Palibroda Nadiia Mykhaylivna Associate professor, Dean of the Faculty of Pharmacy, Bukovinian State Medical University, Theater Square, 2, Chernivtsi, https://orcid.org/0000-0002-8149-9733

Palamar Alina Oleksandrivna Candidate of Pharmaceutical Sciences, Department of Pharmacy, Bukovinian State Medical University, Bogomolets St., 2, Chernivtsi, https://orcid.org/0000-0002-8935-3552

Grozav Alina Mykolaivna Department of Medicinal and Pharmaceutical Chemistry, Bukovinian State Medical University, Bogomolets St., 2, Chernivtsi, https://orcid.org/0000-0001-9821-0695

Muzyka Natalia Yaroslavivna Department of Pharmacy of Bukovinian State Medical University, Bogomolets St., 2, Chernivtsi, https://orcid.org/0000-0001-8712-1021

Mariia Velia Ivanivna Department of Pharmacy, Bukovinian State Medical University, Bogomolets St., 2, Chernivtsi, https://orcid.org/0000-0003-2241-3730

Chornenka Zhanetta Anatolyivna Associate professor of the Department of Social Medicine and Public Health, Bukovynian State Medical University, Aksenina St., 5, Chernivtsi, https://orcid.org/0000-0003-2314-1976

MOTIVATION TO STUDY MEDICAL STUDENTS IN WARTIME CONDITIONS

Abstract. During 2020, the education system of Ukraine, like that of other countries, experienced huge challenges caused by the COVID-19 pandemic, which forces them to quickly adapt to new learning conditions, find new formats and resources for providing quality educational content. The next test of the educational sphere will take place in 2022, associated with a full-scale invasion of the territory of Ukraine and, first, forced vacations, and then the transition to distance education. A student's attitude to his studies in higher education largely depends on the factors of choosing a profession and his attitude to the learning process itself. In the presence of professional motivation, the student's cognitive activity has an included and persistent character. A student is interested in studying; it causes him positive emotions and a desire to work. Motivation to achieve success determines love and admiration for one's work, the learning process. Students show initiative, create a creative cognitive atmosphere around them. They demonstrate readiness for
successful, productive educational and professional activities. The motivation of self-affirmation, the desire to demonstrate one's real and possible achievements helps the successful learning of students. **Methods:** 88 students of the Faculty of Pharmacy of BSMU of the 1st and 5th years took part in the study, who determined the general motives of educational activities with the help of psychodiagnostic testing methods. **Results:** Data interpretation and statistical calculation showed that in groups of students of the 1st and 5th courses, internal motivation is at medium and high levels. The problem of interest in acquiring knowledge of pharmacy students in Ukraine is quite acute, especially in the period of full-scale war. The obtained test results showed that the dynamics of professional formation changes during training, the frequency of a high level of motivation among student’s increases in the last courses of study compared to the initial ones. **Conclusion:** The effectiveness of the educational process directly depends on the variety of forms and methods of presentation of scientific and practical material, and the use of artificial intelligence is necessary for the further realization of the prospects of digitization of education. For the second time in recent years, medical education in Ukraine has undergone drastic changes, but the availability of education and the need for its flexibility to adapt to today's conditions are not in doubt.

**Keywords:** motivation, psychodiagnostic tests, internal and external motivations for learning, Faculty of Pharmacy.

Паліброда Надія Михайлівна доцент, декан фармацевтичного факультету, Буковинський державний медичний університет, Театральна площа, 2, м. Чернівці, https://orcid.org/0000-0002-8149-9733

Паламар Аліна Олександрівна кандидат фармацевтичних наук, кафедра фармації, Буковинський державний медичний університет, Театральна площа, 2, м. Чернівці, https://orcid.org/0000-0002-8935-3552

Грозав Аліна Миколаївна кафедра медичної та фармацевтичної хімії, Буковинський державний медичний університет, Театральна площа, 2, м. Чернівці, https://orcid.org/0000-0001-9821-0695

Музика Наталія Ярославівна кафедра фармації, Буковинський державний медичний університет, Театральна площа, 2, м. Чернівці, https://orcid.org/0000-0001-8712-1021

Марія Веля Іванівна кафедра фармації, Буковинський державний медичний університет, Театральна площа, 2, м. Чернівці, https://orcid.org/0000-0003-2241-3730

