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### THE SCIENTIFIC TALKS OF MODERN SOCIAL PHARMACY ISSUE PROSPECTS, MANAGEMENT AND PHARMACY AT THE STAGES OF CREATION, IMPLEMENTATION NEW PHARMACEUTICAL CARE STRATEGIES, ACCORDING PHARMACIST PROFESSION TRIALS IN GENERAL LOCALLY AND GLOBALLY

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#### **ABSTRACT:**

The main aim of the study was to analyze management in pharmacy at the stages of creation, implementation new pharmaceutical strategies, according pharmacist profession trials in general locally and globally. Pharmacy management encompasses the organizational and leadership roles that ensure efficient pharmaceutical service delivery. In the context of new pharmaceutical strategies, the pharmacist plays a key role at various stages of the process— from the creation of drug therapies to their implementation in real-world settings. Effective management practices are necessary for ensuring that these strategies align with regulatory standards, meet patient needs, and provide sustainable economic models. The creation of new pharmaceutical strategies begins with extensive R&D, where scientific advancements in drug discovery, chemical compounds, and biological agents are translated into potential therapeutic interventions. Pharmacy management plays a vital role during this stage, ensuring that research is conducted efficiently, ethically, and with a clear focus on therapeutic goals. Management must ensure that R&D activities comply with regulatory

requirements, such as Good Manufacturing Practices (GMP) and Good Clinical Practices (GCP). Additionally, collaboration between pharmacists, researchers, and medical professionals is critical to align the scientific aspects of drug creation with practical healthcare applications. Pharmaceutical care has evolved from a traditional focus on dispensing medications to a patient-centered approach that emphasizes optimizing health outcomes. Pharmacists play a vital role in this shift, acting as integral members of healthcare teams and patient advocates. This article explores the expanding responsibilities of pharmacists in pharmaceutical care, highlighting their role in ensuring the safe, effective, and rational use of medications, while also addressing patient-specific needs and improving overall healthcare outcomes.

### **Introduction**

The modern pharmaceutical industry is characterized by continuous innovation, the development of novel therapies, and evolving healthcare challenges. In this landscape, effective management in pharmacy becomes crucial, particularly during the stages of creating and implementing new pharmaceutical strategies. This scientific article explores the complex processes involved in these stages, focusing on the role of management in pharmacy, the challenges pharmacists face, and the implications of their trials, both locally and globally [1-2].

Once a new drug is developed, pharmacy managers must navigate the complex landscape of regulatory approvals. Agencies such as the U.S. Food and Drug Administration (FDA), European Medicines Agency (EMA), and local health authorities require that new pharmaceuticals undergo rigorous clinical trials to prove safety and efficacy [3-4].

Pharmaceutical care has evolved from a traditional focus on dispensing medications to a patient-centered approach that emphasizes optimizing health outcomes. Pharmacists play a vital role in this shift, acting as integral members of healthcare teams and patient advocates. This article explores the expanding responsibilities of pharmacists in pharmaceutical care, highlighting their role in ensuring the safe, effective, and rational use of medications, while also addressing patient-specific needs and improving overall healthcare outcomes [5-6].

Pharmacists, as key stakeholders in this process, must ensure that the data generated from trials is accurate, transparent, and aligned with both local and global regulatory frameworks. The profession faces unique challenges during this phase, as differing regulatory environments across countries may require tailored approaches for submission and approval [7-8].

Pharmaceutical care is a one important component link of the health care system. Pharmacist specialties are-pharmacist technologist, the first table pharmacist and clinical pharmacist. Most of the pharmaceutical specialties are clinical pharmacist. As for the clinical pharmacist, we believe that both the United States and many European countries, that clinical pharmacist profession will become a successful profession in Georgia too [9-10].

In pharmacies in European countries, the main tasks of pharmaceutical service providers (pharmacists) are: receiving drug prescriptions, checking patients' history and verifying proper dosage and administration methods and compatibility of drugs before dispensing; preparation and labeling of drug forms based on prescriptions; Providing information and advice to patients on drug interactions, incompatibilities and contraindications, side effects, dosage and proper storage; Communicating with other health care specialists to plan, monitor, review and evaluate the quality and effectiveness of treatment for individual patients and to maximize the effectiveness of a particular pharmaceutical product or medication; production of documentation of narcotic drugs, psychotropic medications and accounting in accordance with the requirements of the legislation; Ensuring the storage of vaccines, serums and other medicinal products under appropriate conditions; consultation and provision of over-the-counter medications; Supervise and coordinate the work of pharmacy technicians, pharmacy interns and pharmacy sales assistants. In some countries, pharmacists can take postgraduate specialization in pharmacy. This is the case, for example, in Germany, the Netherlands, Switzerland (where it is mandatory) and the United Kingdom. In Germany, specialization in pharmacy is possible only in the field of general pharmacy. However, specializations are also available in various fields such as geriatric pharmacy, diabetes, homeopathy

and more. In the UK and some other countries, clinical pharmacist qualifications are available as a prerequisite for pharmacists to be employed as lead pharmacists [11-13].

