

A Literature Review: Pharmaceutical Care an Evolving Role at Community Pharmacies in Pakistan

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ABSTRACT

The aim of this paper is to highlight the role of pharmaceutical care at community pharmacies in Pakistan. The paper draws on the literature related to current dispensing practices at community pharmacies in developing countries as well as in Pakistan. There are approximately 63,000 community pharmacies in Pakistan, and according to an estimate, 80% of the medicines are being distributed through this channel to majority of the population. They often lack adequate facilities, staffing and equipments. Absence of pharmacists and their roles being performed by the non-qualified personnel working at community pharmacies are a common practice. There are 8102 pharmacists who are categorized as a category, 31,000 pharmacy technicians categorized in B & C category in the country. There is a shortage of pharmacists who could be engaged for ensuring good pharmacy practices. There are only ten percent of the total pharmacists who work at community pharmacies in the country according to the Pharmacy Council of Pakistan. All kind of medicines are freely available irrespective of their status as prescription or over the counter drugs. The paper highlights that the professional role of pharmacist in hospitals and community pharmacies is switching from dispensing and sale of drugs, to patient counselling. But, the concept of pharmaceutical care at community pharmacies has not been acknowledged yet in Pakistan. The process of prescription handling is poor and patients are often treated without a proper prescription. Prescription validation, drug labeling and patient counseling are the missing components in effective patient management at the community pharmacies. The paper concludes that although laws exist, but due to lack of accountability and weak regulatory framework their proper implementation is not witnessed. Moreover, due to lack of research and evidence related to problems in dispensing practices in healthcare system of Pakistan, the counteractive actions for resolving these problems are limited.

Keywords: Community Pharmacies; Dispensing Practices; Dispensers; Pharmaceutical Care; Pakistan

1. Introduction

Community pharmacies have quite a distinct and unique position in healthcare delivery system as they are the first and/or final contacts between patients and drugs in majority of cases [1]. This importance is augmented by their large extent and magnitude of operations, serving to millions of patients every day. However, an important fact to consider is that these outlets are working mainly as business entities and not as healthcare providers. All over the world, community pharmacies act on a business model but they are regulated by health laws. The problems lie in ambiguity in laws and their implementation, not in pharmacies being run as a profit oriented profession. [2]. Inherent with their unique characteristics, many

irrational drug use problems have cropped up at these outlets, including self medication, antibiotic prescribing, inappropriate use of antidiarrheals and steroids, sale of less than prescribed quantity of drugs specially antibiotics and poor drug storage practices. Other common problems include limited counselling, attempts to diagnose and treat almost all conditions despite having no expertise. This problem is compounded by the confidence with which they execute this process for the multitude of patients [3]. The people who are dealing with these patients are normally pharmacy assistants, dispensers and those with lower secondary school qualifications and no formal training [1,3-5]. However, they feel confident while dealing with patients and patients also show trust on their suggestions and seek medical advice directly from these community pharmacies because they are faster and less

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expensive than the physicians' [4].

2. Role of Pharmacist in Dispensing Practices

The professional services and activities of the pharmacist have considerably evolved in the last decades. Today, the main health-related activity of a pharmacist is to ensure quality of dispensing [6]. The role of pharmacists in dispensing medicines is very important and all the resources involved in patients care, up to the point of dispensing, may be wasted if dispensing is erroneous. World Health Organization, (1988) recognizes and advocates the role of pharmacist as 'seven star pharmacist' who is a care giver, decision maker, communicator, leader, manager, lifelong learner and a teacher. Thus putting him/her in a unique position in health care system for performing these roles [7].

The role of pharmacist is usually laid down in the drug laws of a particular country, thus making it possible for the community to get lawful benefit of the pharmacist's presence in health care system. The pharmacist is required to procure good quality medicines from the right source, store them as per their specifications, dispense them in a lawful and professional manner when required, communicate vertically with the physicians and ensure that the patient uses his medications as per advise and monitor their therapy [6].

3. Current Scenario of Pharmaceutical Care at Community Pharmacies in Developed Countries

Currently, the professional role of pharmacist in hospitals and community pharmacies is switching from dispensing and sale of drugs, to patient counselling globally [8]. Two states North Dakota and Florida in USA, allowed independent prescribing to pharmacists [9]. Pharmacists were included in primary care services in Scotland, to promote access to services[10]. Pharmacists are switching from supply and distribution to medicines management services in New Zealand, United Kingdom and Australia. Pharmacists are looking forward to prescribe medicines independently in UK [11]. Major reforms of separation of drug prescribing and dispensing, according to which the physicians and the pharmacists both can prescribe and dispense drugs were implemented in Korea [12].

