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THE FUNDAMENTALS OF FORMATION ORGANIZATIONAL AND MANAGERIAL COMPETENCIES OF PHARMACY MASTERS IN THE EDUCATIONAL PROCESS OF THE MEDICAL UNIVERSITY

S In line with the problem of the development of highly effective and socially responsible pharmaceutical management in Ukraine, the need to substantiate the competence-cultural scientific principles of professional training of new generation pharmacists, who know the basic principles of organizational and managerial culture and relevant educational and communication technologies, is highlighted. The purpose of this article is to consider the features of the implementation of leading methodological developments in scientific management in the pharmaceutical industry (participation of specialists with higher education in the management of treatment processes; monitoring and evaluation of drug therapy results; consulting and educating patients; readiness to provide effective communication both with the business partners and the representatives of various special groups of the population – customers of services), which are reflected in medical and deontological principles, their projections on the market economy, and the system of training specialists of the specialty “226 Pharmacy, Industrial Pharmacy” at Ukrainian medical universities. This study is one of the first steps toward building and implementing in the context of the native system of professional training of specialists in the pharmaceutical industry a model of organizational and managerial culture of future pharmacists, based on the integration of general and special competencies, which will take into account the achievements of modern management, society’s requirements for medical and deontological integrity of the personality of specialists, continuous improvement of the content of education, and the need to use new educational forms and technologies. From the perspective of research on this problem, we examine the specification of the theoretical foundations and detail the methodological aspects of such a model.

Keywords: professional education; future pharmacists; pharmaceutical management; system of organizational and managerial competencies of pharmacists; master’s training

ОСНОВИ ФОРМУВАННЯ ОРГАНІЗАЦІЙНИХ ТА УПРАВЛІНСЬКИХ КОМПЕТЕНТНОСТЕЙ МАГІСТРІВ ФАРМАЦІЇ В ОСВІТНЬОМУ ПРОЦЕСІ МЕДИЧНОГО УНІВЕРСИТЕТУ

A У руслі проблеми розвитку високоефективного й соціально відповідального фармацевтичного менеджменту в Україні актуалізовано потребу обґрунтування компетентнісно-культурологічних наукових засад професійної підготовки фармацевтів нової генерації, що володіють основами організаційно-управлінської культури та відповідними освітньо-комунікаційними технологіями. Метою статті визначено розгляд особливостей реалізації провідних методологічних напрацювань наукового менеджменту у фармацевтичній галузі (участь фахівців із вищою освітою в управлінні процесами лікування; моніторинг та оцінка ними результатів лікарської терапії; консультування й навчання пацієнтів; готовність до забезпечення ефективних комунікацій як із партнерами по бізнесу, так і з представниками різних спеціальних груп

населення – замовниками послуг), що відображені в медично-деонтологічних принципах, їхній проєкції на ринкову економіку та систему підготовки фахівців спеціальності «226 Фармація, промислова фармація» в українських медичних університетах. Дослідження є одним із перших кроків на шляху побудови й упровадження в контекст вітчизняної системи професійної підготовки фахівців фармацевтичної галузі моделі формування організаційно-управлінської культури майбутніх фармацевтів, заснованої на інтеграції загальних і спеціальних компетентностей, яка враховуватиме здобутки сучасного менеджменту, вимоги суспільства до медично-деонтологічної цілісності особистості фахівців, неперервне вдосконалення змісту освіти та потребу застосування нових освітніх форм і технологій. У перспективі дослідницької діяльності з проблеми вбачаємо конкретизацію теоретичних підвалів і деталізацію методичних аспектів такої моделі.