In patient-centered health care, the first challenges are to identify and meet the changing needs of patients. Pharmacists need to ensure that people can access medicines or pharmaceutical advice easily and, as far as possible, in a way and at a time and place of their own choosing. They can empower patients by engaging them in dialogue to communicate knowledge which enables them to manage their own health and treatment. Although patients are exposed to a wide range of information from package inserts, promotional materials, advertising in the media and through the Internet, this information is not always accurate or complete. The pharmacist be able to help informed patients to become exactly informed patients by offering unbiased relevant evidence-based information and by pointing to reliable sources. Counselling on disease prevention and lifestyle variation will promote public health, while shared decision-making on how to take medicines through a concordant approach will optimize health outcomes, reduce the number of medicine-related adverse events, cut the amount of medicine which is wasted and improve adherence to medical treatment [14-16].

Responsible administering of drugs involves that healthcare network mediator capabilities and activities are balanced to assure that patients get the right drug, on the proper time, using properly and patient have profited from them. Delivering the right drugs into patients' demands commitment of all representatives, inclusive Government and a desire on how to consolidate private and public interests and mobilize sources. That is significant for the public to be guaranteed that expenses on pharmaceuticals productions are an equivalent cost of cash. On the viewpoint of the pharmacists' comprehensive academically field and their traditionary function in composing, qualifying, delivering and ensuring drugs. A pharmacist is informing customers, consumers and patients on the drug using; they are greatly positioned to suppose professional liability for the monitoring of pharmacotherapy. They are members of the healthcare team immediately engaged in patients' health care services. Their responsibility is to assistance patients in using their drugs, which is impossible to do alone. Thus, in terms pharmacists' profession have been progressed. New type pharmacists have done the work in more efficient way. Pharmacists holding the higher, university-level education. They understand the biochemical mechanisms of metabolism, mechanisms actions of drugs, medicines pharmacotherapeutic characteristic, side effects of drugs, potential interactions of drug and the argumentations monitoring. It is conjugated of specialized knowledge of biochemistry, anatomy, therapy, physiology, pathology, pharmacology and other pharmacy subjects. The pharmacists explain this particularized knowing when communicating with physicians, patients and another health care providers [17-19].

Based on the current situation analysis and identifying gaps in the pharmacy system, as well as taking into consideration distinctive specificities of pharmacists from the view point of clinical outlooks in Georgia, compare international regulations in Europe and elaboration of the recommendations aimed at solving the existing problems have been encountered. A comprehension of the existing problems solving urgency moved us to perform the given research with the selected appropriate design, which defined such objectives, as assessment and analyzing of the current situation of the distinctive specificities of pharmacists' higher educational perspectives from the view point of clinical outlooks in Georgia and detection of the gaps and outlines of the Georgian clinical pharmacist system's perspectives. Development and justifying the practical recommendations for improving the professional development of clinical pharmacists and the quality of pharmaceutical care in whole [20-21].

Analysis of the literature showed that research aimed at the study of individual aspects of the process of professional development of pharmaceutical professionals are dedicated to the development of requirements to ensure effective pharmaceutical care, studies of postgraduate education, finding strategies for management of pharmaceutical personnel, job satisfaction of pharmacists, issues of their psycho-social adaptation to the emerging market conditions. However, comprehensive studies aimed at understanding the processes of professional trainings of pharmaceutical specialists to provide high quality pharmaceutical care have not yet been carried out [22-23].

One of the primary responsibilities of pharmacists in pharmaceutical care is Medication Therapy Management (MTM). MTM involves comprehensive reviews of a patient's medications to ensure their effectiveness, safety, and appropriateness for the patient's condition. Pharmacists assess a patient's full medication regimen, including prescription medications, over-the-counter drugs, herbal products, and dietary supplements, identifying potential drug interactions, dosing issues, and medication duplications [24-25].

Pharmacists also educate patients about their medications, providing information on how to take them correctly and the potential side effects. MTM programs have been shown to improve patient adherence, reduce adverse drug events, and lead to better therapeutic outcomes [26-27].

### **The aim of the study**

The aim of the research was to provide a complex study, analysis and evaluation management and pharmacy at the stages of creation, implementation new pharmaceutical strategies, according pharmacist profession trials in general locally and globally.

### **Methods of research**

Methodology of the study was sociological research: The study was quantitative investigation by using survey (Questionnaire). Research objectives are materials of sociological research: the study was quantitative investigation by using survey (Questionnaire). The in-depth interview method of the respondents was used in the study. The 7 types of approved questionnaires were used (Respondents were randomly selected): Questionnaire for chief pharmacists: 410 chief pharmacists participated in the study. Questionnaire for patients: 1506 patients (customers of drug-stores) participated in the study. Questionnaire for the employed pharmacy faculty-student: 222 employed pharmacy faculty students participated in the study. Questionnaire for health-care specialists: 307 public health specialists participated in the study. Questionnaire for pharmacist specialist, 810 pharmacist specialists participated in the study.; Totally 3888 respondents were interviewed in Georgia. We used methods of systematic, sociological (surveying, questioning), comparative, segmentation, mathematical-statistical, graphical analysis. The data was processed and analyzed with the SPSS program. Results and discussion: The survey was conducted through the questionnaires. 1506 patients were interviewed in Georgia. Questions and answers are given in the tables. On each question are attached diagrams or table. Questionnaire and diagrams are numbered. The data was processed and analyzed with the SPSS program. We conducted descriptive statistics and regression analyses to detect an association between variables. Statistical analysis was done in SPSS version 11.0. A Chi-square test was applied to estimate the statistical significance and differences. Study of the data was processed and analyzed with the SPSS program. We conducted descriptive statistics and regression analyses to detect an association between variables. Statistical analysis was done in SPSS version 11.0. A Chi-square test was applied to estimate the statistical significance and differences. We defined  $p < 0.05$  as significant for all analyses. The study's ethical items. In order to provide the study's ethical character each participant of it was informed about the study's goal and suggested of willingness of the work to be done. So, the respondents' written or oral compliance was got on that issue. All the studies were carried out by the selected organizations administrations' previous compliance. Were used Informed consent form for each respondent to participate in an anonymous survey. During the whole period of research, the participants incognita was also provided. For the international rules and criteria' conformity this human subject comprising given study was discussed and confirmed on the Bioethics Committee sessions of the YSMU.

### **Main results and discussion:**

On the basis of performed study results the following have been founded:

Pharmacists across the globe face unique challenges in providing pharmaceutical care. In many low- and middle-income countries, pharmacists must work with limited resources, restricted access to medications, and high patient loads. In these regions, pharmacists often serve as the primary healthcare provider, offering essential pharmaceutical care services such as medication counseling, chronic disease management, and health screenings [28-29].

Globally, pharmacists are also challenged by the growing burden of chronic diseases, antimicrobial resistance, and an aging population. These trends require pharmacists to continually expand their roles, adopting new technologies, evidence-based practices, and collaborative approaches to care [30-31].

Pharmaceutical care is defined as the direct, responsible provision of medication-related care to achieve specific health outcomes that improve a patient's quality of life. This concept encompasses a range of pharmacist responsibilities, including medication management, patient counseling, and collaboration with other healthcare providers. Pharmaceutical care aims to prevent, identify, and resolve drug-related problems, ensure medication safety, and promote adherence to prescribed therapies [32-33].

Pharmacists are uniquely positioned to deliver pharmaceutical care due to their expertise in medications and their interactions, as well as their accessibility to patients in a variety of healthcare settings, including hospitals, community pharmacies, and clinics [34-35].

Once regulatory approval is granted, the next phase is the introduction of the pharmaceutical product to the market. Pharmacy management during this stage is multifaceted, involving supply chain logistics, marketing strategies, pricing models, and distribution channels [36-37].

Local and global markets pose unique challenges to pharmacists. In developed regions, access to healthcare resources and technological infrastructure supports the swift rollout of new drugs. However, in developing countries, pharmacy managers must navigate logistical issues related to distribution, healthcare accessibility, and economic constraints. Therefore, global pharmaceutical strategies often require innovative solutions, such as tiered pricing models, public-private partnerships, and alternative distribution networks [38-39].

Pharmacists play a pivotal role in the implementation of new pharmaceutical strategies. Their responsibility extends beyond simply dispensing medication—they are involved in patient education, adherence monitoring, and assessing therapeutic outcomes. Pharmacist-led interventions can improve patient outcomes by ensuring correct medication usage and reducing the risk of adverse effects.

Locally, pharmacists are uniquely positioned to address community-specific healthcare needs by tailoring strategies to regional challenges. Globally, they work within the broader framework of international health systems, which may involve cross-border collaborations, global disease management programs, and adapting to diverse patient populations [40-41].

Pharmacists working within local settings often face the challenge of integrating new pharmaceutical strategies into existing healthcare systems. Resource limitations, lack of infrastructure, and varying degrees of healthcare literacy among the population can impede the adoption of new therapies. For instance, pharmacists in rural or underserved areas may struggle with shortages of medicines or insufficient access to cutting-edge therapies [42-43].

Additionally, pharmacists must balance the commercial interests of pharmaceutical companies with ethical considerations for patient care. Pricing strategies, particularly for expensive, newly launched drugs, can create tension between ensuring access and maintaining profitability.

Development of organizational and functional models for licensing pharmaceutical activities, is considered as one of the mechanisms to improve the efficiency of public administration, and has great relevance and scientific and practical value. An integral part of the state system of measures to implement the rights of citizens to protect their health is pharmaceutical care, the quality of the provision which is largely dependent on the qualifications of the personnel pharmacist. In this regard, the professional qualification of experts is under the control of the state and is one of the objects of state regulation of relations in the field of drug- medicine, whose purpose-maintaining the competence of expert specialists on throughout their careers with varying requirements for professional quality. The modern system of pharmaceutical care to improve the quality of life of patients depends on highly skilled professionals in drug-store whose competence has been growing in the process of professional development. The pharmacists require not only the use of earned at the institution of knowledge and skills, but also the willingness to professional self-development. Since the scope of drug treatment is one of the most socially significant areas of state regulation, the sequence in carrying out reform measures, conservation experience, and smooth introduction of new

methods become crucial. However, comprehensive studies aimed at understanding the process of professional formation pharmaceutical worker, for to provide quality pharmaceutical care has not yet been carried out. Development of organizational and functional model of the licensing of pharmaceutical activities, pharmacists job as one of the mechanisms to improve the efficiency of public pharmaceutical and public administration, has great relevance, scientific and practical value [44-45].

