



The Features of Cognitive Functions in Students with Different Types of Constitution

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Abstract: Problems of intellectual disability in recent years are attracting increasing attention not only of teachers and psychologists but also neurologists and pediatricians. According to the statistics of the World Health Organization, intellectual disability is identified in 15% of the child population of the planet and this figure is increasing. Up to 20% of children and adolescents suffer from varying degrees of cognitive impairment - attention, comprehension, memory, and insufficient formation of control functions. In this regard, the problem of cognitive impairment goes beyond medical and pedagogical issues and acquires social significance.

Nowadays, it is not only elderly people who complain about memory impairment when living a very intensive life rhythm and being under constant stress. Therefore, it is important to determine the patient's condition at an intermediate stage, while the changes have not yet reached the degree of dementia, but have already gone beyond age-related norms. It should be noted that psycho-emotional stress also refers to risk factors for cardiovascular disease.

One of the main risk factors for cognitive disorders is arterial hypertension. High blood pressure leads to the development of ischemic changes in the brain, the appearance of micro- and macroangiopathies, which in turn cause the development of vascular cognitive impairment (VCI), with a unique clinical picture - difficulty in planning and control of voluntary activity, reduced fluency and learning ability, bradyphrenia.

Keywords: Constitution, type of constitution, cognitive, cognitive functions, body type, Pinier index.

Main part. Currently, of great value are studies devoted to the relationship between a person's physique and his psychological features. This area is of particular value for medicine, psychology, and pedagogy, as understanding the issue will allow preventing and correcting undesirable psychological

manifestations in groups of individuals with this predisposition, and will also help find the right approach in educational and therapeutic work with such people.

Body structure is a biological factor, hence accentuation of character is also innate. Thus, in perfectly healthy people, we can detect possible diseases and predisposition of a person to circulatory and schizophrenic syndromes. Such people are in the risk zone of these diseases and under certain exogenous and endogenous factors, their condition can pass to the intermediate stage, and further to the disease.

Also, we should not forget that the physique can form in the environment of a certain view and attitude toward the person, which in turn affects his self-esteem. Thus, adults and peers usually perceive the accelerated, mesomorphic (slim, muscular) as more mature, they do not have to fight for position and status. Adolescents and young men associate the qualities of a leader with a slender, athletic body. Retardants and endomorphs (loose, with an excess of fat) seem unattractive not only physically, but also socially and psychologically. This group of children is often an object of ridicule, which, undoubtedly, should be taken into account by psychologists, teachers, and doctors. After reviewing the above data, it is clear that there is a correlation between the constitution of the person and his psychological features. This fact should be taken into account in educational and medical institutions, where supervision and prevention of the mental state of a person depending on his constitutionally determined predispositions should be necessarily carried out.

The availability of regional data on the constitutional characteristics of the younger generation is an important point for planning any preventive and health promotion activities in local health and education systems.

The aim of the research was to study cognitive peculiarities of students depending on constitutional characteristics of the body.

Material and methods: The study was conducted with the students of 21-25 years old studying in the Tashkent Medical Academy and the Tashkent Institute of Pharmacy. The study involved 42 students. During the work the following indices were calculated: 1-mass-growth index (MGI) - correspondence of body weight to length, which was estimated according to centile tables; 2-Pinier index is the basis of somatic type classification by V.M. Chernorutsky and is calculated according to the formula: $PI = BL - (BW + CC)$, 3- BMI, body mass index which not only characterizes the optimal body weight of an individual, but also indicates chronic energy deficiency, excess body weight or obesity, was calculated by the formula: $BMI = BW/BL$, 4 - trochanter index, which allows assessing the rate of sexual development and age evolution of the body, was calculated according to the formula: $TI = BL/LL$ (leg length). Blood sampling was performed to determine plasma glucose level and lipid spectrum indices.

Cognitive functions were assessed using neuropsychological scales: a battery of tests for frontal dysfunction and a brief mental status assessment scale. The proofreading test (or Bourdon's test) was used to assess the degree of concentration and stability of attention. The Schulte test and the Pieron-Rouser test were used to assess responsiveness and ability to concentrate attention.

Discussion. According to the indicators characterizing attention, a moderate direct correlation between the stability of attention of students of normosthenic and asthenic types of build was revealed.

It was found that students with normosthenic type of build compared with other types have a significant increase in the Bourdon test scores by 10% more than hypersthenic, and by 18% more than the representatives of asthenic type of build. The students of hypersthenic type of build have an increase of 22% and 16% in the Pieron-Rouser test and the Schulte test compared to the normosthenic and asthenic type, respectively. The scores of the brief mental status assessment scale and the battery of tests for frontal dysfunction in all types correlated insignificantly. It was found that students with

asthenic type of build compared to students of other types have increased heart rate and blood pressure, which indicate tension in the system of homeostatic regulation.

Conclusion. Indicators of the level of cognitive and mental processes, as well as the constitutional data of the person are interrelated with the physiological and mental potential of the organism. It can be stated that psychophysiological adaptation in students of asthenic type to learning conditions will occur with greater expenditure of physiological reserves of the organism than in students of another type.

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