

PRESSING ISSUES OF MEDICAL ASSISTANCE OF STUDENTS RECEIVING SECONDARY MEDICAL EDUCATION

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The paper reports the issues of the medical assistance of students attending secondary medical educational institutions in Volgograd and the Volgograd region. It has been found that the regional regulatory documents contain no unified requirements related to students' health protection. Primary medical care provision to students is ensured by pediatric (under the age of 18 years) and adult outpatient clinics (over the age of 18 years) of Volgograd and the Volgograd region in accordance with the concluded contracts. Furthermore, the students have a mandatory medical check-up before the beginning of practical training in accordance with the Order № 29N of the Ministry of Health of the Russian Federation dated January 28, 2021. At the same time, there is no dynamic monitoring of the students' health status during the educational process. It has been shown that none of the secondary medical educational institutions of Volgograd and the Volgograd region conducts assessment and monitoring of occupational risk factors corresponding to the studied specialty. It is necessary to develop the system for informational communication of medical professional with medical institutions conducting preventive medical examinations and routine check-ups of students. Furthermore, it is important to consider the features of the chosen profession taking into account potential risk factors of the learning process and future professional activity.

Keywords: medical examinations, students, medical college, secondary vocational education, risk factors

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АКТУАЛЬНЫЕ ПРОБЛЕМЫ МЕДИЦИНСКОГО ОБЕСПЕЧЕНИЯ СТУДЕНТОВ, ПОЛУЧАЮЩИХ СРЕДНЕЕ МЕДИЦИНСКОЕ ОБРАЗОВАНИЕ

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В статье проанализированы вопросы медицинского обслуживания студентов организаций среднего профессионального образования медицинского профиля г. Волгограда и Волгоградской области. Установлено, что в региональных нормативно-правовых документах отсутствуют единые требования в области охраны здоровья обучающихся. Оказание первичной медико-санитарной помощи обучающимся осуществляется в детских (до 18 лет) и взрослых (старше 18 лет) поликлиниках г. Волгограда и Волгоградской области в соответствии с заключенными договорами. При этом студенты проходят обязательный медосмотр перед началом производственной практики в соответствии с требованиями приказа Минздрава России от 28.01.2021 № 29Н. Вместе с тем в процессе обучения отсутствует динамическое наблюдение за состоянием здоровья студентов. Показано, что ни в одном из учреждений среднего профессионального образования медицинского профиля г. Волгограда и Волгоградской области не проводят оценку и мониторинг профессиональных факторов риска, соответствующих изучаемой специальности. Необходимо разработать систему информационного взаимодействия медицинского работника с медицинскими организациями, осуществляющими профилактические медицинские осмотры и диспансеризацию студентов. При этом важно учитывать особенности изучаемой профессии с учетом потенциальных факторов риска здоровью как в процессе обучения, так и в дальнейшей профессиональной деятельности.

Ключевые слова: медицинские осмотры, студенты, медицинский колледж, среднее профессиональное образование, факторы риска

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In the past decade, great attention was paid to the hygienic, medical and social issues of secondary vocational education (SVE). Training of secondary professionals is the most important prerequisite for further technological and economic development of Russia [1, 2]. In the beginning of the academic year 2021/2022, SVE programs were implemented by 4600 educational institutions (including their branches), the majority

of which (70%) were represented by SVE institutions [3]. In recent years, the number of trained secondary professionals in the Russian Federation increased from 469,100 in 2016 to 573,800 in 2021, including healthcare specialists and medical scientists — their number increased from 54,700 to 73,600 [4].

Given the fact that more than 80% high school students have various health problems, it can be assumed, that young

adults showing deterioration of health indicators and having functional disorders enter colleges and technical schools. Furthermore, in addition to educational workload, students receiving SVE are exposed to occupational factors, while the training conditions often have unsatisfactory sanitary and epidemiological characteristics [5, 6]. Thus, one third of adolescents in the Sverdlovsk region, who attend SVE institutions, are susceptible to additional medical and social, training and occupational risk [7].

It should be noted that the majority of studies focused on the issues of SVE provide the data on hygienic assessment of the conditions and arrangement of training in the colleges and technical schools, where the workers are trained [8–11]. Furthermore, among SVE institutions, more than 28% have sectoral specialization, and the largest share falls on the healthcare and medical educational institutions [12]. However, there is still a shortage of secondary medical personnel in the country, for many years there has been no positive upward trend in the number of this cohort of medical professionals; many of them do not stay in the profession, including due to potential health risks [13, 14]. In general, it should be noted that there are just a few studies focused on the hygienic problems of secondary medical education, including assessment of care provision and social assistance, which determines the relevance of our study.

