

THE EXPERIENCE OF HEALTH-CENTRIC CAREER COUNSELING FOR SCHOOLCHILDREN IN A PEDIATRIC CLINIC

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The article reviews the issues of career counseling for adolescents with health problems. Goal. Show the possibilities and share the experience of providing career advice with focus on health to adolescents with health problems in the settings of primary health care establishments. Patients and methods. Nine hundred forty schoolchildren were counseled in the career advice room. The participants were divided into 3 groups: group 1 — participants with disabilities since early childhood, group 2 — children with chronic diseases, group 3 — children at risk of developing chronic diseases. The inclusion criteria were: status of a schoolchild, signed and submitted informed consent form, lack of exposure to occupational hazards. The conducted study does not endanger the participants and complies with the biomedical ethics requirements. Statistica 10.0 software was used for statistical processing of the data collected. Based on the results of this work and review of the relevant publications, authors of the study suggest a structure of the health-centric career advice service. Conclusions Career advice that factors in health aspects is an important link in medical and psychological rehabilitation aimed at helping the teenager to adapt to current socio-economic conditions and realize his/her physical and intellectual capabilities.

Keywords: health-centric career counseling, adolescents, health status

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ОПЫТ ВРАЧЕБНОЙ ПРОФЕССИОНАЛЬНОЙ КОНСУЛЬТАЦИИ ШКОЛЬНИКОВ В УСЛОВИЯХ ДЕТСКОЙ ПОЛИКЛИНИКИ

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В статье рассматриваются вопросы организации врачебной профессиональной консультации подростков с отклонениями в состоянии здоровья. Цель — показать возможности и поделиться опытом проведения врачебной профессиональной консультации подросткам с отклонениями в состоянии здоровья в первичном звене здравоохранения. В кабинете профессиональной консультации было осмотрено 940 школьников, которые были разделены на три группы: первая — инвалиды-детства, вторая — дети с хроническими заболеваниями, третья — дети с риском развития хронических заболеваний. Критерии включения — школьник, наличие подписанного информированного согласия, отсутствие контакта с вредными производственными факторами с условиями труда. Проведенное исследование не подвергает опасности участников и соответствует требованиям биомедицинской этики. Статистическая обработка проведена с использованием Statistica 10.0. На основе проведенного исследования и литературных данных предлагается структура организации службы врачебной профессиональной консультации. Врачебная профессиональная консультация является важным звеном в медико-психологической реабилитации, позволяющей подростку адаптироваться к современным социально-экономическим условиям и реализовать свои физические и интеллектуальные возможности.

Ключевые слова: врачебная профессиональная консультация, подростки, состояние здоровья

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Continued improvement of the occupational guidance services provided to the youth is a task important on the level of the entire nation. The choice of profession made by the young person, his/her socialization during the transition from school to a vocational education establishment and further employment are often influenced by the state of health of this person, the level of development of medical and psychological career guidance structures and the choice of educational establishments and employers in the region of residence [1, 2].

Currently, the health-centric career guidance service (HCCGS) for adolescents with chronic diseases and childhood disabilities has certain shortcomings. The training in areas related to HCCGS that students receive in higher education

establishments is limited. Pediatricians often lack sufficient medical, hygienic, psychological, technical and legal knowledge required to provide qualified assistance to adolescents with health problems. They cannot competently provide career guidance from the point of view of health. The problem is further exacerbated by the lack of modern publications supporting HCCGS activities, materials that would collate professions and diseases, like the earlier developed and published Lists of medical contraindications for admission to educational establishments.

An important task is to include adolescents at risk of chronic diseases into the HCCGS audience. In our opinion, this task has not yet been addressed. Giving career advice to such

adolescents, it is necessary to predict individual resistance to the effects of adverse occupational factors. Far from all young people working in adverse conditions develop occupational pathologies and subsequent disabilities. Under the influence of adverse occupational and environmental macro- and microclimatic factors, even healthy adolescents that run high risk of chronic diseases can develop such pathologies. In addition to general examination, it is recommended test the young people from this group for gene polymorphisms causing development of various pathologies [3–10].

GOAL. Show the possibilities and share the experience of provision of HCCGS in the pediatric clinic setting.

PATIENTS AND METHODS

Nine hundred forty schoolchildren were counseled in the HCCGS room. We divided the children into 3 groups: group 1 — participants with disabilities since early childhood, group 2 — children with chronic diseases, group 3 — children at risk of developing chronic diseases. Before the counseling session, most schoolchildren knew nothing about occupational hazards and working conditions associated with the profession they have chosen [11].

As for the methods supporting HCCGS, we relied on the federal protocol ROUSHUMZ-5-2014 and the HCCGS Guidelines prepared by the Methodological Union of the medical and pharmaceutical education establishments of Russia [11].

The inclusion criteria were: status of a schoolchild, signed and submitted informed consent form, lack of exposure to occupational hazards. The conducted study does not endanger the participants and complies with the biomedical ethics requirements. Statistica 10.0 software was used for statistical processing of the data collected.

RESULTS

All young people that came to the HCCGS room for counseling received profession recommendations and suggestions of educational establishments that offer relevant training. The process of counseling included several stages.

The first stage was in grades 4–8, the second — in grades 9 and 11. Each participating young person had a “Health-Centric Career Guidance Card” registered for him/her [11].

Each examined person was recommended a number of professions and specialties that accord with his/her state of health. In addition, we identified the occupational hazards that can contribute to the deterioration of health in the context of the pathology.

Group one was the hardest to give health-centric career advice to, since the diseases its members had often took severe forms and frequently progressed into exacerbations. The circle of professions recommended to this group was very narrow.

