REVIEW ARTICLE

THE RESULTS OF MONITORING THE PSYCHOLOGICAL READINESS FOR PROFESSIONAL ACTIVITIES IN MEDICAL STUDENTS

10.36740/WLek202010136

Halyna Yu. Morokhovets[1], Olena M. Bieliaieva[2], Yuliia V. Lysanets[2]
[1]RESEARCH DEPARTMENT, UKRAINIAN MEDICAL STOMATOLOGICAL ACADEMY, POLTAVA, UKRAINE
[2]DEPARTMENT OF FOREIGN LANGUAGES WITH LATIN AND MEDICAL TERMINOLOGY, UKRAINIAN MEDICAL STOMATOLOGICAL ACADEMY, POLTAVA, UKRAINE

ABSTRACT

The aim was to analyze the psychological readiness of a future physician for professional activity, the attitude of the first-year medical students to their profession, the formation of positive motivation to study and professional activity in general.

Materials and methods: In the course of research, the following techniques have been used: bibliosemantic method for the analysis of scientific publications, methodology for study the main motives for choosing a profession, suggested by Ye.M. Pavliutenkov, methodology for study the motives of academic activity, suggested by A.A. Rean and V.A. Yakunin to conduct a survey in the process of learning medical and biological physics by the students of Medical and Dental Faculties at the Ukrainian Medical Stomatological Academy in 2018/2019 academic year, the MS Excel software application.

Conclusions: Professional identity of medical students begins at the first course of studies and coincides with the heavy academic load of general scientific, medical and biological disciplines, foreign languages, etc. In the period of professional identification, it is very important to create a positive motivation for learning, to acquire knowledge and skills that will be necessary in future professional activity. Therefore, the use of the state-of-the-art multimedia specialized means, involvement of students into self-research activity, etc., is crucial for its formation. Prospects for further research encompass the study of the issue of readiness for professional activity and motivation of international students at medical higher education institutions and the development of methodological support for teaching humanities at a medical university, taking into account the abovementioned recommendations.

KEY WORDS: readiness for professional activity, medical students, motivation, interest, professional identity

Wiad Lek. 2020;73(10):2295-2299

INTRODUCTION

The physician's readiness for professional activity has repeatedly been the subject of scientific papers by the domestic and foreign researchers. This issue has been considered in terms of its structure, stages of formation, etc. In our opinion, the issues of professional motivation to study, professional improvement under conditions of reforming medical education and medicine in general remain unresolved.

THE AIM

The aim of the research is to identify the main motives for choosing the physician's profession; provide practical recommendations for the formation of positive motivation for learning, as well as professional and cognitive interest.

MATERIALS AND METHODS

In the course of research, the following techniques have been used: bibliosemantic method for the analysis of scientific publications, methodology for study the main motives for choosing a profession, suggested by Ye.M. Pavliutenkov, methodology for study the motives of academic activity, suggested by A.A. Rean and V.A. Yakunin to conduct a survey in the process of learning medical and biological physics by the students of Medical and Dental Faculties at the Ukrainian Medical Stomatological Academy in 2018/2019 academic year, the MS Excel software application.

REVIEW AND DISCUSSION

E. Zaier defines readiness for professional activity as a complex personal formation, which consists of the following components: motivational (expressed in one's interest in the profession, understanding the social status, prestige of the profession, etc.), cognitive (understanding the social importance and necessity of the chosen profession), emotional aesthetic attitude to the profession), volitional (ability to concentrate one's own efforts, to overcome difficulties on the way to achieving the goal) [1].

The future physician's readiness for professional activity assumes shape even before the start of professional training at a medical institution of higher education. N. Smila has proven that readiness for professional activity is a complex integrative formation, reflecting the level of development of professionally important qualities and abilities of the

specialist [2]. The author emphasizes that the active stage of formation of psychological readiness includes the stages of choosing a profession, admission into training, adaptation to training and eventually to professional activity. The first year of study at a medical institution of higher education corresponds to the stage of "admission into training", which is characterized by a decrease in the level of will, attention, cognition, communication and organizational abilities of the first-year students. During this period, the main factors of development are mastering the professional norms and orientation to communication. At this stage, students begin to accept the rules and regulations of the profession, identify themselves professionally. On the other hand, students need to absorb large amounts of new information at this time. It is obvious that at this stage students harmonize the beginning of professional development and a large educational load of general scientific, medical and biological disciplines, foreign languages, etc.