The study was aimed to determine the problematic aspects of organizing care provision and social assistance in adolescents and young adults attending medical colleges, including those working in the Volgograd region and having different administrative subordination.

In September 2023, a review of scientific papers, regulatory and methodological documents, and orders, regulating the organization of medical and social assistance of students attending medical SVE institutions, was conducted. The search for literature sources was performed in the eLIBRARY.RU, Medline PubMed databases.

In the Volgograd region, secondary medical professionals are trained by two educational institutions: Volgograd medical college (VMC) of the Volgograd region Health Committee and medical college of the Volgograd State Medical University of the Ministry of Health of the Russian Federation (MC of VolgSMU).

A total of 2369 students attend the first one, among them 720 are adolescents under the age of 18 years. Furthermore, VMC has four branches located in four large district centers of the region. A total of 668 students attend MC of VolgSMU, among them 40 are minors. The total number of adolescents and young adults receiving secondary medical education in the Volgograd region (considering branches in the districts of the region) is 5619 people, among them 1700 are people under the age of 18 years.

As is known, nowadays one of the directions of health preservation in students is represented by development of the unified preventive environment including provision of medical and social assistance (MSA) to students, appropriate level of the institution sanitary and epidemiological welfare, the requirements for which are specified in a number of regulatory documents. At the same time, some authors note that all the existing regulatory documents are focused primarily on the MSA organization in comprehensive educational institutions and do not consider the features of care provision to students attending SVE institutions, including medical colleges [15, 16]. This information was fully confirmed by our study.

It has been found that adolescents aged 16–17 years constitute about 30–35% of all surveyed 1st grade college students. This fact substantiates the need to organize MSA

of adolescents in accordance with the Orders of the Ministry of Health of the Russian Federation No. 822 and № 514 [17, 18] by creating a medical unit deployed in the premises of the educational institution and consisting of the office of pediatrician (paramedic) and the treatment room. The above provision is not implemented in any medical college or branch in the region. No routine check-ups of students are also performed, since the contracts with medical institutions are concluded based on the territorial principle and assume care provision only. Our data are consistent with the information reported in the articles by a number of authors [19, 20]. As for underage students, all the information about their health status is confined to the certificates No. 086/u received by adolescents and young adults when entering the educational institution. Our review has shown that this legal document is not always handed to the college staff. Furthermore, the information contained in the document is never analysed, therefore, there is a lack of baseline data on the young adults' health status. Moreover, there is a problem of formal and incorrect completion of medical certificate, the rate of which is as large as 70% [21]. One can also accept the opinion [22] that the certificate № 086/u should be added to the list of documents that have to be provided when entering a university or a SPE institution (by the applicant's discretion).

The issue of licensing medical offices deployed in the medical SPE institutions is relevant. While in comprehensive educational institutions medical offices are licensed and mandatory, and medical professionals are part of staff of the pediatric outpatient clinic responsible, inter alia, for preventive work with school students, colleges decide to create and license medical offices on their own.

The study has shown that VMC and its branches are not licenced to provide medical care. Primary medical care provision to underage students is ensured by pediatric outpatient clinics of Volgograd and the Volgograd region, while care provision to students over the age of 18 years is ensured by adult outpatient clinics in accordance with the concluded contracts. As stated above, the college of VolgSMU is a structural unit of the Volgograd State Medical University licenced to provide medical care; care is provided in the Clinic of Family Medicine being a structural unit of the university. However, information contained in the medical records is also not analyzed due to the fact that there is no employee responsible for activities of this type in the MC of VolgSMU.

The issue of outpatient monitoring of college students, including medical students, seems to be important. According to the Order № 404 of the Ministry of Health of the Russian Federation [23], young adults over the age of 18 years should have preventive medical check-ups every three years. The importance of timely assessment is substantiated by few data on the health status of students attending colleges of different specialization. The leading place is occupied by the diseases of the musculoskeletal system and diseases of the eye [24]. There is no up-to-date information about morbidity among students receiving secondary medical education.

In medical colleges of the Volgograd region, all students obtain all the necessary information about the possibility of check-up through the Gosuslugi website, however, the lack of medical professional in the college staff makes it impossible to analyze the number of students, who have had a preventive check-up, and the examination results. Undoubtedly, the option for the organization of medical check-ups of students reported in the paper [25] deserves attention, when the university organizes such work in the outpatient clinics and medical centers, which have signed the contract for medical care provision. Students

may undergo appropriate medical assessment for free, within the framework of compulsory medical insurance. However, such financial burden is unsustainable for colleges, and the problem of funding should be solved at the regional level.

