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STUDENT INITIATIVE IN INTERNATIONAL PROJECTS ON PREVENTIVE CARDIOLOGY

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Ключові слова: *професійна соціалізація, фахові компетентності, міжнародні соціальні проекти, студенти-медики*

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Abstract. *Student initiative in international projects on preventive cardiology. Khomazyuk T.A., Krotova V.Yu., Kosova H.A., Kirichko M.G. The article provides a practical example of the positive experience of the students of the medical academy in the international social project on combating arterial hypertension in order to improve the level of general competence and effective intellectual and professional socialization in getting higher medical education. The phenomenon of professional socialization should be considered along with the concepts of professional orientation, professional development, professional adaptation and professional becoming. Professional socialization is the ultimate link in the professional way of the individual. The algorithm of professional socialization of students in higher education consists of the following stages: professional orientation → professional development → professional adaptation → professional becoming → professional socialization. It should be noted that a personality who successfully socializes has a well-defined social orientation, actively strives to self-determination and self-realization in society and is able of productive adaptation to the surrounding society on the basis of knowledge about social reality. In this case, the success of socialization is connected not only with the presence of specified qualities in the person, but, first of all, with the real actions in which these qualities are realized. By mastering the roles system, students acquire socially significant qualities, develop their worldview, their goals, motives, interests, feelings, personal and socially important needs, develop different types of competencies, including social competence, which will allow them to become what they want to become. Professional development of young talented individuals is possible only in open communication and interaction systems, it is in the international social projects of medical societies that constantly exchange energy and information with the environment, and at the same time, being a source of development and prospects for preserving the life of nation. Such a model of education supposes changing the role of teacher: the transition to joint actions with the student in new situations in an open, changing, modern world.*

Реферат. *Студенческая инициатива в международных проектах по превентивной кардиологии. Хомазюк Т.А., Кротова В.Ю., Косова А.А., Киричко М.Г. В статье приведен практический пример положительного опыта участия студентов медицинской академии в международном социальном проекте борьбы с артериальной гипертензией для улучшения уровня общей компетентности и эффективной интеллектуально-профессиональной социализации при получении высшего медицинского образования. Феномен профессиональной социализации следует рассматривать вместе с понятиями профессиональной направленности, профессионального развития, профессиональной адаптации и профессионального становления. Профессиональная социализация является конечным звеном на профессиональном пути личности. Алгоритм профессиональной социализации студентов в условиях вуза состоит из следующих этапов: профессиональная направленность → профессиональное развитие → профессиональная адаптация → профессиональное становление → профессиональная социализация. Следует отметить, что личность, которая успешно социализируется, имеет хорошо выраженную социальную направленность, активно стремится самоопределиться и самореализоваться в обществе и умеет продуктивно адаптироваться в окружающем*

социуме на основе знаний о социальной действительности. При этом успешность социализации связана не только с наличием у человека указанных качеств, но, в первую очередь, с реальными действиями, в которых эти качества воплощаются. Усваивая систему ролей, студенты приобретают социально значимые качества, формирующие мировоззрение, свои цели, мотивы, интересы, чувства, личные и социально значимые потребности, развивают различные виды компетентности, в том числе и социальную компетентность, которая позволит им стать тем, кем они объективно желают стать в жизни. Профессиональное развитие молодых талантливых личностей возможно только в открытых системах общения и взаимодействия, именно в международных социальных проектах врачебных обществ, которые постоянно обмениваются с окружающей средой энергией и информацией, и в то же время являются источником развития и перспектив для сохранения жизни нации. Такая модель образования предполагает изменение роли преподавателя: переход к совместным действиям со студентом в новых ситуациях в открытом, переменном, современном мире.

The analysis of modern tendencies of optimization of the higher medical education shows the necessity of finding new motivational directions of development of integral professional competence of medical students at different stages of clinical preparation, namely: the ability to solve typical and complex specialized problems and practical problems in professional activity in the field of health care both in the learning process, which involves research and/or innovation at different levels of the interconnection of clinical practice in the learning process, and social projects in health care - local, national or international [2, 3, 4].