4. Existing Scenario of Dispensing Practices at Community Pharmacies in Developing Countries

In developing countries, due to lack of qualified personnel, direct access to pharmacists in all the areas is not possible. Thus, the quality of pharmaceutical services in a given

region becomes dependent on the availability of a pharmacist. It is a well known fact that the conditions of pharmacy practice differ among countries and also vary between different areas within the same country. This is due to the number of pharmacists being lower than required. The direct supervision of pharmaceutical products by the pharmacist can be beneficial in ensuring the provision of high quality services to the patients [13]. There is a wide variation in dispensing time from a minimum of 20.5 seconds to a maximum of 222 seconds, being significantly longer in private than in public pharmacies [14-17]. Many dispensing workflow procedures are not consistently followed by all pharmacy employees. Poor dispensing practices are manifested by errors occurring in the transcription stage, incomplete dispensing, lack of proper counselling about drugs sold, drugs not being labeled and different drugs being mixed in the same package [1,17-22]. Drug sellers often fail to adequately counsel their customers in certain settings and no counselling is provided at all [18,23-28]. Customers are rarely informed about the precautionary measures and adverse effects of the drug [29-32], thus pharmacies are being underutilised with respect to their capacity to deliver health promotion advice.

Regulations regarding prescription drugs are generally not respected in developing countries, and one of the most worrisome issues concerning irrational drug use is the free availability of over-the-counter drugs [33,34]. The problem of dispensing POM drugs as OTC, in many countries, has been highlighted. Drug sellers not only prescribe and dispense drugs to their customers but also they do it with great confidence [25,26,35-42]. The appropriateness of prescribing by dispensers or self-medication by patients is far from acceptable [34]. Dispensers hardly ask questions about the illness, and historical information obtained is inadequate to determine the nature or severity of disease or appropriateness of therapy [3,4,26,28,32,37].

Majority of the customers visiting pharmacies seek care for ARI, fever, pains and diarrhea. Other conditions for which customers seek care at pharmacies and drug stores include loss of appetite, dyspepsia, rashes, wounds, hookworm, emergency contraception, STDs, skin infections (scabies), eye and earache [43]. The quality of case-management in the retail sector leaves much room for improvement and depends on the knowledge and the manner in which private drug sellers treat their customers [44,45]. Pharmacy employees dispense a wide variety of drugs, ranging from simple OTC drugs, NSAIDs, antibiotics and steroids, usually in small doses [46-49] and they, at times, administer injections to patients in their retail outlets [44]. The findings of studies show that the dispensers attend to their customers and provide treatments with a friendly attitude, but most of them

prescribe ineffective, inappropriate, and dangerous drugs, in inadequate dosages with little or no counselling. Such practices were observed for diarrhea [4,25,38,40,50-53], ARI [43,46,48,52], malaria [29,42-44,49,52,54], back pain [39,47], and STDs [27,47,55,56]. It is surprising that the patterns of drug sellers' prescribing mimics the prescribing trends of GPs much more closely than the doctors prescribing in hospitals [4,57]. Another observation is that drug sellers at pharmacies prescribe and sell drugs similar to those that they have learned by filling physicians prescriptions as reported in a study from Iran [58]. With scarce resources and easy accessibility of drug sale outlets in developing countries the role of pharmacist needs to be emphasized for safe and effective use of medication through these evolving roles, thus helping in the achievement of millennium development goals [59,60].

5. A Brief Overview of Pakistan's Healthcare System

The health care system is very well structured in Pakistan but has its inherent issues, like in many other developing countries. The public sector, which is responsible for catering to the health of masses, is backed by the government and private sector is functioning parallel with more commercial approach. Spending on health care by the government is low, and is about 1% of GDP on health which is less than other countries, having same socioeconomic conditions like Bangladesh and Sri Lanka [61]. For health expenditure in Pakistan, 76% goes out of pocket [62].

The key health care players are the physicians, nurses, dentists, pharmacists and pharmacy assistants who are 116,298, 48,446, 7862, 8102, and 31,000 in number, respectively [61]. The health care providers are quite low in number vis-a-vis the country's population. Although medical doctors are quite dominant and hold major administrative and decision making positions in health sector [61]. There are 8102 pharmacists who are categorized as A category, 31,000 pharmacy technicians categorized in B & C category in the country [63]. There are over 63,000 community pharmacies in the country [2]. If we theoretically employ all the pharmacists and pharmacy technicians at these community pharmacies still a good number of pharmacies are left out without a qualified person in the county. According to the Pharmacy Council of Pakistan (PCP), seventy percent of pharmacists are employed in the pharmaceutical industry while only ten percent work at community pharmacies in the country [63].

