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QUALIFICATION WORK

on the topic: «**STUDY OF COMMUNITY PHARMACISTS ROLE IN
DISEASE PREVENTION AND HEALTH PROMOTION**»

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ANNOTATION

The modern role of the pharmacist in disease prevention and health promotion is considered in the qualification work. In the course of the study, policies regarding the role of the pharmacist in the field of public health were analyzed, a survey of pharmacists was conducted regarding their involvement in the processes of disease prevention and health promotion, and recommendations were made to expand the role of the pharmacist.

The qualification work consists of an introduction, 3 chapters, conclusions, a list of used sources and is laid out on 42 pages of printed text. The work is illustrated with 4 figures and 2 tables. The bibliography includes 36 information sources.

Keywords: community pharmacist, public health, disease prevention, health promotion, role of pharmacists

АНОТАЦІЯ

У кваліфікаційній роботі розглянуто сучасну роль провізора в профілактиці захворювань та зміцненні здоров'я. У ході дослідження було проаналізовано політику щодо ролі фармацевта у сфері громадського здоров'я, проведено опитування фармацевтів щодо їх участі в процесах профілактики захворювань та зміцнення здоров'я та надано рекомендації щодо розширення ролі фармацевта.

Кваліфікаційна робота складається зі вступу, 3 розділів, висновків, списку використаних джерел та викладена на 42 сторінках друкованого тексту. Робота ілюстрована 4 рисунками і 2 таблицями. Бібліографія включає 36 інформаційних джерел.

Ключові слова: фармацевт, громадське здоров'я, профілактика захворювань, зміцнення здоров'я, роль фармацевтів

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INTRODUCTION

Community pharmacists are often the most accessible healthcare providers for individuals, serving as a crucial link between patients and the healthcare system. With their extensive knowledge of medications and expertise in managing chronic conditions, pharmacists are well-positioned to play a pivotal role in promoting health and preventing diseases.

However, despite their potential impact, the role of community pharmacists in preventive care is often overlooked or undervalued. By conducting research on this topic, we can shed light on the valuable contributions that pharmacists can make in improving public health outcomes. Understanding the challenges and barriers that pharmacists face in fulfilling their preventive care role can help inform policy decisions and healthcare initiatives aimed at maximizing their impact.

Furthermore, as healthcare systems continue to evolve towards a more patient-centered and integrated approach, the role of community pharmacists in disease prevention and health promotion becomes increasingly relevant. By studying and enhancing the role of pharmacists in preventive care, we can create a more holistic and effective healthcare system that prioritizes prevention and wellness.

The purpose of the study: was to analyze the modern community pharmacist's role in disease prevention and health promotion.

Research objectives:

- to conduct a review of literary sources about current functions of community pharmacist;
- to investigate of regulatory policies governing the pharmacy profession in Public Health;
- to make comparative analysis of the activity of pharmacists in disease prevention and health promotion in different countries;
- to conduct a survey regarding the role of pharmacists in disease prevention and health promotion;

- to generalize recommendations for enhancing the role of community pharmacists in disease prevention and health promotion.

The object of the research became literary sources on the community pharmacist role and functions, the regulatory and legal framework, research by international public organizations, statistical data, results of survey.

The subject of the study is the identification and assessment of modern aspects of the role of community pharmacists in public health care.

Research methods. System, analytical and comparative, graphic and logical methods, method of descriptive and abstract modelling, sociological and generalization were used.

The scientific novelty and practical significance of the obtained results consists in conducting a comprehensive study of the modern role of public pharmacists in the prevention of diseases and health promotion, namely, the systematization and generalization of literary and statistical data, the study of the legislative framework regulating pharmaceutical activity profession, exploring the involvement of the pharmacist in health care and summarizing recommendations for the future expansion of the role of community pharmacists in this area.

The study results were approved at the

- IX International Scientific and Practical Distance Conference “Social pharmacy: state, problems, prospects” held on April 25, 2024 in Kharkiv.

Structure and scope of qualification work. The qualification work consists of the introduction, three chapters, conclusions to each chapter, a general conclusion, and list of used sources. The results of the study are presented on 42 pages of text, the number of figures – 4, number of tables – 2, and the list of references – 36 titles.

CHAPTER I.

REVIEW OF THE LITERATURE ABOUT CURRENT FUNCTIONS OF COMMUNITY PHARMACIST

1.1 Evolution of pharmaceutical activity and role of pharmacist in modern society

Pharmaceutical activity and the role of pharmacists have evolved significantly over time, adapting to the changing needs and advancements in healthcare. In the early 20th century, pharmacists primarily focused on compounding and dispensing medications [36]. However, as pharmaceutical research progressed in the mid-20th century, there was a surge in the development of new prescription drugs. This led to a shift in the role of pharmacists, with the provision of patient care services becoming increasingly important. Furthermore, as educational standards increased from the 1950s through the 1970s, the focus shifted from dispensing to patient care. During this time, there was a cultural shift within community pharmacy practice, with an emphasis on the provision of patient care and addressing patient needs. Pharmacists became more involved in medication therapy management, counseling patients on proper medication use, and monitoring patient outcomes. In modern society, the role of the pharmacist has expanded beyond simply dispensing medications. In medication therapy management, medication reconciliation, and collaborating with other healthcare professionals to optimize patient outcomes. With the advancement of technology and automation in the pharmaceutical industry, pharmacists have also taken on a more prominent role in medication management and counseling, utilizing electronic health records and dispensing systems to ensure safe and effective medication use [36].

In modern society, pharmacists are crucial members of the healthcare team, playing a key role in promoting medication adherence, providing patient education, and offering wellness and preventive care services. Additionally, they are

increasingly involved in specialized areas such as pharmacogenomics, personalized medicine, and specialty pharmacy services.

The evolving landscape of pharmaceutical activity continues to present new opportunities and challenges for pharmacists, who are at the forefront of ensuring medication safety and efficacy. As the field of pharmacy continues to evolve, pharmacists will undoubtedly play an even more integral role in delivering optimal patient care and advancing the public health agenda. While it is true that pharmacists have expanded their role in modern society, there are opposing arguments regarding the extent of their involvement in patient care and medication management. Some critics argue that the increasing focus on patient care services has detracted from the core responsibilities of pharmacists, such as accurately dispensing medications and ensuring drug interactions are identified and addressed.

Furthermore, as the role of pharmacists has expanded, there have been concerns about potential conflicts of interest, particularly in settings where pharmacists are involved in medication therapy management and also sell over-the-counter medications and health products. Critics argue that this dual role may lead to biased recommendations and compromise the integrity of patient care.

However, despite these criticisms, the evolution of pharmaceutical activity and the expanding role of the pharmacist have undeniably improved patient care and outcomes. With their specialized knowledge of medications and their focused training in medication management, pharmacists are well-positioned to contribute significantly to the healthcare team.

In addition to their traditional responsibilities, pharmacists now have the opportunity to engage in collaborative practice agreements, allowing them to work alongside physicians and other healthcare providers to optimize medication therapy for patients. This interdisciplinary approach has proven to be beneficial in managing chronic conditions and maximizing the impact of pharmacotherapy.

Moreover, the advancement of pharmacogenomics and personalized medicine has further elevated the role of pharmacists in tailoring medication regimens to individual patients based on genetic and molecular characteristics. This personalized

approach not only enhances the effectiveness of treatment but also minimizes the risk of adverse drug reactions.

As the healthcare landscape continues to evolve, the role of pharmacists will remain dynamic, with opportunities to further integrate into primary care settings, expand their involvement in public health initiatives, and contribute to the development of innovative pharmaceutical services.

The evolution of pharmaceutical activity and the widening scope of the pharmacist's role demonstrate the profession's commitment to advancing patient care and staying at the forefront of healthcare innovation. While there are legitimate concerns to address, the overall impact of these advancements has been overwhelmingly positive, solidifying the pharmacist's position as an indispensable asset in modern healthcare.

Despite the advancements in pharmaceutical activity and the expanding role of pharmacists, there are several challenges that the profession continues to face. One of the major challenges is the increasing pressure on pharmacists to balance their expanded clinical responsibilities with the traditional duties of medication dispensing and safety. This challenge is exacerbated by staffing shortages and increased workload, which can impact the quality of patient care and lead to burnout among pharmacists.

Moreover, the integration of pharmacists into primary care settings is still a work in progress. While there are growing opportunities for pharmacists to collaborate with primary care providers, further efforts are needed to ensure seamless integration and effective communication within interdisciplinary healthcare teams.

