

The manifestations of the above-mentioned signs become clearly expressed with the arrival of the child in a new group (kindergarten or school), where completely new requirements and people await him. If in the so-called comfortable conditions, that is, in the familiar home environment, the rules by which he lived worked, then in a new, stressful situation they do not work at all. This leads to even more severe nervous shocks for the child. Usually, children with ADHD can disrupt classes with their bad behavior and attract everyone's attention, and cannot find a common language with their peers.

Because of which in most cases they are alone, in addition to this the child does not react to the comments of adults, they begin the process of forming a new model of social and communicative relations and their self-esteem decreases sharply. This situation, which is obvious, only worsens their social isolation.

It is also natural that this situation has a negative impact on school education itself. The child poorly masters writing, counting, reading skills, there is a marked decline in academic performance, even with a high level of intelligence, the functions of memory, attention and thinking suffer.

Thus, attention deficit hyperactivity disorder is considered a psychoneurological pathology with a rather complex etiopathogenesis. In most cases, this syndrome is verified in preschool children.

In the presence of concomitant neurological disorders, the manifestations of ADHD are sharply aggravated, which significantly worsens social activity, ability to work and quality of life of this category of children.

According to the above, the primary task of specialists should be to identify disorders of cognitive and emotional activity in patients with ADHD already at the early stages of the disease, followed by mandatory monitoring.

**The aim of our study** was: to study the factors of non-specific school maladaptation and the features of cognitive status in children with ADHD.

## METHODS

We conducted a detailed analysis of 95 children diagnosed with attention deficit hyperactivity disorder. Of these, boys accounted for 65.2% (n=62), girls 34.7% (n=33). The age of the patients ranged from 5 to 10 years.

**RESULTS**

Of the total number of examined patients with ADHD, 31 (32.6%) children had a deficit of active attention, 46 (48.4%) had dominant motor disinhibition, and 18 (18.9%) had predominant impulsivity.

The data are presented in Table 1.

**Table 1.**

**Distribution of examined children by clinical variants of the syndrome depending on gender**

| Clinical variants of the syndrome | | | | |
|---|---|---|---|---|
| | ADHD (n=48) | | ADHD + (n=47) | |
| | Абс. | % | Абс. | % |
| Attention deficit disorder (n=31) | 16 | 33,3 | 15 | 31,9 |
| Motor disinhibition (n=46) | 22 | 45,8 | 24 | 51,0 |
| Impulsivity (n=18) | 10 | 20,8 | 8 | 17,02 |

Testing using the Raven's Colored Progressive Matrices method demonstrated that children in both groups completed the procedure relatively satisfactorily, with 25% of patients achieving level I success, 50% of children achieving level II success, and 35% of children achieving level III success.

The average indicator for the groups was 22.5 points. Boys showed a result from 17 to 23 points, and girls, in turn, from 18 to 26 points. After the final scoring of the results, the patients' indicators were compared with the level of testing success (Table 2).

**Table 2.**

**Level of success in passing the Raven's matrix test.**

| Success rate | Points | Percentage of tasks completed correctly |
|---|---|---|
| I | 17 and less | less than 15% |
| II | 17,5-22,5 б | 50% |
| III | 22,75-27,9 б | 35% |
| IV | 28 and more b | 0% |

* – differences in statistically significant indicators ($p < 0.05$).

As can be seen from the table, in both groups, most children reached the second level of success in completing the methodology, having solved 50% of the proposed tasks correctly. Not a single child reached the fourth level of success.

The results of the memory study for 10 pictures are shown in Tables 3- 4.

**Table 3.**

**Results of diagnostics using the visual memory study method**

| | ADHD (n=48) | ADHD (n=47) |
|---|---|---|
| Average value | 7,09 | 6,85 |
| Standard Deviation | 1,90 | 1,48 |

The levels of development of logical and mechanical memory of the subjects were diagnosed individually for each subject based on the mean value and standard deviation.

Determination of the level of speech development of preschool children according to the methods of O.A. Bezrukov and O.N. Kalenkov revealed the coefficients of speech development presented.