There are over 30 pharmacy institutions in the country, from where 2587 pharmacists are graduated annually. The current number of pharmacists does not meet the

demand of growing needs for optimal health care delivery of the population. Pakistan Pharmacists Association is responsible for growth of the pharmacy profession and National Association of Pharmacists promotes and expand the role of pharmacist in public health and patient care [7,64].

6. Current Scenario of Dispensing Practices at Community Pharmacies in Pakistan

Distribution of medicines relies heavily on community pharmacies and according to an estimate, 80% of the medicines are being distributed through this channel. Thus, majority of the population relies on them for their health care needs. There are approximately 63,000 community pharmacies in the country [2]. These pharmacies are quite diverse in their geographical distribution and operations; they are located in the urban, as well as, rural areas, inside hospitals, in general stores and grocery stores, and at market stalls. They often lack adequate facilities, staffing and equipments. Besides this, the dispensers working at these pharmacies are not trained, and yet, are involved in making diagnoses and recommending therapy to the patients along with dispensing of medicines. The conditions of community pharmacies in Pakistan have been reported as being unsatisfactory. Inappropriate storage and dispensing of medicines, lack of proper documentation and prescription check along with labelling are the foremost issues to be addressed at these outlets in Pakistan. Unavailability of qualified personnel at community pharmacies is a common concern. There is shortage of pharmacists who could be engaged for ensuring good pharmacy practices. The dispensers working at these community pharmacies have minimal formal education, with 10 to 12 years of schooling, and little or no professional training. They mostly rely on information gathered by the representatives of pharmaceutical companies. With this state of qualification and training, these dispensers are responsible for the functions of a dispenser, store keeper, inventory manager, accountant, prescriber, information provider and patient counselor. All kind of medicines are freely available irrespective of their status as prescription or over the counter drugs. The process of prescription handling is poor and patients are often treated without a proper prescription. Prescription validation, drug labelling and patient counselling are the missing components in effective patient management at these community pharmacies. Laws exist, but due to lack of accountability and weak regulatory framework their proper implementation is not witnessed. Moreover, due to lack of research and evidence related to problems in dispensing practices in healthcare system of Pakistan, the counteractive actions in resolving these problems are limited.

7. Pharmaceutical Care an Evolving Role at Community Pharmacies in Pakistan

Pharmaceutical care is regarded as an important component of good pharmacy practices but it has been ignored by the dispensers, stakeholders and researchers in Pakistan. There are very few studies which focused at the practices of community pharmacies in Pakistan and just one intervention study with a very small sample size is available. Limited studies have been designed to explore the role of pharmaceutical care at community pharmacies in Pakistan. Studies conducted in other countries provide some insight on this issue, though the difference in the healthcare systems makes it difficult to extrapolate the results to Pakistan's setting [39,60,65,66]. Health system research focusing on current dispensing practices with sound study design is needed to explore this issue to its full extent in Pakistan. This requires multi stake holder's collaboration in designing and executing a well thought-out, scientifically sound study design, with quantitative and qualitative tools and provision of ample funding.

8. Conclusion

The current paper highlighted that quality of services provided at community pharmacies in Pakistan is not satisfactory. Absence of qualified people, lack of provision of advice and lack of professionalism by the dispensers, ambiguity of laws and their implementation are the main reasons for the poor quality of services offered at community pharmacies. The provision of information is scanty and reflects on the poor communication of dispensers with the patients/customers. Sale of POM, including antibiotics and narcotic medicines without prescription, is a common practice. Drug safety issues, inadequate number of legally qualified persons, lack of history taking, inappropriate treatment and lack of counselling are the most immediate concerns to be addressed. Thus it becomes important to critically evaluate and document the various gaps in the current dispensing practices at community pharmacies which are required to guide researchers and policy makers to look into the situation from a broader perspective to improve current pharmacy practices and pharmaceutical care at community pharmacies. However, innovative approaches are required to design appropriate interventions, policies and ways for their effective implementation, to utilize the maximum potential of community pharmacies in provision of better pharmaceutical care at the community pharmacies in Pakistan.

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