Чорненька Жанетта Анатоліївна доцент кафедри соціальної медицини та організації охорони здоров’я, Буковинський державний медичний університет, вул. Аксеніна, 5, м. Чернівці, https://orcid.org/0000-0003-2314-1976
МОТИВАЦІЯ ДО НАВЧАННЯ СТУДЕНТІВ - МЕДИКІВ В УМОВАХ ВІЙСЬКОВОГО ЧАСУ

Анотація. Протягом 2020 року система освіти України, як і інших країн, зазнала величезних випробувань, спричинених пандемією COVID-19, що змушує їх швидко адаптуватися до нових умов навчання, знаходити нові формати та ресурси для надання якісного освітнього контенту. Чергове випробування освітньої сфери відбувається у 2022 році, пов’язане з повномасштабним вторгненням на територію України й, спочатку, вимушеними канікулами, а потім і переходом на дистанційну форму навчання. Ставлення студента до свого навчання у виші найбільше залежить від чинників вибору професії і ставлення до самого процесу навчання. При наявності професійної мотивації пізнавальна діяльність студента має включений і наполегливий характер. Студенту цікаво навчатись, це викликає в нього позитивні емоції, бажання працювати. Мотивація досягнення успіху визначає любов і захоплення своєю роботою, процесом навчання. Студенти виявляють ініціативу, створюють навколо себе творчу пізнавальну атмосферу. Вони демонструють готовність до успішної, результативної навчально-професійної діяльності. Допомагає успішному навчанню студентів мотивація самоствердження, бажання продемонструвати свої реальні й можливі досягнення.

Методи. У дослідженні прийняли участь 88 студентів фармацевтичного факультету БДМУ 1 та 5 курсів, які за допомогою психодіагностичних методик тестиування визначали загальні мотиви навчальної діяльності. Результати. Інтерпретації даних та статистичний підрахунок показали, що в групах студентів 1 та 5 курсів внутрішня мотивація знаходиться на середньому та високому рівнях. Проблема зацікавленості у здобутті знань студентів-провізорів в Україні стоїть досить гостро, особливо в період повномасштабної війни. Отримані результати тестів показали, що динаміка професійного становлення змінюється протягом навчання, частота високого рівня мотивації у студентів зростає на останніх курсах навчання порівняно з початковими. Висновок. Ефективність навчального процесу напряму залежить від різноманітності форм та методів подання науково-практичного матеріалу, а використання штучного інтелекту необхідне для подальшої реалізації перспектив оцифрування освіти. Вже вдруге за останні роки медична освіта в Україні зазнала кардинальних змін, але доступність освіти та необхідність її гнучкості для адаптації до умов сьогодення ні в кого не викликає сумнівів.

Ключові слова: мотивація, психодіагностичні тести, внутрішня та зовнішня мотивація навчання, фармацевтичний факультет.

Formulation of the problem. It is known that in recent years, the spectrum of possible motivational factors for studying medical students in higher professional
institutions is very wide. We agree with the opinion of the authors S. Edgar [1] that
the motivation of students to study is not given important importance, although this
factor affects the success and desire of students to study at a university or college.
The formation and development of students' learning motives is a complex and
multifactorial process, which must be conducted taking into account the age and
individual characteristics of students, as well as based on the existing level of
development and the content of its motivational sphere. Such scientists as
A. Nisimchuk, V. Klimchuk [2], B. Shunevich, A. Zolotykh, V. Leontiev, O. Pinska [3],
M. Matyukhina, B. Morgun focused on the study of the peculiarities of the
construction of the motivational sphere individual, stages of formation of motives
and mechanisms of their functioning in human consciousness, intensification and
optimization of the pedagogical process. In the scientific works of V. Starosta [4],
O. Bondarchuk [5], L. Bozhovich, E. Deci, S. Zanyuk, A. Markova,
O. Skrypchenko, V. Mykhailychenko [6], the types, levels, and peculiarities of
motives are revealed and personal learning motivations. In order to remain a
competitive specialist, a person must be able to master new technologies and
navigate a large number of information flows. After all, only a person prepared for
the perception and mastering of information will have the opportunity to
successfully enter the new structures of society and successfully adapt to them.
Otherwise, without being able to work with information, critically select and use it,
a person will not be able to become a subject of communication, will not be able to
understand its content and meaning [7].

