

**ГОДИШНИК
НА
ВИСШЕ УЧИЛИЩЕ ПО МЕНИДЖМЪНТ**

Том X

**XIII МЕЖДУНАРОДНА
НАУЧНА КОНФЕРЕНЦИЯ**

**„СЪВРЕМЕННАТА НАУКА,
БИЗНЕСЪТ И ОБРАЗОВАНИЕТО“**



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BUSINESS AND EDUCATION“**

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МЕНИДЖМЪНТ**

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INTEGRATED APPROACH TO THE DESIGN OF METHODS OF PHARMACOECONOMIC STUDY IN THE PROCESS OF PREPARATION OF FUTURE PROVISOIR IN HIGHER EDUCATIONAL

***Abstract.** On the basis of the realized theoretical analysis of literary sources and the experience of teaching of pharmacoeconomic in higher educational institutions, the application of an integrated approach to the design of a methodology for the study of pharmacoeconomic in the process of training future pharmacists is substantiated. The efficiency of the application of the integrated approach in the process of studying the pharmacoeconomic of future pharmacists in higher educational institutions is checked. According to the results of the research, it was determined that the professional readiness of future pharmacists to realize the professional competencies of conducting pharmacoeconomic studies of the effectiveness of pharmaceutical activities and pharmaceutical care increased at the formative stage in the process of studying integrated content modules.*

***Key words:** pharmacoeconomic, methods of study, integrated approach, professional readiness, professional competencies, pharmacoeconomic researches,*

pharmaceutical care.

Introduction. Formation of preparedness for the professional activity of future pharmacists in higher educational institutions includes systematic training in pharmaceutical management and pharmacoeconomic. The systematic study of pharmacoeconomic in the process of preparing future pharmacists in higher education institutions requires the improvement of the methodology on the basis of the comprehensive use of methodological approaches, one of which is an integrated approach covering the complex combination and implementation of the latest advances in the pharmaceutical industry in the system of higher pharmaceutical education.

Application of the integrated approach to the design of a methodology for the study of pharmacoeconomic in the process of preparing future pharmacists in higher education institutions, based on the integrated implementation of interconnected universal standards of quality management system and risk management quality, as well as standards of other systems of effective management of the enterprise, we believe, will ensure the formation and Development of their professional competence, which in turn forms a comprehensive readiness for future professional activity.

Research methods. To achieve the goal of scientific research, the following methods have been used: theoretical – the study and analysis of scientific literature, comparison and generalization of theoretical positions, system analysis of the scientific and pedagogical experience of teaching economic disciplines and the development of the pharmaceutical industry.

Discussion. Despite the considerable number of scientific works on the mentioned issues, the task of improving existing and finding new theoretical-methodological and organizational-methodical approaches to building a system of quality assurance of medicinal products becomes more relevant. This is due to the process of reforming the pharmaceutical industry and the rapid transformations in the national and world economy that directly or indirectly influence the

pharmaceutical sector (globalization, European integration, deregulation, decentralization, transition to insurance medicine, informatization, innovation, humanization, ecologization) ¹.

Integrated systems of management of economic entities (business entities and professional activities) that envisage different types, levels and directions of integration of resources, processes, systems and organizational structures into promising, adapted to modern changes of models of quality management of pharmaceutical products. Thus, in Ukraine and CIS countries, the issues of development and practical implementation of pharmaceutical products in the integrated quality management system, which involves the simultaneous application of the universal standard of quality management ISO 9001, industry rules of GMP and other standards from individual (environmental, hygiene, Socio-ethical, etc.) aspects of enterprise management, affecting the quality of products. The approaches to constructing integrated logistics chains for quality assurance and prevention of falsification of medicinal products in the system of management of their deliveries were grounded, as well as the formation of pharmaceutical regional clusters on the basis of quality management standards and principles of logistic management and reengineering ^{2, 3, 4, 5}.

Solving the problem of scientific substantiation and developing an integrated

¹ Shestopal O. A. (2008). *Building an Integrated Quality System at a Modern Pharmaceutical Enterprise Message 1. Analysis of standards and development of quality guidelines.* / O. A. Shestopal, Yu. V. Pidpruzhnykov // *Visnyk farmatsiyi.* – #2 (54). – S. 38–42. [in Ukrainian]

² Mnushko Z. M. (2008). *Theory and practice of marketing research in pharmacy: monograph* / Z. M. Mnushko, I. V. Pestun. – Kharkiv: Vyd-vo NFaU, 2008. – 308 s. [in Ukrainian]

³ Posylkyna O. V. (2012) *Construction of integrated logistics chains to ensure the quality of biotechnological medicines in the system for managing their deliveries* / O. V. Posylkyna, A. H. Khromikh // *Farmakom.* – #3. – S. 105–109. [in Ukrainian]

