

REVIEW ARTICLE

ANALYSIS OF THE WORLD'S BEST PRACTICES IN TRAINING PHARMACISTS FOR PROVIDING MENTAL HEALTH CARE TO PATIENTS

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ABSTRACT

The article analyzes and systematizes international documents and research results, which reveal the experience of implementing the best practices in mental health into the educational process of training pharmacists at various levels of education. Available foreign educational programs were analyzed in terms of their form and content. According to the results of the research, it was found out that the practice of professional training of pharmacists on mental health issues is quite widespread at the world level and is presented in various scientific publications. The results of their analysis also indicate different forms of training process organization.

KEY WORDS: mental health, students, pharmacy, pharmacies

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INTRODUCTION

According to WHO's world statistics (2023), mental and neurological manifestations account for 13% of the burden of disease and have a negative impact on the economy, increasing unemployment and health care costs. During conflicts, wars, and pandemics, the need for mental health care increases [1]. Consequently, there is a great demand for mental health services for the population of Ukraine related to the consequences of the COVID-19 pandemic and the war. According to statistical data of monitoring companies, about 70% [2] of the population of Ukraine has a mental health disorder, which requires a solution through the development of a sustainable system of mental health care to "bridge the gaps" [3] and provide access to medical/pharmaceutical care to the population in accordance with the Sustainable Development Goals. The issue of implementing the best foreign experience in providing pharmaceutical assistance in the field of selling medical products to patients with mental health disorders in the educational process of training pharmacists at various levels of education in connection with the expansion of the Roles of Good Pharmacy Practice is obtaining relevance. The need to create a professional environment for pharmacy pharmacists in the context of building a mental health care system is obvious. Thus, the implementation of the best world practices in the

domestic system of training pharmacists capable of providing pharmaceutical assistance at the appropriate level using modern approaches will allow maximizing of the professional potential and prevention of complications of diseases in a timely manner. Therefore, the organization of training of pharmacists in mental health issues is relevant at the time in all countries, especially in Ukraine.

MATERIALS AND METHODS

Scientific publications, international documents, websites of international organizations and of associations of pharmacists, official websites of educational institutions, educational portals and training centers, were used to achieve the goal of the research. Methods of systematization, analysis and generalization were applied.

REVIEW AND DISCUSSION

The results of the analysis of official international documents and scientific works showed that the organization of training of pharmacists to provide pharmaceutical care for the mental health of the population is relevant in many countries of the world, i.e.: Australia [4], the USA [5], Great Britain and Ireland [6], Canada [7], New Zealand [8], Granada [8], Sweden [9], Brazil [10] etc.

Results of analysis of publications in scientometric databases Web of Science, PubMed, Elsevier, etc. to find out the state of readiness of pharmacists to provide pharmaceutical assistance to the population on mental health issues, testify to the high interest of foreign scientists in the implementation of mental health issues in the training programs of pharmaceutical personnel at various levels of education, i.e.: bachelor's, master's, continuous professional development. Thus, in the scientific works of Australian scientists El-Den, S., Moles, R., Choong, H. J., & O'Reilly, C. (2020), the positive impact of the American MHFA mental health education program for students of various specialties was investigated [11]. Scholars pay special attention to the specialized MHFA mental health program for students of pharmaceutical faculties, which has been implemented in 25 countries around the world. The MHFA program is included into the mandatory, after which the assessment of mental health knowledge, willingness to help, the degree of stigmatization and the application of skills in practical activities is carried out. At the same time, scientists emphasize that for the objectivity of assessing the acquired knowledge and skills of students, assessment based on competencies should be used [12].

English scientists H.C. Gorton, J. Strawbridge, H. Macfarlane (2023) came to the same conclusion. According to the survey data among students of pharmaceutical faculties, it was found that the students understand the importance of psychiatric care and agree with the need to expand the role of pharmacists in the Good Pharmacy Practice regarding the provision of patient-oriented care. Based on these data, the scientists reached a unanimous opinion regarding the use of a complex (integrated) approach to the formation of knowledge and skills in mental health care [13].

A systematic review of the implementation of educational programs on mental health issues in the system of master's degree training and postgraduate education, conducted in accordance with all the requirements of the Cochrane community by researchers Carmen Crespo-Gonzalez, Sarah Dineen-Griffin, John Rae, Rodney A. Hill (2022) from Australia is of scientific interest to us. Scientists have proven that the quality of acquired skills and the confidence of pharmacists and pharmacy students in providing first aid for mental health positively influenced the further pharmaceutical practice of providing such services to patients. Australian scientists investigated the quality of knowledge and skills acquired by pharmacists and students of pharmaceutical faculties after completing training in mental health educational programs. The result of the clinical study was the proven effectiveness of educational programs on the mental health of the population in the long

term at the pre-diploma and post-diploma levels of education [14].