Hence, professional readiness is a complex system that reflects the level of development of professionally important qualities and abilities of a specialist. We consider it necessary to consider the readiness of medical students to acquire professional skills in more detail.

During their studies, medical students should learn how to demonstrate knowledge in academic subjects, search for information, determine its level of reliability and critically evaluate it, use the information obtained in the preparation for training and self-improvement [3]. At the beginning of study, students begin to build a professional identity, which corresponds to the third stage of professional formation [4].

We consider it expedient to investigate in detail the motivational component of future physician's readiness for professional activity. The student's choice of a future profession can be based on three groups of motives: on the basis of conformist motivation – trends, advice from relatives and friends; under the pressure of circumstances; on the basis of a strong interest in the profession [5]. Obviously, for the future physician's professional development it is necessary to outweigh the interest (emotional, intellectual, professional and cognitive) [6], it is important that the idea about the requirements of the profession correspond to the abilities of the student.

We analyzed the process of training of 90 first-year students (medical and dental faculties of Ukrainian Medical Stomatological Academy) at the Department of Medical Informatics, Medical and Biological Physics during the study of medical and biological physics. The peculiarity of the Department of Medical Informatics, Medical and Biological Physics is that its subjects are basic for the formation of the future physician's professional competence, they are the initial stage to study medical and biological disciplines, in particular physiology.

In the course of the research, we conducted a questionnaire survey by the method of determining the main motives for choosing a profession by Ye.M. Pavliutenkov. This method allowed us to identify 9 groups of motives for choosing a profession: social, moral, aesthetic, cognitive, creative, material, utilitarian, motives of prestige and work orientation.

The conducted research shows that 15.6% of the respondents aspire to achieve the common goals and needs, seeking to establish their status in the society and community through education (Fig. 1). 4.4% of students are aimed to improve their own moral qualities, 8.9% – to get aesthetic pleasure from the profession. 10% of the respondents perceive a direct financial benefit in their future profession, 8.9% of the respondents seek to occupy a favorable place in the society and move forward with careers. The desire to manage people and enjoy the benefits of the profession is crucial for 11.1% of freshmen. With regard to issues that would indicate a stable, in our opinion, interest in the profession we have the following results: more than 21.1% of the respondents displayed the desire to master special knowledge, knowledge of the content of the profession, 5.6% of students strive to be original in their work, focused on scientific discoveries and creativity, nearly 14.4% of the respondents indicated a direct focus on the physician's profession and an understanding of its content.

In the course of the study, along with the motives for choosing a profession, we investigated the motives of educational activity by the method of A.A. Rean and V.A. Yakunin. We interviewed 215 first-year students (medical and dental faculties of Ukrainian Medical Stomatological Academy) at the Department of Medical Informatics, Medical and Biological Physics while studying medical and biological physics. Having evaluated the results, we found the following distribution of motives (Fig. 2).

The test results indicate that there is a lack of readiness for professional activity and motivation for learning. In our opinion, the formation of readiness for professional activity is influenced not only by the content of educational material, but also by other factors: the forms and methods of teaching, relationships between participants of the educational process, the psychological atmosphere during classes, etc.

In our opinion, development of positive motivation for educational activity is of great importance for the formation of readiness for future professional activity. For holistic formation of motivation for educational activity in future physicians, the formation process should be systematic [7]. An important element in the development of motivation is the interest, which is divided by the scientists into emotional, intellectual, professional and cognitive. Emotional interest arises when special attention is drawn to what evokes positive emotions and is pleasant. Intellectual interest is associated with knowledge of the world and intellectual activity of a man. Professional and cognitive interest is defined as the integrated formation of the individual, which is expressed in the constant desire to understand new knowledge in the future profession and as a form of expression of cognitive needs that provide the professional orientation of the individual. Therefore, the essence of professional and cognitive interest is to independently acquire the necessary knowledge and use it to solve professionally important tasks.