In addition, the rising complexity of medication regimens and the proliferation of specialty medications present new challenges for pharmacists. Keeping up with the latest advancements in pharmacotherapy and personalized medicine requires ongoing education and training, placing additional demands on practicing pharmacists.

However, amidst these challenges, there are also significant opportunities for pharmacists to continue expanding their role in healthcare. This includes the potential for pharmacists to take on greater involvement in chronic disease management, preventive care, and medication therapy management in various healthcare settings, including community pharmacies, hospitals, and clinics.

Furthermore, the evolution of telepharmacy and remote medication monitoring offers new avenues for pharmacists to reach underserved populations and provide valuable clinical services beyond the confines of traditional pharmacy settings.

As the healthcare landscape continues to evolve, the role of pharmacists will undoubtedly become even more vital in promoting patient-centered care, optimizing medication therapy, and contributing to positive health outcomes. The profession's dedication to embracing these opportunities and addressing the challenges will be instrumental in shaping the future of pharmaceutical care and the role of the pharmacist in modern society. # Embracing Change and Advancing Patient Care

Amidst the evolving landscape of pharmaceutical activity and the expanding role of pharmacists, the profession is at a crucial juncture, poised to capitalize on emerging opportunities and address persistent challenges. It is essential for pharmacists to adapt to these changes and leverage their expertise to further enhance patient care and medication management.

The integration of technology in pharmaceutical practice presents both opportunities and challenges for pharmacists. Embracing electronic health records and automated dispensing systems has streamlined medication management, but it also requires pharmacists to continuously update their skills and knowledge to effectively utilize these tools. Moreover, the increasing prevalence of telepharmacy and remote medication monitoring underscores the need for pharmacists to familiarize themselves with virtual care platforms and digital communication methods to provide seamless clinical services to patients in diverse settings.

As pharmacists increasingly engage in collaborative practice agreements and expand their presence in primary care settings, effective communication and

teamwork with other healthcare professionals become imperative. Establishing strong relationships with physicians, nurse practitioners, and other providers is essential in promoting comprehensive patient care and optimizing medication therapy outcomes. Pharmacists must proactively seek opportunities to contribute their specialized knowledge and skills to interdisciplinary healthcare teams, thereby enhancing the quality of care for patients with complex medication needs.

Given the rapid advancements in pharmacogenomics, personalized medicine, and specialty pharmacy services, pharmacists must commit to ongoing education and training to stay abreast of the latest developments in pharmacotherapy. Professional development programs, certifications, and specialized training courses can equip pharmacists with the expertise needed to effectively navigate the complexities of modern medication regimens and address the individualized needs of patients. Moreover, cultivating a culture of continuous learning and knowledge-sharing within the pharmacy profession is essential to foster innovation and best practices in patient care.

To fully realize their potential in advancing patient care, pharmacists must actively engage in advocacy efforts aimed at addressing the regulatory barriers that impede their ability to provide optimal clinical services. Collaborating with professional organizations and legislative bodies to advocate for expanded scope of practice and recognition of pharmacists as essential healthcare providers can pave the way for greater integration of pharmacists into the primary care workforce and the implementation of innovative pharmaceutical services.

In conclusion, while the expanding role of pharmacists brings forth challenges, it equally presents opportunities for the profession to proactively shape the future of pharmaceutical care and contribute to the advancement of patient-centered healthcare. Embracing change, harnessing technological advancements, strengthening collaborative practice, prioritizing continuous education, and advocating for policy changes will be pivotal in ensuring that pharmacists remain at the forefront of healthcare innovation, delivering high-quality, comprehensive care to patients.

1.2 Functions and responsibilities of community pharmacists in disease prevention and health promotion

Community pharmacists have a multifaceted role in disease prevention and health promotion [21]. They play a vital role in providing education and counseling to patients on medication adherence, lifestyle modifications, and preventive measures. They also collaborate with other healthcare professionals to develop and implement programs for disease prevention, such as immunization campaigns and screening initiatives. By being accessible to the community, pharmacists are able to identify health risks, provide early intervention, and refer patients to appropriate healthcare providers when necessary. Additionally, community pharmacists can contribute to disease prevention and health promotion through the following functions and responsibilities:

1. **Dispensing Medications:** Community pharmacists are responsible for accurately dispensing medications prescribed by healthcare providers. They ensure that patients receive the right medications, in the correct dosage, and provide instructions on how to take them properly.
2. **Medication Counseling:** Community pharmacists educate patients about their medications, including potential side effects and drug interactions. They also provide advice on the proper use and storage of medications, as well as strategies to improve medication adherence [25].
3. **Health Assessments and Screening:** Community pharmacists can perform health assessments and screenings, such as blood pressure measurements, blood glucose tests, and cholesterol screenings [17].
4. **Referrals and Collaborations:** Community pharmacists collaborate with other healthcare professionals, such as physicians and nurses, to provide comprehensive care to patients. They may refer patients to other healthcare providers for further evaluation or treatment if necessary.
5. **Health Education:** Community pharmacists play a crucial role in providing health education to patients. They educate patients on preventive measures,

such as vaccination schedules, healthy lifestyle choices, and disease prevention strategies. Additionally, community pharmacists can also engage in public health initiatives by participating in community health fairs and workshops, conducting medication reviews to identify potential drug-related interactions or medication-related issues, and providing resources on health promotion and disease prevention, such as pamphlets and informational sessions.

6. **Smoking Cessation Support:** Another important role of community pharmacists in disease prevention and health promotion is providing support and guidance to individuals who are looking to quit smoking. They can offer counseling, recommend nicotine replacement therapies, and monitor progress to help patients successfully quit smoking.
7. **Over-the-Counter Medications and Self-Care:** Community pharmacists are also responsible for advising patients on over-the-counter medications and promoting self-care practices. They can recommend appropriate OTC products for common ailments and offer guidance on self-care strategies to manage minor health issues.
8. **Chronic Disease Management:** Community pharmacists play a significant role in the management of chronic diseases such as diabetes, asthma, and hypertension. They provide ongoing support to patients by monitoring medication adherence, conducting regular health assessments, and educating patients on lifestyle modifications to better manage their conditions.
9. **Collaboration with Community Organizations:** Community pharmacists can collaborate with local community organizations and advocacy groups to address public health concerns and promote disease prevention. By actively engaging with community resources, pharmacists can contribute to the development and implementation of initiatives aimed at improving the overall health and well-being of the community.

10. Adverse Event Reporting and Pharmacovigilance: As part of their commitment to patient safety, community pharmacists play a crucial role in identifying and reporting adverse drug reactions and medication errors. They contribute to pharmacovigilance efforts by monitoring and reporting any potential safety issues related to medications, thereby contributing to the ongoing improvement of medication safety and quality of care.

With their extensive knowledge and accessibility, community pharmacists are essential partners in disease prevention and health promotion, playing a pivotal role in supporting and improving the health outcomes of individuals and communities. Their multifaceted contributions extend beyond traditional medication dispensing, demonstrating their commitment to holistic care and public health initiatives

Conclusions to Chapter I

In conclusion, as the pharmaceutical landscape continues to evolve, it is imperative for pharmacists to adapt to these changes, leveraging their expertise to enhance patient care and medication management. Embracing technological advancements, strengthening interdisciplinary collaboration, pursuing continuous education and training, and advocating for policy changes will be crucial in ensuring that pharmacists remain at the forefront of healthcare innovation.

By actively addressing the challenges and seizing the opportunities presented, pharmacists can proactively shape the future of pharmaceutical care, contributing to the advancement of patient-centered healthcare. Their dedication to embracing these changes will undoubtedly play a pivotal role in delivering high-quality, comprehensive care to patients, and solidifying their position as indispensable assets in modern healthcare.

Now community pharmacists play a crucial role in disease prevention and health promotion through their various functions and responsibilities. Their

accessibility to the community allows for early identification of health risks and timely intervention, ultimately contributing to improved health outcomes. By providing education, counseling, and collaborating with other healthcare professionals, community pharmacists have a significant impact on promoting healthy lifestyles and preventing diseases. Their role in dispensing medications, conducting medication therapy management, and participating in public health campaigns further exemplifies their multifaceted contribution to the overall well-being of the community.

CHAPTER II.

STUDY OF INTERNATIONAL EXPERIENCE FOR INCREASING THE ROLE OF PHARMACIST IN DISEASE PREVENTION AND HEALTH PROMOTION

2.1. Study of Regulatory policies governing the Pharmacy profession in Public Health

The pharmacy profession plays a crucial role in public health by ensuring safe and effective medication use, promoting population health, and addressing social determinants of health.