A review of the scientific literature conducted by scientists Mohammed Kanan Alshammari, Nawaf M. Alotaibi, Suroor Nasser Al Suroor from Saudi Arabia requires special attention [15]. Scientists divided the roles of pharmacists in mental health care into conventional, extended and advanced pharmaceutical services. Their conventional services include high-quality use of MPs in medical institutions, pharmaceutical support for prescriptions (explaining to the patient the methods and features of MP's application, etc.). The scientists included the following services of pharmacists for mental health care as extended: management of the range of MP's in the patient's home first-aid kit, joint prescribing of medicines by a doctor and a pharmacist (Australia); medical products use review services, specialized teams, which include pharmacy employees, primary and secondary care physicians, solving problems related to MP's use (Great Britain); management of drug therapy, application of clinical telemedicine (USA); drug review services (New Zealand). Scientists also draw attention to the problems faced by pharmacy employees, in particular: lack of time, low awareness of patients regarding the possibility of depression screening in general practice pharmacies. The problems of implementing first aid by pharmacists are important, which consist in patient education and adaptation of protocols for pharmacists to provide primary care in mental health issues [15].

Equally important are the issues of confidentiality of patient data and support from pharmacy owners regarding patients' mental health. The low level of knowledge of pharmacists regarding mental health issues requires the adjustment of educational programs and appropriate didactic approaches on the part of teachers. Researchers from Saudi Arabia argue that educational programs should adapt to education about the pharmacological properties of antipsychotic MPs, which are based on the principles of evidence-based medicine, as well as to focus on reducing the stigma of mental health and developing communication skills [15].

Ukrainian scientists L. Hala [16], Ja. Hrynkiv [17], O. Zalizka [18], H. Panfilova [19] paid considerable attention to issues related to the organization of pharmaceutical care in accordance with the requirements of Good Pharmacy Practice. The question of potential stressful factors in the practice of pharmacists was studied by V. Tolochko, I. Mishchenko, who paid considerable attention to the psychological training of pharmacists [20]. However, the problem of training pharmacists in mental health issues was not given appropriate attention.

Table I. Professional and educational and training programs in mental health (developed by the N.Bilousova)

Educational and training programs	Professional and educational programs	<p><i>Mental health as a component of master's programs</i></p> <ul style="list-style-type: none"> • 25 countries of the world (universities of Belgium, Great Britain, USA, Australia)
		<p><i>Postgraduate training programs (PhD) - postgraduate studies with a certificate/diploma</i></p> <ul style="list-style-type: none"> • Ability to work in the field of mental health policy, public health, scientific research Great Britain, Australia, USA
<p><i>Mental health as a clinical pharmacy course module</i></p> <ul style="list-style-type: none"> • mental health is represented by separate modules in clinical pharmacy programs • Bulgaria, Poland, Romania, Belgium, Estonia, Lithuania, the Netherlands, Jordan, Israel, Saudi Arabia 		
<p><i>Specialization of pharmacists in psychiatry followed by pharmacist-psychiatrist certification (2 years)</i></p> <ul style="list-style-type: none"> • training of pharmacists for consulting activities in pharmacies and providing pharmaceutical first aid • USA, Australia, Great Britain 		
<p><i>Continuous professional development courses for pharmacists</i> (Australia, USA, Great Britain, Bulgaria, Poland, Czech Republic, Romania, Belgium, Netherlands, Jordan, Saudi Arabia)</p> <ul style="list-style-type: none"> • Short-term courses (20 minutes - 2 hours) • Short-term training programs (8-12 hours) with three qualification levels 		
<p><i>Online courses at pre/post diploma levels for a wide range of participants</i></p> <ul style="list-style-type: none"> • public organizations, associations of pharmacists) on mental health • USA, Great Britain, Australia, Belgium, Ukraine 		
Educational and training centers	Educational and training programs	<p><i>Mental Health Instructor Courses followed by certification after completion of the Mental Health First Aid Program</i></p> <ul style="list-style-type: none"> • USA, Australia, Great Britain, Ukraine
		<p><i>Introductory programs on mental health issues</i></p> <ul style="list-style-type: none"> • EU countries, USA, Australia, Great Britain, Ukraine

Considering the stated topic of the research, it should be noted that the consequences of the COVID-19 pandemic, the bloody war in Ukraine, and the European integration processes make significant adjustments to the organization of professional training of pharmacists. In this context, the question of transformation of the mental health care system of Ukraine in relation to the program of actions to overcome the gaps in the field of mental health care (mhGAP) [3] is in the center of the WHO's attention [21].

In the developed recommendations of the WHO, in view of the transformational processes taking place in the health care system in Ukraine, attention is focused on the creation of high-quality educational medical and pharmaceutical programs for the training of pharmacists [22]; increasing the number of practical training of pharmaceutical personnel on a modular basis; professional regulation in the field of health care [23].

