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Medico-Social Markers of A Federal University Students' Health.

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ABSTRACT

This article is an interdisciplinary research project at the intersection of biomedicine and social sciences dedicated to the reproduction of students' health. Health is the most important capital for an active social life and self-realization of young people in training, career activities and future family life. The education in high school is an important step in the lives of young people, in the course of which the basic elements of lifestyle are examined together with habits, values and priorities. The project is aimed at identifying trends in the reproduction of social and physical health of students in the university institutional environment and the development of its potential as a personnel reserve of the country. The bank of genomic DNA samples, medical and social health passports of the experimental group, received due to the research, enable to identify the mechanisms of disease occurrence and to develop the new methods of treatment and prevention, as well as to create a model for evaluating the social and physical potential of students of the federal universities.

Keywords: health, students, self-preservation behavior, healthy lifestyle, bank of genomic DNA samples, medical and social health passports

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INTRODUCTION

Health is one of the student's core capitals, enabling him/her to achieve success in training activities and professional development, and the university reforming environment has an impact on health status, lifestyle and social attitudes of the students. On the one hand, the university environment is a platform for the implementation of social and physical potential, on the other - it can pose risks, preventing its reproduction and strengthening. Under the conditions of intense mental work and lifestyle change there is a risk of deterioration of young people's health. The education of modern students occurs in the conditions of reforming of high school, in the transforming and dynamic university environment. What is the impact of these processes on the social and physical well-being of the students?

DISCUSSION

A lot of researches are devoted to the students' health status. The scientific community concurs that health should be regarded not just as the absence of disease, but also as a way of life [3]. As noted by S. Nettleton, if the old paradigm of health and medicine has been built around the disease and the patient, the new one focuses on the health and the efforts made by the individual to maintain it [4]. These changes include both the global healthcare practice and new trends in Russian health care service and attitude of the population towards their own health. According to a survey conducted by VCIOM (Russian Public Opinion Research Center) in 2012, one third of respondents (35%) believes that the responsibility for health condition lies with the Russians themselves [13].

The conceptual basis of research of the relationship of health and education was laid in 1960-1970-ies [for example, 5]. One of the most prominent ideas in the framework of this approach was developed by M. Grossman: he pointed at the statistically significant dependence of health on the number of years spent in a school established by him. It is expected that the school gives the knowledge and skills necessary to effectively take care of their health [1, 2].

However, the Russian researches and statistical data on the students' health status cast doubt on the Grossman's model, demonstrating a negative trend of the health condition of young people in the education process in the school and then in the high school. The studies of many authors are devoted to the analysis of health status, lifestyle and factors affecting the students' health [6-12, 14-16]. The results of these studies reveal the unhealthy behavior of students - there is high prevalence of bad habits and lack of healthy habits. Despite the large number of studies devoted to the students' health and their way of life, there are no studies on reproduction of the students' health status over the years of education in a high school, which have been implemented on the same sample population of students. Thus, the analysis of dynamics of students' status in the process of adaptation to the university life in the framework of a panel longitude study for four years of education under the Bachelor's program, is of scientific interest both from medical and sociological perspectives.

MATERIALS AND METHODS

The project implements the interdisciplinary approach to the study of the state of social and physical health of the students in dynamics during the entire period of study in a high school (4 years) - at the intersection of sociology, epidemiology, social hygiene and psychology. Therefore the medical, sociological and psychological methods are used in the research:

- the medical analysis of health status, existing diseases in dynamics through a systematic observation by the doctors in student polyclinic and analysis of medical records of the students;
- the sociological analysis of the students' lifestyle, self-preserving behavior strategies, presence/absence of bad habits, health space and healthy lifestyle in the system of values through the in-depth and focused interviews, as well as the expert assessment of high school environment (teachers of physical education, doctors in student polyclinic and university health centers);
- the assessment of mental health status (adequate perception of oneself and the surrounding reality, the ability to focus, the degree of aggressiveness, etc.) with the help of psychological techniques.

The project's specificity is related to its implementation through a combination of qualitative (humanistic) and quantitative (statistical) strategies. At different study stages it is expected to identify the key internal (due to the state of physical health and changes in the systems) and external (due to the university environment) factors that make influence on health.

The quality unit of the study is the four-field line experiment and monitoring of social and physical health status of the students admitted to the university in 2015 and included in the experimental group - 150 people, representing three areas of study: natural-science, physics and mathematics, social and humanitarian. It is assumed that the students' state of health is dynamic and is influenced by internal and external factors caused by the integration of students in the new environment. The experiment will enable to identify the trends in the reproduction of social and physical health of the students by the comparison of indicators of the initial health status of the students (at the time of admission) and the final health status (at the time of graduation from the university) of the students.

In the quantitative unit the study object is the university students, the research subject - the state of their social and physical health. Methods of collecting the primary empirical information: statistical data on the students' health status based on their medical records of the previous years, medical certificates of the applicants, as well as annual monitoring of social well-being of students using the formal methods (mass representative polls, focused interviews, focus groups).

A study of the experimental group takes place against the background of the statistical analysis of the general population. The experimental group is represented in equal parts by the students of three different training profiles that exist in the Kazan Federal University: socio-humanitarian, natural-science and physics and mathematics that will enable to make conclusions about the impact of training profile on health and self-preservation strategies of the students.

The methods of the experimental group selection - a random repetition-free selection of first-year full-time students of all specialties of the Kazan Federal University (admission of 2015), $n = 150$ persons, per 50 persons from each education profile (natural-science, social and humanitarian and physics and mathematics). The study suggests the possibility of using the obtained bank of DNA samples, collection of laboratory samples of genomic DNA and blood serums/plasma, as well as the bank of medical and social passports of the experimental group to identify the mechanisms of disease occurrence and the development of new methods for their treatment and prevention.

CONCLUSIONS

The presented method enables to identify all the factors determining the social and physical health of students in the institutional environment of the university and to give its qualitative interpretation and evaluation. The information base obtained in the framework of the project implementation can serve as the basis for a single integrated monitoring of the social and physical health status of university students in the context of the reform of high school and the development of practical guidelines and techniques to preserve health and improve the social and physical potential of the students. The findings will contribute to the prevention of socially significant diseases of the students to improve the existing social and medical programs at the university.

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