Health policies at the international level play a significant role in standardizing and regulating the pharmacy profession. The World Health Organization has had a major impact on shaping pharmacy and other health professions worldwide through its regulations, including the right to health established in the WHO Constitution 1946 and Universal Declaration of Human Rights 1948. The International Covenant on Economic, Social, and Cultural Rights of 1966 further emphasized the realization of this right by improving access to health facilities, goods, and services. Subsequently, initiatives such as Essential Medicines and National Drug Policy introduced by the WHO since 1977 have aimed to ensure availability and affordability of high-quality modern drugs while also enhancing pharmaceutical care. Additionally, provisions for essential drugs outlined in influential declarations like Alma Ata have improved drug accessibility within member countries. Further efforts such as the release of WHO Model Formulary in 2000 have contributed to promoting safe cost-effective use of drugs globally.

The International Pharmaceutical Federation and WHO collaborated to develop GPP guidelines in 1996 to ensure quality pharmaceutical care. In response to counterfeit drugs, WHO released the Counterfeit Drug Policy guidelines in 1999, while the International Conference on Harmonisation and WHO jointly issued Good Manufacturing Practice. The aim of these initiatives is to minimize risks associated

with pharmaceutical production by implementing controls throughout the manufacturing process. Various countries have tailored their own GMP requirements based on those provided by WHO or through harmonization under the Pharmaceutical Inspection Convention.

WHO has also strengthened health security through the implementation of the International Health Regulations 2005, which serves as a guiding principle for many nations and global health coalitions such as Global Health Securities Agenda. This framework addresses aspects including pharmaceutical availability during health emergencies and outbreaks.

In addition, WHO plays a key role in drug utilization statistics aiming at improving drug use by defining categories within Anatomical Therapeutic Chemical system. The assigned defined daily dose represents an average maintenance dose per day for adult usage providing standardized measures across different countries where drugs are approved.

Furthermore, since 1950, WHO has advocated for standardizing medication names using International Nonproprietary Names globally over brand names. INN program provides unique public property names that simplify naming nomenclature even for new drug entities with complex chemical structures providing ease of identification.

FIP, established in 1912, is the largest global pharmaceutical society committed to advancing the pharmacy profession. It is a non-governmental organization based in the Netherlands and plays a key role in coordinating World Pharmacists Day on September 25th annually. In light of complex patient care guidelines, public health standards, diverse medications, and legal regulations, it is crucial for contemporary pharmacists to comprehend their intricate responsibilities. The GPP guidelines and code of ethics for pharmacists play a vital role as an initial framework for delivering professional pharmacy care.

Pharmacists are charged by their national or other appropriate (e.g., state or provincial) authorities with the management of the distribution of drugs to consumers and to engage in appropriate efforts to assure their safe and efficacious

use. Not only that, pharmacists are increasingly accepting greater responsibility for the outcomes of drug use and are evolving their practices to provide patients with enhanced drug-use services. Increasingly complex and diverse nature of pharmacists' roles in the healthcare system demands that pharmacists follow GPP guidelines. According to FIP/WHO, GPP is “the practice of pharmacy that responds to the needs of the people who use the pharmacists' services to provide optimal, evidence-based care. It is essential that there be an established national framework of quality standards and guidelines.”

- A pharmacist's first concern in all settings is the welfare of patients;
- The core of pharmacy activity is to help patients make the best use of drugs. Fundamental functions include the supply of medication and other healthcare products of assuring quality, the provision of appropriate information and advice to the patient, administration of medication, when required, and the monitoring of the effects of medication use;
- An integral part of the pharmacist's contribution is the promotion of rational and economic prescribing, as well as dispensing;
- The objective of each element of pharmacy service is relevant to the patient, is defined, and is effectively communicated to all those involved. Multidisciplinary collaboration among healthcare professionals is the key factor for successfully improving patient safety.

Meeting the GPP guidelines requires certain essential conditions to be met. These include prioritizing patient well-being as the fundamental guiding principle, involving pharmacists in drug use decisions and establishing a system for reporting adverse events, fostering collaborative partnerships with other healthcare professionals, ensuring responsible relationships among pharmacists themselves, taking shared responsibility for defining and improving quality within organizations and group practices, maintaining awareness of crucial medical and pharmaceutical information about each patient, accessing evidence-based unbiased information about therapeutics and potential environmental hazards caused by drug waste

disposal. Additionally, pharmacists should take personal accountability for their professional competence throughout their career while complying with national standards set forth by pharmacy professional organizations. Educational programs must also adapt to current and anticipated changes in pharmacy practice.

Frameworks needed to implement GPP. For GPP implementation, three frameworks are needed at the national or appropriate (e.g., state or provincial) level:

- A legal framework that ensures the integrity of supply chain and quality of drugs; defines who can practice pharmacy; and what the scope of pharmacy practice is.
- A workforce framework that defines personnel needed and ensures the competence of such staff through continuing professional development programs.
- An economic framework that provides sufficient resources and incentives to ensure the activities undertaken in GPP.

Healthcare laws and ethics have significant areas of overlap as both are concerned with ensuring that healthcare professionals prioritize the well-being, dignity, and autonomy of the public. However, there are instances where laws and ethics may remain distinct, particularly when addressing ethical obligations. While laws may have limitations in ensuring fair practices, a Code of Ethics is essential in guiding ethical conduct.

While specific Codes of Ethics may vary from one country to another due to cultural influences, they generally outline pharmacists' responsibilities to use their knowledge for the benefit of others, provide fair service to the public, minimize harm, and respect patient autonomy. The CoE plays a crucial role in educating pharmacists about their ethical duties and guiding their interactions with patients, fellow health professionals, society at large. It also supports continued competence through activities such as continuing education, self-evaluation, and peer review. The FIP CoE stands out as an exemplary international model for Code of Ethics.

Of course, the FIP CoE is more a guideline than a statute. Different countries and associations adopt their own CoEs. These Codes of Ethics serve as a reference for pharmacists in upholding professional standards and ethics in their practice.

Pharmacists are regulated by various policies and regulations to ensure the quality and safety of pharmaceutical practices in public health. These policies can include:

1. Licensing and registration requirements: Pharmacists are required to obtain a valid license or registration from the regulatory authority in their respective jurisdiction. This ensures that pharmacists meet the necessary qualifications and standards to practice in public health settings.
2. Continuing education and professional development: Pharmacists are often required to participate in ongoing education and training to stay updated with the latest advancements in pharmacy practice and public health. This helps pharmacists maintain their knowledge and skills to provide high-quality care in public health settings.
3. Scope of practice regulations: These regulations define the specific activities and responsibilities that pharmacists are allowed to perform in public health settings. These regulations may vary from jurisdiction to jurisdiction and can include prescribing authority, immunization administration, medication therapy management, and collaborative practice agreements with other healthcare professionals such as physicians and nurses.
4. Quality assurance and medication safety: Pharmacists are required to adhere to strict quality assurance standards and ensure medication safety in public health settings. This can include proper medication storage and handling, accurate dispensing practices, medication reconciliation, and monitoring for adverse drug reactions.
5. Drug supply and inventory management: Pharmacists are responsible for managing the drug supply in public health settings, ensuring that medications are available and accessible to patients when they are needed. This can involve

inventory management, procuring medications from reliable sources, monitoring drug expiration dates, and implementing proper storage and distribution protocols. Furthermore, pharmacists may also be subject to policies regarding controlled substance monitoring and reporting, such as prescription drug monitoring programs, which aim to prevent misuse and diversion of controlled substances.

6. Collaboration and communication: Pharmacists in public health settings are often required to collaborate with other healthcare professionals, government agencies, and community organizations to address the health needs of the public. They may be involved in interdisciplinary teams, participating in meetings, sharing information, and coordinating efforts to promote public health. Additionally, pharmacists in public health may be subject to policies related to data privacy and confidentiality, ensuring that patient information is protected and used appropriately.

7. Patient education and counseling: Pharmacists play a crucial role in educating and counseling patients on public health issues, including medication use, disease prevention, and lifestyle modifications. This can include providing information on proper medication adherence, side effects and drug interactions, and promoting healthy behaviors such as smoking cessation and vaccination. Policies and regulations governing the pharmacy profession in public health focus on various aspects such as improved opioid prescribing, medication supply chain management, collaboration and communication with public health stakeholders, and patient education.

8. Monitoring and surveillance: Pharmacists in public health settings are involved in monitoring medication use, conducting medication safety evaluations, and participating in surveillance systems to identify adverse drug events or emerging public health issues. Policies may be in place to ensure that pharmacists have access to relevant data and reporting systems, as well as guidelines on how to monitor and report such events or issues.

Overall, the policies and regulations governing the pharmacy profession in public health aim to ensure safe and effective medication use, promote population

health, and improve healthcare outcomes. In conclusion, the regulatory policies governing the pharmacy profession in public health are vital for ensuring the quality, safety, and effectiveness of medication use. These policies encompass various aspects such as licensing and registration requirements, continuing education and professional development, scope of practice regulations, quality assurance and medication safety, drug supply and inventory management, collaboration and communication, patient education and counseling, as well as monitoring and surveillance. By addressing these key areas, the regulatory framework supports pharmacists in providing high-quality care, promoting population health, and improving healthcare outcomes in public health settings. It is essential for pharmacists to adhere to these policies and regulations to uphold the standards of pharmaceutical practices and safeguard the well-being of the public. Policies and regulations governing the pharmacy profession in public health are designed to ensure the safe and effective use of medications, promote population health, and improve healthcare outcomes.

2.2 Comparative analysis of the activity of pharmacists in disease prevention and health promotion in different countries

The role of pharmacists in disease prevention and health promotion varies across different countries. In some countries, pharmacists have expanded roles beyond traditional dispensing and are actively involved in public health initiatives.

The comparative analysis of pharmacists' activity in disease prevention and health promotion reveals a multifaceted role that varies across different countries. Anderson (2018) emphasizes the importance of integrating pharmaceutical care with a holistic approach to patient care, suggesting that pharmacists should engage in broader health and lifestyle issues beyond their expertise in medicines. This perspective is echoed in Sullivan (1992), which advocates for a 'culture of character' in the United States, promoting individual responsibility and the involvement of

health professionals, including pharmacists, in health promotion and disease prevention efforts.

Interestingly, while Sullivan (1992) calls for a comprehensive plan in the United States, Ciardulli and Goode (2003) provides a practical framework for pharmacists in community practice to use national health observances as opportunities for promoting patient health through education and screenings. This approach aligns with the goals of the federal program Healthy People 2010 and positions pharmacists as accessible health care professionals capable of advancing wellness. In contrast, Williams (2009) highlights the specific role of pharmacists in tobacco cessation in the United States, indicating a more targeted approach to disease prevention. The paper notes the development and distribution of a curriculum to pharmacy schools nationwide, suggesting a concerted effort to prepare pharmacists for this role. Similarly, Warren et al. (2021) discusses the need for pharmacists to integrate public health competencies into their practice, which is crucial for addressing community health needs and contributing to public health outcomes. Anderson and Goode (2006) underline the importance of incorporating wellness and prevention services into pharmacy education in the United States, suggesting that community advanced pharmacy practice experiences (APPEs) are an ideal point in the curriculum for this integration. Patja et al. (2022), focusing on Europe, indicates that health promotion and disease prevention are included in educational programs for health professionals, but highlights a need for capacity building and the inclusion of digitalization in these programs. Crawford (2005) describes an educational initiative at the University of Illinois at Chicago that introduces first-year pharmacy students to health promotion and disease prevention, suggesting early curricular inclusion as a means to prepare students for expanded roles in these areas. Miller (2012) emphasizes the importance of epidemiology in health promotion and disease prevention practices, which is essential for health professionals, including pharmacists, to effectively collaborate and communicate in public health efforts.

For example, in Canada, there is an increased interest in broadening community pharmacists' role in public health. A study in Canada found that community pharmacists believe they should be very involved in health promotion and prevention, including services such as smoking cessation, screening for hypertension, diabetes, dyslipidemia, and sexual health. However, despite this belief, there is a gap between their ideal and actual involvement in providing these services.

On the other hand, in African countries like Rwanda, the involvement of community pharmacists in health promotion is relatively understudied. This study aimed to evaluate the attitudes, perceptions, and barriers of community pharmacists in Rwanda towards their involvement in health promotion. The findings revealed that the majority of community pharmacists in Rwanda believe that health promotion is part of their responsibility and are willing to provide health promotion services. However, they face several barriers to their participation in health promotion activities, including lack of coordination with other healthcare professionals, the structure of the healthcare system, and lack of equipment. Overall, the role of pharmacists in disease prevention and health promotion is evolving and varies across countries.

While in some countries like Canada, community pharmacists have a strong belief in their role and involvement in health promotion and prevention services, including smoking cessation and screening for chronic diseases, in other countries like Rwanda, there is a need for further research and support to enhance the involvement of community pharmacists in health promotion activities.

In Pakistan, there is recognition of the vital role that pharmacists play in the management of the drug supply cycle within NGOs. They are considered an integral part of the health staff and contribute to improving the management of the drug supply system.

Several studies have addressed the provision of vaccination services in pharmacies. Todd et al.'s research conducted in the UK utilized geographic information systems and revealed that people have better access to pharmacies than

general physicians. The study recommended that, given this accessibility, pharmacies should take on the responsibility of identifying at-risk individuals and administering vaccinations, particularly in deprived areas.

Bach and Goad examined the role of American pharmacies in educating, expediting, and immunizing. Their findings indicated a preference for pharmacy-based vaccination due to shorter wait times and no visit payments. With 93% of Americans living within five miles of a pharmacy, easy access is ensured. Pharmacists can educate customers about vaccination procedures, host immunization sessions, and administer vaccines within legal regulations. Ultimately, their study concluded that pharmacists could increase immunization rates thus preventing numerous deaths.

Merks et al.'s 2016 study conducted in rural areas of the UK found that many residents were unaware of available immunization services at pharmacies leading to underutilization. Hurley-Kim's US-based study evaluated pharmacy-provided vaccination services for travelers visiting other countries which effectively reduce disease transmission from abroad into the US.

Each year numerous preventable deaths occur due to vaccine-preventable diseases; however, pharmacies can positively contribute by educating people on vaccinations, providing recommendations for vaccines, and administering them-ultimately preventing fatalities while improving overall community health and reducing healthcare costs as well as the burden on healthcare systems.

Havlicek and Mansell's study in Canada emphasized the importance of cancer screening tests for a large portion of the population. The research highlighted the significant role pharmacists can play in identifying high-risk individuals to enable early cancer diagnosis, ultimately reducing mortality rates due to this disease. Additionally, pharmacists have the potential to increase public awareness about cancer prevention and screening measures. Essential for these efforts is an in-depth understanding of individual cancer risk factors by pharmacists, as per the study's findings. Given that late diagnosis contributes significantly to morbidity and mortality from cancer globally, pharmacies serve as pivotal venues for both

identification and education about cancer, with promising potential for promoting early detection.

Prevention and management of cardiovascular diseases: Two research studies examined the role of pharmacies in controlling blood pressure. Merks et al. found that just 5.8% of UK participants were knowledgeable about blood pressure control services offered by pharmacies, while Curtiss et al. focused on this aspect in US pharmacies.

Cardiovascular diseases are a leading cause of global mortality. Offering blood pressure monitoring and control services at pharmacies could potentially prevent these conditions or facilitate their early detection, consequently lowering healthcare expenses.

Verma et al.'s research in Malaysia highlights the significance of conducting blood glucose measurements in pharmacies for diabetes prevention and management. Diabetes, a prevalent chronic condition on the rise globally, especially in developing nations, remains undiagnosed in nearly half of affected individuals. This lack of awareness and control significantly heightens the risk of complications associated with the disease. However, through blood glucose testing, pharmacies can aid in identifying latent diabetes and effectively managing the condition.

In South Africa, a study by Malangu found that pharmacies offered family planning services for a fee. Lifestyle refers to the behavioral choices individuals make based on socioeconomic conditions and convenience. These choices include smoking, alcohol consumption, and transportation preferences, all of which contribute to an individual's lifestyle. Some diseases are attributed to lifestyle factors rather than genetics or transmission from others. Research related to weight management, dietary therapy, as well as efforts to quit smoking and reduce alcohol consumption fall into this category.

Numerous studies have been conducted on smoking cessation. While Merks, Richardson, and Todd's work focused solely on pharmacies providing quitting services, Brown et al.'s study delved into more comprehensive approaches such as behavior therapy and nicotine replacement. Their findings suggested the

effectiveness of these strategies. It is imperative for pharmacy workers to undergo training in behavior therapy and consultation methods.

The detrimental effects of smoking are well-documented, including increased risks of various diseases like coronary heart disease, lung disease, diabetes, Parkinson's and Alzheimer's diseases, as well as different types of cancers. These consequences not only impact the smokers' life expectancy and medical expenses but also affect their family members. Offering smoking cessation services in pharmacies can potentially mitigate these adverse outcomes within society and contribute positively to public health overall.

Pharmacies offer weight management services, with a focus on controlling obesity and providing diet therapy. Access to these services is more widespread through pharmacies than general physicians, particularly in underdeveloped areas. In the UK, pharmacy services include setting up diet and exercise plans, consultation, measuring height and weight, calculating body mass index, education on healthy habits, referral to health-care centers as needed, medication therapy and professional group support. Addressing overweight and obesity can help prevent diseases such as high blood pressure, type 2 diabetes and heart disease. The increasing prevalence of overweight and obesity makes weight management services an area of interest for pharmacies from a public health perspective; however, challenges exist in defining pricing structures waiting times and space allocation.

Control of Alcohol Consumption: Three studies have documented the provision of this service by pharmacies. While Todd et al. and Brown et al. touched on the availability of this service in pharmacies without providing specifics, Hattingh et al.'s 2018 study in Australia explored the potential for screening and interventions by pharmacists to combat alcoholism within society. It highlighted that pharmacies can effectively identify individuals at high risk for alcohol consumption and educate them about its consequences, particularly those with chronic diseases such as diabetes.

Alcohol consumption is linked to increased risks of hepatitis, depression, high blood pressure, stroke, and certain cancers. The implementation of alcohol

consumption control services in pharmacies could play a vital role in mitigating both physical and mental health issues among people. To ensure effectiveness, pharmacists should undergo training focusing on communication skills and acquire professional knowledge pertaining to alcohol consumption while delivering these services with due respect to privacy considerations.

Adherence to medication: Two studies have discussed the role of pharmacies in this aspect. According to Pringle and Coley, organizing educational workshops for pharmacists and enhancing their communication skills can boost their motivation to provide consultation. Consulting patients in a suitable setting based on their beliefs was found to improve medication adherence. Singleton et al.'s study involving 96 diabetic patients over one year revealed that providing consultation, using smartphone reminders, emphasizing the importance of each medicine in disease management, informing about alternative therapy costs, and motivating them to prevent diabetes complications significantly increased medication adherence and decreased disease progression. Inadequate adherence may lead to ineffective treatment outcomes and unnecessary costs; therefore, pharmacies are positioned well to positively impact this area.

Six studies documented pharmaceutical counseling, primarily focused on medication adherence, selection and usage of over-the-counter drugs, administration methods, and medication side effects. Providing counseling is a critical function of pharmacies that requires appropriate infrastructure. Pharmacists play a key role in managing medication therapy, promoting optimal use of medications, and minimizing their adverse effects. Dispensing information about dosage timing, quantity consumed, side effects, drug interactions, and contraindications for each medicine are fundamental responsibilities of pharmacies. These services are linked to customer satisfaction; consequently, some patients expressed dissatisfaction with the level of information provided and time allocated for consultation.

This service was referenced in four different studies. Research conducted in various countries revealed that most customers view the treatment of minor ailments as an essential function of pharmacies, which may involve addressing viral and

bacterial infections, minor injuries, stomach issues, and allergies. According to Malangu in South Africa, these services are accessible to those who can afford them. Offering these services at pharmacies has the potential to reduce the workload of specialized medical centers, lower treatment costs, and decrease wait times for care. Additionally, it could improve access to health services in remote areas.

Three separate studies examined customer awareness regarding pharmacy services; these were carried out in Qatar, India, and the UK. The findings indicated a generally low perception among people about the range of available pharmacy services with few utilizing them. These results suggest that offering a variety of services can only be effective if there is awareness and utilization by individuals.

A study by Basak and Sathyanarayana in India found that many people primarily associate pharmacies with medication prescriptions rather than seeking consultation. This points towards a lackluster understanding about what pharmacists actually offer, the result being challenges for providing certain services. Meanwhile, E Hajj et al. in Qatar found that 50% of participants rely on physicians as their main source for medication-related questions while 70% do not expect pharmacies to participate in monitoring and health programs and screening, and 73% believe pharmacists do not have enough knowledge or time to aid patients. Merks et al. in the UK discovered that 84% of participants perceive the pharmacy as a place for medications, some (72%) recognize it as a retail outlet for medications, and a few (23%) associate it a role in specific therapy.

While in some countries like Canada, community pharmacists have a strong belief in their role and involvement in health promotion and prevention services, including smoking cessation and screening for chronic diseases, in other countries like Rwanda, there is a need for further research and support to enhance the involvement of community pharmacists in health promotion activities.

In Pakistan, there is recognition of the vital role that pharmacists play in the management of the drug supply cycle within NGOs. They are considered an integral

part of the health staff and contribute to improving the management of the drug supply system.

In conclusion, the role of pharmacies in public health is crucial in addressing a wide range of health concerns. From weight management to alcohol consumption control, adherence to medication, treatment of minor ailments, and customer awareness, pharmacies play a significant role in promoting and maintaining public health. With appropriate infrastructure, training, and support, pharmacists can effectively contribute to mitigating health issues, reducing treatment costs, and improving access to health services. It is evident that there is a need for increased awareness and utilization of pharmacy services by individuals to fully realize their potential in public health management. Across different countries, the perception and utilization of pharmacy services vary, highlighting the importance of tailored approaches to address public health needs. Strengthening the role of community pharmacists in health promotion and prevention services, as well as recognizing their contribution to the management of drug supply systems, is essential for enhancing public health outcomes.

Conclusions to Chapter II

The regulatory policies governing the pharmacy profession in public health are vital for ensuring the quality, safety, and effectiveness of medication use. These policies encompass various aspects such as licensing and registration requirements, continuing education and professional development, scope of practice regulations, quality assurance and medication safety, drug supply and inventory management, collaboration and communication, patient education and counseling, as well as monitoring and surveillance. By addressing these key areas, the regulatory framework supports pharmacists in providing high-quality care, promoting population health, and improving healthcare outcomes in public health settings. It is essential for pharmacists to adhere to these policies and regulations to uphold the standards of pharmaceutical practices and safeguard the well-being of the public.

Policies and regulations governing the pharmacy profession in public health are designed to ensure the safe and effective use of medications, promote population health, and improve healthcare outcomes.

In practice, adherence to these policies not only ensures the delivery of safe and effective medication use but also fosters trust and confidence between pharmacists and the public. Furthermore, these regulatory measures provide a framework for accountability and continuous improvement within the profession, ultimately contributing to the overall well-being of the community. As the field of pharmacy continues to evolve, it is imperative for pharmacists to remain informed about and compliant with these regulations, thereby upholding the highest standards of public health and patient care.

The role of pharmacies in public health is crucial in addressing a wide range of health concerns. From weight management to alcohol consumption control, adherence to medication, treatment of minor ailments, and customer awareness, pharmacies play a significant role in promoting and maintaining public health. With appropriate infrastructure, training, and support, pharmacists can effectively contribute to mitigating health issues, reducing treatment costs, and improving access to health services.

It is evident that there is a need for increased awareness and utilization of pharmacy services by individuals to fully realize their potential in public health management. Across different countries, the perception and utilization of pharmacy services vary, highlighting the importance of tailored approaches to address public health needs. Strengthening the role of community pharmacists in health promotion and prevention services, as well as recognizing their contribution to the management of drug supply systems, is essential for enhancing public health outcomes.

In conclusion, the evidence strongly supports the pivotal role of pharmacies and pharmacists in public health, emphasizing the need for continued investment and development in this area to further enhance healthcare outcomes globally.

CHAPTER III.
STUDY OF THE CURRENT STATE OF INVOLVEMENT
OF COMMUNITY PHARMACISTS IN PUBLIC HEALTH SERVICES
AND OPPORTUNITIES FOR FUTURE EXPANSION
OF PHARMACIST ROLES

3.1 Results a survey regarding the role of pharmacists in disease prevention and health promotion

Pharmacists are essential healthcare professionals who play a critical role in disease prevention and health promotion. Their expertise in medications and their commitment to patient care make them valuable members of the healthcare team. As trusted sources of information, pharmacists have the opportunity to impact public health by providing education, promoting wellness, and ensuring the safe and effective use of medications.