Supported by WHO, the International Pharmaceutical Federation FIP in the global call to action on pharmaceutical education emphasizes the transformation of the training of "a flexible and adaptable pharmaceutical workforce to maximize the application of their knowledge, skills, attitudes, behaviors and abilities as part of a multidisciplinary health care team". Particular attention is paid to identifying new areas of competence development, digital health and patient safety, improving interdisciplinary, interprofessional education and collaboration with key parties concerned [24].

In the same context, Resolution CM/Res(2020)3 of the Committee of Ministers of the European Commission on the provision of pharmaceutical care in the interests of patients and health care services is of scientific interest to us [25]. Thus, the document emphasizes interprofessional relationships between pharmacists, patients, primary care physicians and nurses in order to ensure

Table II. Comparative characteristics of educational programs for different users (developed by the N. Bilousova)

Mental health programs (for a wide range of participants)	Mental health programs (for pharmacists)
panic attacks; suicidal thoughts and behavior; non-suicidal damage; acute psychosis (hallucinations; overdose or withdrawal from alcohol or narcotic MPs); reactions to traumatic events; mental health problems; an action plan for providing primary care in the field of mental health; depression; anxiety; mental health crises (panic attacks, people after traumatic events, people with aggressive behavior)	diagnosis and classification of mental disorders (panic attacks; suicidal thoughts and behavior; non-suicidal self-harm; psychosis; use of psychoactive substances; severe consequences of alcohol or other drug use; depression; anxiety; stress; traumatic events; post-traumatic stress disorders; severe psychotic states; aggressive behaviour; dementia and geriatric disorders; HIV and depression; adolescent mental health; schizophrenia; dementia; eating disorders; learning disabilities; perinatal mental health, etc.); key concepts and terminology; the latest methods of treatment of mental disorders based on evidence medicine; evidence-based pharmacological and psychological therapy; secondary psychiatric services; the effectiveness of taking drugs for the treatment of long-term mental disorders; repeated monitoring of patients in the short-term; forensic medical examination; management of stressful situations; additional support for mental health and well-being; bullying and conflicts at the workplace; increasing stability in the pharmacy team; advice on the use of fluoxetine and peculiarities of the use of clozapine; improvement of adherence to treatment of patients with depression; mental well-being of patients; training of patients and other individuals; sexual harassment in pharmaceutical practice; providing leadership in the health care system and public policy on improving the health of people with mental illness

effective and safe use of MPs. Therefore, to solve this issue, it is proposed to build such a health care system, where pharmacists and primary care doctors will act as a single link and solve part of the pharmaceutical care issues in order to implement all the clinical skills acquired in the training process. In turn, for the purpose of control, quality indicators of the provision of pharmaceutical care have been developed [26].

Our attention is drawn to a practicum for pharmacists on providing psychological first aid and psychosocial support to diverse populations, developed by Cory P. Coffee (2023) of the Ohio State University College of Pharmacy with the support of the Ohio State Pharmacists Association (USA). According to his recommendations, population groups are divided according to various states of well-being proposed by the International Pharmaceutical Federation (Fig. 1). The researcher proposes to introduce protocols for providing assistance to patients in the field of mental health, developed on the basis of evidence-based medicine. Cory P. Coffee pays special attention to the role of pharmacists in providing psychosocial support and psychological assistance for various mental health conditions [27].

Therefore, foreign programs on mental health issues for a wide range of users, including pharmacists, developed on the basis of competencies, have proven effectiveness in the long-term perspective of formal and informal education (master's educational and professional programs, thematic improvement courses for

pharmacists, professional seminars, trainings, etc.) [29].

This approach is important in the provision of pharmaceutical patient-oriented care in the field of selling MPs for the prevention and treatment of patients with mental health disorders at the levels of mental well-being, mild and moderate distress and mental health disorders. We analyzed available mental health educational programs and online resources aimed at raising awareness of this issue. Based on the results of the research, eight different most common areas of professional educational and training programs for training pharmacists in mental health issues with the use of modern educational technologies, have been identified (Table I).

The American MHFA distance course [30] is of specific scientific interest. The course lasts 8 hours and is intended for a wide range of participants. The pharmacist course curriculum provides an in-depth study of mental health issues and includes the following primary care modules: depression and mood disorders; anxiety disorders; panic attacks; traumatic events; psychosis; disorders related to the use of psychoactive substances; severe mental conditions.