In our opinion, the formation of professional and cog-

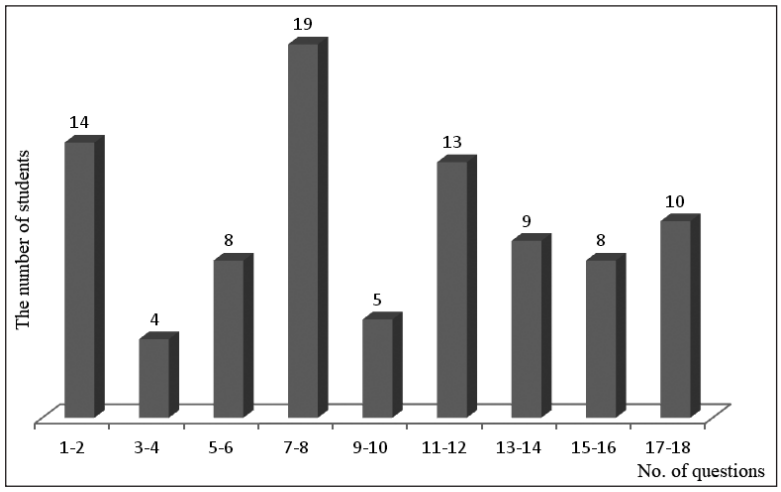

Fig. 1. Distribution of the results of the study in terms of main motives for choosing a profession by Ye.M. Pavliutenkov's method