The problems in the pharmaceutical sector during the period of transition have adversely affected the profession of pharmacy with pharmacists having significant difficulties fulfilling their professional aspirations and possibly losing confidence in further developing their professional role. The aim of the study was therefore to assess community pharmacists attitudes towards their professional practice and to determine their perceived competence in various pharmaceutical activities.

The pharmaceutical workforce in Morocco includes pharmacists and pharmaceutical technicians. Most pharmacists work in the private sector. This study was conducted in registered community pharmacies that are individually owned. All community pharmacists over the age of 21 with at least 12 months of professional and work experience were included.

From a total of 32 community pharmacies, a total of 32 community pharmacy professionals worked in the pharmacy. Two community pharmacy professionals did not consent to participate in the research. Six community pharmacies were established before 6 months, and they were excluded from the study. Finally, a total

of 24 community pharmacy professionals completed and returned the self-administered questionnaires, for a response rate of 92.3%.

Socio-demographic characteristics of the respondents presents in Table 3.1. Most of the participants were male (54.2%). Around 62.5% of them were in a married relationship. The median age of the respondents was 26 years, and their interquartile range was between 24.0 and 36.5 years. On average, the survey participants had 2 years of experience working in community pharmacy, with an IQR ranging from 1 to 4.5 years. About five individuals (20.8%) underwent advanced training in health promotion.

Table 3.1

Socio-demographic characteristics of the respondents

Socio demographic Variables	n	%
Gender		
Male	13	54.2
Female	11	45.8
Age		
21 – 30	15	62.5
31 – 40	7	29.2
> 41	2	8.3
Educational status		
Diploma	15	62.5
B.Pharm	9	37.5
Work experience as community pharmacy professional		
< 5 years	14	58.3
5–10 years	7	29.2
> 10 years	3	12.5
Position in community pharmacy		
Owner	10	41.7
Employee	14	58.3
On job training on health promotion		
Yes	5	20.8
No	19	79.2

A higher number of Community Pharmacists (98.7%) indicated that health promotion is included in their role. The majority expressed that the professional curriculum sufficiently prepares them to offer health promotion services (64.4%). Similarly, almost all respondents (98.7%) stated their willingness to provide health promotion services as part of their professional duty. Additionally, a large proportion of the participants (94.9%) reported conducting health education and promotion programs within their pharmacies (Fig. 3.1)

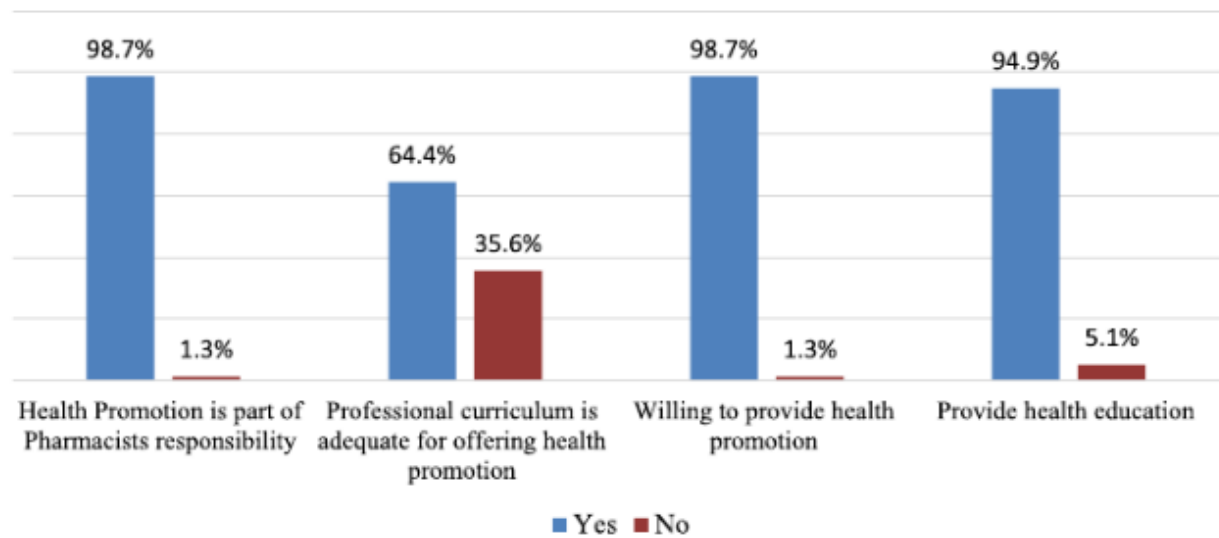


Fig. 3.1 Willingness of community pharmacists to the involvement in health promotion activities

In the past 6 months, around 22 (91.7%) of the participants were engaged in delivering health promotion services at a community pharmacy, while only 2 (8.3%) did not provide any form of health promotion during this period (Fig. 3.2). The majority of respondents (79.2%) offered family planning counseling at these pharmacies, followed by drug misuse and alcohol consumption counseling (75% each). Immunization counseling (45.8%) and traditional medicine counseling (45.8%) were less commonly provided by community pharmacy professionals.

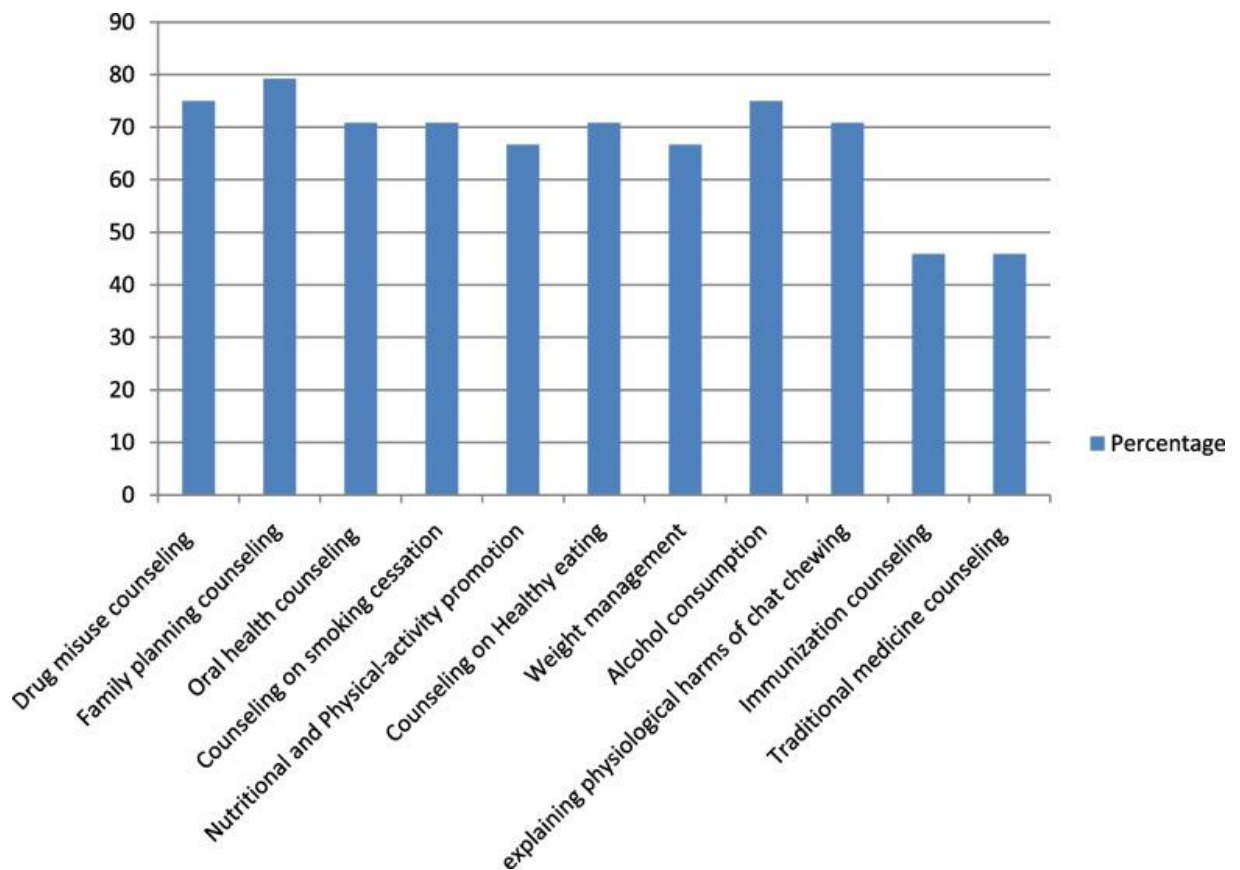


Fig. 3.2 Involvement of community pharmacy professionals in health promotional services

The proportion of community pharmacy professionals who reported their community pharmacy as being very involved in each service was 14 (60.9%) for involvement in family planning counseling and alcohol consumption counseling (Table 3.2).