At the same time the general competence includes: ability to abstract thinking, analysis and synthesis, deep knowledge in the field of information and communication technologies used in professional activity, and modern trends of their development, ability to use the latest information and communication technologies in professional activity [5, 6].

It is the acquisition of such professional skills that facilitates familiarization and participation in the implementation of international projects to combat the global medical community with the burden of the most common non-communicable diseases on the globe, especially with arterial hypertension (AH). According to the European Congress of AH (ESH – Barcelona, 2018), more than 1 milliard people in the world (Mancia, J Hypertens 2018) are susceptible to sustained increase in blood pressure (BP) and this is the leading cause of death from cardiovascular diseases (CVD) in countries of different income, including Ukraine, which has a leading place in Europe and the second place in the world in light of this (WHF, 2017).

Against the background of the guidelines of the Association of Cardiologists of Ukraine on the implementation of international and national recommendations to combat CVD, for the last three years students of Dnepropetrovsk Medical Academy participate in the international social project of the International Society of Hypertension and World League of Hypertension MMM (MayMeasu re-

mentMonth). It is the participation in global international projects on health protection of the world population provides the process of intellectual and professional socialization of student youth, i.e. the process of assimilation of existing professional norms, rules, values and forms of behavior and their influence on the problems of human life safety across the globe both world-widely and nationally. This approach is undoubtedly the most effective in self-determination, identification of one's professional development potential, awareness of personal importance and participation in solving problems not only of national but also international level against the background of constant personal development and understanding of success, nurturing the need to help and support positive trends in creating favorable conditions and opportunities for learning the global social experience [1].

Modern medical education, as a means of acquiring the basic problems of human health in the modern world should provide a combination of different ways of its perception and increase the creative potential of the medical student for free and meaningful actions, open knowledge of reality, the threat of the most common infectious and non-communicable diseases of humanity today as for life expectancy and quality of life of the subjects of existence. This implies the free use of various information systems in the international information space, which now play no less role in the world than direct communication with the teacher.

The purpose of the study is to optimize the professional competence of students of higher medical school, to improve the acquisition of practical skills, namely: to develop the ability to think analytically in modern information, including professional space, to deepen awareness of urgent health problems in the world and Ukraine, to teach creative perception of current trends in the development of medical science and clinical practice and the use of acquired knowledge and skills against the background of participation in international programs on preventive medicine.

MATERIALS AND METHODS OF RESEARCH

The study involved 609 medical students, most of whom were third-year students – $70.0 \pm 1.9\%$ of participants ($n=426$). The MMM project program involved student-volunteers of all courses of the medical academy (68 persons – $11.2 \pm 1.3\%$), while the third year students (against their primary interest in working with patients) – were the most motivated, $72.1 \pm 5.4\%$ of participants ($n=49$).

The activities of the student-volunteers was outlined in the following functions: organization of the MMM post; communicating with passers-by, explaining the purpose and objectives of the event, warnings about increased BP, injuries and complications of AH, dangers to life and its quality at different ages, etc. They were previously prepared and performed stratification for cardiovascular risk by SCORE scale according to international standards, measured BP, capillary blood sugar, determined body mass index, waist circumference, recorded ECG, explained the significance of the data obtained and provided advice on healthy lifestyle. Senior students conducted lessons with children and adolescents on providing first aid to victims of trauma and cardiopulmonary resuscitation skills.

Statistical processing of the results was performed using the software package STATISTICA v.6.1[®] (Statsoft Inc., USA). The results of the study are presented for quantitative attributes as the arithmetic mean (M), standard error ($\pm m$) and 95% confidence interval for the mean (95% CI), for the qualitative ones – as a relative index (F) in%, its standard error ($\pm m$) and 95% CI. The probability of differences was determined by Student's criteria and two-sided exact Fisher's test. The critical level of statistical significance of differences (p) was assumed to be <0.05 .

RESULTS AND DISCUSSION

It is in the period of early socialization that the first steps of introduction into the clinic (II-III course of higher medical education), a creation of a fundamental basis for the development of a creative, talented person committed to serving human health takes place. In such a process of socialization, the intellectual and professional experience is constantly accumulated, that is why it is always changing and developing. This gives students the opportunity to navigate difficult situations, make informed decisions about difficult professional issues as for staying healthy, recommendations for getting rid of bad habits that are known to be risk factors for cardiovascular diseases, that occur in dealing with apparently healthy humans, young people and even elderly and senile age people who need attention and help. Processing

and effectively using new information, students exercise self-organization of their own systemic development.

