ANDREEV Olexander, TAGUNOVA Iryna, GUSHCHA, Sergey, VOLYANSKA, Veronika and IVCHENKO, Nataliya. Development of medical education in the context of European integration. Pedagogy and Psychology of Sport. 2025;22:60879. elSSN 2450-6605.
https://doi.org/10.12775/PPS.2025.22.60879
https://apcz.umk.pl/PPS/article/view/60879

The journal has had 5 points in Ministry of Science and Higher Education parametric evaluation. § 8. 2) and § 12. 1. 2) 22.02.2019.

The authors declare that there is no conflict of interests regarding the publication of this paper.
Received: 09.03.2024. Revised: 27.03.2025. Accepted: 27.04.2025. Published: 11.05.2025.4

Development of medical education in the context of European integration

Authors:

Olexander Andreev

sawall@ukr.net

ORCID 0000-0001-5907-6147

Odesa National Medical University, Odesa, Ukraine

Valikhovskiy lane, 2, Odesa, Ukraine

Iryna Tagunova

irinatagunova@ukr.net

ORCID 0000-0003-3464-5758

Odesa National Medical University, Odesa, Ukraine

Valikhovskiy lane, 2, Odesa, Ukraine

Sergey Gushcha

gushchasergey11@gmail.com

ORCID 0000-0003-3097-5258

State Non-profit Enterprise «Ukrainian Research Institute of Rehabilitation and Resort Therapy

of the Ministry of Health of Ukraine», Odesa, Ukraine

Lermontovkiy lane, 6, Odesa, Ukraine

Veronika Volyanska

mylya1710@gmail.com

ORCID 0000-0002-3019-7620

Odesa National Medical University, Odesa, Ukraine

Valikhovskiy lane, 2, Odesa, Ukraine

Nataliya Ivchenko

nataivchenco@gmail.com

ORCID 0000-0002-1566-3654

Odesa National Medical University, Odesa, Ukraine

Valikhovskiy lane, 2, Odesa, Ukraine

Abstract

European countries are united in their views on the value of human life, education, and healthcare through intellectual, cultural, and social proximity. Human health is the most

sensitive issue for different population segments and is often exploited by political forces to create social instability. The European Union is a complex structure that unites member countries with their long-established views on healthcare. An important innovation of today is the introduction of digital technologies into the healthcare system. The events of recent years (pandemic, economic instability, war) have exposed the heterogeneity of European countries' economic and technological levels and changed the proportional possibilities of individual states' contributions to a single system. To create a single, coordinated intellectual space, it is necessary to create a single level of quality of higher education in the countries participating in this space. Strengthening cooperation between Ukrainian scientific and industrial organizations with their partners in the EU, expanding the research space, will serve as an incentive for Ukrainian scientists not only to comply with the agreed rules, but also to actively, equally participate in the improvement and development of new recommendation and regulatory documents of European educational and research spaces, and to make the most of the opportunities of our scientists, teaching staff, and young specialists.

Keywords: human health protection, quality of higher medical education, teacher self-education, quality of teaching.

INTRODUCTION

European countries are united in their views on the value of human life, education, and healthcare systems through intellectual, cultural, and social proximity. These countries have different histories, cultures, and political experiences, with varying financing and

healthcare systems, but with similar goals and objectives aimed at the quality, effectiveness, and accessibility of healthcare provided. A delicate, critical topic - human health protection is the most sensitive for different population segments. It therefore is often exploited by political forces to create social instability, creates new opportunities for the use of more sophisticated forms of manipulative technologies (propaganda, spreading fakes, etc.) to influence the psyche of people, influence the consciousness of society, informational and psychological disinformation, exercise psychological pressure, divert public attention from critical political and economic issues and direct this attention to artificially created problems, threats or potential dangers. Therefore, the issue of correct understanding and perception of the importance of stability in the healthcare system is fundamental. This should be considered when planning measures to manage the public health system. The European Union is a complex, multifaceted structure that unites member countries with interfaith and interreligious characteristics, with their long-established and established views on the health care system. Therefore, the difference in opinions on this topic can lead to questions about the advantages and disadvantages of each of them, and about which path is most acceptable in this situation to solve the existing tasks. The search for optimal solutions leads to the creation and spread in European countries of numerous reforms aimed at improving health care, the creation of agreed-upon rules, standards, and norms [1,2].