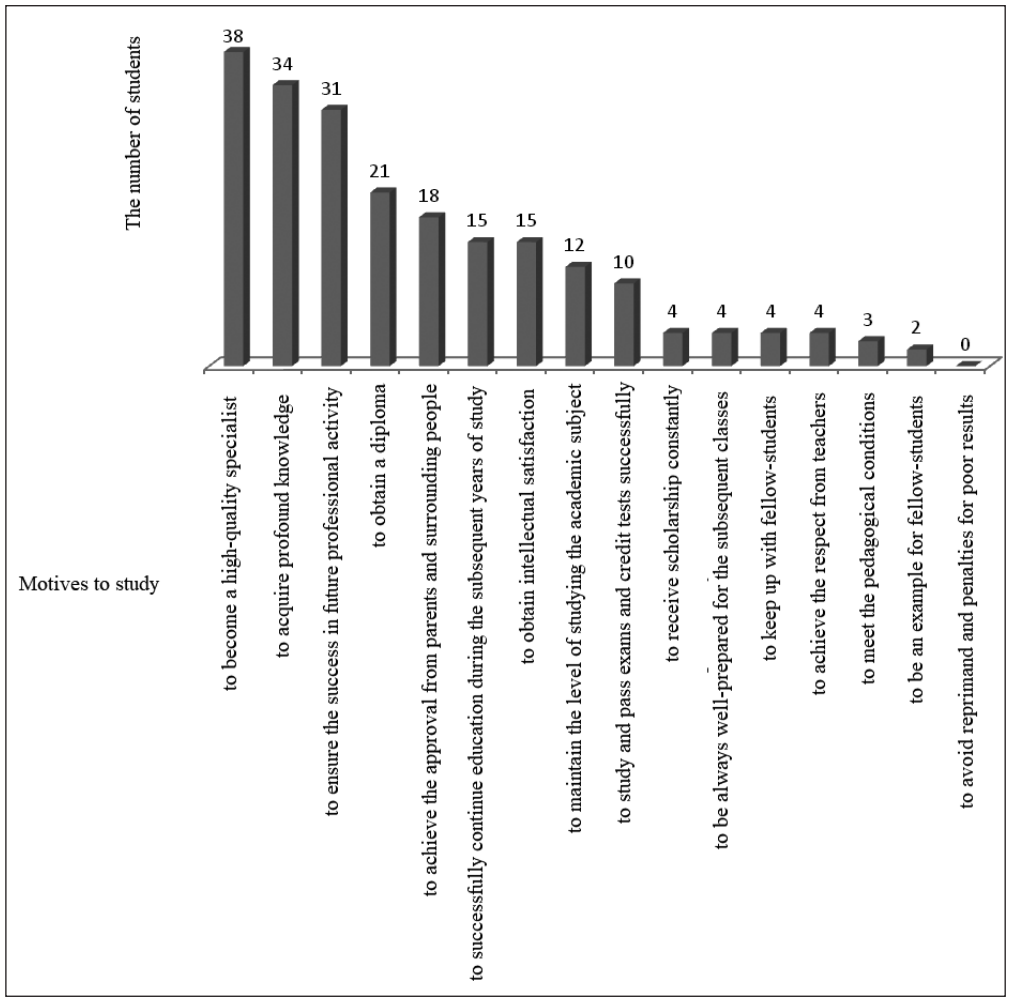

Fig. 2. Distribution of the results of the study in terms of motives of educational activity by the method of A.A. Rean and V.A. Yakunin

nitive interest in education is due to the diversification of educational activities, involvement of future specialists in the self-directed research activities, and solving tasks of the professional nature [8]. For instance, in teaching medical and biological physics, we recommend using the following online resources: The New England Journal of Medicine (https://www.nejm.org/multimedia?query=main_nav_condensed), Journal of Medical Case Reports (https://jmedicalcasereports.biomedcentral.com/). The use of these resources makes it possible to expand the field of opportunities for the formation of motivation for learning through new activities and new opportunities for implementation of one's own competencies, which ensures the transition of competences to a new quality, i.e., the practical direction. The need to use the abovementioned resources is due to the need to find information for practical classes, work on individual tasks. Such materials help to identify complex educational material, to navigate modern diagnostic and

therapeutic methods, to prepare students for the study of clinical disciplines [9].

An important aspect of students' educational activities in the context of studying a particular discipline is the individual work with educational material [10]. In addition to preparing reports and abstracts, we also offer students to work on the development of educational demonstration materials. Under the guidance of the teacher, students work on the development of posters with structural and logical diagrams, tables, images that briefly reflect the key points of the topic of the class. Thus, students independently search for the necessary information, systematize the obtained search results, illustrate the submitted material with images from scientific articles, report on the results of the work, explaining the essence of the phenomenon based on the example of its clinical use [11; 12].

CONCLUSIONS

Having analyzed the issue of formation of readiness for future professional activity, we assert that during the first year at higher education medical institution, while students are just beginning to identify themselves with future professional activity, they learn the rules and norms of the profession, they are exposed to a large educational load, decrease in will, cognition and communication skills. The stage of "admission into training" is characterized by the beginning of professional development. During this period, it is very important to develop the positive motivation to study, to acquire the knowledge and skills that will be required in future professional activity. The implementation of this process is complicated by the study of the so-called non-core disciplines, including medical and biological physics. There are many opportunities to increase students' motivation to study. They are not universal and require consideration of the content, tools and methods for presentation of the material. The study of humanities at a medical university should be confined to understanding the importance of the discipline, as well as the integrative links between non-core disciplines with physiology, pathophysiology, biological and medical chemistry, clinical diagnostics, and a range of other clinical subjects.

Based on the generalization of the experience of scientific psychologists and educators as well as our own experience, we consider the following pedagogical conditions effective for the formation of positive motivation to study in the first-year medical students: use of modern multimedia specialized tools (electronic journals, specialized sites); involvement of students in the self-directed research activity; use of modern specialized software tools for solving the tasks of professional direction. Such techniques allows us to integrate knowledge, skills and abilities in several disciplines, prepare students for the study of disciplines in the second year of study and approach as close as possible to the educational tasks in the future professional activity. The prospect for further research is to study the readiness for professional activity and motivation to study in foreign students at medical institutions of higher education. We also consider it necessary to develop a methodological support for teaching humanities at a medical university, which will allow to represent them in the complex of the abovementioned clinical disciplines and show their essential role in the professional formation of the physician.