Analysis of recent research and publications. Important aspects of the
dominant indicators of educational motivation of students of medical universities,
their problems, dynamics and peculiarities are highlighted by such Ukrainian
scientists as N. Mishina, S. Ilchenko, I. Kovalenko, I. Osypenko, A. Yefanova,
O. Ivanchenko, Sh. Melnikova, S. Malakhova and many others. However, the
emergence of new communication and information networks requires students to
adapt to the new realities of higher education, associated with new conditions of
socialization and education of a competent personality of a specialist.

The aim of the study. To identify and compare the features of motivation to
the educational process of students of the 1st and 5th courses of the Faculty of
Pharmacy of the BSMU, which could contribute to the search for ways to improve
their cognitive activity.

Presenting main material. The long-awaited admission to study your
favorite profession, the new "adult" status of a student and student life - inspire to
study. The problem of educational motivation has acquired special importance in the
present time in the conditions of a full-scale war in Ukraine [8], when a significant
increase in the share of independent work of students is expected. In fact, the
motivation to study was lame even in peacetime, and now the situation has only
become more complicated. Some students do not understand at all how to study
offline and why to study and complete tasks when shelling of cities continues,
destruction, death, fear everywhere, and the future is even more uncertain [9], inactivity and low involvement is justified by high psychological stress and inability to work due to experiences.

It is known that a high level of students' abilities significantly affects the success of studies, but it cannot compensate for low educational motivation or its absence [10]. According to the classic laws of psychology, namely the Yerkes-Dodson law, increasing the strength of motivation to a certain level contributes to the success of the activity. The results of numerous studies [11] indicate that strong positive motivation serves as a compensatory mechanism for lack of knowledge, skills, and abilities. Today's apathy of students may well be due to the fact that we are all locked in the confines of the events that are happening right now. But it is worth remembering that all wars end sooner or later, so we should try to look into the future, beyond the dark place in which Ukraine temporarily found it. Therefore, it is worth directing students' eyes to the future. Teach them to predict, anticipate, and make plans. They should be responsible individuals, able to make decisions and act independently. "The regulatory component of educational activity is the motivation of learning, which not only ensures high effectiveness under direct pedagogical influence, but also prolongs the cognitive activity of students and turns external regulation into self-regulation" [12]. Martial law should not be perceived as a long vacation or a time when certain things (for example, homework) can be abandoned.

The most common problem for students is concentration - often due to sirens and explosions, but also in relative safety. The problem of formation and maintenance of interest in education and future profession among medical university students continues to exist. Motivational components and factors that affect the professional and personal development of a doctor grow with each course of study, and this process should not stop throughout life [13,14]. Many scientists have researched and put into practice modern aspects of educational activities, which are constantly being supplemented and updated. The presence or absence of formed positive motives among students has a significant impact on educational activities. Insufficient motivation cannot contribute to the formation of high professional realization of the student [15]. Therefore, a frank persistent desire to acquire knowledge and skills should become the starting point in the formation of a highly professional specialist in the medical field [16].

In conditions of stress due to war, the body of each of us mobilizes, sometimes loss of strength, desire, apathy appears. To survive stress, we need a lot of resources - our body takes them from reserves, which must be regularly restored. If you are resting and can't bring yourself to do something, give yourself time to gather strength. In a day or several, try to return to business in the volumes that you can handle. Keep track of how much time you devote to preparing the task well. Distribute it, depending on your observations and strengths. I have to remind myself that if I take too much, I will become weak and need more resources. And vice versa:
the better I keep the balance between helping myself and others, the longer I will stay in the rut and not burn out.

88 students (47 1st-year students and 41 5th-year students) of the Faculty of Pharmacy of BSMU took part in the study. By gender, the future pharmacists were distributed almost equally (p<0.5), the age of the respondents ranged from 17 to 27 years. The research design involved the use of psychodiagnostic testing methods to determine the general motives of educational activity in the modification of A. O. Rean and V. O. Yakunin [17,18,19]. Data processing was carried out using the STATISTICA 6.0 program, the difference in results was considered reliable at p<0.05.

The basis of the technique is K. Zamfir, modified by A.A. Reana, which allows you to find out the motivational complex of learning, is the definition of internal and external motivation. Students were asked to rate the listed motives of educational activity on a five-point scale: receiving a scholarship, the desire to avoid possible troubles, the need to achieve social prestige and respect from others, satisfaction with the learning process and its results, the possibility of realization in professional activity. Next, we counted the number of points that each student determined based on various motives and established the ratio of three types of motivation: internal (IM), external positive (EPM), external negative (ENM).

