

REVIEW ARTICLE

Pharmaceutical Care in the Community Pharmacies of Saudi Arabia: Present Status and Possibilities for Improvement

Abdulrahman S. Alanazi, Abubakr A. Alfadl¹, Abubaker S. Hussain¹

Unaizah College of Pharmacy, ¹Department of Pharmacy Practice, Unaizah College of Pharmacy, Qassim University, Unaizah, Qassim, Saudi Arabia

Correspondence: Dr. Abubakr A. Alfadl, Department of Pharmacy Practice, Unaizah College of Pharmacy, Qassim University, P. O. Box: 5888, Unaizah - 51911, Qassim, Saudi Arabia. E-mail: abubakr13@yahoo.com

ABSTRACT

Pharmaceutical care can be given in all settings: The community, hospitals, long-term care, and the clinic. However, published literature indicates that there is a substantial barrier to implementing pharmaceutical care programs in community pharmacies. This review was conducted to discover gaps and limitations in pharmaceutical care services in community pharmacies in the Kingdom of Saudi Arabia (KSA). We searched PubMed and other available scientific website databases using the following key words to retrieve the relevant articles: Community Pharmacy, Healthcare System, Pharmaceutical Care, KSA. Two authors independently screened the titles and abstracts of promising articles. They discarded irrelevant studies and retained studies, and reviews that held the promise of relevant data or information. The review revealed that only one out of the four studies conducted in KSA retrieved by the authors reported pharmaceutical care service other than dispensing. The same results were reported in other studies conducted in some developing countries. All pharmaceutical care services were reported in studies conducted in Europe. The authors came to the conclusion that in KSA, dispensing of medicines is the dominant service provided by community pharmacists and that there was very limited if not a total absence of other pharmaceutical care services.

Key words: Community pharmacy, drug therapy problems, healthcare system, Kingdom of Saudi Arabia, pharmaceutical care

ملخص البحث :

يمكن تطبيق برنامج الرعاية الصيدلانية في جميع المنشآت الصحية كصيدليات المجتمع، والمراكز الصحية. تشير البحوث المنشورة بوجود عوائق حقيقية تحول دون تنفيذ برامج الرعاية الصيدلانية في صيدليات المجتمع. وتبين هذه المقالة أن هناك قصورا في خدمات الرعاية الصيدلانية في صيدليات المجتمع بالمملكة العربية السعودية، وأن عمليات صرف الدواء هي الخدمة المهيمنة بالصيدليات مع هامش لا يكاد يذكر لخدمات الرعاية الصيدلانية.

INTRODUCTION

Pharmaceutical care

Pharmaceutical care is a philosophy of practice that puts patients at the center of the pharmacist's activities. This implies a way of practice in which pharmacists assume the responsibility of ensuring that everything done is in the best interest of the patient. This concept originated

from a term, defined in 1975 by Mikeal *et al.*^[1] as a subset of medical care. Thereafter, the concept developed, as a result of the environment of the changing community and its demands on the pharmacy. This includes the drug needs for a given patient, which involves providing the services needed for safe and effective therapy in addition to the required drugs.^[2,3] According to this

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practice, which is now accepted worldwide, the main duty of a pharmacist is the provision of drug therapy to achieve specific therapeutic outcomes with the goal of improving patient health and quality of life. The role of the pharmacist which was traditionally restricted to the preparation, dispensing and selling of medicines expanded by this form of practice to enjoin the pharmacist, in addition to dispensing of medicines, to assume the responsibility of improving the quality of patients' outcomes.^[4] Since then, pharmacists have worked to develop pharmaceutical care practices. Published literature shows many examples of these practices, suggesting that the participation of a pharmacist in the evaluation of patients' drug therapy regimen improves outcomes.^[5-9] Although, pharmaceutical care which involves the detection, prevention, and solution of drug-related problems has proved beneficial in diseases such as asthma and cancer,^[10,11] it can also cover all types of patients with all kinds of diseases on any type of drug therapy, thereby, meeting the drug-related needs of individuals and communities.^[4] This is because most patients are prescribed multiple drug regimens, and a study conducted by Perkin *et al.* showed that complex drug regimens are usually associated with noncompliance especially after discharge from hospital.^[12] Another study conducted by Strand *et al.* revealed that pharmacists may be able to resolve this problem by encouraging patients' compliance and consequently improving treatment outcomes by engaging the patient in pharmaceutical care activities such as monitoring, counseling, resolving drug-related problems, and facilitating communication with the physician.^[13]

