

The Role Of Pharmaceutical Care Services In Improving The Quality Of Healthcare Services In The Saudi Healthcare Sector

Abdullah Hebni Ali Alshahri ¹, Mohammed Eid Alsaadi ², Yousef Saed Alhazmi ³, Abdulaziz Wazin Alharbi ⁴, Fahad Mohammed Almatrafi ⁵

Abstract

The pharmacy field is extremely rapidly changing and as new specialized fields and services are developed throughout time, the pharmacist's function becomes more and more valuable. As they move from being drug distributors to outcome-oriented, patient-focused care providers, pharmacists will have an increased obligation to advance their knowledge and skills. The community, hospitals, long-term care facilities, and the clinic are all places where pharmaceutical care can be provided. All drug care administrations were accounted for in examinations directed in Europe. The authors concluded that community pharmacists in KSA primarily provided medication dispensing services and that other pharmaceutical care services were virtually nonexistent or very limited.¹ Identifying, resolving, and preventing drug-related issues are all components of pharmaceutical care. Pharmacists can work with other healthcare professionals to design, implement, and monitor therapeutic plans in order to improve patients' therapeutic outcomes and quality of life.

Keywords: *Pharmaceutical care, Medication therapy, Healthcare, Saudi healthcare sector.*

Introduction

The notion of pharmaceutical care is practice-based that centers the pharmacist's work around the needs of the patient. This suggests a method of working where pharmacists take ownership of making sure that everything is done with the patient's best interests in mind. This idea came from a word that was described as a subset of medical care by Mikeal et al. in 1975. After then, the idea evolved as a result of the community's shifting environment and the demands it placed on the pharmacy. This comprises the medication requirements for a specific patient, which entails giving both the necessary medications and the services required for safe and efficient therapy (Alanazi et al., 2016).

The foundation of pharmaceutical care is the partnership that exists between the patient and the medical professionals who take on the duty of caring for them. Pharmaceutical care include the

¹ Pharmacy Technician, King Abdulaziz Medical City -Jeddah.

² Pharmacy Technician, King Abdulaziz Medical City -Jeddah.

³ Pharmacy Technician, King Abdulaziz Medical City -Jeddah.

⁴ Pharmacy Technician, King Abdulaziz Medical City -Jeddah.

⁵ Pharmacy Technician, King Abdulaziz Medical City -Jeddah.

patient and healthcare professional actively participating in choices about medication therapy (Al-Quteimat & Amer, 2016).

Three main tasks are involved in pharmaceutical care: detecting possible and existing drug-related issues; fixing drug-related issues; and averting drug-related issues. The objective and philosophy of all these trends—which include medication management, Drug management, medication assessment, clinical pharmacy services, and mental health services—is "the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life." (Al-Quteimat & Amer, 2016).

Pharmacists assist the practice of medicine and are regarded as the most approachable members of the health industry. Being the hub of their communities, pharmacists are an invaluable human resource. Their research work and professional training enable them to give the public accurate and comprehensive medical information. Pharmacists have been in the forefront of helping patients and preventing and combating the impacts of infection ever before the epidemic began (Bragazzi et al., 2020).

Pharmacists now have a wider range of functions in patient care than just filling prescriptions and offering basic drug counseling. They also collaborate with other medical professionals and the community. As a result, the pharmacist is now more involved in many health care systems, including hospitals, general practitioners' offices, and pharmacies for in- and out-patients (Al-Quteimat & Amer, 2016).

Prescription medication and other health-related services are only two of the many services that clinical pharmacists may provide to their patients. They can help doctors logically prescribe medications, make sure patients understand the dosage and mode of administration, and increase patient adherence. Additionally, in community pharmacy settings, pharmacists are crucial in promoting public health in areas including nutrition and good lifestyle choices, regular immunizations, infection prevention and treatment, mental health management, and other chronic illness care (Alim et al., 2016).

It is the duty of pharmacists to work with other medical professionals to raise the standard of patient care. Since the healthcare system has transitioned from episodic care to population health management and from volume to value-based care, pharmacists have become increasingly important in the treatment and prevention of chronic illnesses and the repercussions that go along with them. The outpatient hospital pharmacy (OPh) is given priority by hospital pharmacy departments due to the large number of visiting patients and the ensuing cost impact on the healthcare system. When financial and human assets are employed in this sector effectively, patient outcomes are immediately enhanced (Martínez-López-De-Castro et al., 2017).