One of the important innovations of today's largely amazing time is the introduction of digital technologies into the healthcare system, in the form of artificial intelligence being used to provide medical services (reading X-rays, tomographic studies, expert and advisory opinions) for dynamic disease control. [3-5]. Therefore, racial prejudices are possible even in this area and can be included in the training system of these artificial intelligences.

Unfortunately, the events of recent years (pandemic, economic instability, war) have exposed the heterogeneity of the economic and technological level of European countries, changed the proportional possibilities of individual states' contributions to a single system, and significantly reduced the financial and economic opportunities for creating a favorable environment for cooperation between scientific and industrial institutions and health care centers. In a difficult period for our country, an imbalance has arisen between the development of science and the economy. Ukraine, as before, is one of the leaders in the export of agricultural products to the EU. However, the potential of Ukraine is much more diverse, and primarily, this concerns scientific work. European integration allows scientific developments not to stop thanks to support with grants, the possibility of implementing

specific projects, continuing the exchange of experience, holding joint conferences, practices, webinars, gaining practical knowledge, developing research and innovations, cooperating, creating bases that shortly will help to make a breakthrough in the development of various branches of science and technology, which will allow the country to recover, improve the well-being of the people, and improve the quality of service, in particular healthcare. In these conditions, an essential component is the consistency of the proposals for changes in education and science with the requirements of European integration [6,7].

To create a single, coordinated, functioning intellectual space, it is necessary to create a single level of quality of higher education in the countries participating in this space [8,9]. The quality of education directly depends on the quality of pedagogical education, the implementation and use of new systems and technologies of education, the training, retraining, and advanced training of pedagogical personnel, and the subsequent opportunity for the teacher to self-realize and develop their creative potential. [10,11].

Pedagogical activity involves constant contact with people, which requires constant pedagogical education to stay ahead. Any stage of society's development has always been accompanied by an increased level of requirements for the teacher, an increase in his skills, and an increase in the quality of pedagogical work, which is dissonant with the actual absence of a positive image and social prestige of the teaching profession in the public consciousness. However, it is the teacher who accumulates and translates society's socio-cultural values and is entrusted with the task of forming a person who will be responsible for mastering these values. A society that recognizes these values must preserve and create the possibility of forming a teacher with a high educational, cultural, and creative level, competence, and socialization. The quality of pedagogical education directly depends on the implementation and use of new systems and educational technologies, the training, retraining, and advanced training of pedagogical personnel, and the subsequent opportunity for professional self-realization, self-realization of the teacher, and development and disclosure of their creative potential in the chosen profession.

Modern realities have significantly changed the requirements for a contemporary teacher, for the teaching process, and have required the accelerated implementation of modern forms, teaching methods, and means of information and communication technologies, following global trends and the requirements of the global information society [12].

In these conditions, continuous personal and pedagogical professional education has become dependent on work on self-education, replenishment, and specification of one's knowledge by the situation and demands of the present. Choosing an individual educational path for one's professional development is essential for further practical success and adequately responding to the educational system's socio-cultural challenge. The personal growth of a teacher should be aimed at self-development, motivation, and social intelligence. It is important to be oriented towards activity, the ability to make decisions, to be ahead, and not to be in the position of a "catch-upA teacher with independent work skills affects the quality of the educational process and the effectiveness of pedagogical activity. A considerable role in the individual work of a teacher belongs to the mass media, participation in educational master classes, and schools. An indicator of the effectiveness of pedagogical self-education is, first of all, the quality of the educational process organized by the teacher and the professional and qualification growth of the teacher, a specialist who owns the methodology of cognition and communication, which are needed in all areas of activity of modern society [13].