For students of the 1st and 5th courses, the percentage of individuals with each ratio of motivations was determined separately: 1. IM > EPM > ENM, 2. EPM > IM > ENM, 3. combinations of IM > EPM = ENM or EPM > IM = ENM, 4. ENM > EPM > IM, 5. all types of motivation are low. To study the specific motives of the students' educational activity, we used the A.A. test. Reana, V.A. Yakunin. The students were offered to choose 5 of the 16 reasons that motivate them to study and belong to different motivational complexes - IM, EPM or ENM. Based on the results of the questionnaires, the percentage of students who chose one or another motive was calculated.

The first task included the student's choice of the 5 most important options for general motivations for learning among 16 proposed examples [17,18]. Thus, both groups of respondents most often chose the same motives presented below, but with different frequencies. The variant of the first motive testified that the main thing in education is to become a highly qualified specialist and benefit people, the second is to acquire deep knowledge (the opportunity to invent new medicines), the third is to ensure the success of future professional activities (interest in the future profession, receiving a decent salary), the fourth – to get intellectual satisfaction from studying (it is easier to study, to get an education faster, to combine study and work), the fifth – to study well, to pass exams with good and excellent results (Fig. 1).
Fig. 1. Distribution of motives for studying of students of the 1st and 5th courses according to the answers of the respondents to the questionnaire (n=88).

Analysis of the received answers made it possible to compare the frequency with which students indicated what motivates them to study. Thus, for first-year students, two reasons were the most important - obtaining deep knowledge and excellent study. In contrast to the first year, the students of the fifth year were dominated by 3 motives: the opportunity to become a high-class specialist in their field, to combine work and study, and to receive a decent salary. The ability to have intellectual satisfaction from learning and to get high scores on exams according to "school habit" contribute the least to the motivation of 5th-year students, but more than 2 times motivate 1st-year students. It should be noted that most respondents of the 5th year have a good understanding of the prospects of the future profession and their success directly depends on the knowledge that can be acquired.

Motivation is a complex process with motivating factors of various directions. The external direction of the motivational process depends on the environment: parents, teachers, society. Internal motivation reflects a person's personality, his desire, strength of spirit, perseverance. The development of personal motivation is the most important and priority in the process of becoming a specialist, and especially a doctor [20,21].

The results of the survey showed (tab. 1) that students of both the first and fifth years were dominated by internal motivations for learning. The optimal ratio of the motivational complex (IM > EPM > ENM) was found in 34.7 and 29.8% of the respondents, respectively. The worst motivational complex - ENM > EPM > IM was observed only in 15.8% of first-year students and 22.8% of fifth-year students. It was interesting to note that all types of motivation were low in only 2% of surveyed fifth-year students, while there were no such students at all in the first year.
Table 1

**Motives of educational activity of students of the 1st, 5th courses of the Faculty of Pharmacy**

<table>
<thead>
<tr>
<th>Types of motivation</th>
<th>Reasons for learning</th>
<th>1st year (%)</th>
<th>5th year (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal motivation</td>
<td>The opportunity to become a highly qualified specialist</td>
<td>78,7</td>
<td>63,4</td>
</tr>
<tr>
<td></td>
<td>Get intellectual satisfaction</td>
<td>38,3</td>
<td>31,7</td>
</tr>
<tr>
<td></td>
<td>To ensure success in the future profession</td>
<td>17,0</td>
<td>29,3</td>
</tr>
<tr>
<td></td>
<td>Acquire deep and solid knowledge</td>
<td>29,8</td>
<td>4,9</td>
</tr>
<tr>
<td></td>
<td>Do not start studying the following subjects</td>
<td>9,8</td>
<td>19,5</td>
</tr>
<tr>
<td>External motivation (positive)</td>
<td>Take exams for &quot;good&quot; and &quot;excellent&quot;</td>
<td>42,6</td>
<td>58,5</td>
</tr>
<tr>
<td></td>
<td>Receive a scholarship</td>
<td>4,3</td>
<td>26,9</td>
</tr>
<tr>
<td></td>
<td>Get a diploma</td>
<td>8,5</td>
<td>19,5</td>
</tr>
<tr>
<td></td>
<td>Get the approval of relatives</td>
<td>6,4</td>
<td>2,4</td>
</tr>
<tr>
<td></td>
<td>To achieve the respect of teachers</td>
<td>14,9</td>
<td>7,3</td>
</tr>
<tr>
<td></td>
<td>To be an example for fellow students</td>
<td>2,1</td>
<td>26,8</td>
</tr>
<tr>
<td></td>
<td>Keep up with your fellow students in your studies</td>
<td>8,5</td>
<td>34,1</td>
</tr>
<tr>
<td>External motivation (negative)</td>
<td>Avoid punishment for poor learning</td>
<td>29,8</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Trying to avoid criticism from teachers, fellow students, relatives</td>
<td>25,5</td>
<td>29,3</td>
</tr>
</tbody>
</table>