REFERENCES

1. Zaier E, Simanyuk E. Kompetentnosnyy podkhod k modernizatsii professional'nogo obrazovaniya[Competent approach to modernization of vocational education. Higher education in Russia] // Vyssheye obrazovaniye v Rossii. 2005;4:23–30 (in Russian).
2. Smila NV. Personal factors of development of future doctors' psychological readiness for professional activities. Problems of modern psychology: Collection of research papers of KamianetsPodilskyi Ivan Ohienko National University, G.S. Kostiuk Institute of Psychology at the National Academy of Pedagogical Science of Ukraine. 2017;37:423–433 (in English).
3. Lyenkova OO, Morokhovets HYu, Mishchenko SV. Formuvannya informatsiyno-komunikatsiynykh kompetentsiy maybutnikh likariv na zasadakh vykorystannya kompyuternykh tekhnolohiy u navchalnomu protsesi. Aktualni problemy suchasnoyi medytsyny [Formation of information and communication competencies of future doctors on the basis of the use of computer technologies in the educational process]. Visnyk ukrayinskoyi medychnoyi stomatolohichnoyi akademiyi. 2015;No.3(1):264–269 (in Ukrainian).
4. Humenna IR. Struktura hotovnosti maybutnikh likariv do profesiynoyi komunikatsiyi [The structure of future doctors' readiness for professional communication]. Naukovyy visnyk uzhhorods'koho universytetu. Seriya: «Pedahohika. Sotsial'na robota».2016;1(38):101–104 (in Ukrainian).
5. Gross I, Havighurst RJ. (Eds.) A Survey of the education of gifted children. Chicago, 1955 (in English).
6. Karelin A. Bol'shaya entsiklopediya psikhologicheskikh testov [Major encyclopedia of psychological tests]. M., 2007 (in Russian).
7. Sayenko MS, Morokhovets HYu. Vykorystannya informatsiyno-komunikatsiynykh tekhnolohiy u maybutniy profesiyniy diyal'nosti v protsesi vyvchennya medychnoyi informatyky [The use of information and communication technologies in the future professional activity in the process of studying medical informatics]. Imidzh suchasnoho pedahoha. 2018;3:18–21 (in Ukrainian).
8. Lysanets Yu, Morokhovets H, Bieliaieva O. Stylistic features of case reports as a genre of medical discourse. Journal of medical case reports. 2017;11:83 (in English).
9. Chugunova ES. Izucheniye sotsial'no-psikhologicheskikh ustanovok sotrudnikov NII i KB s tsel'yu professional'nogo prognozirovaniya [The study of socio-psychological attitudes of employees of research institutes and design bureaus for the purpose of professional forecasting]. M., 1983 (in Russian).
10. Morokhovets HYu, Uvarkina OV, Bieliaieva OM, Lysanets YuV, Senkevych HA, Stetsenko SA. Development of motivation towards education in medical students. Wiadomosci lekarskie. 2019;72:7–11 (in English).
11. Morokhovets HYu. Metodyka formuvannya informatsiyno-komunikatsiynoyi kompetentsiyi maybutnikh likariv u osvitnomu seredovyshchi vyshchoho medychnoho navchalnoho zakladu [Methods of formation of information and communication competence of future physicians in the educational environment of a higher medical educational institution]. Osvita ta rozvytok obdarovanoyi osobystosti. 2016;3:32–34 (in Ukrainian).
12. Morokhovets HYu, Lysanets YuV. Developing the professional competence of future doctors in the instructional setting of higher medical educational institutions. Wiad Lek. 2017;70(1):101–104 (in English).

ORCID and contributionship:
Halyna Yu. Morokhovets: 0000-0002-6079-6878 [A,D,E]
Olena M. Bieliaieva: 0000-0001-9060-4753 [B,F,E]
Yuliia V. Lysanets: 0000-0003-0421-6362 [B,D,E]

Conflict of interest:
The Authors declare no conflict of interest

CORRESPONDING AUTHOR
Halyna Yu. Morokhovets
Ukrainian Medical Stomatological Academy
23 Shevchenko Str., 36011 Poltava, Ukraine
e-mail: polstomumsa1@gmail.com

Received: 24.11.2019
Accepted: 12.08.2020

A – Work concept and design, **B** – Data collection and analysis, **C** – Responsibility for statistical analysis, **D** – Writing the article, **E** – Critical review, **F** – Final approval of the article