Developed countries and many developing countries in the field of pharmacy are regulated, as well as family medicine. The pharmacist as family doctor needs of higher education, post-graduate and continuing education in pharmacy, a pharmacist license and periodic accreditation. In western countries in pharmacy, allowed to work only with higher pharmaceutical education specialists who have graduated from state-recognized and accredited colleges. The opening of a pharmacy permit is issued only to a person of higher pharmaceutical education, who passed the diploma courses in pharmacy and earned the right to open the pharmacy. It should be noted that in developed countries and in many developing countries pharmaceuticals are regulated profession, as well as family medicine, pharmacist as a family doctor, need higher pharmaceutical education, diploma and continuous pharmaceutical education, pharmaceutical license and periodic accreditation. Only pharmacists with higher pharmaceutical education have the right to work as pharmacists in pharmacies, who have graduated from universities recognized and accredited by the state [46-47].

The accountability of health professionals for their actions is another major issue in health care provision. In the traditional relationship between the doctor as prescriber and the pharmacist as dispenser, the prescriber was accountable for the results of pharmacotherapy. That situation is changing in rapidly evolving health systems. The practice of pharmaceutical care assumes the pharmacist to be responsible for patients under their care, and society will not only accept that assumption but hold the profession to it [48-49].

Clinical pharmacists often apply their knowledge of drugs to a patient-specific treatment plan and evaluate dosage suitability, side effects, efficacy, and drug interactions. If necessary, the clinical pharmacist can discuss any issue and advise the physician, who is primarily responsible for prescribing drugs to patients, to ensure optimal use of the drugs. To practice, clinical pharmacists must graduate in a recognized area of qualification. The specific requirements for these degrees may differ depending on the country of operation. Subjects that are commonly found in the university's clinical pharmacist program include biology, chemistry, pathology, pharmacology, and socio-behavioral sciences. Most clinical pharmacists in the United States hold a Ph.D. in Pharmacy (Phar.D.) in addition to several years of postgraduate education such as a pharmaceutical residency. They can be certified as a clinical pharmacist through the Pharmaceutical Specialties Council, which is independent of the American Pharmacists Association. Education and certification requirements in other countries may differ depending on the guidelines set by the regulatory authorities. Clinical pharmacists are responsible for providing safe, effective, and timely drug therapy. Through various tasks in the department, they provide support for centralized and decentralized drug use systems, as well as optimal drug therapy for patients with a wide range of medical conditions. Clinical specialist pharmacists are competent in delivering direct patient-centered medical care and integrated operational pharmacy services in a decentralized practice with the participation of doctors, nurses and other hospital staff. These physicians are aligned with targeted multidisciplinary programs and specialized services to ensure drug therapy management within specialized patient care services and to ensure that pharmaceutical care programs are properly integrated across the facility. In these clinical roles, clinical pharmacists are involved in all necessary aspects of the drug use system, while providing comprehensive and personalized pharmaceutical care to patients in their assigned areas [50-51].

There are both ethical and practical imperatives to addressing health inequalities associated with chronic disease management for people with social difficulties, and existing programs often do not adequately meet the needs of these people. This leads to low participation rates, suboptimal chronic disease management and higher utilization of health services. Unlike acute conditions, chronic conditions require ongoing care and treatment outside of health care settings, in the

community or in primary health care settings in terms of medication use, lifestyle management and behavior change in health. Typically, this is a multi-pronged intervention that includes a review of drug therapy, patient education for treatment, monitoring of medication, immunization, self-care, and support. disease, and / or prescribing authority. Patients who take a lot of medications due to chronic disease are at high risk for drug duplication, interactions, or ADRS, which can lead to longer hospital stays and higher costs. To improve the safety and efficacy of therapeutic agents, these patients must meet special needs for appropriate drug use. Research has shown that integrating pharmacists into outpatient clinics can improve chronic disease management and optimal medication use. Additionally, involving a pharmacist in patient care can help reduce inappropriate medication use, especially in the elderly. The study shows that the proportion of patients receiving the wrong drug drops considerably after review and optimization of the drug by a team including a pharmacist. Compared to conventional treatment, pharmacist-directed care was associated with a similar frequency or frequency of office visits, emergency room or emergency department visits, as well as hospitalizations and adherence, increases in the amount or dose of drugs received and improvements in study glycemic choices, blood pressure, and lipid target achievement. Another recent study shows that a telemedicine-based chronic disease management program involving clinical pharmacists resulted in statistically significant improvements in diabetes and hypertension outcomes as well as clinically significant improvements in lipid control and withdrawal. smoking [52-54].

The majority of the respondents (chief pharmacists) considered that main qualities, capabilities and skills required for pharmacists were ability to make decision fast and love towards their profession. Less than half part of chief pharmacists considered that main qualities, capabilities and skills required for pharmacists were flexibility while changing the labor functions, ability to build up relations with people and high level of culture [55-56].