Among the main motives of the internal motivation complex, the majority of students chose the opportunity to become a highly qualified specialist, ensure the success of the future profession and acquire deep and solid knowledge. The fact that fifth-year students (29.3%) were almost twice as eager to ensure success in their future profession as compared to first-year students (17%) turned out to be interesting. In addition, 19.5% of fifth-year students chose "not to start studying the following subjects" as a valid motive, while among first-year students - only 9.8%. Such results may indicate that senior students, having experience, understand the integration relations between the disciplines of the curriculum, while first-year students often have a bad idea of the role and place of fundamental and, especially, social-humanitarian disciplines in the structure of their future profession.

Motives included in the Extrinsic Motivation group were not predominant for students. However, some of them were quite pronounced. In particular, for many students, the motive of obtaining a diploma turned out to be important. According to testing data, 19.5% of the respondents chose it among fifth-year students, which was twice the number of first-year students with this motivation for studying (8.5%). The motive of studying "approval of relatives" was important for 6.4% of first-year students and only 2.4% of fifth-year students. We drew attention to the fact that for first-year students, motives related to the opinion of fellow students about them were unimportant (to keep up with them - 8.5% and to be an example - 2.1%), in contrast to fifth-year students course (34.1% and 26.8% - respectively). For 14.9% of first-year
students, gaining the respect of teachers was important, and among fifth-year students, only 7.3% of respondents chose this motive. However, not a single student considered "fulfilling pedagogical requirements" as an educational motive.

The external negative motivation turned out to be ambiguous: "to avoid criticism from teachers, relatives and fellow students" for both fifth-year students and first-year students showed that it was a rather strong motive for them - 29.3% and 25.5%, respectively, but "avoid punishment for poor studies" was significant only for first-year students.

Thus, the results of our study showed that a feature of educational motivation of students of the faculty of pharmacy was a well-developed IM. One of the important reasons for this fact is, obviously, the specificity of the profession of a pharmacist, mastering which requires a great desire and even a vocation. Therefore, the main task of the teachers of higher medical institutions is to maintain IM at a high level.

According to the results of our research, a clear professional orientation of the educational process from the first year of study, a high intellectual level and pedagogical skill of teachers of a higher educational institution can play a special role in this. In addition, attention should be paid to such a motive of students for cognitive activity as "to ensure success in the future profession". In this regard, to ensure the most effective assimilation of new knowledge, skills and abilities, it is necessary to influence the emotional sphere of students. It is important to organize the educational process in such a way that it causes mental tension, the desire to deal with unclear questions, which will give students the opportunity to get intellectual satisfaction from the learning process.

As it was indicated above, the maintenance of IM among students of the Faculty of Pharmacy requires a high intellectual level and pedagogical skill from teachers. The influence of their personality and authority as leaders of the educational process is very important. It is the teachers who must organize the educational process in such a way as to arouse interest and interest in their subject, in science, provide an opportunity to reveal the mental and creative abilities of students, and saturate the learning process with such information that will contribute to the personal growth of the student. For future specialists, teachers should be an example of continuous professional training and high-quality communication between people, which can contribute to increasing the level of such a motivation of the student teacher as "to earn the respect of teachers", which is currently insufficiently formed among students.

Conclusions.

1. A feature of the educational motivation of students of the Faculty of Pharmacy is a well-formed internal motivation to study, which prevails over external positive and, especially, negative motivations.

2. The high level of internal motivation of students of the Faculty of Pharmacy should be supported by the professional orientation of the educational process, the
high intellectual level and pedagogical skill of the teachers of the higher educational institution.

3. There is a need to increase the internal motivation of students "to ensure success in the future profession" from cognitive activity, which can be solved by applying measures to improve the organization of the educational process.

References:


Література:


