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# FEATURES OF MORBIDITY AND NUTRITION AMONG STUDENTS DURING THE COVID-19 PANDEMIC

The article presents data on the analysis of morbidity and rehabilitation among students Of the Kazakh National medical University named after S. D. Asfendiyarov during quarantine and the state of emergency in the Republic of Kazakhstan. The survey was conducted via an online questionnaire

**Keywords:** morbidity, covid-19, pneumonia, quarantine, nutrition, rehabilitation after illness

#### Relevance

As we all know, at the beginning of 2020, the whole world was gripped by a coronavirus pandemic. It forced all countries into quarantine and broke the world economy. Many people did not take this disease seriously. As a result, we saw how deplorable the situation was in some developed countries. Negligent attitude to your own life, as well as to the lives of other people is unacceptable.

Coronavirus is an infectious disease detected in China in December 2019. There are hundreds of coronaviruses, most of which are carried by animals, including pigs, bats and cats. But there are also those like Covid-19 that infect people. Some coronaviruses cause only mild malaise, such as a cold. Covid-19 can lead to more serious diseases, such as pneumonia. Most infected people show various symptoms - high body temperature, headache, weakness, cough, difficulty breathing, muscle pain, nausea, vomiting, diarrhea, loss of taste, smell.

People of all ages are at risk of contracting the virus. As with most other viral respiratory diseases, children and people over 65 years of age, people with weakened immune systems, as well as those with health problems (heart disease, diabetes, cancer) are at a high risk of severe disease [1,2]. In the world, this disease has taken many lives (over a million people) and more than 38 million people were diagnosed with Covid 19. [3].

According to a study by the Chinese center for disease control and prevention, the coronavirus is more deadly than the flu for all age groups, but especially among the elderly. Among the 10 to 40 people infected with the coronavirus, about four out of 1,000 died, according to the Chinese CDC, but 8% of people between the ages of 70 and 79 have died, and among those 80 and older, this figure rises to about 15% [4].

All over the world, people are talking about coronavirus disease and taking the necessary precautions to protect themselves and their families from the coronavirus. As in many countries, Kazakhstan entered a quarantine and state of emergency for COVID-19 in the spring. All educational institutions in the country switched to distance learning, and many students study at home. Therefore, the study of morbidity among students during quarantine is of particular importance.

#### The aim of the work

To analyze the morbidity rate among students of KazNMU named after S. D. Asfendiyarov during quarantine.

#### Materials and methods

To conduct the survey, we have compiled a questionnaire that includes 11 questions. A computer program was used to conduct a survey of 95 respondents (students aged 19-22 years).

#### Results

During data processing, it was revealed that 44.2% of the respondents were diagnosed with Covid 19 during the quarantine period. The rates of diagnosed patients with Covid 19 by symptoms: 3.2% had pneumonia; 6.3% had covid-19; and 7.4% had covid infection (figure 1). And 83.2% of the respondents who were ill noted other diseases.

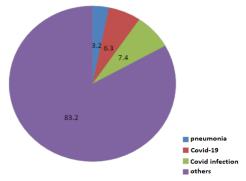


Figure 1 - Morbidity among students during the quarantine period, (%)

Diagnoses were confirmed in 12.6% of patients by laboratory tests. Despite the young age of the respondents and their knowledge of diseases and pathogenesis, the survey revealed that 10.5% have concomitant diseases, 72.6% of students deny concomitant diseases, and 16.8% do not know.

At the peak of the incidence many people were uncontrollably using antibiotics, expectorants etc. There was a growing sense of panic and helplessness, and there was little information about covid-19. The results of our study on the use of antibiotics and other drugs (figure 2).

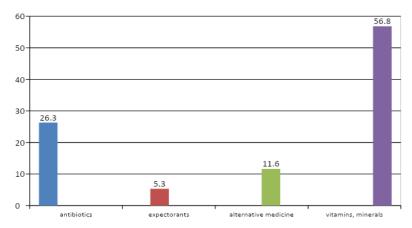


Figure 2 - Distribution of responses for the use of antibiotics and other drugs, (%)

Of all respondents (95 people), 56.8% included vitamin and mineral complexes in their daily diet. 11.6% used traditional remedies and 26.3% (25 people) took antibiotics for the disease.