Therefore, the role of pharmacist is underlined in healthcare system. For the higher quality healthcare and pharmaceutical services education level is of great matter. The study provided showed that the health of patients was directly related to the professional education level of pharmacist. Therefore, pharmacist should have appropriate higher pharmaceutical education, higher professional knowledge in pharmacology, pharmaceutical care, pharmacotherapy, clinical pharmacy and other professional subjects.

For the majority of respondents' patients mostly asked the pharmacists about the rules of drugs intake and prices of drugs. For the less than half part of the respondents mostly asked about the drugs' adverse effects and quality. For about the one third of them mostly asked about help in selection of analogue of drugs, indication/contraindication of drugs, the terms and conditions of their storage (conditions and shelf-life), the drugs dosage, rules of drug administration and selection of OTC drugs.

Therefore, pharmacist should possess deep and steady knowledge in pharmacology, pharmacotherapy, toxicology, pharmaceutical care, clinical pharmacy, pharmacokinetics, pharmacodynamics, basics of medicine and other pre-clinical and clinical subjects. Such knowledge can be obtained only from higher pharmaceutical education institutions. Therefore, pharmacist working on pharmacist position must have exclusively the higher pharmaceutical education [57-58].

The respondents' public health specialists' majority considered that importance in work of pharmacist was in personal realization as a specialist, receiving remuneration and provision of necessities of life. The respondents' minority considered it to be in relief of pain in suffering of people. Less than half part of the respondents' public health specialists considered that the level of basic training of pharmacists was not corresponding to the contemporary requirements. According to the sociological study results of the public care specialists it is obviously, that all pharmacists should have higher pharmaceutical education from the state recognized and accredited higher education institutions and universities. Pharmacists' specialty should become a regulated health care profession. According to that Government should make certification, licensing and accreditation of pharmacist professionals [59-60].

The respondents' public health specialists' vast majority considered that the issues to for pharmacists were in need of the further regular studies or trainings in the following fields: new medications, issues of pharmacotherapy of certain diseases, pharmacology and pharmacotherapy,

drugs toxicity. From the study results it is obvious that in the higher pharmaceutical institutions' pharmaceutical educational programs and curriculum need upgrade, renewal, modernization and adaptation to the new modern medical challenges. Therefore, continuous pharmaceutical educational programs should be created. These programs should be more focused on new medications, pharmacotherapy, drugs toxicity and dosage, routes of drug administration, selection of OTC drugs, cost-effectiveness and cost-benefits of drugs [61-62].

Approximately half part of the respondents' public health specialists was not familiar to the concept of pharmaceutical care; while more than a quarter of the public health specialists were well familiar to the concept of pharmaceutical care. The respondents' public health specialists' large majority considered necessity of provision of cooperation between pharmacists and physicians on the issues of pharmacotherapy. The pharmacist must provide information to doctor about new drugs pharmacotherapy, the generic replacement drugs, the cost-effectiveness and cost-benefits of drugs, drugs' generic, chemical and brand names. In our opinion and vision cooperation between pharmacists and physicians on the issues of pharmacotherapy is positively reflected on patients' health and has great importance for provision higher quality health care service for patients' safety [63-64].

More than half part of the respondents' public health specialists considered that pharmacist is not in charge of treatment as a physician, meanwhile about a quarter of the public health specialists considered a pharmacist to be in charge of that. Properly educated pharmacist can minimize and reduce the mistakes made by a doctor in the recipe. That has a great importance and value for provision higher quality health care service for patients' safety. The respondents' public health specialists' vast majority considered that pharmacist should provide assistance in teaching patients to understand the prescribed drugs intake rules. According to that higher quality pharmaceutical service could be only provided by the pharmacists of higher pharmaceutical education, graduated from the authorized, accredited and licensed by the state higher education institutes and universities [65-66].

To provide contribution and assistance in teaching of patients to understand the prescribed drugs intake rules, pharmacists need in deep knowledge in basics of medicine, pharmacology, pharmacotherapy, pharmaceutical chemistry, pharmaceutical care, clinical pharmacy and other pharmaceutical disciplines. Properly educated pharmacists have great importance and value for the provision higher quality health care services, for the provision higher quality pharmaceutical care and very essential for patient's safety [67-68].

About half part of the respondents' public health specialists considered that pharmacist is not responsible for registration of adverse effects of the drugs, while less than a third part of them considered pharmacist to be responsible for that. By legislation one of the functions of pharmacist is to register the side effects of drugs, what is very essential for patients' safety. It should increase the awareness of pharmacist as the health professional [69-70].

The respondents' public health specialists' vast majority considered that the Government should make the certification of pharmacists. It is very essential and important that higher pharmaceutical educated pharmacists to have pharmacist license issued by the Government. The vast majority of the public health specialists considered that the professional activity of pharmacist is very important for the society. For the majority of respondents mostly significant factors while choosing a pharmacy were: service culture, wide range of products and reasonable prices. For less than half part of respondents mostly significant factors while choosing a pharmacy were: possibility to receive consultation about medications with a physician/ a pharmacist, convenient location of the pharmacy, high qualification of pharmacist personnel [71-72].

During research the factors, influencing on the pharmacy faculty students' professional development were found and evaluated. These factors included interesting and valuable work, the favorable psychological climate within the colleagues' team, possibility of career development, professional training, social importance of profession and independence in the work.

