



Analysis Of Learning Conditions and Lifestyle of Students of The Multidiscipline University During Distance Learning Period

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ABSTRACT

The purpose of this study was to establish changes in the learning conditions and lifestyle of students of the Federal State Budgetary Educational Institution of Higher Education "Kabardino-Balkarian State University named after H. M. Berbekov" (KBSU), when switching to distance learning during the epidemic of a new coronavirus infection (COVID -19). We conducted an anonymous survey of 256 students using the online Google Forms in the period from January 27 to February 8, 2021. The study revealed changes in some components of the learning conditions and lifestyle of students with their transfer to the distance learning: an increase in preparation time for classes among 42.9 % of respondents, an increase in the number of cigarettes smoked in all smokers, a decrease in physical activity among 62.9 % of respondents. At the same time, the consumption of vegetables (36.7%) and fruits (43.8%) increased, the frequency of eating in cafes and restaurants decreased in the absence of changes in the frequency of buying or ordering ready-made food among all students, sleep duration increased among 60, 9 % of students. The nutrition changes of students were influenced by the restrictions taken in the region to prevent the spread of coronavirus infection. The results of our study indicate a need to monitor the preparation time for classes, level of physical activity, smoking and development of recommendations for students on the organization of educational and physical activities during distance learning period.

Keywords: students, distance learning, COVID-19 epidemic, self-isolation, lifestyle, smoking, physical activity, eating habits

INTRODUCTION

Since the beginning of March 2020, in our country, as in most countries of the world, the usual way of life has been changed by the spread of a new coronavirus infection (COVID-19). Due to the epidemic, higher educational institutions (universities) were forced to switch to distance learning using digital technologies. Distance learning technologies in the situation of unforeseen external threats have made it possible to maintain the functioning of the educational process. However, the transition to distance learning in the context of pandemic differs from planned online training within educational programs and may contain new "risks" for the health of participants in the educational process. During the transition to distance learning, it is impossible to maintain the positive impact of health-preserving technologies, introduced into the educational environment of the university, on the health of students (IAU Global Survey Report, 2020). Studies devoted to the problem have revealed new health risks for students during the transition to distance learning: physical inactivity, increased academic workload, increased work time at a personal computer, stress (Kuchma et al., 2020; Huckins et al., 2020; Milko et al., 2020; Camargo et al., 2020; Armstrong-Mensah et al., 2020). The readiness of the university to implement educational programs using distance technologies is also important. The consequences of the pandemic for young people have yet to be studied due to the complexity and versatility of the problem (educational, social, medical components) (IAU Global Survey Report, 2020; Huckins et al., 2020).

The global crisis and isolation have exposed many problems in education and healthcare. Due to its role in the development of professional competencies, the vocational education system should be at the center of sustainable development planning, taking into account uncertain epidemiological prospects. Therefore, the peculiarities study of learning conditions and lifestyle of students studying at various universities during the COVID-19 epidemic is an extremely important task. The subject of our research was the study of how the transition to distance learning influenced the learning conditions and lifestyle of students of the Federal State Budgetary Educational Institution of Higher Education "Kabardino-Balkarian State University named after H. M. Berbekov" (KBSU) during the COVID 19 epidemic. As a result of the study, we want to determine the changes in the life of students during distance learning, to identify the academic problems of students and the unforeseen benefits of distance learning and practical recommendations for improving the organization of the educational process that can be applied during future crises.

Purpose: to establish changes in the learning conditions and lifestyle of students of KBSU, when switching to distance learning during the epidemic of a new coronavirus infection (COVID-19).

MATERIAL AND STUDY METHODS.

The research design included the following stages: 1) theoretical analysis of special scientific literature and the formation of a methodological basis for the study; 2) development of a special questionnaire, 3) conducting a survey, 3) mathematical statistical analysis.

The online survey was conducted from January 27 to February 8, 2021, using the online Google Forms. The experiment involved 256 students (222 girls and 34 boys) at the age of 16-29. The students' distribution by place of study is as follows: colleges (medical, pedagogical, design, information technology and economics) - 103 students (40.2%), institutes (social and humanitarian, law, economics and finance, physics, and mathematics) - 55 students (21.5%) and medical faculty - 98 students (38.3%). We developed a questionnaire designed to interview university students. The anonymous questionnaire included 74 questions for studying socio-demographic indicators, learning conditions and characteristics of the students' lifestyle (eating habits, frequency of smoking, alcohol consumption, physical activity). The section for the study of eating habits included questions regarding the frequency and place of eating, as well as the quality of nutrition (consumption of vegetables and fruits, type of fat used for cooking). For the most complete study of all aspects of physical activity, the questionnaire included questions for the study of physical activity at work, while moving around and during sports, physical exercises, or active leisure. For the convenience of determining the intensity of physical activity, the questions included examples for comparison - walking, swimming, running, etc. In addition to the obligatory answers, the questionnaire provided "free" responses, allowing students to indicate the changes that occurred during distance learning.