In the second group of schoolchildren, 50.0% had 2–4 chronic diseases: digestive system disorders — 23.9%, urinary system diseases — 13.2%, impaired eyesight — 12.8%, nervous system disorders — 10.3%, diseases of the respiratory organs, including bronchial asthma — 8.4%, musculoskeletal system disorders — 6.6%, malfunctioning ENT organs — 6.6%, cardiovascular system diseases — 5.6%, skin diseases — 4.3%, endocrine system disorders — 3.5%, etc.

As an example, we shall more closely consider the peculiarities of provision of HCCGS to adolescents with ENT problems. Of the 62 schoolchildren with such problems, 26 had chronic tonsillitis, 23 — hearing loss of varying degrees, 13 — chronic sinusitis.

The need for health-centric advice for young people with ENT problems is supported by the multitude of occupational hazards that further exacerbate these problems.

In cases of chronic rhinitis, pharyngitis, tonsillitis, sinusitis, the following aspects are taken into account: general condition of the teenager, condition of the nasal and pharyngeal mucosa, tonsils, teeth, gums, the size and nature of regional lymph nodes, state of the cardiovascular and respiratory systems (including as established by functional tests), ECG, results of endoscopic and microbiological examination of the nasopharynx, ultrasound, X-ray, computed tomography (if indicated) of the paranasal sinuses, hematological parameters.

These teenagers are not recommended to work in adverse meteorological conditions, in conditions of increased dustiness, with toxic, irritating substances and gases. In case of smell disorders, the jobs advised against are those associated with the danger of sudden poisoning with chemicals in the pharmaceutical and fragrance industries.

In cases of chronic otitis, auditory neuropathy with mild hearing loss, the following aspects are taken into account: presence and localization of headache, condition of the tympanic membrane, auditory and vestibular function (as registered with tympanogram and audiogram tests) and the vestibular apparatus, hematological parameters, X-ray and computed tomography (if indicated) of the temporal bones, audiologist examination results.

As an example, we shall consider a conclusion issued following a health-centric career guidance session with I., a 17-year-old student of the 11th grade of a secondary school.

Diagnosis: bilateral hearing loss, neurosensory, degrees I-II, hereditary.

Hearing loss was diagnosed 6 years ago. Audiologist established that he perceives whispered speech from a distance of 3 meters. The grades at school are “good” and “excellent”. He prefers exact sciences and likes to design. The future profession is a yet undecided matter.

His father is a watch repairman. Hearing loss can be traced in three generations on the father's side. His mother is healthy, she works as a merchandiser. The HCCGS session was the first one even for the boy.

The young man is advised against jobs that requires good hearing, as well as those associated with intense production-related noise and vibration, neurotoxic substances, adverse weather conditions.

The professions recommended to the child, accounting for the state of his health, inclinations and academic performance (and the fact that the HCCGS session was the first one) were as follows: mechanical and electronic watch repairman, photographic/videographic equipment repairman, instrumentation and automation installer, household appliances repairer, optician, online merchant, webmaster.

The recommended universities and college curricula are electronic control of electrical systems, food industry machines and systems, optical instruments and spectroscopy, precision mechanics, automation and telemechanics, industrial electronics, semiconductor devices, software for computers (IT technologies) and automated control systems (ACS), ACS design and operation, economics, accounting.

DISCUSSION

This study suggests that the HCCGS should be provided mainly by a pediatrician in close cooperation with a psychologist. They should be tasked with provision of career advice from the viewpoint of health to adolescents from the high risk groups,

those having functional deviations and a number of chronic diseases. In the process of solving these tasks the pediatrician should contact his polyclinic peers specializing in other areas of medicine.

To improve the quality of HCCGS provided to adolescents and youth, it is necessary to organize a number of activities at federal level. We added some of these activities in the resolution of the 2021 VII National Congress on School and University Medicine:

We suggest extending staff schedules of the Children's Health Centers with the position of a pediatrician trained in the areas related to HCCGS, who will work with adolescents with chronic diseases and those at risk of developing such [2, 5].

Another initiative is to establish a city (inter-district) HCCGS office that can help teenagers with more complex pathologies and young people with disabilities acquired in early childhood. This office can be set up in one of the city's pediatric clinics or the Children's Health Center. The duties of the employees of the city HCCGS office should include advisory and supervisory functions, as well as the introduction of methodological advancements in the primary health care. In addition, they should have access to the employment system/database, know the demand for this or that profession, and provide socio-psychological and legal assistance to adolescents [1, 2, 5, 9, 10].

Staffing schedules of regional youth career guidance and psychological support centers, which currently help with

psychological aspects of career counseling, should be extended with a medical doctor position. This initiative should be aligned with the Ministry of Health and the Ministry of Education; the doctor, currently not available at such centers, will give health-centric career advice to adolescents with chronic diseases and disabilities. Considering the great scientific and practical potential of the regional youth career guidance centers, adding a medical doctor to their schedules would have solved the problems of training primary care doctors and psychologists in the areas enabling high quality HCCGS provision, aided the development of the new methods of career guidance at the intersection of medical, psychological, pedagogical, social and legal sciences and allowed their introduction into practice on the level of regions.

CONCLUSION

In the current socio-economic conditions, health-centric career advice given by a medical doctor to adolescents and youth is a task important for the state, since its solution contributes to the effective replenishment of labor resources and allows young people select an educational establishment and a recommended professions that factors in the specifics of their health. Our experience in this field allows us to give recommendations on how to improve the structure of the HCCGS at various levels of medical care for children and young people.

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