Moreover, attention should be paid to the fact that, according to the requirements of the Order № 29N of the Ministry of Health of the Russian Federation dated January 28, 2021, the students attending SVE institutions should undergo mandatory medical examinations before the beginning of practical training. However, the educational institution does not finance medical examinations of this type, since it is not an employer. Young adults choose the accredited medical institution on their own and pay for the services. Furthermore, their choice is based on the examination cost varying between 1200–4500 roubles. It is necessary to understand that specialists of these institutions have no experience with representatives of this social group, which can affect the examination results.

The admission of students for practical training is included in the health permit, which is provided by the student to the practice base, but educational institutions never analyze the results of medical examination, since, as stated above, in none of the medical colleges of Volgograd and the Volgograd region there is a position of a medical professional in the staffing table, as well as of anybody responsible for medical check-ups. When there is no medical professional in the staff, this work should be done by local pediatrician or local general practitioner. In the majority of cases, no analysis of the students' health status is performed, so the college administration does not receive appropriate information about the health status of the trained contingent.

All the above is the cause of the lack of dynamic monitoring of the health status of students during the training process from grade to grade, while the analysis of the data of preventive medical check-ups should form the basis for the development of comprehensive plans of preventive activities in the college.

The issue of medical assistance is particularly relevant for non-resident underage students, since they have no regular physician or outpatient clinic they could contact in case of disorder at the new place. On the other hand, minors, who have not resigned from the outpatient clinic at their past places of residence, are considered to be unorganized. They should not be invited for examination, when they are in another city.

Moreover, no analysis of the incidence of acute disorders is conducted in medical colleges, since the certificates handed by students to the supervisor of the group are of interest to the latter only in terms of "legitimate excuse for missed class" or "absence". The decision on admission of student for physical education lessons after recovery from illness is still a problem.

An important problem of social assistance of medical college students is the lack of work to familiarize them with health risk factors in both learning process and their future professional activities. This issue becomes more and more relevant due to implementation of dual (practice-oriented) model of professional education [26]. Exposure to occupational factors during mastering the academic disciplines usually becomes possible in medical colleges starting from grade 2 (and sometimes from grade 1). These can be harmful factors

of various types (chemical, physical, biological), tension and hard work. The papers focused on assessing the conditions of training and upbringing of adolescents and young adults attending SVE institutions of various specialization report that, despite short-term exposure to various occupational factors during labor training, some of these factors can cause failure of regulatory mechanisms underlying physical adaptation and development of functional disorders [11, 27]. We have found that none of the SPE institutions of Volgograd and the Volgograd region conduct assessment and monitoring of risk factors associated with the professions corresponding to the chosen specialty. Furthermore, the development of practical skills when mastering some specialties of secondary medical education is directly related to the exposure to harmful occupational factors. Thus, the results of air chemical composition assessment in the educational dental laboratory, where the students studying on the specialty "Prosthetic Dentistry" mastered their practical skills, showed the presence of such substances, as chromium oxide (III), formaldehyde, methyl methacrylate, etc. The maximum permissible concentrations were not exceeded, however, some of the detected chemical compounds (ozone, methyl acrylate) emitted a distinct smell, therefore, there was a possibility of organoleptic (olfactory) effects, which could be the risk factors for exacerbation of respiratory tract disorders in the sensitized individuals. It is important to make the students, future dental technicians, familiar with potential occupational health risks at the stage of professional training. It is necessary to conduct the research focused on determining the role (features) of the educational process technology as the students' health risk factor [28].

Thus, the conducted comparative analysis of the activity of medical colleges of Volgograd and the Volgograd region confirmed the problem of medical and social assistance of students, regardless of the SVE institution administrative subordination. It is necessary to develop an appropriate regulatory and methodological document regulating medical and social assistance of students receiving secondary medical education at the regional level. It seems urgent to solve the identified problems (including the introduction of the position of a full-time health worker) both from compulsory health insurance funds and from additional budgetary allocations of the region. It is necessary to develop the system for informational communication of medical professional (if there is one) with medical institutions conducting preventive medical examinations and routine check-ups of students. Furthermore, it is important to consider the features of the chosen profession taking into account potential risk factors of the learning process and future professional activity.

CONCLUSION

The lack of unified methodological approach to the issues of the organization of medical and social assistance is among most important and serious shortcomings contributing to deterioration of health in students receiving secondary medical education. It is necessary to optimize legislation and regulatory framework at both federal and regional levels.

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