The employed pharmacy faculty students' vast majority considered that the Government should make the certification of pharmacists to raise professional standards licensing and certification of pharmacists. The certification of higher pharmaceutical education pharmacists is very essential for the pharmacist's professional perfection, for pharmacists' career enhancement, for

vocational advancement and it is main determine detector factor for pharmacist professionalism level. Pharmacist position should become regulated health profession as the member of other health profession team (but now unfortunately pharmacists are not member of regulated health teams). Pharmacists' periodic licensing, certification and accreditation should increase pharmacists' professionalism level and is guarantee upper quality pharmaceutical care. All above mentioned is indicator factor of the health care system service quality [73-74].

First time were complex studied professional peculiarities of the pharmacists per vision by pharmacists specialists, professional peculiarities of the employed pharmacist-student, professional peculiarities of the pharmacists by vision of the chief -pharmacist, peculiarities of professional for pharmacists via per vision of the health-care specialist, pharmacists' professional features as per view of the patients, professional peculiarities of the young pharmacist- specialists, professional peculiarities of the pharmacist-student. To reveals influencing factors for the specificites of the role, achievements, innovations, professional and enhancement prospects of pharmacists in health care sector. In result of the study and evaluation of the pharmacist's professional peculiarities news, objectively reasoned comprehension of the problems in this field has been adopted, which became a base for developing recommendations. In particular, for the first time the following have been studied and established: the peculiarities of professional and career improvement strategy for pharmacists, pharmacist specialist's professional features, specificites of the role, achievements, innovations, professional and enhancement prospects of pharmacists in health care sector globally. First time the process of professional formation of pharmacists in the scope and context of pharmaceutical care, including the stages of professional development was studied and scientifically established. First time the most influencive factors for the pharmacist's professional formation were identified. Deepen defined the role of pharmacist and the specific features for the pharmaceutical specialists' formation at various stages were studied and identified. On the bases of comprehensive studied was revealed, that pharmacist specialists in contradistinction to other medical specialists like physicians, dentists etc do not have continuous education, periodic certification and licensing. Pharmacists' profession removed from the regulated and certified health professional members' team [75-76].

The results of our study have been shown and substantiated, that the pharmacists, as well as doctors and stomatologists, who are obliged to take part in the mandatory certification by the Government, in order to improve the responsibility on their own professional specialization for motivate and improve their vocational knowledge and skills with the help of continuous education. It would be promoted, that pharmacist to become more responsible, accountable and liable on for enhance their professional knowledge, skills and competencies. All the above mentioned first time we conducted a comprehensive and deep study of the scientific research for specificites of the role, achievements, innovations, professional and enhancement prospects of pharmacists in health care sector globally [77-78].

In some countries, the pharmacy profession specialist has been evolved to the points at which clinical pharmacy with patient-focused practice is no longer the exception but the rule for most pharmacists. Yet clinical pharmacy is still practiced exclusively in in-patient settings and hospitals, where access to patient data and the medical team is available. The medical record, also known as the patient chart or file, is a legal document including hospital-specific admission information, initial patient history and physical examination, daily progress notes made by health care professionals who interact with the patient, consultations, nursing notes, laboratory results, diagnostic procedures, dietary recommendations, radiology and surgery reports. The most scheme also include sections for medication orders and clinical pharmacy progress notes on pharmacokinetic dosing and other relevant therapeutic comments and recommendations.

Clinical pharmacy demands an expert knowledge of therapeutics, a good understanding of disease processes and information knowledge of pharmaceutical products. In addition, clinical pharmacy requires strong communication skills, ability with solid knowledge of the medical terminology, drug monitoring skills, provision of medicines information, therapeutic planning skills and the ability to assess and interpret physical and laboratory findings [79-80].

Pharmacokinetic dosing, controlling and monitoring is a particular skill and service provided by clinical pharmacists. Clinical pharmacists are frequently active members of the medical team and accompany ward rounds to contribute to bedside therapeutic discussions. [46,68,69]

The minimum national standards for every action are based on processes where needs are relevant and defined appropriately according to the local needs of the pharmacy practice environment and national profession aspirations. All national pharmacy professional associations must also adapt and fit in these roles and functions in accordance to their own requirements specification. The activities listed below can be further determined and measured by setting indicators of good pharmacy practice within a national context and can be weighted by actual practice-setting priorities [90-91].

There are four basic roles where pharmacists' participation or supervision is expected by public and the individuals they serve: Prepare, obtain, store, secure, distribute, administer, dispense and dispose of medical products; Provide effective pharmacotherapy management; Maintain and improve professional performance; Contribute to improve effectiveness of the health-care system and public health. These roles may change for each individual pharmacist depending on their practice duty, liability and responsibilities. Specific standards of GPP can be developed only within a national pharmacy professional organization framework.