The best results of the speech development skills coefficient were in children with ADHD - 34 points. At the same time, in this group of patients, disorders of grammatical, communicative function and internal speech. In the second group of patients, the coefficient of speech development skills was 32 points, which indicates a greater severity of cerebral disorders of the perinatal period of development.

The assessment of the child's communication skills according to M.A. Povalyaev is presented in Table 4.

**Table 4.**

**The level of social and communication skills in children with ADHD.**

| Categories | Group | |
|---|---|---|
| | ADHD (n=48) | ADHD + (n=47) |
| Level 1 - High | (0,0) | (0,0) |
| Level 2 - Intermediate | 10 (20,8) | 7(14,8) |
| Level 3 - low | 38 (79,1) | 40 (85,1) |
| Level 4 - very low | (0,0) | (0,0) |

* – differences in indicators are statistically significant ($p < 0.05$).

The average level of development of social and communication skills was noted in 20.8% of children in the ADHD group and 14.8% of children with ADHD+.

Patients from the first group were more sociable, more interested in the surrounding environment. But despite this unstable attention, excessive impulsiveness created some problems in the process of communication. The maximum duration of interaction was approximately equal to 10 to 15 minutes.

A low level of development of social and communicative abilities was found in the overwhelming majority of patients with ADHD – 79.1%, and in the majority of children with ADHD+ – 85.1%. These patients, on the contrary, had difficulty interacting with adults and peers, were often embarrassed, shy, and expressed anxiety. The

maximum duration of communication was no more than 10 minutes.

Polymorphism of cognitive and psychoemotional disorders Various deviations in higher cortical activity in children with ADHD, unfortunately, are inherent components of the disease. It is they that are the basis and determine the children's capabilities for optimal learning and social and communicative adaptation.

According to this, the primary task should be to identify these disorders at the earliest stages of the disease with subsequent monitoring. To achieve this, we propose the above questionnaire, the features of which are ease of use, reliability and a high degree of specificity.

**CONCLUSIONS**

In conclusion, the definition of cognitive status and specific school maladjustment in children with ADHD is an important step in providing them with the necessary help and support. A comprehensive approach, including clinical assessment, neuropsychological testing, observation and questionnaires, allows us to identify the difficulties the child is experiencing and to develop effective strategies of correction and support aimed at improving his cognitive development and school adaptation.

**REFERENCES**

Pushkareva D.V., Ivanova T.I. Attention deficit hyperactivity disorder in adults: causes, main clinical manifestations and comorbid mental disorders (literature review) // Omsk Psychiatric Journal. - 2018. - No. 4. - P. 8-13.

Leonova A.V., Raeva T.V. Speech development disorders in children with attention deficit hyperactivity disorder // Mental disorders: from understanding to correction and support / Proceedings of the regional scientific conference. Rostov State Medical University University of the Ministry of Health of the Russian Federation, Faculty of Advanced Training and PPS, Department of Psychiatry and Narcology. 2018. - P. 142-144.

Shevchenko I. A. Social and biological risk factors for ADHD / I. A. Shevchenko // Luria's approach in world psychological science: abstracts of reports of the V International Congress in memory of A. R. Luria. Ekaterinburg, Russia, October 13-16, 2017 - Ekaterinburg, 2017. - P. 151.

Agnew-Blais J., Polanczyk G., Danese A., Wertz J., Moffitt T., Arseneault L. Young adult mental health and functional outcomes among individuals with remitted, persistent and late-onset ADHD. - The British Journal of Psychiatry. - 2018. - 213(3). – P. 526-534.

Molina B.S.G., Howard A.L., Swanson J.M. et al. Substance use through adolescence into early adulthood after childhood-diagnosed ADHD: findings from the MTA longitudinal study. J Child Psychol Psychiatry. 2018;59(6):692–702. DOI: 10.1111/jcpp.12855.

Catala-Lopez F., Hutton B., Nunez-Beltran A. et al. The pharmacological and non- pharmacological treatment of attention deficit hyperactivity disorder in children and adolescents: a systematic review with network meta-analyses of randomised trials. PLoS One. 2017;12(7): e0180355. DOI: 10.1371/journal.pone.0180355.