Significance of study

Due to their accessibility, knowledge, and experience, community pharmacists are in a distinct position to contribute significantly to patient care within the healthcare delivery system. They are reputable experts who promote the health of individuals, families, and communities since they operate in the center of communities (Alfadl et al., 2018).

The direct and responsible provision of care connected to medications is known as pharmaceutical care by a pharmacist in partnership with patients and other Health Care Professionals (HCPs) with the goal of optimizing the results of drug therapy (Maes et al., 2018).

Collaboration between the physician and the pharmacist has been shown to improve patient outcomes, which in turn improves the patient's quality of life. It also increases cost-

effectiveness, aids in tracking treatment outcomes, and facilitates patient health assessments, all of which lessen the burden on the healthcare system (Maes et al., 2018).

Objectives

- 1-To detect the role of pharmaceutical care services in Medication Therapy Management.
- 2-To detect the role of pharmaceutical care services in drug monitoring and patient's education.
- 3-To detect the role of pharmaceutical care services in Patient Education and Counseling.

Literature Review

The profession of pharmacy in Saudi Arabia is regulated by the Saudi Food and Drug Authority, the Saudi Pharmaceutical Society, the Ministry of Civil Services, the Saudi Commission for Health Specialties, and the Ministry of Health, among other organizations. The Service of Wellbeing (MOH), through its drug care division, is a key part in drug store guideline. The delivery of pharmacotherapy through the use of cutting-edge methods and skilled pharmacists is the overarching objective of pharmaceutical care. In addition, the Saudi Commission for Health Specialties (SCFHS) is in charge of licensing and registering pharmacy graduates as well as developing and approving residency programs at the various internship locations (Almaghaslah et al., 2018).

The Saudi Dietary and Drug Authority regulates all pharmaceutical products, including prescription drugs, over-the-counter, behind-the-counter, herbal, and dietary supplements. The Saudi Pharmaceutical Society represents all pharmacists in the Kingdom. Through proceeding with training perceived by the License Gathering of Drug store Instruction, it seeks to advance the pharmacy profession (Rasheed et al., 2020).

BARRIERS TO IMPLEMENT PHARMACEUTICAL CARE IN COMMUNITY PHARMACY

In various practice settings in Argentina, 59% of pharmacists indicated that the biggest obstacle to pharmaceutical care was time constraints. A lack of specialized training, inadequate patient communication skills, and a lack of space in the pharmacy followed. Additionally, a barrier to pharmaceutical care was cited by 5% of pharmacists as a lack of communication with other healthcare providers. According to the community pharmacists in Northwest China, the two primary impediments to providing pharmaceutical treatment were financial concerns and a lack of time, knowledge, skills, and assistance from other health professionals (Ahmed & Al-Wahibi, 2016).

AREAS OF PRACTICE

Pharmacists not only work in hospitals and community pharmacies, but also in non-traditional places like regulatory agencies (like the Saudi Food and Drug Authority), the pharmaceutical industry (like sales and marketing, scientific offices, manufacturing sites, licensing and regulation departments, and drug evaluation), and educational and teaching establishments. Most pharmacy technicians work in hospitals, where there is a higher need for their expertise than in other settings (Al-Jedai et al., 2016).

Community Pharmacy

Pharmacists play the traditional counseling and dispensing roles in the community. There are three categories of medications: over-the-counter, behind-the-counter, and prescription. drugs that are within patients' grasp and that a pharmacist dispenses without a prescription are known

as over-the-counter drugs. Drugs that are not beyond patients' grasp and are dispensed by a pharmacist without a prescription are known as behind-the-counter drugs. It is against the law for pharmacists to diagnose medical conditions or give prescription drugs to patients without a prescription. Regrettably, a lot of pharmacists still provide prescription-free antibiotics, contraceptive pills, and drugs for chronic illnesses. The MOH, the sole controlling body for local area drug stores, ascribes the absence of authorization to a deficient number of auditors. This scenario is concerning since local research indicates that community pharmacists in the Kingdom of Saudi Arabia lack the necessary clinical skills and training to diagnose and/or prescribe. The main circumstance where drug specialists stringently comply with the law connects with controlled/opiate substances, due to serious legitimate results (Al-Jedai et al., 2016).

One of the two goals of pharmaceutical care interventions' cost-effectiveness is to lower the expense of drug-related morbidity and death or medication mistakes. Pharmacists have a great opportunity to drastically reduce healthcare costs since they are competent to identify, treat, and prevent medication errors and other pharmaceutical-related problems (Mekonnen et al., 2016).