The study materials were statistically processed using nonparametric analysis methods. The nominal data were described with absolute values and percentages. Statistical data analysis was carried out using the Statistica 6.0 program (StatSoft Inc., USA).

Study results and their discussion

Distance learning at KBSU was organized mainly in the digital information system of KBSU "Open University" open.kbsu.ru. Taking into account the students' capabilities (presence and type of gadget, availability of Internet access and stability of the Internet connection), Zoom, WhatsApp, etc. programs were used. There were remote practical, seminar and lecture online classes, as well as the exchange of educational information (task conditions - problem solving, abstracts, essays, etc.) using various digital devices. Personal contact between teachers and students was excluded. The organization of classroom classes, unusual for the majority of students, the alarming

epidemic situation associated with several restrictions could have an impact on the lifestyle of students. Our study was conducted during the "second" transition to distance learning.

Most of interviewed students were single (91.4%, 234 respondents). Only 22 respondents were married. The average monthly income per family member of 179 (70.2%) respondents was 20,000 rubles, 33 (12.9%) respondents - 25,000 rubles, 5 (2%) respondents - 40,000 rubles. At the same time, 38 (14.9%) respondents had an average monthly income of only 10,000 rubles, which is lower than the subsistence minimum level established by Decree of the Government of the Russian Federation No. 2406 of December 31, 2020. It is known that students, regardless of university and region of residence, have low income that forces them to look for additional sources of income (Kuchma et al., 2016). Among the students we interviewed there were only 29 students working. It is noteworthy that the majority of working students (21 students) studied at the medical faculty and medical college of KBSU. They worked as nurses (14 students) and nursing assistants (7 students). Among students who studied at other colleges and institutes, 5 respondents worked as administrators, 2 respondents worked as salespersons, and 1 respondent worked as a car washer.

About half of working students (14 respondents) indicated that they work 72 hours a week, 5 respondents - 48 hours, 7 respondents - 15 hours, 2 respondents - 6 hours, 1 respondent - 1 hour. Moreover, 21 respondents worked at night. The average monthly income of two working students was more than 50,000 rubles, 10 - less than 30,000 rubles, 8 - less than 20,000 rubles, 9 - less than 10,000 rubles. Students who worked in hospitals with "covid" had the highest incomes. Heavy workload (48-72 hours per week, 19 students), night shifts (21 students) affect the health of students and the quality of their education. This group of students deserves close attention of both researchers and doctors.

As you can see from the table 1, distance learning has influenced several components of learning conditions and lifestyle of students.

Table 1: Changes in indicators of learning conditions and lifestyle of students with their transition to distance learning (n = 256)

Indicator	Nature of indicator's change	Abs.	%
Sleep duration	decrease	8	3.1
	increase	156	60.9
Preparation time for classes	decrease	36	14.1
	increase	110	42.9
Fruit consumption	decrease	22	8.6
	increase	112	43.8
Vegetable consumption	decrease	20	7.8
	increase	94	36.7
Frequency of eating in a cafe, restaurant	decrease	256	100
Physical activity	decrease	161	62.9
	increase	40	15.6

Important components of healthy lifestyle for students are the optimal organization of the educational process, adequate duration of rest and sleep, optimal physical activity, proper nutrition, absence of bad habits and healthy psychological atmosphere in their environment (Kuchma et al., 2020). The sleep duration was 8 hours among only 34.8% (89 respondents) of students, 6 hours among 50% (128 respondents), less than 6 hours among 7.8% (20 respondents) and more than 8 hours among 7.4% (19 respondents). It is noteworthy that the sleep duration of 60.9% of students increased during distance learning period.

Questionnaire included a question about the total amount of class hours per day. 227 respondents (88.7%) answered that they have "from two to six hours", 20 respondents (7.8%) - "from one hour to three hours" and 9 respondents (3.5%) - "from 30 minutes up to 1.5 hours". The preparation for classes took 2-3 hours for 18% (46 respondents) of students, 5-8 hours for 78.9% (202 respondents), less than an hour for 3.1% (8 respondents). The preparation time for classes for 42.9% of students increased with the transition to distance learning. Similar results have been obtained in some studies (Kuchma et al., 2020; Huckins et al., 2020; Milko et al., 2020; Armstrong-Mensah et al., 2020). Thus, Armstrong-Mensah E. et al. cite the data that the majority of students at Georgia State University's School of Public Health (64.5%) reported an increase in their workload when switching to purely online classes (Armstrong-Mensah et al., 2020). The researchers found an increase in the duration of "study sessions" and assignments' completion during anonymous survey of 29,779 students in the fifth -eleventh grades from 79 regions of Russia (Kuchma et al., 2020). An increase in the workload can adversely affect the health of students and negatively affect the quality of education.