Thus, the beginning of clinical practice is the first turning point in the professional life (socialization) of a medical student, because it is at this time that he/she must decide whether his/her dreams come true as for devoting of his/her entire professional life to human health. Professional socialization is an integral part of a person's entire life. In some periods of life, it has the property of being actualized, acquiring greater importance than before. Thus, medical professors need to be creative in integrating new methodological approaches into contemporary educational programs, using, first of all, student's energy of the volunteer movement and extra-curricular professional development.

All MMM student-volunteers have shown extraordinary conscientiousness in fulfilling real professional tasks, being aware of their importance in preservation of health of their hometown citizens, actively participated in report preparation for the International Society of Hypertension on the results obtained. In September 2018, the Congress of the International Society of Hypertension was held in Beijing, China. When discussing the results of the MMM, N.R. Poulter, president of the International Society of Hypertension (2016-2018) emphasized the importance of data obtained from Ukraine, which became the best estimate of acquisition and mastering of practical skills by the students of medical faculties of Academy. [8].

By the analysis of the academic achievement of students who participated in the social project MMM 2017, 2018, the following data were obtained: qualitative performance of practical skills made up $100 \pm 1.0\%$, grade-point average – 4.9 ± 0.05 , 95% CI (4.8-5.0); among other students, grade-point average was significantly lower – (4.3 ± 0.15) , 95% CI (4.0-4.6), at $p < 0.001$ (Fig. 1).

According to an anonymous survey, $86.8 \pm 4.1\%$ of project participants and all $100 \pm 1.0\%$ increased their interest in studying and mastering the disciplines of therapeutic profile, they reported confidence in practical skills according to the qualification characteristic of general practitioner – family doctor under the diploma of higher medical education. Among 122 students in the comparison group who also participated in the survey, the corresponding figures were $65.6 \pm 4.3\%$ and $78.7 \pm 3.7\%$, respectively, being significantly lower than the results of the project participants with $p < 0.01$ and $p < 0.001$ (Fig. 2).

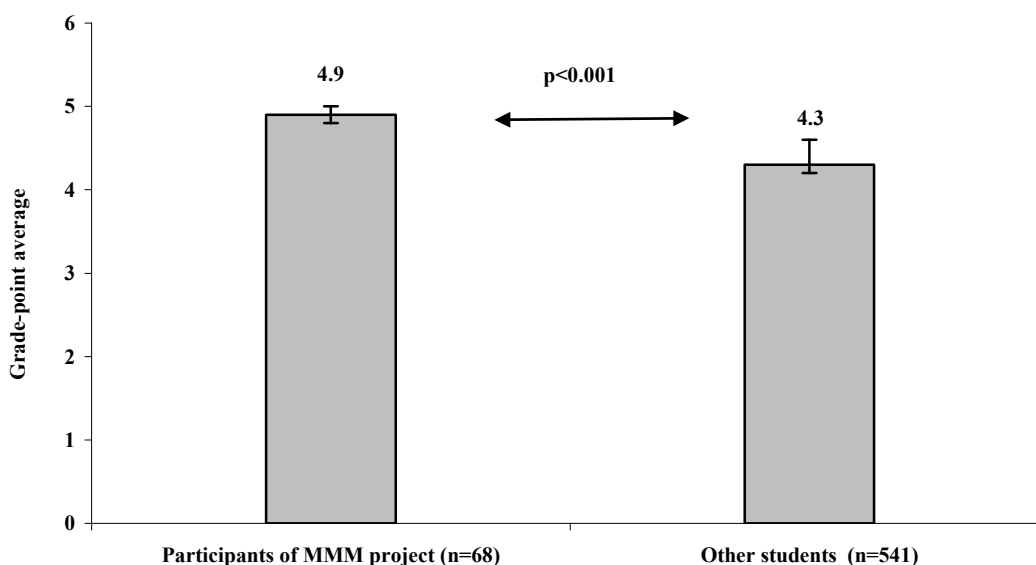


Fig. 1. Average performance (M, 95% CI) of students of medical academy depending on participation in the MMM social project