⁴ Posylkina O. V. (2011). *Creation of pharmaceutical clusters in Ukraine based on logistic management and international quality standards* / O. V. Posylkina, R. V. Sahaydak-Nikityuk // *Upravlinnya, ekonomika ta zabezpechennya yakosti v farmatsiyi.* – #3. – S. 24–30. [in Ukrainian]

⁵ Posylkina O. V. (2009). *Methodological approaches and methodical principles of construction of an integrated management system at pharmaceutical enterprises* / O. V. Posylkina, K. S. Svitlychna // *Upravlinnya, ekonomika ta zabezpechennya yakosti v farmatsiyi.* – #5 (7). – S. 16–25. [in Ukrainian].

model of quality assurance of medicinal products at the stages of wholesale, retail implementation and medical use is based on the integrated application of interconnected universal standards of quality management system and risk management quality (ISO series 9000, 10000, 31000, etc.) of branch (GXP, ICH), as well as the standards of other enterprise management systems (ISO Series 14000, OHSAS 18000 Series, SA 8000, etc.). In the construction of the model, an integrated approach to quality assurance of medicinal products at the stages of wholesale, retail sales and medical use is used⁶.

Scientists and practitioners of the pharmaceutical industry emphasize the fact that the serious challenge of today is the discrepancy between the pace of development of the skills of pharmaceutical industry workers and the pace of environmental change. Traditional basic and vocational education cannot, in principle, provide knowledge and skills for life as a result of rapid social, economic, industrial and informational change. The employee's competence crisis is now considered one of the most important links in the chain of crisis phenomena⁷.

The aim is to justify the application of an integrated approach to designing a methodology for the study of pharmacoeconomic in the process of preparing future pharmacists in higher education institutions.

According to the goal, the research task is determined:

1. To substantiate the application of the integrated approach to the design of a methodology for the study of pharmacoeconomic in the process of preparing future pharmacists in higher education institutions.
2. To check efficiency of application of the integrated approach in the process of study of pharmacoeconomic of the future pharmacists in higher educational establishments.

⁶ *Ubohov S. H. (2016). An integrated approach to constructing a model for quality assurance of medicinal products during implementation and medical use / S. H. Ubohov, N. O. Vetyutneva, L. O. Fedorova // Farmakom. – # 3. – S.46–50. [in Ukrainian]*

⁷ *Hovorukha M. O. (2016). Some issues of advanced training in pharmaceutical management // Farmakom.– # 3. – S.51–53. [in Ukrainian]*

A total of pharmacoeconomic training of future pharmacists in higher education is also important is to use an integrated approach based on a comprehensive introduction to the educational process innovation pharmaceutical industry, organization of pharmaceutical business based on the introduction of appropriate pharmaceutical practices according to international standards of quality and safety of medicines, which undoubtedly provides economic effectiveness of pharmaceutical manufacturing, wholesale, retail sale and for medical use improve the quality of medical maintenance of the population⁸.

That is why we consider the justified application of the integrated approach to designing a methodology for the study of pharmacoeconomic in the process of preparing future pharmacists in higher education institutions.

Pharmaceutical education in Ukraine should be in line with the priorities of the 21st century, be harmonized with international standards and guarantee the process of integration of Ukrainian society into the European and world civilization space.

At the present stage of development of the pharmaceutical industry, the pharmaceutical business makes a number of requirements for managers - they must be competent in all areas of pharmaceutical management: administration, planning, organization, motivation of employees^{9, 10}.

The pharmaceutical market is one of the fastest-growing and fast-growing sectors in the world economy. Despite the general structure and trends in the global economy in recent years, the pharmaceutical market continues to grow dynamically: its growth rate is about 6-10% per year. According to experts, in

⁸ Voskoboynikova H. L. (2017). *Good Practical Practice: A Training and Methodology Edition for Masters in the Pharmaceutical Industry* / H. L. Voskoboynikova. *Pedagogy of high school. Series "Master's workshop"*. – K.: 2017. – 150 p. [in Ukrainian]

⁹ Hovorukha M. O. (2016). *Some issues of advanced training in pharmaceutical management // Farmakom.* – # 3. – S.51–53. [in Ukrainian]

¹⁰ Malyy V. V., Slobodyanyuk M. M., Rohulya O. Yu. *ta in.* (2015). *The current state and main tendencies of optimization of training of specialists in management and marketing for pharmacy // Menedzhment ta marketynh u skladi suchasnoyi ekonomiky, nauky, osvity, praktyky: Mater. III Mizhnar. nauk-prakt. Internet-konf., m. Kharkiv, 26–27 bereznya 2015 r. – Kharkiv NFaU, 2015. – S. 3–5.* [in Ukrainian]

recent years, the global pharmaceutical market has increased by 7%, thereby ensuring growth of the pharmacoeconomic indicators of the industry at the world level ^{11, 12}.