Ключові слова: професійна освіта; майбутні фармацевти; фармацевтичний менеджмент; система організаційних та управлінських компетентностей фармацевтів; магістерська підготовка

The statement of the problem. The modernization of professional training for pharmaceutical specialists, as an integral part of Ukraine's healthcare system in the current phase, is driven by the advancements in global medical and pharmaceutical science, significant shifts in the European labor market, and transformations across the social, economic, legal, and educational dimensions of this training. The necessity of shaping an appropriate professional and cultural level for future professionals is underscored in the laws of Ukraine "On Education" and "On Higher Education," the State National Program "Education" ("Ukraine in the XXI Century"), the WHO program "Health 2020," the State Strategy "Health for All in the 21st Century," and in the Concepts for the development of the healthcare sector and the provisions of the Intersectoral Comprehensive Program "Health of the Nation." An essential task of higher education medical institutions currently is to prepare enlightened, creative professionals focused on personal and professional development, rather than fostering a value system where the preservation of human health occupies a prominent position.

Currently, there is no doubt about the assertion that the health of the Ukrainian nation is a guarantee of the prosperity and flourishing of the state and humanity. The presence of robust health is a necessary condition for the continuation of the lineage, the resolution of demographic issues in society, the development of spiritual and physical strength, and the high productivity of all its members. Health issues have always occupied a significant place in socio-economic and cultural life. Therefore, both individuals themselves and the healthcare system, medical and pharmaceutical professionals are concerned about the state of health. Hence, the modern priorities of higher pharmaceutical education include: the training of highly qualified personnel; the emergence of new specialties necessary in the labor market; continuous improvement of educational content; the introduction of new educational forms and technologies; the enhancement of the scientific potential of the industry;

the integration of pharmaceutical science and practice; ensuring that pharmacists have the opportunity for lifelong learning; conducting personnel monitoring, establishing a system of accreditation and certification of pharmaceutical personnel at the state level, taking into account their professional and organizational-management

Among the reasons associated with the necessity of seeking new approaches to the professional training of pharmaceutical personnel, we note the establishment of market relations, intensive exchange of experiences at European and global levels, rapid increase in the number of medicinal products, reorientation of pharmacy services from production to acquisition, storage, and distribution of medicinal products, increasing demands for quality control of pharmaceuticals, and attention to the attitudes of pharmacy staff towards patients, among others. Therefore, pharmaceutical management is currently viewed as a new direction of development in the field of healthcare science and technology, which can facilitate significant modernization of processes for quality manufacturing and optimal supply of medicinal products to the country both in peacetime and wartime. This aspect of professional training based on differentiation and integration of medical and pharmaceutical spheres stimulates continuous exploration of effective forms and methods for healthcare provision, medical assistance delivery, introduction of market marketing technologies, adherence to ethical principles and norms of behavior of employees according to the postulates of medical ethics and deontology.

Analysis of previous studies and publications, has allowed us to identify that various aspects of professional training for pharmaceutical specialists in medical educational institutions have been the subject of substantial research by domestic and foreign scholars. General pedagogical issues concerning the effectiveness of professional training using a competency-based approach have been discussed in works by V. Baydenko, I. Zimnya,

O. Ovcharuk, O. Pometun, A. Khutorsky and others. The implementation of pedagogical technologies in the process of professional training of future specialists has been detailed in the works of A. Alexyuk, V. Bepalko, L. Kravchenko, L. Romanyshyna, V. Onipko, G. Selekov, S. Sysoyeva, S. Smirnov, N. Talizina, and others. Educational principles of activity and management in higher pharmaceutical education have been explored by O. Zupanets, O. Tikhonov, and others. The training of pharmaceutical personnel in Ukraine and leading foreign educational institutions has been studied by L. Vyshnevskaya, I. Vitenko, O. Volosovets, Yu. Voronenko, N. Gavrylina, V. Georgiyants, I. Denysov, V. Zagoriy, H. Zaychenko, V. Moskalenko, O. Naboka, M. Paltsev, L. Upyr, V. Chernykh and others. The organization of the educational process at pharmaceutical faculties of higher education institutions has been investigated by L. Vinnik, N. Horodyska, I. Grytsenko, H. Zaychenko, O. Zaliska, O. Zupanets, T. Kalenyuk, Z. Mnushko, B. Parnovsky, M. Slaby, and others. The formation of competencies of future pharmaceutical specialists has been examined by N. Alyokhina, L. Haliy, H. Hlembotska, V. Holubtsov, N. Denysova, I. Komisinska, L. Plyaka, O. Tututchenko, and others. A series of relevant studies have been devoted to: pedagogical technologies in the pharmaceutical education system (T. Vakhrusheva, B. Hromovyk, Z. Mnushko, S. Mokryanin, I. Svyetochova, O. Pavlov, and others); issues of pharmaceutical ethics and deontology (A. Babsky, N. Dykhtyarova, T. Krasnyanska, M. Ponomarenko, S. Khimenko, N. Chornobrova, and others); postgraduate training of pharmaceutical specialists (N. Bunatyan, D. Velyky, L. Kaydalova, I. Mishchenko, M. Ponomarenko, V. Tolochko, and others); aspects of control and diagnosis of the quality of training of future pharmaceutical specialists (L. Budanova, T. Kozlova, O. Telyezhkina and others).