Thus, from our own experience we can say that the participation of medical students in major social projects allows to improve the general competencies in the higher medical school: it teaches to use the latest information and communication technologies in professional activity, ability to analyze professional information, make informed decisions, acquire up-to-date knowledge, identify and diagnose diseases early, choose communication methods and strategies to ensure effective teamwork. An essential attainment of such organization of work of medical students is also the improvement of the quality of

acquisition of special professional competences: the ability to conduct questioning of a patient, identify major complaints, assess his general condition, interact with the patient in the process of diagnostic and treatment process, analyze the results of physical data, laboratory findings and instrumentally research data and on their basis to evaluate the information on the syndrome-based or initial clinical diagnosis of the subject and, first of all, to determine his/her cardiovascular risks, lifestyle and quality of life, to determine the previous major recommendations for its preservation.

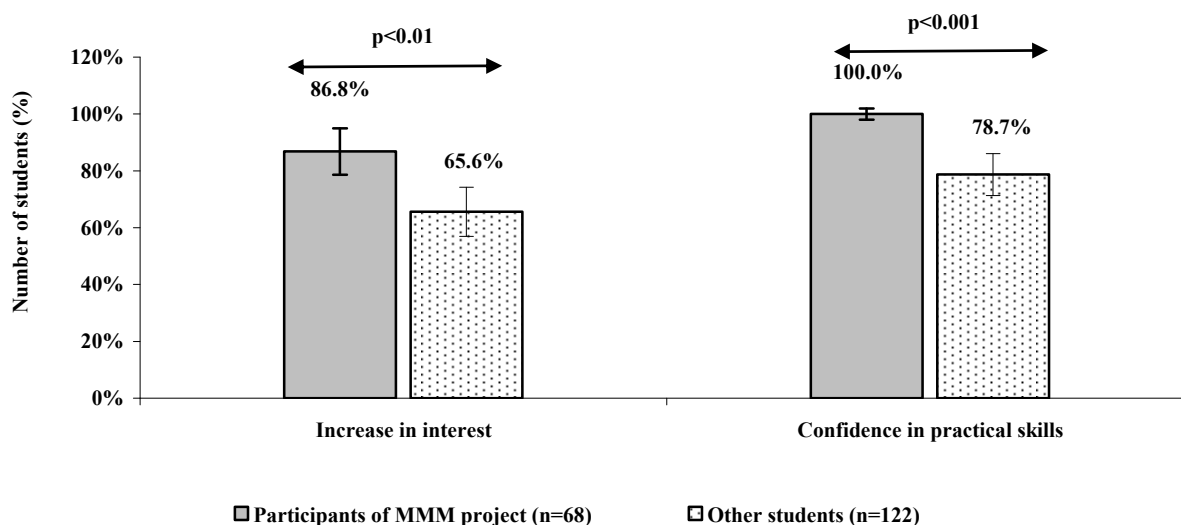


Fig. 2. Indicators of increase in interest and confidence in practical skills (F, 95 % CI) of students of medical academy depending on participation in MMM project

The experience presented has proved that the professional development of young talented individuals is possible only in open systems of communication and interaction, namely in international social projects of medical societies, which constantly exchange energy and information with the environment, being at the same time a source of development and prospects for saving the life of the nation. This model of extra-curricular medical education involves changes in the role of the teacher: the transition to working together with the student in new situations in an open, changing, modern world. Therefore, education should not be transformed into an enclosed controlled space of student audiences, but should modernize the tasks of socialization and personal education.

CONCLUSIONS

1. One of the modern ways of optimizing the acquisition of professional competences by medical students is participation in international social projects of medical communities, that is, in open systems of professional communication and interaction, which constantly exchange information and energy with the environment on urgent problems of public health, and at the same time being a source of development and prospects for saving the live of nation.

2. Volunteer movement as a student initiative in international projects on preventive cardiology is the key to professional socialization of young people and the effectiveness of mastering practical skills under the program of higher medical education.

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