An Australian blended (online/offline) mental health primary care course has developed a competency framework for pharmacists to acquire upon completion of the course. The course curriculum provides an in-depth study of mental health issues for pharmacists and includes four three-hour sessions with presentations,



Fig. 1. States of mental health according to [28].

videos, practical sessions, group work and role-playing. The course consists of two components: interactive e-learning for self-study (5-7 hours); instructor-led video conference or classroom training (2 - 2.5 hours). The content of the training course includes the following topics: mental health problems; an action plan for providing primary care in the field of mental health; depression; anxiety problems; panic attacks; psychosis; serious traumatic events; problems with the use of alcohol and narcotic MPs; severe mental conditions; mental health crises [31].

It is worth mentioning, that professional educational programs for pharmacists are implemented in various universities around the world. These include the University of Manchester, College of Pharmacy and Mental Health (Great Britain) [32], which have implemented both short courses in mental health and longer educational programs to train pharmacists in postgraduate continuous professional development (CPD). There is also a focus on longer-term educational programs to integrate pharmacists into mental health to intervene in patient care to improve medication and treatment adherence for depressed patients [33].

It should be noted that Queen's College (Great Britain) [32] jointly with Birzeit University (Palestine) [34] offer 4-week training courses for pharmacists in the process of continuous professional development in mental health issues, developed on the basis of the National Competence Frameworks of these countries. The intervention strategies in the mental health of citizens, mental health practice, methods of mental health research in conditions of war and military conflicts, consultations for patients with mental health disorders, which are considered in the training process, are of special interest.

Our attention was drawn to the integration program with the expansion of Roles of Pharmacists in Mental Health offered by the University of Bradford (Great Britain). It is developed on the basis of the National Competence Framework. The curriculum of the course involves 12 months of instructional training and includes 10 modules: assessment of instructional training needs; work in community groups for mental health care; mood disorders; audit and assessment of services; psychosis and schizophrenia; care for the elderly; education of patients and other persons; misuse of psychoactive substances; complex and multiple disorders; quality improvement and research [35].

In our opinion, the two-year American BPS Board Certified Psychiatric Pharmacist (BCPP) specialization program for pharmacists in psychiatry, developed on a competency basis, requires special attention. The program includes training modules for developing, implementing, monitoring and changing patient treatment plans; education of patients, medical professionals and other interested parties; providing leadership in health care and public policy to improve the health of people with mental illness. The main vectors of the development of specialization of pharmacists in mental health are person-centered care; transition of evidence into practice and education; health policy, advocacy and mental health practice management.

The results of a comparative analysis of various professional education and training programs for pharmacists allow us to summarize that they include both topics from training courses for a wide range of participants with developed guidelines for providing first aid for the community in the field of mental health and in-depth training on mental health, which is based on evidence (Table II).

It should be noted that distance learning is now widely used, including for educational programs on mental health. Online courses on mental health issues can currently be found on the websites of universities or pharmaceutical societies (public organizations). Such training programs are of short duration (from 20 minutes to 2 hours) and are offered by various professional communities and educational platforms (for example, the community of pharmacists of Great Britain "C+D Community" [36], Future Learn [37], MH4U (Ukraine) [38], Prometheus (Ukraine) [39], Academy of the National Health Service of Ukraine [40]) etc. The educational portal Future Learn offers 4-week courses on mental health issues for pharmacists, which are based on the principles of evidence-based medicine, and the Ukrainian platform of the MH4U project offers short-term courses on mental health issues for a wide range of users. Short-term online courses "Mental Health Self-help for Veterans"; "Traumatic Experience and PTSD" for psychotherapists, etc. are offered by the educational web-site Coursera. The Academy of the National Health Service of Ukraine (NHSU) offers an online course for family medicine doctors "Therapy of common mental disorders at the primary level of medical care by using the mhGAP guidelines" with the support of WHO, the Ministry of Health of Ukraine and the NHSU.

Therefore, summarizing the results of the analysis of the best global practices, we can conclude that the practice of professional training of pharmacists in mental health issues is quite widespread at the world level and is presented in various scientific publications. The results of the conducted analysis indicate different forms of organization of this training. Therefore, in our opinion, it is quite logical to introduce training programs on the mental health of the population into the practice of professional training of Ukrainian pharmacists both at the master's level and in the system of continuous professional development.

CONCLUSIONS

1. The international experience of professional training of pharmacists in mental health issues is summarized for further implementation in Ukrainian professional and educational programs of training pharmacists during lifelong learning.

2. It was found that foreign educational programs on mental health issues were developed on the basis of modular and competency-based approaches. The most common form of education is informal education (specialization of pharmacists in mental health issues, thematic improvement courses for pharmacists, professional seminars, trainings, schools in mental health issues, etc.).
3. Foreign educational programs on mental health issues are offered by institutions of higher education, pharmaceutical societies, public organizations, educational Internet portals, which indicates a high interest of society in this issue.
4. The content analysis of available educational programs for pharmacists in terms of structure and content showed eight different, most widespread areas of professional-educational and educational-training programs for training pharmacists on mental health issues using modern educational technologies.

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