We agree with N. Bilyk that the managerial competence of the head of a general secondary education institution is determined mainly by the level of professional education, experience, individual and mental characteristics (temperament, character, socio-psychological, professional and business, administrative and organisational, volitional qualities), motivation for professional activity and continuous education, self-improvement and reflection and the level of creative potential [1, p. 58].

However, despite the increased interest of researchers in the issues of competency and cultural content of professional training for pharmaceutical specialists, it is observed that the formation of their organizational and managerial culture remains insufficiently explored, and in the conditions of European integration, it requires considerable attention. The results of systematic analysis of the main groups of sources in the context of the issues of professional training of future pharmaceutical specialists attest that future pharmacists should be prepared for practical management activities within the industry. However, they often lack experience in establishing business relations with pharmacy visitors, are not always capable of ensuring effective performance of professional duties in the service market, and are unsure about their qualities and management styles within the enterprise.

The purpose of the article focuses on highlighting unresolved aspects of the discussed issue. As the methodological, theoretical, and methodical foundations for developing the professional competence of future pharmacists, considering the requirements of pharmaceutical management and innovative entrepreneurship in healthcare, remain insufficiently explored, there is a need to develop and implement a model for shaping the organizational and managerial culture of such professionals to harmonize pharmaceutical education in Ukraine with global trends.

The purpose of this article is to examine the specifics of implementing leading methodological developments in scientific management within the framework of the mentioned problem.

Presentation of the main material. The pharmaceutical sector is currently regarded as the scientific and practical pillar of the healthcare system, which conducts scientific research and development of medications, determines the need for drugs, their production, and comprehensive study of properties, including safety and specific effects, analysis, standardization, quality control, registration, storage, distribution, and application, pharmaceutical care, training, and retraining of pharmaceutical personnel [2]. Pharmaceutical assistance and pharmaceutical care now involve providing the population with all pharmaceutical products, offering scientific and advisory services to medical personnel and individual citizens on selecting the most effective and safe medications, medical devices, rules for their storage, procurement procedures, and are among the main

directions of pharmaceutical activity, determining its specific features. Primarily, it is understood that pharmaceutical activities entail the involvement of professionals with higher pharmaceutical education in managing treatment processes: justifying the selection and choosing necessary medications, monitoring and evaluating the results of medical therapy, counseling, and educating patients, which are associated with medical competence and professional culture of the pharmacist, their responsibility for advice or recommendations provided to each patient. Pharmaceutical assistance and pharmaceutical care, in their social essence, involve providing the population with all pharmaceutical products, offering scientific and advisory services to medical personnel and individual citizens on selecting the most effective and safe medications, medical devices, rules for their storage, procurement procedures, and are among the main directions of pharmaceutical activity, determining its specific features.

The specificity of the professional field of pharmacists also includes its focus on the creation and production of domestic pharmaceuticals in various dosage forms, immunobiological preparations, medical devices, health and prophylactic food products, providing the population with effective and safe medications, competitive compared to products of foreign firms, manufacturing substances of natural, synthetic, or biotechnological origin, responsible quality control of pharmaceuticals, and so forth.