On the next step Community pharmacists estimate barriers to the provision of health-promotion and preventive services in current pharmacy practice (fig 3.3). According to the data, the primary obstacles to delivering health-promotion and preventive services in their current practice included insufficient time (83.3%), inadequate coordination with other healthcare professionals (62.5%), understaffing or lack of resources (58.3%), limited financial compensation (50.0%), and absence of clinical tools (45.8%). Additionally, six pharmacists noted that their restricted prescription rights and the absence of collective prescriptions also hindered their participation in preventive efforts.

Table 3.2

The level of involvement of community pharmacy professionals in health promotion services

Involvement in health promotion	Responses n (%)				
	Very Involved	Involved	Moderate Involved	Slightly Involved	Not Involved
Behavioral and Life style modification					
Drug misuse counseling	13 (56.5)	9 (39.1)	1 (4.4)	0 (0.0)	0 (0.0)
Family planning counseling	14 (60.9)	8 (34.7)	1 (4.4)	0 (0.0)	0 (0.0)
Oral health counseling	10 (43.5)	8 (34.8)	3 (13.0)	2 (8.7)	0 (0.0)
Counseling on smoking cessation	9 (39.1)	10 (43.5)	2 (8.7)	2 (8.7)	0 (0.0)
Nutritional and Physical-activity promotion	7 (30.4)	13 (56.5)	2 (8.7)	1 (4.4)	0 (0.0)
Counseling on Healthy eating	7 (30.4)	13 (56.5)	2 (8.7)	1 (4.4)	0 (0.0)
Weight management	3 (13.0)	14 (60.8)	4 (17.4)	1 (4.4)	1 (4.4)
Alcohol consumption	14 (60.9)	7 (30.4)	0 (0.0)	1 (4.4)	1 (4.4)
explaining physiological harms of chat chewing	6 (26.0)	8 (34.8)	8 (34.8)	1 (4.4)	0 (0.0)
Immunization counseling	5 (21.7)	10 (43.5)	7 (30.4)	1 (4.4)	0 (0.0)
Traditional medicine counseling	2 (8.7)	9 (39.1)	4 (17.4)	4 (17.4)	4 (17.4)

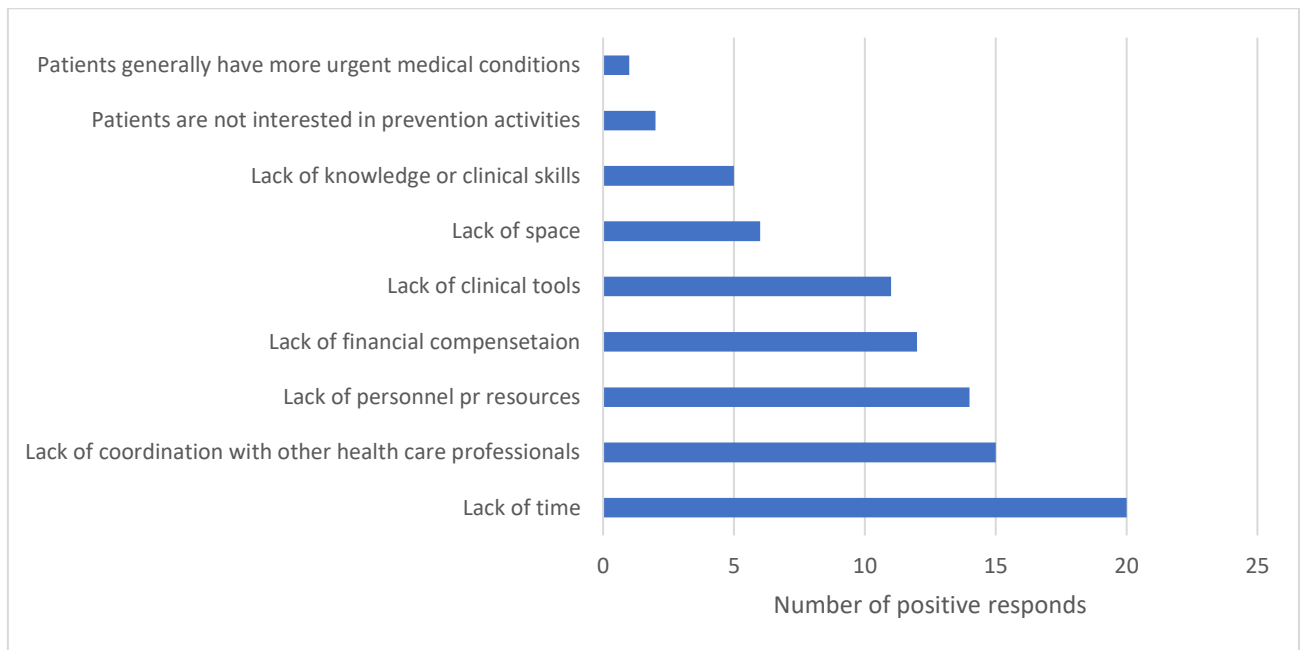


Fig. 3.3 Self-identified barriers to the provision of health-promotion and preventive services in current pharmacy practice

This research aimed to evaluate the inclinations, participation, convictions, and obstacles of community pharmacy professionals in delivering health promotion services. A majority of the professionals were engaged in providing such services, with over half expressing willingness and strong conviction that their involvement would positively impact health promotion. Their main areas of involvement included family planning, alcohol consumption counseling, and asthma screening. Despite their active engagement, they face various challenges when it comes to offering health promotion services.

The practice of pharmacy has progressed to encompass expanded responsibilities in patient care and provision of information on medication use within the community. Community pharmacy professionals now play a broader role in preventive and comprehensive care for the community. Given their easy access to patients, these professionals are well positioned to undertake advanced activities in promoting health. The proactive engagement of community pharmacy professionals in health promotion could serve as a crucial link towards enhancing global efforts to increase access to essential medicines—especially in developing communities—and ultimately improve overall healthcare coverage.

3.2 Recommendations for enhancing the role of community pharmacists in disease prevention and health promotion

Most people are unaware that pharmacists can perform a wide range of complex clinical functions related to therapy optimization, not limited to simply dispensing pills. Today, 53% of US-licensed pharmacists hold a doctor of pharmacy degree and receive as much classroom clinical instruction as medical doctors.

If more pharmacists were to fully utilize their professional education and skill sets, they could significantly contribute to enhancing the well-being of health care consumers in line with Deloitte's Future of Health vision. In this future, we anticipate a shift toward emphasizing prevention over treatment and an increasing emphasis on delivering care in the home or community. As some of the most accessible and trusted health care professionals, pharmacists can assist individuals in maintaining good health, better managing chronic conditions, and aging comfortably at home.

The COVID-19 pandemic has provided an opportunity for pharmacists to provide more hands-on care and for the profession to redefine its role.

All mentioned roles of community pharmacists were broadly included in the thematic analysis as presented in Figure 3.4 due to varying accounts from different studies regarding novel/expanded roles. Additionally, all mentioned roles were cross-referenced across studies, leading to eight major categories outlined in Figure 3.4 as emerging from literature appraisal.

Community pharmacists play a crucial role in disease prevention and health promotion. They have direct access to patients and can provide personalized healthcare services. To enhance the role of community pharmacists in disease prevention and health promotion, the following recommendations can be considered:

- Expand their knowledge and skills in preventive care by engaging in ongoing education and training programs.