These dynamic changes require their detailed research and study of pharmaceuticals in training personnel, as pharmacoeconomic directly reflects the effectiveness innovations in industrial pharmacy, wholesale and retail sectors of the sale of medicinal products and the efficiency of pharmaceutical care of patients in market conditions.

Applying an integrated approach to design and development methodologies to study pharmacoeconomic in the training of future pharmacists in higher education allows to modify the curriculum with the addition of integrated content modules: Context module (CM1) "The impact of the implementation of good practice on cost-effectiveness of modern pharmaceutical enterprise"; Content module (CM2) "Design pharmacoeconomic studies integrated pharmaceutical care and evidence-based medicine."

We conducted a study to verify the effectiveness of the integrated approach in the study of pharmacoeconomic future pharmacists in higher education. The experiment was attended by fifth-year students of pharmaceutical faculties of the National Medical University Bogomolets and Kyiv International University. The study we conducted tests of readiness for future professional activity, namely the implementation of professional competence: competence of pharmacoeconomic education (CPEE) the effectiveness of pharmaceutical activities and competence pharmaceutical care (CPC) based on the practical use of these evidence-based medicine on reasonable use of drugs, a total of 20 respondents. The results of the study are shown in the diagram in Fig. 1.

¹¹ Mnushko Z. M. (2008). *Theory and practice of marketing research in pharmacy: monograph* / Z. M. Mnushko, I. V. Pestun. – Kharkiv: Vyd-vo NFaU, 2008. – 308 s. [in Ukrainian]

¹² Terekhova O. V. (2014). *Analysis of Trends in Prices Changing Original Pharmaceuticals in the Global Pharmaceutical Market and Their Impact on the Cost of Such Drugs in Ukraine* / O. V. Terekhova, O. V. Shuvanova // *Farmakom.* – # 3. – S.68–72. [in Ukrainian]

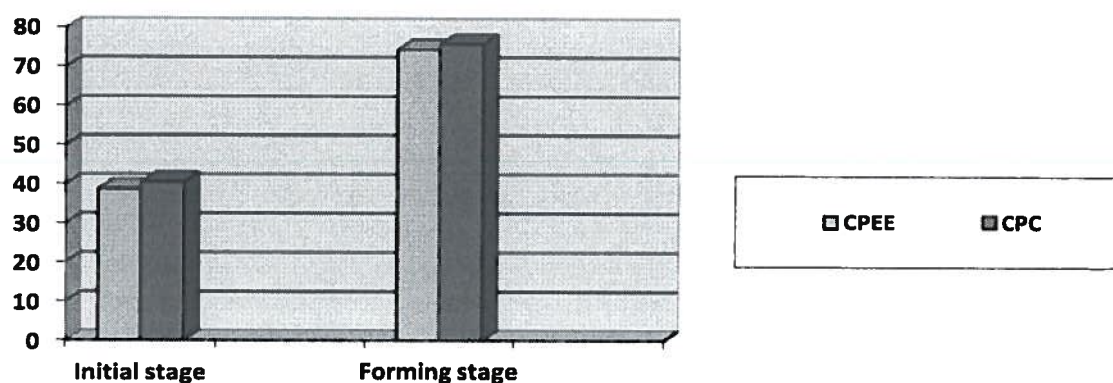


Fig.1 Results of the study of professional readiness for implementation of professional competencies of conducting pharmaco-economic studies of the effectiveness of pharmaceutical activity and pharmaceutical care

Conclusions. An integrated approach is one of the methodological approaches to improving the methodology of studying pharmaco-economic, which encompasses the complex combination and implementation of the latest advances in the pharmaceutical industry in the system of higher pharmaceutical education. On the basis of the realized theoretical analysis of literary sources and the experience of teaching of pharmaco-economic in higher educational institutions, the application of an integrated approach to the design of a methodology for the study of pharmaco-economic in the process of training future pharmacists is substantiated.

The efficiency of the application of the integrated approach in the process of studying the pharmaco-economic of future pharmacists in higher educational institutions is checked. According to the results of the research, it was found that the professional readiness of future pharmacists to realize the professional competencies of conducting pharmaco-economic studies of the effectiveness of pharmaceutical activity and pharmaceutical care increased at the formative stage in the process of studying integrated content modules, namely, the readiness of students to implement CPEE increased by 35.8%; Readiness for implementation of

CPC - by 35.4%.

Prospects for further exploration of the research direction is the development of an advanced methodology for the study of the pharmacoeconomic of future pharmacists in higher medical education institutions.

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