In connection with the aforementioned methodological foundation of higher education in the pharmaceutical field, medical ethics and deontology undoubtedly constitute the set of ethical norms and principles of conduct for professionals in the performance of their duties, which must be strictly adhered to [4].

Moral and ethical norms and rules of deontology play a significant role in the social regulation of relations between physicians and patients in the provision of medical care and in the distribution of medications by pharmacists. The regulation of medical activities and related structures (pharmaceutical management) in the context of moral and ethical norms and rules of deontology should be supplemented by legal regulation. The significance of medical ethics and medical deontology is increasing during periods of changing socio-economic relations and the development of market marketing processes related to healthcare and pharmaceutical management activities in Ukrainian society.

If the primary task of the curative and preventive activities of all branches of the state and private healthcare systems is considered to be the resolution of issues related to the formation and development of drug supply to the population by the state and pharmacy business, then the question arises of defining and characterizing the ethical norms and principles of each pharmacist's activities, according to which they must contribute to the healing process and the preservation of public health, diligently fulfill their professional duties, uphold the dignity and honor of a pharmaceutical industry worker, and refrain from any actions that may provoke negative attitudes toward their profession. This is particularly important in the context of viewing healthcare as a unique type of service. If in previous stages of its development the state was fully responsible for the quality of such services, in the market period, not only state structures are involved in the distribution of medications, but also the appropriate business ensures the distribution of pharmaceutical products through a network of pharmacy sales. Under such circumstances, organizational competencies and management culture become necessary for professionals, aiming not only to stabilize the situation in the pharmacy sales sector with small innovative enterprises but also to comprehensively shape or update the industry's organizational culture in line with contemporary societal demands.

The significance of management for pharmaceutical enterprises is associated with the transition to market economy principles, the development of autonomy in enterprise activities, the democratization of management, and meticulous attention to the effectiveness of each professional. Currently, there is no single definition of the concept of "management" in the literature on management issues. Management is understood as: the sphere of human knowledge, the science and art of administration; the activity of managing people in various organizations; the apparatus for managing the activities of an organization. The Oxford Dictionary of the English Language provides the following interpretations of the concept of "management": 1) a way, manner of communicating with people; 2) the power and art of management; 3) a particular kind of skill (management skills); 4) an administrative unit (management body) [5].

In contemporary market economy, the study and satisfaction of the interests, needs, and demands of buyers are vitally important for management. Here,

management is intertwined with marketing, which is interpreted as the integrative function of management that transforms buyer needs into enterprise profits. Thus, management as the administration in the conditions of a market economy is a combination of principles, methods, tools, and forms of governance of pharmaceutical enterprises aimed at successfully addressing economic and social tasks and achieving profit; it is a system of making rational decisions in the field (Management in Pharmacy, 2017). Thanks to the aforementioned, we can discuss industry management in its broad sense: guiding the search, development, or creation, research, production, standardization, storage, and distribution of pharmaceuticals.

As the peculiarity of pharmaceutical enterprise management is associated with the combination of pharmaceutical provision and scientific, production, control-analytical, commercial, medical, informational, advertising, and other auxiliary functions, both production (technological) and commercial processes are characteristic for pharmaceutical and pharmacy enterprises, taking into account the specific features of medicinal products as goods, which are subject to heightened scrutiny by the state and the public. In pharmacy enterprises, trade management techniques are widely applied in combination with knowledge of organizational-legal issues of pharmacy operation, drug technology, pharmaceutical analysis and control, pharmacology, pharmacotherapy, pharmaceutical care, pharmaceutical ethics and deontology, psychology, etc. Also important is the process of selling medicinal products and other goods by specialists, which involves direct contact with consumers and proficiency in communication pedagogical techniques.

Pharmacy enterprises, as the final link in the chain of pharmaceutical product movement, are responsible for the main tasks of management - gathering market information, identifying demand for medicinal products and other pharmacy goods, understanding market preferences and consumer groups, and so forth. With increasing competition among pharmacies, organizational work forms, customer engagement, expansion of additional services, contacts with healthcare and other consumer organizations, and the formation and maintenance of the image of a specific pharmacy or pharmacy network become increasingly important.