Students who were infected during the quarantine period in most cases were prescribed treatment by the district-based assigned doctor (17 cases out of those who were ill) and the visiting doctor in the hospital (15 cases), 10 people were self-medicating. The results of the survey showed that the rest of the respondents (66.3%) themselves took proactive steps to improve their health and tried to increase immunity, referring to the media (TV shows, Internet resources, WhatsApp).

Now, more than half a year has passed, the world has had to suffer huge losses, but this has allowed us to develop treatment protocols for patients with coronavirus infection, conduct research, reduce the increase in the number of deaths, and consider and put forward recommendations for nutritional therapy for patients who have suffered COVID-19. People who have insufficient or excessive nutrition should optimize it.

According to our research, opponents have changed their nutritional habits. Many people (57.9%) increased the frequency of consuming broths and soups in their diet, and 47.4% increased their daily quota of liquids. To maintain immunity, 27.4% preferred garlic, onion, ginger, and horseradish. 21% of students increased their consumption of fermented milk products (figure 3).

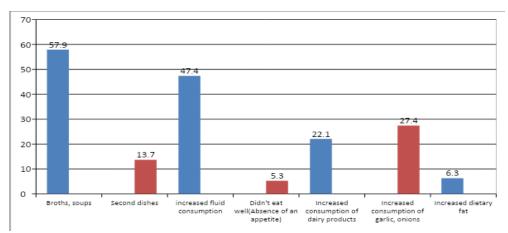


Figure 3 - Distribution of changes in nutritional habits, (%)

Good nutritional therapy is the key to rehabilitation of patients after diseases, including coronavirus infection. According to European recommendations, a good tactic of therapeutic nutrition allows you to limit the complications of the virus, and physical activity is also necessary in the recovery process [5].

We were also interested in how our respondents were recovering or what they were doing. It turned out that 47.4% of the respondents did not take any actions. Perhaps, they were not ill during the quarantine period. Some students continued to take vitamins and mineral elements (31.6%); others began to do breathing exercises/engage in physical activity – 15.8% and 27.4% - to adhere to proper nutrition and daily routine. In case of illness and in the process of recovery, one of the aspects of therapy should always be considered high-quality rational nutrition. In quarantine conditions, it is necessary to adhere to food culture and hygiene.

In the modern world, there are many questions about covid-19, including the prevention of this disease and whether there is an effective safe vaccine. Currently, many scientific organizations in several countries are developing and testing vaccines against Covid-19. This requires time and various resources.

The survey revealed that 18.9% of the students surveyed would like to be vaccinated against Covid-19. 45.3% of people weren't willing to get vaccinated, and those who were unsure(not enough information) - 35.8%.

To cover many issues about Covid-19, the world health organization has developed a document-an Updated strategy to combat Covid-19 [5].

### Conclusion

It is important to understand basic information about the disease (COVID-19), including its symptoms, complications, how it is transmitted, and how to prevent further transmission. Be informed about COVID-19 from reliable sources such as UNICEF, and ministries of health [6].

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#### COVID-19 ПАНДЕМИЯСЫ КЕЗІНДЕГІ СТУДЕНТТЕРДІҢ ТАМАҚТАНУЫ МЕН АУРУШЫЛДЫҚ ЕРЕКШЕЛІКТЕРІ

**Түйін**: мақалада Қазақ ұлттық медицина университеті студенттерінің карантин мен республикамыздағы төтенше жағдай кезіндегі аурушаңдық жағдайына талдау және қайта қалпына келуіне жұргізілген зерттеу мәліметтері берілген. Зерттеу саулнамалық әдіспен онлайн жүргізілді.

Түйінді сөздер: аурушаңдық, ковид-19, пневмония, карантин, тамақтану, қайта қалпына келу

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#### ОСОБЕННОСТИ ПИТАНИЯ И ЗАБОЛЕВАЕМОСТИ СТУДЕНТОВ ВО ВРЕМЯ ПАНДЕМИИ COVID-19

**Резюме**: в статье приведены данные изучения анализа заболеваемости и воостановления среди студентов КазНМУ им. С.Д.Асфендиярова во время карантина и чрезвычайного положения в РК. Был проведен опрос посредством онлайн анкеты-опросник.

**Ключевые слова**: заболеваемость, ковид-19, пневмония, карантин, питание, реабилитация после болезни