Disease-orienting pharmaceutical care: It is considered easier for pharmacists and their staff to provide disease- focused pharmaceutical care than comprehensive pharmaceutical care, but in European Union there is an ongoing dispute about whether it is ethically permissible to limit the provision of pharmaceutical care to groups of patients with certain characteristics and to not provide pharmaceutical care to others HIV/AIDS, Coronary Heart Disease, Hypertension, Lipid Management, Diabetes, Asthma, etc. Pharmacists are in the great position to meet the need for professionals to guarantee the safe and effective use of drugs. To do so, pharmacists must accept greater responsibility than they at the present time do for the management of pharmacotherapies for the patients they serve. This responsibility goes well beyond the traditional dispensing activities that have long been the support of pharmacy practice. While control and supervision of the routine drugs distribution process must remain the responsibility of pharmacists, their direct involvement in drug distribution will decrease, since these routine activities will be handled by qualified pharmaceutical care. However, the number of supervisory activities will increase. Thereby, pharmacists' responsibilities must be extended to include monitoring therapeutic progress, recommending and consulting with doctors, and collaborating with other health care practitioners on behalf of patients [81-83].

The move in the direction of pharmaceutical care is a critical factor in this cause. Pharmacists have the opportunity to enhance therapeutic results and patients' quality of life within existing resources, and must position themselves appropriately within the health care system. Pharmaceutical education has a corresponding responsibility to generate graduates who are competent to deliver pharmaceutical care. Outcome competencies contribute to quality guarantee by providing readily accessible standards against which practice may be measured [15,19,28,58].

The certain and concrete standards of GPP can be developed only within a national pharmacy professional organization structure. Achieving certain and concrete standards of GPP for each nation within these recommendations may require considerable time and effort. As health professionals, pharmacists have a duty to begin the process without detention [17,45,62].

European pharmaceutical care network was established in 1995 (Pharmaceutical Care Network Europe) it cooperates with the World Health Organization on development and implementation of pharmaceutical care and appropriate pharmaceutical practice issues, where there is separated the direction of disease-oriented pharmaceutical care. In 2013 the European pharmaceutical care network (Pharmaceutical Care Network Europe) together with international experts has developed a new definition of pharmaceutical care, namely: pharmaceutical care, it is the pharmacist's role in patient care, which can be achieved through optimization of medicines to improve health status [9,21,38].

These circumstances of the pharmaceutical sector in the health care system in the patient-orientation, efficiency and cost-reaching way to better health. In fact, in space of the health

system, in these conditions, such as universal health care, insurance, medicine and basic public health development, pharmaceutical care is a new challenge of pharmaceutical sector appears. He has to create a harmonious environment and wounded balance. To be able to administer the health condition of the population in terms of pharmacotherapy. It should be able to supply each individual with benefits of healthcare business industry, state and public healthcare, also be able to regulate its weak and negative aspects [19,28,41].

Pharmacists are key players in pharmacovigilance, the process of monitoring and assessing the safety of medications once they are on the market. They report adverse drug reactions (ADRs) and medication errors to regulatory bodies, contributing to the ongoing safety surveillance of pharmaceuticals.

In addition, pharmacists promote medication safety by ensuring that drug administration protocols are followed, especially in high-risk settings like hospitals and nursing homes. Their vigilance helps prevent medication errors, reduce the incidence of ADRs, and improve patient safety.

Across its impact on individual patients' ministry of health, pharmaceutical care improves the quality and cost-effectiveness of health care systems. Enhancements at the micro-level encroach on the overall situation at the macro-level, i.e., communities' profit when individuals within them take pleasure in better health. Finally, the population at large will also benefit as system-wide enhancements occur. Pharmacists' services and involvement in patient-centered care have been associated with improved health and economic results, a reduction in medicine-related adverse events, improved quality of life, and diminished morbidity and mortality. A recent review investigated the effectiveness of professional pharmacist services in terms of consumer outcomes, and where possible, the economic profits. Its key findings illustrate the value of a range of services, including continuity-of-care after hospital discharge and education to consumers and to health practitioners. Overall, this review demonstrates that there is considerable high-quality evidence to support the value of professional pharmacy services in improving patient outcomes or medication use in the community setting [27,28,71].

The safety of patients is a priority for all professionals, such as pharmacists, who care about the health and general well-being of people like pharmacists. The safety of patients is determined as the prevention of harm to patients, including through errors of commission, lapse and omission. At the global level, pharmacists face complex challenges related to global health equity. The accessibility of new drugs is often uneven, with developed nations receiving quicker access to innovative therapies, while lower-income countries face delays due to pricing barriers and logistical challenges.

Pharmacists also play a critical role in addressing the global issue of drug resistance, especially in the context of antibiotics and antivirals. New strategies must account for the responsible use of pharmaceuticals to prevent the rise of drug-resistant strains of diseases, such as multidrug-resistant tuberculosis or antimicrobial-resistant bacteria.

Moreover, globalization has led to the expansion of multinational pharmaceutical companies, necessitating harmonization of regulatory requirements and standardization of practices across countries. Pharmacists must navigate these complexities to ensure that pharmaceutical strategies are effectively implemented in diverse healthcare settings.

The respondents'-public health specialists' majority considered that the pharmacists' functions in a pharmacy consisted in realization of drugs and instruments of medical purpose and providing information about drugs to the population. Less than half part of the respondents considered it to be in ultimate care about the patients' health and wellness, the drugs dosage and dispensing. About one third part of the public health specialists considered it to be in creation, development, production and sale of drugs, medical devices, instruments for medical purposes and healthcare products. About one third of the health specialists considered the pharmacists to be experts of drugs; about one third of them – to be inform of customers in cost-effectiveness and cost-benefits of drugs, the rest part of them considered that pharmacists help in selection of analogue of drugs. According to that pharmacist job should become regulated and more authorized in health care system [27,62,63].