Management in the specified context addresses methodological tasks such as:

- generating profit while upholding social responsibility;
- expanding drug markets;
- reducing internal costs for the production and distribution of pharmaceuticals. A pharmaceutical professional must be prepared to:
 - develop a strategy for the pharmacy or company's development;
 - identify the prioritization of goals, their sequence, and the consistency of decisions;
 - devise a system of measures to address identified issues over different time periods;
 - establish control over the implementation of decisions made;
 - determine the necessary resources and sources for their provision [3].

Therefore, the ultimate goal of pharmaceutical management is considered to ensure the profitability of the pharmacy enterprise (rational organization of the production process, including production management; medication distribution; selection and utilization of human resources). Its pedagogical specificity lies in the fact that all functions of managing pharmacy business (planning, organizing, motivating, controlling) are integrated with communication and decision-making processes. In addition, the subject matter of the activities of management entities (managers and their subordinates) takes into account the types and spheres of production-sectoral activities of associations, enterprises, organizations, and institutions (social, economic, organizational, scientific-technical) of all structural units, which not only ensures relative autonomy of managers but also places high social responsibility on them.

Therefore, in the process of professional training of every future pharmacist, it is necessary to consider them also as managers – individuals who will perform managerial functions in the future. Students of relevant specialties should acquire an understanding of pharmacy as an economic activity that generates profit; awareness that pharmaceutical entrepreneurship requires professionals at all levels to be directed towards finding new, non-standard ways to solve managerial professional tasks. Every pharmacist as a leader must be prepared for risk, initiative, responsibility, and self-sacrifice in the interests of the profession, must possess goal orientation, focus on efficiency and quality, and have a desire for knowledge in medicine in general and in the chosen field in particular.

The above-mentioned is reflected in the draft of the Higher Education Standard (field of knowledge 22 Healthcare, specialty 226 Pharmacy, industrial pharmacy) in the competencies of future pharmacists: general competencies (entrepreneurial spirit, initiative; ability to adapt and act in new situations, ability to choose communication strategies; teamwork skills; ability to evaluate and ensure the quality of work performed) and specific competencies (ability to organize the production activities of pharmacies for the manufacture of medicinal products in various pharmaceutical forms according to physicians' prescriptions and orders of medical institutions, including substantiation of technology and selection of auxiliary materials in accordance with the rules of Good Pharmacy Practice (GPP); ability to analyze and forecast key economic indicators of pharmacy operations, calculate major taxes and fees, set prices for medicinal products and medical devices in accordance with current Ukrainian legislation; ability to develop, implement, and apply management approaches in the professional activities of pharmacy, wholesale and retail enterprises, and other pharmaceutical organizations in accordance with the principles of Good Pharmacy Education Practice and the FIP Global Framework; ability to conduct analysis of socio-economic processes in pharmacy, forms, methods, and functions of the pharmaceutical supply system for the population and its components in global practice, indicators of the need, efficiency, and accessibility of pharmaceutical care under conditions of health insurance and reimbursement of the cost of medicinal products [6].

As we can see, the implementation of such a standard will require updating the approaches of organizers of professional training for pharmacy master's degree students to develop organizational and managerial culture through scientific management methods and appropriate pedagogical technologies (self-management techniques, initiative development, decision-making, teamwork, choice of communication strategies).

We see prospects for further research conclusions and prospects for further development of this thematic direction. Therefore, the initiated research represents one of the initial steps towards constructing and implementing a model for shaping the organizational and managerial culture of future pharmacists within the context of the domestic professional training system. This model is based on the integration of general and specialized competencies, taking into

account the achievements of modern management, societal requirements for the medical-ethical integrity of professionals, continuous improvement of educational content, and the need for the application of new educational forms and technologies. In terms of future research activities on this issue, we envision specifying the theoretical foundations and detailing the methodological aspects of such a model.

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