The peculiarities of students' nutrition deserve attention. Most of interviewed students ate fruits (94.1%, 241 respondents) and vegetables (84.8%, 217 respondents) daily. The question "What kind of vegetable or animal fats are most often used for cooking in your family?" included the following answers: vegetable oil - 87.9% (225 respondents), butter / ghee - 9.8% (25 respondents), margarine - 2.3% (6 respondents). Most of our

students ate less than three times a month in a cafe or restaurant (89.8%, 230 respondents), 5.9% (15 respondents) more than three times a month, and 4.3% (11 respondents) daily. More than half of students (58.2%, 149 respondents) did not order ready-made food, and 41.8% (107 respondents) bought or ordered ready-made food 1-3 times a week. The transition to distance learning had a positive effect on a number of eating habits. Thus, the consumption of vegetables (36.7%) and fruits (43.8%) increased among students with the transition to distance learning, frequency of eating in cafes and restaurants decreased (100%) in the absence of changes in the frequency of buying or ordering ready-made food (100%). The nutrition changes of students were influenced by the restrictions taken in the region to prevent the spread of coronavirus infection. Thus, restrictions in the work of public catering establishments led to a decrease in the frequency of eating in cafes and restaurants, and the remote work schedule of students' parents contributed to an improvement of nutrition. Armstrong-Mensah E. et al. revealed positive results of the transition to distance learning. In contrast to our data, they have no need to get to school and, as a result, save money (Armstrong-Mensah et al., 2020). The frequency of smoking and alcohol consumption among students of KBSU is traditionally low. In our study, the frequency of smoking was only 1.6% (4 respondents). The question "Have you ever drunk alcohol?" included positive answers of 15.2% (39) of respondents. Only 9.4% (24) respondents gave positive answer to the question "Have you drunk at least a small amount of alcohol over the past 30 days?". The transition to distance learning has led to an increase in the number of smoked cigarettes among all smoking students, but alcohol drinking rate has not changed.

Despite restrictive measures related to the danger of the spread of new coronavirus infection (COVID-19), half of students devoted more than 2 hours a day to walking or cycling. Only 43.4% of students had physical activity, which is sufficient according to the World Health Organization recommendations (WHO, 2010). It is noteworthy that 62.9% (161) of students indicated a decrease in physical activity during distance learning period, and only 15.6% (40) indicated an increase in physical activity. The high prevalence of physical inactivity and its increase with the transition to distance learning were established in a survey of 29,779 students of the fifth-eleventh grades from 79 regions of Russia, as well as in a study involving students of the Far Eastern Federal University (Kuchma et al., 2020; Milko et al., 2020). The authors believe that the reasons for physical inactivity of students in the distance learning format are the lack of time caused by a large volume of academic workload, lack of the necessary equipment and inability to choose exercises on their own (Milko et al., 2020). The high prevalence of physical inactivity and its increase with the transition to distance learning were also established by other researchers (Camargo et al., 2020; Armstrong-Mensah et al., 2020). J.F. Huckins et al. (2020) notes that American college students have decreased their physical activity and visit fewer places, while reporting increased symptoms of anxiety and depression (Huckins et al., 2020). There is no doubt about the need for recommendations on organizing sports or physical exercises for students during distance learning period.

CONCLUSION

Thus, we studied the learning conditions and lifestyle of KBSU students during the COVID 19 epidemic, identified changes in their life activity during the transition to distance learning. We found that students who study remotely at KBSU during the epidemic of a new coronavirus infection (COVID 19) had adverse changes in their life activity, namely: an increase in preparation time for classes, an increase in the number of cigarettes smoked, and a decrease in the number of cigarettes smoked. physical activity, as well as favorable - an increase in the duration of sleep, an increase in the consumption of vegetables and fruits, a decrease in the frequency of eating in cafes and restaurants in the absence of changes in the frequency of buying or ordering ready-made food. Our results indicate the need to monitor the preparation time for classes, level of physical activity, smoking and develop recommendations for students on the organization of educational and physical activities during distance learning period. Our results can be used to improve the academic process in the transition to distance learning.

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