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After the implementation of new pharmaceutical strategies, pharmacists play an integral role in post-market surveillance. This involves monitoring the safety, effectiveness, and patient adherence to newly introduced therapies. Pharmacists can gather real-world data on drug performance, which is invaluable for refining pharmaceutical strategies and making necessary adaptations.

Pharmacy managers are tasked with creating systems to report adverse drug reactions (ADRs) and ensuring that pharmacovigilance protocols are adhered to both locally and globally. These adaptations may lead to adjustments in dosage recommendations, the development of new formulations, or even the withdrawal of certain drugs from the market if safety concerns arise.

The aging of the population has increased the burden of chronic disease around the world. There are both ethical and reasonable goals for addressing health inequalities identified in chronic disease management for people of multiple social origins, and existing programs routinely fail to meet the needs of these people. This translates into poor program support, poor management of chronic disease, and more frequent seeking of health care. Unlike acute conditions, chronic conditions require ongoing care and treatment outside of health care settings, in the community or in primary health care settings in terms of medication use, lifestyle management and behavior change in health. Typically, this is a multi-pronged intervention that includes a review of drug therapy, patient education for treatment, monitoring of medication, immunization, self-care, and support. disease, and / or prescribing authority.

Patients who take multiple medications due to chronic disease are at high risk of drug duplication, interactions, or side effects, which can lead to longer hospital stays and higher costs. To improve the safety and effectiveness of the treatment, these patients must have specific needs for the correct use of the drugs encountered. Research has shown that integrating pharmacists into outpatient clinics can improve chronic disease management and optimal medication use. Additionally, involving a pharmacist in patient care can reduce the use of unwanted medications, especially in the past. A study in Canada found that the number of patients taking the wrong drug has decreased, mostly after screening tests and improvement by a group including a pharmacist. Unlike regular nursing, pharmacist-directed medical care was associated with a comparable frequency or pace of office work, major medical care or emergency room visits, and hospitalization and adherence, increased the rate of quantity or quantity of drugs received and improved study choices. indicators, blood circulation and blood circulation. achieve a lipid goal. Another recent study shows that a telemedicine-based chronic disease management program involving clinical pharmacists resulted in statistically significant improvements in diabetes and hypertension outcomes, as well as clinically significant improvements in lipid control. and smoking cessation [5,49,58].

Pharmacists are increasingly recognized as valuable members of multidisciplinary healthcare teams. They work closely with physicians, nurses, and other healthcare providers to ensure that medications are used safely and effectively as part of the patient's overall treatment plan. In hospital settings, pharmacists collaborate in rounds, provide input on medication choices, and contribute to discharge planning, ensuring that patients leave the hospital with clear instructions on their medications. This collaborative approach is essential for optimizing therapeutic outcomes and reducing hospital readmissions.

The future of pharmaceutical care is rapidly evolving, with trends such as personalized medicine, digital health technologies, and increased patient engagement shaping the role of

pharmacists. Pharmacogenomics, the study of how a person's genetic makeup affects their response to medications, is expected to play a significant role in pharmaceutical care. Pharmacists will increasingly be involved in tailoring drug therapies to individual patients based on genetic factors.

Telepharmacy is another emerging trend, allowing pharmacists to provide care remotely, particularly in underserved areas. Telepharmacy enables pharmacists to deliver consultations, medication reviews, and patient counseling through digital platforms, improving access to care.

Moreover, pharmacists will continue to expand their roles as advocates for public health, engaging in initiatives like immunization programs, health screenings, and promoting responsible use of medications.

The management of pharmacy plays a crucial role in both the creation and implementation of new pharmaceutical strategies. From navigating regulatory frameworks to overcoming local and global challenges, pharmacists are central to ensuring the success of these strategies. Their involvement at every stage—from R&D to market introduction and post-market surveillance—helps shape the future of healthcare. As pharmacists continue to face trials in balancing innovation, accessibility, and patient care, effective pharmacy management will be key in overcoming these obstacles. Moving forward, the global and local integration of pharmaceutical strategies will require collaboration, ethical considerations, and a commitment to advancing healthcare equity across populations. The evolution of pharmacy as a profession, coupled with scientific and technological advancements, ensures that pharmacists will remain at the forefront of healthcare delivery in a rapidly changing world. Their role in managing pharmaceutical strategies will be essential for ensuring the success of new therapies and improving health outcomes globally.

## CONCLUSIONS

On the base of the performed studies the following conclusions have been formulated:

Pharmacists are at the forefront of pharmaceutical care, contributing to patient well-being by ensuring the safe, effective, and responsible use of medications. Through medication therapy management, patient counseling, chronic disease management, and collaboration with healthcare teams, pharmacists help to optimize therapeutic outcomes and improve healthcare systems locally and globally. As the healthcare landscape continues to evolve, the role of pharmacists in pharmaceutical care will only become more critical, reinforcing their position as essential healthcare providers in achieving better patient outcomes and addressing global health challenges.

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