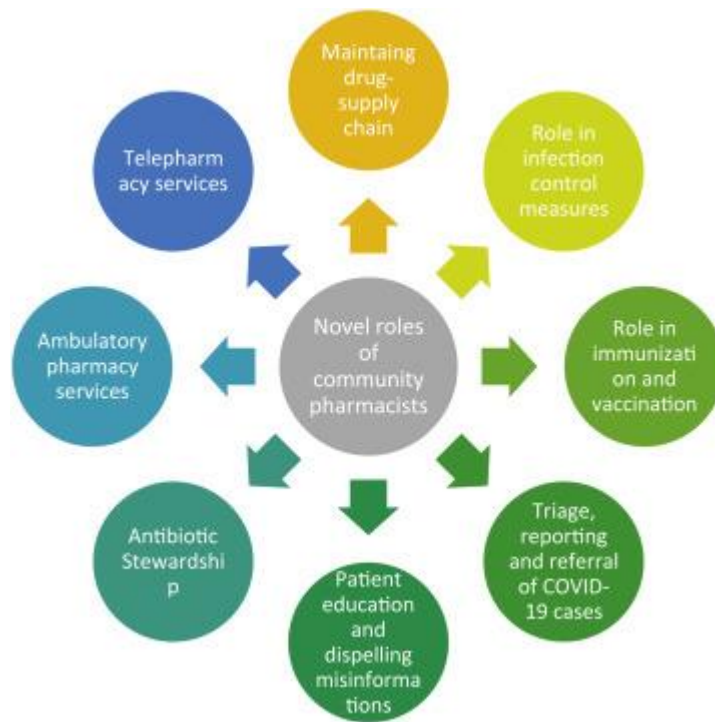


Fig 3.4 Novel roles of community pharmacists in the COVID-19 pandemic

- Collaborate with other healthcare professionals to develop comprehensive care plans for patients, especially those with chronic conditions.
- Utilize technology and digital tools to enhance communication and coordination with patients and other healthcare providers.
- Implement public awareness campaigns to educate the community about the importance of disease prevention and health promotion and the role of community pharmacists in providing these services.
- Provide incentives for community pharmacists to focus on preventive care, such as reimbursement for preventive services and performance-based pay.
- Integrate community pharmacists into multidisciplinary healthcare teams to promote collaboration and coordination of care.
- Improve access to resources and equipment needed for health promotion activities, such as educational materials, screening tools, and health monitoring devices.

- Engage community pharmacists in community outreach programs and partnerships with local organizations to reach underserved populations and promote health promotion initiatives.
- Encourage community pharmacists to actively engage in the development and implementation of public health policies and initiatives related to disease prevention and health promotion.
- Advocate for policy changes that recognize and support the expanded role of community pharmacists in disease prevention and health promotion.
- Ensure that community pharmacists have a clear understanding of their role in disease prevention and health promotion through ongoing education and training programs.
- Strengthen the integration of community pharmacists into primary care teams and healthcare systems to enhance collaboration and coordination of care.
- Improve reimbursement and financial incentives for community pharmacists to provide disease prevention and health promotion services.
- Support the integration of community pharmacists into electronic health record systems to facilitate communication and information sharing with other healthcare providers.
- Provide community pharmacists with access to comprehensive patient information, including medical history and medication profiles, to better identify opportunities for disease prevention and health promotion interventions.
- Provide opportunities for community pharmacists to engage in research and evidence-based practice related to disease prevention and health promotion.

It is evident that community pharmacists have the potential to play a pivotal role in disease prevention and health promotion. By expanding their knowledge and skills, collaborating with other healthcare professionals, utilizing technology, engaging in public awareness campaigns, and integrating into multidisciplinary healthcare teams, community pharmacists can significantly contribute to enhancing

the well-being of health care consumers. It is imperative to provide them with the necessary resources, support, and recognition to fulfill this expanded role effectively. Recognizing and supporting the enhanced role of community pharmacists in disease prevention and health promotion can lead to a more comprehensive and integrated approach to healthcare, ultimately benefiting individuals and communities nationwide.

Conclusion to chapter III

The study has shed light on the important role of community pharmacists in delivering health promotion services. Despite facing various challenges such as time constraints, inadequate coordination with other healthcare professionals, and limited resources, the majority of community pharmacists expressed willingness and strong conviction in their involvement in health promotion. Their active engagement in providing services such as family planning counseling, alcohol consumption counseling, and asthma screening demonstrates their commitment to comprehensive care for the community.

Identified that pharmacists have the potential to make a significant impact on disease prevention and health promotion by expanding their knowledge, collaborating with healthcare professionals, utilizing technology, engaging in public awareness campaigns, and integrating into multidisciplinary healthcare teams. By providing them with the necessary resources, support, and recognition, pharmacists can effectively contribute to enhancing the well-being of health care consumers. Recognizing and supporting the enhanced role of pharmacists in preventive care can lead to a more comprehensive and integrated approach to healthcare, benefiting individuals and communities nationwide. It is essential to empower pharmacists to fulfill their professional potential and improve public health outcomes.

CONCLUSIONS

1. Specify, that pharmacists must adapt to the evolving pharmaceutical landscape by embracing technology, collaboration, education, and policy advocacy to enhance patient care. By proactively addressing challenges and seizing opportunities, pharmacists can shape the future of pharmaceutical care and contribute to patient-centered healthcare.

2. Identified that community pharmacists play a crucial role in disease prevention and health promotion through early identification of health risks, education, counseling, and collaboration with other healthcare professionals. Their accessibility to the community allows for timely intervention, improved health outcomes, and a significant impact on promoting healthy lifestyles and preventing diseases. Through their involvement in preventive care, community pharmacists can make a lasting impact on public health and advance the health and wellness of individuals and communities.

3. In conclusion, international health policies, led by organizations such as the World Health Organization, have had a significant impact on the global regulation and standardization of the pharmacy profession. These policies aim to ensure the availability, affordability, and quality of essential medicines, enhance pharmaceutical care through guidelines like GPP, and promote ethical codes for pharmacists. Pharmacists are crucial to public health efforts and must adhere to GPP guidelines, ethical codes, and national regulations to ensure the quality and safety of pharmaceutical practices. Overall, the regulatory policies governing the pharmacy profession in public health are essential for upholding professional standards, promoting population health, and ensuring the optimal use of medications.

4. The comparative analysis of pharmacists' activities in disease prevention and health promotion highlights a multifaceted role. The role of pharmacists in disease prevention and health promotion varies significantly across different countries, with some nations embracing expanded roles for pharmacists beyond traditional dispensing.

5. Overall, the study highlights the critical role of community pharmacists in disease prevention and health promotion. Despite facing various challenges such as time constraints and limited resources, pharmacists are actively engaged in providing health promotion services, with a majority expressing willingness to contribute to public health initiatives. Their involvement in areas such as family planning counseling, alcohol consumption counseling, and asthma screening demonstrates their commitment to promoting wellness within the community. The expanding role of pharmacists in patient care and medication management underscores their potential to enhance healthcare outcomes and improve access to essential services. By addressing barriers and further integrating pharmacists into preventive efforts, there is a significant opportunity to leverage their expertise and close gaps in healthcare delivery, particularly in underserved populations. Moving forward, continued support and recognition of the valuable contributions of pharmacists in public health will be essential for advancing global health promotion efforts and ultimately improving overall healthcare coverage.

6. The comprehensive overview provided highlights the potential for community pharmacists to play a pivotal role in disease prevention and health promotion. Recommendations such as ongoing education and training programs, collaboration with other healthcare professionals, utilization of technology, public awareness campaigns, incentives for preventive care, integration into healthcare teams, access to resources and equipment, engagement in community outreach programs, involvement in public health policies, and support for policy changes are all key strategies to enhance the role of community pharmacists in disease prevention and health promotion.

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ANNEX



MINISTRY OF HEALTH OF UKRAINE
NATIONAL UNIVERSITY OF PHARMACY
DEPARTMENT OF SOCIAL PHARMACY



**IX INTERNATIONAL SCIENTIFIC AND
PRACTICAL DISTANCE CONFERENCE
"SOCIAL PHARMACY:
STATE, PROBLEMS AND PROSPECTS"**

CERTIFICATE OF PARTICIPATION №132

El Ghauzouli Ayoub

**participated in the roundtable
"Current issues of social pharmacy"
according to the program of 7 hours / 0.2 ECTS credits**

**Achieved learning outcomes:
the use in professional activity of knowledge of the basic principles of
the concept of social pharmacy as a component of the effective sphere
of health care, as well as the peculiarities of the regulatory and legal
regulation of pharmaceutical provision of the population**

Acting rector of the National University of Pharmacy,
Doctor of Pharmaceutical Sciences,
Professor, Honored Worker of Science and
Technology of Ukraine



Alla Kotvitska
Alla KOTVITSKA

Vice-Rector for scientific and
pedagogical work,
Doctor of Pharmaceutical
Sciences, professor

Inna Vladymyrova
Inna VLADYMYROVA

Head of the department
of Social Pharmacy,
Candidate of Pharmaceutical
Sciences, Associate Professor

Alina Volkova
Alina VOLKOVA

**Kharkiv,
April 25, 2024**