Although the main objective of pharmaceutical care was to solve medication related problems, it also helps to achieve positive clinical outcomes and optimize the health-related quality of life of the patient within realistic expenditure.^[14] Medication errors increase the cost of health care; account for higher utilization of hospitals, nursing homes, and physician visits; and health risks for patients.^[15-23] To achieve these clinical, economic, and humane outcomes, pharmacists need to apply the philosophy of pharmaceutical care by working closely with patients and other healthcare professionals in designing, implementing, and monitoring a therapeutic plan to produce specific outcomes.^[24-28]

Although it is assumed that all settings are suitable for the application of pharmaceutical care, the published literature shows that reports that the effectiveness of pharmaceutical care is often undermined by serious methodological defects.^[10,29-31] Furthermore, there is a

difference between the effectiveness of inpatient and outpatient pharmaceutical care. The evidence in the literature about its effectiveness in outpatient is lesser than in inpatient settings.^[32,33] Published literature documents substantial barriers to the implementation of pharmaceutical care programs in community pharmacies.^[34-39] However, it was decided to carry out this review to examine health services as they relate to community pharmacies, since the assumption is that its impact was greatest on the outcome of community health than on other settings. This is because community pharmacists are to be found and are accessible in a wide range of locations in the heart of the community. There is an increasing support for the view that community pharmacy-based services have a positive impact on patient care and health outcomes.^[40] It has been proved that collaboration between the pharmacist and the physician improved patient outcomes, ultimately improved patient's quality of life, raised cost-effectiveness, helped in monitoring the treatment outcomes, and carrying out assessments of the patient's health; and thereby, reduced the demands on the health care system.^[41]

Health care system in Saudi Arabia

The Ministry of Health (MOH) plays the role of planning and functions as the regulatory body in the health system.^[42] As part of its remit as a regulatory body, MOH enacted a law in 1978 restricting the practice of pharmacy for licensed pharmacists among other regulations on the pharmacy profession. Furthermore, that law forbade pharmacists from dispensing medicines without a prescription, with the exception of those defined by the law as over the counter (OTC).^[43] This law represented the start of the modern pharmacy in Saudi Arabia. However, despite that the law, which laid a solid foundation for good pharmacy practice, the pharmacy profession in KSA in general, and community pharmacy in particular, still lags behind the strides made by the health care system in KSA. This review aims at exploring the gaps and limitations, and the reasons behind these in the health care services provided by community pharmacies in KSA.

Objectives

This review aimed at exploring the reasons behind weaknesses in health care services provided by community pharmacies by documenting the range and extent of community pharmacy-based services provided to the public. It was also to explore the extent to which community pharmacies in KSA meet their principal goals of providing good pharmacy practice services in

comparison with other community pharmacy-based services provided regionally and internationally. It is hoped that this would reveal the shortcomings and limitations and shed some light on the reasons behind these limitations and thereby, provide opportunities for future improvement.

Method of review

This exploratory review tries to document the range and extent of community pharmacy-based services provided to the public in a way that permits the ease of a comparison between pharmaceutical care services provided in community pharmacies in KSA, and those community pharmacy-based services provided regionally and internationally. Studies were selected through PubMed, Medline Plus, Science Direct, and Scopus search from the first of January to April 22nd, 2014. The following key words were used to retrieve the relevant articles: Healthcare system, pharmaceutical care, patient-centered, pharmaceutical care plan, and therapeutic monitoring.

Selection of the studies

The search strategy described above was used to obtain the data for the studies relevant to this review. The authors, independently, screened the titles and abstracts of promising articles. They discarded studies that were not suitable but retained studies and reviews that possibly included relevant data or information. The authors, independently, assessed the quality of studies for inclusion.

Specific criteria for selecting the services were: Services provided by a pharmacist in a community pharmacy. The exclusion criteria were: Services not provided in a community pharmacy, service not published in a scientific journal, and an article not published in the English language.

Types of services

The types of services provided in community pharmacies and studied in this review were: Dispensing (D), educating (E) (e.g., teach how to take the medicine and how to use equipment), outcomes monitoring (OM) of the therapy (monitoring symptoms and checking patient's satisfaction), solving drug therapy problems (DTP) (e.g., overuse, underuse, interaction), and drug therapy recommendations (DTR).

RESULTS

Eighteen studies were included. Of these, four were conducted in KSA,^[43-46] eight in the Middle East,^[47-54]

two in other developing countries^[55,56] and four in Europe.^[57-60] Only one, out of the four studies conducted in KSA, reported a limited service (DTP) other than dispensing (D). The same results were observed for the ten studies conducted in the other developing countries with one study reporting DTR service in addition to dispensing (D). Results obtained from reviewing studies conducted in Europe revealed that all pharmaceutical care services studied in this review are provided in community pharmacies although at different levels in various community pharmacies.

DISCUSSION

An evaluation of pharmaceutical sector studies reporting services offered in community pharmacies in several developed and developing countries showed great variance in the quality, type, and level of services provided to customers. In developed countries, all pharmaceutical care services are provided to customers, although it is not yet routine practice.^[58] In three studies that were conducted in community pharmacies in New Zealand,^[60] United Kingdom,^[57] and across some European countries,^[59] it was reported that all the pharmaceutical care services including patient education (E), OM, and DTP solving, albeit sporadic, are provided to patients.

In developing countries, where there are still great challenges in ensuring access to safe, effective, and affordable essential medicines, national efforts are mostly directed toward ensuring availability and access to drugs, while appropriate use of drugs largely remains an issue of low priority. This is clearly reflected in the quality and level of pharmaceutical care services provided in community pharmacies. In this review 14 studies conducted in different developing countries, including KSA, were reviewed with a focus on the pharmaceutical services provided. Dispensing was found to be the dominant service provided by community pharmacists in all those studied without exception.^[43-46]

The dominance of dispensing in KSA community pharmacies pharmaceutical services may be due, reported in some studies, to the fact that adherence to pharmacy law, especially in community pharmacies, is very weak.^[61] Furthermore, research conducted in Jeddah-KSA on the dispensing behavior of pharmacists in community pharmacies of three groups of medicines, namely: Antibiotics, antihypertensives, and antipsychotics concluded that the majority of pharmacists violate the pharmacy law by dispensing medicines without prescription.^[62] Furthermore, community pharmacies in

KSA are very commercial and profit-oriented, with a very limited clinical role for the community pharmacist.^[45,46] Actually, domination of dispensing services has also been reported in other less developed countries such as Palestine, India, and Pakistan.^[47,55] This business orientation of community pharmacy ventures had also led to the high rate of OTC drugs sold by community pharmacists. Most of the reviewed studies conducted in KSA reported this. However, business orientation is not the sole factor. The commercial pressure applied by drug company representatives, who offer big discounts to pharmacists when they purchase large quantities of their products is a great encouragement for pharmacists to indulge in more OTC dispensing practice. It is apparent from this review that this high rate OTC dispensing is not limited to KSA but is most likely to be present in all other developing countries.^[53,55,56]

More seriously, of the studies conducted in KSA, the majority of those reviewed reported that most consumers who went to community pharmacies for pharmaceutical services self-medicated not only with OTC medicines but also with other classified pharmacy and prescription drugs. Moreover, some of these customers received treatment initiated by the community pharmacists. Although such practices are banned by a law which states that a pharmacist is required to dispense drugs on prescription only, except those drugs defined as OTC, community pharmacists rarely adhere to this. This lack of professionalism and the lack of compliance to the law by the community pharmacist is due to many factors. Some of these factors are weak supervision and enforcement of pharmacy laws, especially those regulating and governing pharmacy practices. Furthermore, the ownership of community pharmacies by nonpharmacists and the large number of community pharmacies, which are far in excess of public need, has led to commercial competition between pharmacies, exerting additional commercial pressure on community pharmacies, thus engendering malpractices by community pharmacists. For example, community pharmacists, with few exceptions, would offer any drug (except narcotics and psychotropics) without a prescription,^[62] simply at the request of customers who, in many instances, do not even know the name of the drug and can only show a product sample. The malpractices noticed in this review draw attention to the potential hazard of drug misuse, and possible abuse, which may result from the lack of professionalism and non-adherence to dispensing regulations. However, these practices are not confined to KSA, for as this review indicates, almost all developing countries

reviewed suffer from the same malpractices with the same consequences and drawbacks.^[53,55,56]

CONCLUSIONS

In KSA, dispensing of medicines is the dominant service provided by community pharmacists with very limited scope, if not total absence, of other pharmaceutical care services. It seems that this situation will remain, at least in the foreseeable future, because of the many difficulties and challenges in the implementation of pharmaceutical care services in community pharmacies. However, further studies are needed to explore further the real reasons behind the absence of pharmaceutical care services in community pharmacies, and the best means of addressing this issue.

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Conflicts of interest

There are no conflicts of interest.

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