

# MEDICAL AND SOCIAL ASPECTS OF PREVENTION AMONG STUDENTS IN THE CONDITIONS OF COVID-19 PANDEMICS

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## **ABSRTACT**

In modern conditions of global threats to the well-being of the population caused by the COVID-19 pandemic, the protection and preservation of the health of the younger generation are of paramount importance, since the youth population plays a special role in the life of the state and society due to its most important social, industrial, intellectual and reproductive potential. In particularly acute periods of intensive spread of coronavirus infection, taking into account a certain social "crowding" of students in educational institutions, the negative effects were leveled by the conditions of lockdowns and distance learning, which affected the health of young people studying.

At the same time, during the intensive spread of coronavirus infection (2020-2021), in the conditions of the special focus of all medical services on combating the COVID-19 pandemic, an extremely urgent and socially significant task of preserving the health of students, including priorities of self-control and prevention, arose.

Keywords: COVID-19, student, social and hygienic, information analytical.

### INTRODUCTION

The scientific literature contains information that it is during the COVID-19 pandemic that there is a significant decrease in physical activity of students, non-compliance with the principles of proper nutrition, changes in physical parameters of the body, in particular weight gain of students, manifestations of disorders in their mental state

#### MATERIALS AND METHODS

When developing and implementing the research protocol, the methodology of a comprehensive socio-hygienic study was used. At different stages of the study, the following methods were used: socio-hygienic, mathematical-statistical, sociological, information-analytical, graphoanalytic, instrumental, bibliographic organizational experiment.

The analysis of the peculiarities of the health status, including physical development, of students in the conditions of the COVID-19 pandemic is presented. Thus, it was determined that in the process of studying among students, the number of persons assigned to the III health group (with the presence of chronic pathology) became significantly greater (42.3±5.47 versus 57.6±6.34 per 100 examined in the corresponding groups, Po.05) In general, a significant number of persons with chronic pathology was determined among students – 43.8±5.93 per 100 examined. Attention is drawn to the increase in the dynamics of training in the proportion of people with several chronic diseases. With age, the frequency of the prevalence of chronic diseases increases – in the age group of 18-19 years, this indicator is lower than in the age group of 22-23 years. In the structure of chronic diseases of students, chronic diseases of the nervous system prevailed, accounting for 24.7% of the total number of cases, digestive system organs – 19.7%, ENT organs – 18% and the cardiovascular system – 16.1%.

Analysis of the data obtained by the end of 2021 showed that more than half of the students from the observed contingent had been ill with COVID-19  $-53.9\pm6.57$  per 100 examined. There is no difference between the number of patients with coronavirus infection in groups without chronic diseases and with their presence:  $55.3\pm5.99$  students versus  $52.0\pm5.34$  per 100 examined in the corresponding groups (Po.05).

Of all the students who had a coronavirus infection, the majority had a mild case  $(68.8\pm6.59~\text{per}~100~\text{examined})$ , almost every third student  $(29.8\pm4.34)$  suffered from COVID-19 in the form of moderate severity, and almost every hundredth  $(0.8\pm0.80)$  student had a severe case (with hospitalization and complications). The statistical analysis carried out taking into account the severity of the infectious disease in the groups of students who do not have and have chronic diseases (by health groups) did not reveal significant differences in the observed groups.

Some interest was aroused by the results of the students' answers about the time it took to restore the functional state of the body after suffering from the infectious disease COVID-19. For this purpose, "time markers" were proposed in the proposed answers: 12 months or more after the disease; 7-11 months; 5-6 months; 3-4 months; 2 months or less. The majority of students needed quite a long time to fully restore their functional state – from 7 months to a year or more (56% of students in total); it took from 3 months to six months (a total of 27% of students) and only 17% of students were able to recover functionally in a relatively short time period - 2 months or less. Additional information about the peculiarities of the health status of students during the COVID-19 pandemic was provided by the results of the analysis of complaints of



poor health. Among the complaints that appeared in students during and after the COVID-19, the most frequent were increased fatigue, increased irritability, poor sleep. The predominance of these factors is due to the increased level of stress in the new conditions associated with changes in the usual lifestyle and daily routine, increased anxiety for their own health and the health of relatives and friends.

Differences in the distribution of students by body mass index (BMI) before the COVID-19 pandemic (2019) and after (2021) were revealed, indicating that after the COVID-19 pandemic, the proportion of students with disabilities in physical development was greater in the distribution of students than before the pandemic. The average value (median) of the BMI index among the contingent of students corresponding to the normal value was determined, but its high variability (23.01) was established, which indicates the need for more accurate methods of analyzing the assessment of physical development indicators, for example, regression scales, which became an objective necessity for the development of normative height-weight indicators for the studied contingent – "Standards of physical development of students of Samarkand".

Normal body mass index values were determined in 64.8±7.21 per 100 examined students, almost every fourth (23.1±4.31) student has a body mass deficit, every eighth (12.1±3.11) has an excess body weight. The largest number of students with a body weight deficit were in the age group 18-19 years – 23.5±4.08, the lowest – in the age group of 22-23 years – 12.1± 2.91 per 100 examined, respectively (Po,05). However, the reverse dynamics is observed in the number of overweight people – it increases with age: from 9.3±2.55 to 18.2±3.56 per 100 examined in the corresponding age groups (Po.05). These results of the analysis were used in the development of a medical and social program for the prevention of disorders in physical development. Comparative analysis showed that in the structure of the trait (students who were ill and not sick with COVID-19), the share distribution of persons assigned to various BMI indicators was comparable, which indirectly indicates an unexpressed effect of BMI values on the incidence of COVID-19 in youth contingents.

A decrease and a significant decrease in body weight during COVID19 were reported by 19.6% and 8.7% of respondents, respectively. Special attention needs to be paid to the high frequency of students' responses about weight gain during the pandemic: 40.6% of the respondents, and 12.7% reported a significant weight gain. Thus, the conducted study of the peculiarities of the state of health of students during their studies in the conditions of the COVID-19 pandemic revealed certain patterns that need to be taken into account during the construction and implementation of individual and group medical and social prevention programs.



#### **CONCLUSION**

Among students in the process of studying in the conditions of COVID19, an increase in the number of people with chronic diseases is determined – with

 $42.3\pm5.47$  to  $57.6\pm6.34$  per 100 examined in the corresponding groups, (Po,05). Of these, 27.92% had one chronic disease, 10.69% had two, and 5.14% had three chronic diseases. Attention is drawn to the increase in the dynamics of training in the proportion of people with several chronic diseases. In the structure of chronic diseases of students, diseases of the nervous system accounted for 24.7% of the total number of cases, diseases of the digestive system – 19.7%, diseases of ENT organs – 18%, diseases of the cardiovascular system - 16.1%.

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