Medication Therapy Management

Pharmacists and other healthcare professionals administer medication therapy management (MTM), which enhances patient health and fosters more cooperation among MTM providers. Still, not much is known about Saudi Arabian pharmacists' plans to offer MTM services (Alsulami et al., 2019).

Other healthcare professionals have acknowledged pharmacists for playing a significant role in lowering drug mistakes; this role might be further enhanced by offering MTM. Research, for instance, indicated that when pharmacists were part of rounding teams with doctors and other healthcare professionals, there were less prescription mistakes than when pharmacists were not a member of the rounding teams (Alsulami et al., 2019).

Additionally, research indicated that the incidence of potentially harmful drug interactions and incorrect prescriptions was reduced by the medication review services provided by clinical pharmacists. This improved the financial and clinical results for patients as well as the healthcare system. Additionally, the availability of MTM was linked to high patient satisfaction levels (Stuhec et al., 2019).

From a clinical standpoint, pharmacists have recognized and resolved issues related to low medication adherence, drug–drug interactions, inappropriate medication selection and/or dosage, and needless pharmaceutical therapy. Previous studies have shown that the rates at which medication-related problems (MRPs) were resolved ranged from 45.0 to 69.1% (Turner et al., 2018).

Patients have seen cost reductions when pharmacists provide MTM services. Costs are decreased for the patient and the healthcare system when more affordable drugs are used in place of more costly ones. The benefit-to-cost ratio of providing medicine and health management services is higher than that of not providing these services (Turner et al., 2018).

Numerous global studies have been carried out to assess patients' satisfaction with MTM services given by pharmacists. Patients' acceptance and enthusiasm in MTM services are expected to rise if they are made available in Saudi Arabia. This is because the majority of research conducted worldwide have discovered proof of the advantages and enhancements in patients' health and quality of life brought about by MTM services supplied by pharmacists (Alhaddad, 2019).

Drug monitoring and Patient's Education

The most recent pharmacy strategic planning was made public by the Saudi Arabian Ministry of Health (MOH), and it placed an emphasis on essential pharmaceutical care services. Advance clinical pharmacy also included drug therapy monitoring and patient medication counseling. There were several stages to the plan, including the implementation stage. During that time, taskforce committees were established to oversee more than thirty pharmacy practice programs that were patient-centered. For example, meds wellbeing program deals with medicine blunders and antagonistic medication response recognition and counteraction. Additionally, it included all requirements of Saudi Center of Organization Accreditation's medications safety standards and all aspects of the USA Institution of Safe Medication Practice. One of the projects began showed restraint prescriptions instruction. Unique board of trustees worried about the program delivered the direction manual for patient schooling, the investment of public world days, for instance, drug specialist day, Asthma and diabetic days, the arrangement of patient instruction at the short term drug store, release patient advising and laid out walking care centers for patient guiding. The high financial burden of the health care system at MOH hospitals and primary healthcare centers and the counseling that focuses on chronic illnesses (such as diabetes mellitus, asthma, and epilepsy) (Alomi et al., 2018).

Patient Education and Counseling

Community pharmacists are often the first point of contact with patients and other members of the public, and for some, they are their only point of contact with healthcare practitioners. Community pharmacies are also a key resource for society, serving as the only medical facility in times of need and being a vital source of health care (Alfadl et al., 2018).

Pharmacists may take advantage of every contact by using their central location in communities to promote health, facilitate various public health initiatives, and offer additional health and wellness services. Additionally, community pharmacists may promote improved health and lower hospital admission rates by educating the public on the proper administration and use of drugs, as well as by offering guidance on leading a healthy lifestyle and encouraging self-care (Alfadl et al., 2018).

For a number of reasons, attaining all of the above-described objectives is thought to require offering enough counseling. First off, improving patients' adherence is greatly aided by counseling. To help patients take their medications as prescribed and reduce the risk of drug-food interactions, drug-drug interactions, drug allergies, or any other safety precautions that need to be observed when taking pharmaceuticals, adequate counseling is a necessary precondition (Alfadl et al., 2018).

While it is believed that good patient counseling leads to greater therapeutic outcomes, inadequate pharmaceutical counseling can also directly cause drug overdoses, ineffective medications, injuries, or even fatalities. Because of all of these factors, receiving appropriate counseling is among the most crucial aspects of using pharmaceuticals to enhance patient outcomes (Sanii et al., 2016).

THE BENEFITS OF PHARMACEUTICAL CARE INTERVENTION

For more than 20 years, the function of a drug specialist in delivering drugs has been widely regarded and accepted as an important component of their regular expertise. Literature from industrialized countries has shown how important pharmacists are to patient-centered care in hospital and community-based pharmacy settings; however, in poor countries, where pharmacists are more involved in pharmaceutical sales, this documentation still lacks

specificity. The advantages of having a pharmacist on the medical staff in charge of overseeing inpatients at a tertiary care hospital included a notable decrease in the amount of time patients spent there overall and a reduction in their cost burden. Furthermore, the pharmacist's participation in ambulatory patient care decreased the incidence of adverse medication events and assisted patients in managing their blood pressure, blood sugar levels, and low-density lipoprotein cholesterol (Upadhyay & Ooi, 2018).

Connecting Pharmacists and Other Health Care Providers (HCPs)

The greatest people to help consumers and healthcare professionals prevent drug use issues and get the most out of their drug consumption are trained pharmacists. It has long been known that prescription, dispensing, and administration methods in underdeveloped nations are illogical. The earlier research shed some light on how patients and healthcare professionals use medications, as well as the variables influencing the effectiveness of pharmacological therapy. There is a communication gap between doctors and pharmacists, according to several published research, and physicians' opinions of pharmacist competency affect whether or not direct patient services are accepted by them (Maes et al., 2018).

Conclusion

The primary pharmaceutical care-related services offered by community pharmacies include obtaining a patient's medication history, instructing them on how to take their prescriptions, advising them on how to store them, and providing information on drug and/or food interactions. Saudi Arabia's pharmaceutical care is comparable to that of the rest of the world. Generally, the same range of services offered and related obstacles that pharmacists in other nations have noted. Pharmacist-led pharmaceutical care services were introduced for the first time at the study facility. The findings clearly show that pharmacist-led treatments, in conjunction with coordinated care from other HCPs, optimized medication therapy. Pharmacists can get more acceptance as essential members of the healthcare team from other HCPs by providing superior professional services and expertise. By establishing clinical pharmacy departments and including pharmacists in medical ward rounds, healthcare facilities in developing nations must keep up with rapidly evolving trends in order to minimize drug-related problems, better address patients' drug-related needs, counsel patients on their prescribed therapies, and maximize the clinical outcomes of treatment.

References

1. Alanazi, A. S., Alfadl, A. A., & Hussain, A. S. (2016). Pharmaceutical care in the community pharmacies of Saudi Arabia: Present status and possibilities for improvement. *Saudi Journal of Medicine & Medical Sciences*, 4(1), 9. <https://doi.org/10.4103/1658-631x.170881>
2. Al-Quteimat, O. M., & Amer, A. M. (2016). Evidence-based pharmaceutical care: The next chapter in pharmacy practice. *Saudi Pharmaceutical Journal*, 24(4), 447–451. <https://doi.org/10.1016/j.jsps.2014.07.010>
3. Al-Jedai, A., Qaisi, S., & Al-Meman, A. (2016). Pharmacy practice and the health care system in Saudi Arabia. *Canadian Journal of Hospital Pharmacy/the Canadian Journal of Hospital Pharmacy*, 69(3). <https://doi.org/10.4212/cjhp.v69i3.1561>
4. Mekonnen, A. B., McLachlan, A. J., & Brien, J. E. (2016). Effectiveness of pharmacist-led medication reconciliation programmes on clinical outcomes at hospital transitions: a systematic review and meta-analysis. *BMJ Open*, 6(2), e010003. <https://doi.org/10.1136/bmjopen-2015-010003>
5. Bragazzi, N. L., Mansour, M., Bonsignore, A., & Ciliberti, R. (2020). The role of hospital and community pharmacists in the management of COVID-19: Towards an expanded definition of the

roles, responsibilities, and duties of the pharmacist. *Pharmacy*, 8(3), 140.
<https://doi.org/10.3390/pharmacy8030140>

6. Martínez-López-De-Castro, N., Álvarez-Payero, M., Martín-Vila, A., Samartín-Ucha, M., Iglesias-Neiro, P., Gayoso-Rey, M., Feijoo-Meléndez, D., Casanova-Martínez, C., Fariña-Conde, M., & Piñeiro-Corrales, G. (2017). Factors associated with patient satisfaction in an outpatient hospital pharmacy. *European Journal of Hospital Pharmacy*, 25(4), 183–188. <https://doi.org/10.1136/ejhpharm-2016-001192>

7. Alim, U., Austin-Bishop, N., & Cummings, G. (2016). Pharmacists in a complex chronic disease management clinic. *Canadian Journal of Hospital Pharmacy/the Canadian Journal of Hospital Pharmacy*, 69(6). <https://doi.org/10.4212/cjhp.v69i6.1612>

8. Patel, E., Pevnick, J. M., & Kennealy, K. A. (2019). <p>Pharmacists and medication reconciliation: a review of recent literature</p> *Integrated Pharmacy Research and Practice*, Volume 8, 39–45. <https://doi.org/10.2147/iprp.s169727>

9. Rasheed, M. K., Alqasoumi, A., Hasan, S. S., & Babar, Z. (2020). The community pharmacy practice change towards patient-centered care in Saudi Arabia: a qualitative perspective. *Journal of Pharmaceutical Policy and Practice*, 13(1). <https://doi.org/10.1186/s40545-020-00267-7>

10. Almaghaslah, D., Alsayari, A., Asiri, R., & Albugami, N. (2018). Pharmacy workforce in Saudi Arabia: Challenges and opportunities: A cross-sectional study. *the International Journal of Health Planning and Management*, 34(1). <https://doi.org/10.1002/hpm.2674>

11. Ahmed, N., & Al-Wahibi, N. (2016). Knowledge Attitude and Practice towards Pharmaceutical Care in Community Pharmacy in Saudi Arabia. *British Journal of Medicine and Medical Research*, 15(9), 1–9. <https://doi.org/10.9734/bjmmr/2016/23920>

12. Upadhyay, D. K., & Ooi, G. S. (2018). Enhancing quality of Patient-Centered care services in developing countries. In Elsevier eBooks (pp. 311–328). <https://doi.org/10.1016/b978-0-12-811228-1.00019-4>

13. Sanii, Y., Torkamandi, H., Gholami, K., Hadavand, N., & Javadi, M. (2016). Role of pharmacist counseling in pharmacotherapy quality improvement. *Journal of Research in Pharmacy Practice*, 5(2), 132. <https://doi.org/10.4103/2279-042x.179580>

14. Alfadl, A. A., Alrasheedy, A. A., & Alhassun, M. S. (2018). Evaluation of medication counseling practice at community pharmacies in Qassim region, Saudi Arabia. *Saudi Pharmaceutical Journal*, 26(2), 258–262. <https://doi.org/10.1016/j.jsps.2017.12.002>

15. Alomi, Y. A., Shorog, E., Alshahrani, A., Alasmay, S., Alenazi, H., Almutairi, A., & Almutairi, M. (2018). National Survey of Pharmacy Practice at MOH Hospitals in Saudi Arabia 2016-2017: Drug Monitoring and Patients Education. *Journal of Pharmacy Practice and Community Medicine*, 4(1s), s17–s22. <https://doi.org/10.5530/jppcm.2018.1s.14>

16. Alsulami, S. L., Sardidi, H. O., Almuzaini, R. S., Alsaif, M. A., Almuzaini, H. S., Moukaddem, A. K., & Kharal, M. S. (2019). Knowledge, attitude and practice on medication error reporting among health practitioners in a tertiary care setting in Saudi Arabia. *Saudi Medical Journal*, 40(3), 246–251. <https://doi.org/10.15537/smj.2019.3.23960>

17. Stuhec, M., Gorenc, K., & Zelko, E. (2019). Evaluation of a collaborative care approach between general practitioners and clinical pharmacists in primary care community settings in elderly patients on polypharmacy in Slovenia: a cohort retrospective study reveals positive evidence for implementation. *BMC Health Services Research*, 19(1). <https://doi.org/10.1186/s12913-019-3942-3>

18. Turner, K., Renfro, C., Ferreri, S., Roberts, K., Pfeiffenberger, T., & Shea, C. (2018). Supporting Community Pharmacies with Implementation of a Web-Based Medication Management Application. *Applied Clinical Informatics*, 09(02), 391–402. <https://doi.org/10.1055/s-0038-1651488>

19. Alhaddad, M. S. (2019). Youth experience with community pharmacy services and their perceptions toward implementation of medication therapy management services by community pharmacists in the western region of Saudi Arabia. *Therapeutic Innovation & Regulatory Science*, 53(1), 95–99. <https://doi.org/10.1177/2168479018769299>

20. Maes, K. A., Hersberger, K. E., & Lampert, M. L. (2018). Pharmaceutical interventions on prescribed medicines in community pharmacies: focus on patient-reported problems. *International Journal of Clinical Pharmacy*, 40(2), 335–340. <https://doi.org/10.1007/s11096-018-0595-y>