THE IMPACT OF DISTANCE LEARNING ON PRIMARY SCHOOL CHILDREN

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The COVID-19 epidemic has affected the lives of all social and age groups. The transition to distance learning and work, the introduction of lockdown affected the psycho-emotional and physical condition of not only adults but also children. Therefore, this study will focus on changes in the physical development of primary school children during distance learning.

Age category of children 7-10 years, characterized by active physical development, increased growth and body weight. It is necessary to determine how restrictions on physical activity and changes in the schedule due to quarantine have affected members of this age group.

The aim of the study was to analyze data on the physical development of students in grades 1-4. Identify possible problems related to distance learning. Suggest options for solving the problem. Improve children's health.

Physical development of children is a set of morphofunctional characteristics to ensure physical capacity, performance of physical, educational and work loads in accordance with the functional capabilities of students of different ages and genders [1].

Body mass index (BMI) is a value that allows you to assess the degree of compliance of human mass and height, and thus indirectly assess whether the mass is insufficient, normal, excessive [2].

Data on the individual physical development of children were obtained from medical certificates of students of Rubizhne secondary school № 8.

The arithmetic means of weight and height of schoolchildren are taken as a basis and compared with the results of other years (from 2018 to 2021). Then a diagram was constructed (Fig. 1) for a more convenient and clear comparison of data from different years, this allowed to initially analyze the data and draw conclusions about the physical development of children.

After that, the data were substituted into the formula for calculating the body mass index, where body mass (kg) is divided by growth (m²).

Then calculated the body mass index, which was also compared with WHO data. During the processing of data for 2020, the phenomenon of "stoppage of physical development" among children was found, which can be regarded as a stage
of formation of compensatory reactions of the child's body, which occurs in response to new living conditions.

Data processing for 2021 made it possible to identify the normalization and some increase in anthropometric data of children in different age categories, namely from 1 to 4 grades. This stage was regarded as the "stage of consolidation of compensation", it is characterized by increased body function, hyperfunction of some organs and systems. This explains some increase in body mass index from the WHO norm.

The reason for these physical changes are abrupt changes in the daily routine of schoolchildren, namely hypodynamia (reduction of physical activity), eating disorders and sleep hygiene. These negative factors led to the following physiological changes: protein metabolism disorders (decrease in muscle mass), disorders of lipid metabolism (increase in fat mass). Hypodynamia has led to a decrease in muscle strength, posture disorders, reduced efficiency and increased fatigue and drowsiness.

Sleep disorders in children have led to impaired synthesis of serotonin, dopamine and melatonin, which also affects behavior, mood, learning abilities and physical development.

After processing this data, we can conclude:

The fact that distance learning, namely harmful factors (hypodynamics, disruption of daily routine, food hygiene, training regime and sleep patterns) negatively affected students.

You can also make the following recommendations to address these issues:

Preferring a mixed or full-time form of education (subject to anti-epidemic measures) to increase the level of knowledge of parents about the hygiene of children and adolescents, educational work among students which is aimed at forming self-discipline.

Vaccination of school staff in order to achieve collective resistance to the virus. Development of children's leisure programs in out-of-school time with observance of anti-epidemic measures at the state level.

References:

[1] Prof. Bardova VG (2008) Hygiene and ecology. Vinnytsia: Nova Kniga.
[2] Berzunya VI (2008) Hygiene of children and adolescents Kyiv.