The concept of "quality of education" is appropriate to characterize a higher education institution, and society's demands on graduates can be defined by the idea of "quality of training." The quality of education depends on numerous qualities of a particular educational institution: the qualifications of teachers, the state of the material and laboratory base, the quality of scientific and methodological literature, the modernity of academic programs, and the quality of professional student practices. The quality of training depends on the ability of a student, a future specialist, to meet the requirements of the industry for which he is preparing in higher education. Assessing the quality of higher education means determining the degree of compliance with certain standards, but the standard does not answer the question of whose requirements need to be satisfied, since even within the same industry, there are many interest groups that differ significantly in their requirements for learning outcomes. Global trends in the development of higher education are cyclical and opposite in direction. Today, the priority is the transition from elite-encyclopedic education, which proclaims the principle of mandatory study of many subjects, to mass higher education, which is associated with the need in the labor market for specialists capable of producing an intellectual product [14,15].

In the medical field, we observe the same trends. Given the perennial problem of the labor market's dissatisfaction with the level of specialist training, the hours of theoretical

training in the new curricula for postgraduate training of interns have been almost halved due to an increase in practical professional activity and adaptation to the requirements of specific institutions. However, this is a matter of time. Rapidly changing realities, scientific and technological progress will require deepening and updating scientific knowledge, and the labor market will require specialists with a broad scientific outlook. It is no secret that the duration of updating educational standards is much longer than the duration of the life cycle of labor market requirements.

How to eliminate this discrepancy? In a multi-component education system, students are the most mobile and interested group, whose competence must meet the requirements of modernity. Special attention should be paid to doctors in the postgraduate period of study. These are doctors - interns who know their future workplace and can be better prepared through various mechanisms of motivation, stimulation of the choice, and quality of mastering the appropriate educational program level [16,17].

This can be achieved not only through formal education but also through self-education, gaining professional experience through elective programs, where a number of optional courses are taught, and, for family doctors in the practical health care sector, various cycles of thematic improvement.

CONCLUSIONS

Therefore, the quality of higher education is determined by many factors. Students, future specialists, are the most mobile component that allows them to plan their transformation or improvement. The variability of course programs, especially in the postgraduate education system, provides training specialists who meet certain qualification levels and labor market requirements. An essential component of improving the quality of higher education is strengthening cooperation between Ukrainian scientific and industrial organizations with their partners in the EU, which will contribute to the expansion of the research space and the fullest possible use of its capabilities. Such cooperation will serve as an incentive for Ukrainian scientists to comply with the agreed rules, actively and equally participate in improving and developing new recommendations and regulatory documents of European educational and research spaces, and make the most of the opportunities available to our scientists, teaching staff, and young specialists.

Authors contribution:

Conceptualisation: Olexander Andreev

Methodology: Iryna Tagunova

Formalanalysis: Veronika Volyanska

Writing-Rough Preparation: Sergey Gushcha

Writing-Review and Editing: Nataliya Ivchenko

All authors have read and agreed with the published version of the manuscript.

Conflicts of Interest: The authors declare no conflicts of interest.

Funding Statement: No external funding was received toper form this review.

Statement of Informed Consent: Not applicable.

Bibliography

1. Veresniuk N., Piontkovskyi V, Kozubenko Y, Mahanova T, Balynska O. Reforming the Healthcare System to Sustainable Development Goals in the EU States. Econ. Aff. 2023:68(01s):191-198. DOI:10.46852/0424-2513.1s.2023.22
2. Hernández-Quevedo C, Maresso A, Merkur S, Quentin W, Richardson E, Spranger A, van Ginneken E. 20 YEARS OF HEALTH SYSTEM REFORMS in Europe: what's new? Eurohealth. 2018;24(2). https://iris.who.int/bitstream/handle/10665/332566/Eurohealth-24-2-23-28-eng.pdf
3. Ahmad R. The Role of Digital Technology and Artificial Intelligence in Diagnosing Medical Images: A Systematic Review. Open Journal of Radiology. 2021;11(01):19-34. DOI: 10.4236/ojrad.2021.111003
4. Kwong, J.C.C., Nickel, G.C., Wang, S.C.Y. et al. Integrating artificial intelligence into healthcare systems: more than just the algorithm. npj Digit. Med. 7, 52 (2024). https://doi.org/10.1038/s41746-024-01066-z
5. Lainjo B. Integrating Artificial Intelligence into Healthcare Systems: Opportunities and challenges. Academia Medicine. 2024;1(4). DOI: 10.20935/AcadMed7382
6. Ukrainian science and education in the conditions of European integration: collective monograph / Compiled by V. Shpak; Chairman of the Editorial Board S. Tabachnikov. Sherman Oaks, California : GS Publishing Services, 2024. 179 p. DOI: 10.51587/9798-9895-14670-2024-020

7. Pogrebnyak V, Dashkovska O, Melnyk O. Ukrainian Higher Education: European Integration Progress. Problems of Education. 2023; 1(98), 38-61. DOI:10.52256/2710-3986.1-98.2023.03
8. Kovalenko NP, Bobrova NO, Pospielova GD, Fedorchenko VI, Gancho O.V. Prospects of the integration of the Ukrainian higher educational system into the European educational space. Actual Problems of the Modern Medicine: Bulletin of Ukrainian Medical Stomatological Academy. 2023;23(1):118-121. DOI 10.31718/2077–1096.23.1.118
9. Integration into the European educational space: achievements, problems, prospects: Monograph / General editor F.G. Vashchuk. – Uzhgorod: ZakDU, 2011. – 560 p. – (Series "European integration: Ukrainian dimension"; Issue 16). file:///C:/Users/BOSS/Downloads/16.pdf
10. Babyn I. Formation of the quality assurance system of the Bologna process. Documents and materials. - Part 2. Edited by S.M. Nikolaenko. -T.: Publishing house of TNPU named after V. Hnatyuk, 2004.- P.109-117.
11. Verkhoglyad O., Romanovskaya Yu., Romanovsky O. Problems of international cooperation in the sphere of higher education: control over the quality of education. National and international aspects. Higher school. No. 1.- 2010.- P.15-24.
12. Rodinova N, Chervony M, Diodritsa I. Peculiarities of distance learning for students under martial law. Prospects and innovations in science. (Series "Pedagogy", Series "Psychology", Series "Medicine") 2022;4(9):285-296. DOI:10.52058/2786-4952-2022-4(9)-285-296
13. Pukhlik S.M., Tagunova I.K, Dedykova I.V., Andreev O.V. Self-education of a teacher - a fundamental concept. Theoretical and practical aspects of the development of science and education April 10-11, 2021. Lviv Scientific Forum materials of the 3rd international scientific and practical conference P.31
14. Tkachuk OL, Atamaniuk OYu, Tkachuk-Grygorchuk OO. Automation skills training in interns surgeons for the objective structured clinical exam. Art of Medicine. 2020:4(16):129-134. DOI: 10.21802/artm.2020.4.16.129
15. Ng IK. Making the transition from medical student to junior doctor. J R Coll Physicians Edinb. 2024 Dec;54(4):316-318. DOI: 10.1177/14782715241299837
16. Carlsson Y, Bergman S, Nilsdotter A, Liljedahl M. The medical internship as a meaningful transition: A phenomenographic study. Medical Education. 2023;57(12):1230-1238. https://doi.org/10.1111/medu.15146
17. Andreev O, Tagunova I, Gushcha S, Plakida A, Ivchenko N. Elective disciplines in the Otolaryngology cycle – a method for improving the applicant's knowledge. Pedagogy and Psychology of Sport. 2025. Vol. 21, p. 60195. DOI 10.12775/PPS.2025.21.60195.