

Public' Perception, Awareness, Expectations and Experiences towards the Role of Community Pharmacists in Quetta City, Pakistan

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Abstract

Aim: The study is aimed to assess public perception, awareness, expectations and experiences towards the role of community pharmacists (CPs) in Quetta City, Pakistan. **Methods:** This was a questionnaire-based, cross-sectional survey. Keeping the aim of the study in mind, a questionnaire was developed by the research team through mutual consensus, experience sharing and extensive literature review. By using an online calculator, 423 respondents were approached conveniently for the data collection. The SPSS v.20.0 was used for data coding and analysis. Based on the objectives of the study, descriptive statistics were applied for data analysis. **Results:** The mean age of the respondents was 30.61±9.95 and males dominated the group (318, 75.2%). Eighty-one percent of the respondents agreed that CPs provide consultation on how medicine works, identify and prevent errors and are good in explaining things to their level of understanding. Nearly 70% of the respondents expected CPs to take personal responsibility for resolving drug-related problems, to educate them about the appropriate use of medicines and to monitor the response of drug therapy. All respondents were positive when they were asked about their expectations from the CPs. Respondents agreed that CPs are a reliable source of drug information and are important healthcare professionals (80.4 and 77.3% respectively). Counseling was endorsed by 60% of the respondents while CPs were held responsible for resolving drug problems. **Conclusion:** Although the study findings revealed certain limitations, study respondents had positive attitudes, experiences and constructive expectations towards CPs. The findings also indicated consumer preferences for the evolution of community pharmacist professional services in Pakistan.

Key words: Public' perception, Awareness, Expectations, Experiences, Community pharmacist Quetta city, Pakistan.

BACKGROUND

A pharmacist has an important social as well as a functional role within an integrated healthcare system. Efforts to improve public health can be performed by a pharmacist in a pharmacy by applying the concept of pharmaceutical services.^[1,2] Around the globe, there are many career opportunities for pharmacists, as well as many environments in which to practice pharmacy namely academia, hospital, research centers and community.^[3,4] Among the few mentioned community pharmacists (CPs) are most frequently seen in practice as they are the health professionals that are easily available to the public.^[5] In the UK, CP is more accessible to the general population than general practices.^[6] Upadhyay and Ooi reported that community pharmacies (CP) are the most popular area of practice followed by hospital pharmacies and pharmaceutical industries.^[7] Therefore, CPs are an integral part of the healthcare system as they supply medicines in accordance with a prescription or when legally permitted, sell them without a prescription. Being in direct contact with the population, they are the closest to the members of a community or a group of people staying in the same area. They provide their services related to pharmaceutical care by ensuring the accuracy in supplying appropriate drugs to consumers at appropriate doses and counsel them on the appropriate use of the medication.^[8-10]

Inline to what is reported above; CPs can also influence the public in raising awareness towards health and health-related concerns. At the workplace, CPs process prescriptions, ensure and verify the legality issues, maintain the safety and appropriateness of the prescription order and check the patient medication record before dispensing of the medication.^[11] This ensures minimal medication error faced by the patients, monitoring of medication use and promotion of health. All this is achieved by the CPs as they cover topics of public concerns and provide education to the local community that increases awareness towards the severity of a health issue or concern in that particular community.^[12,13]

It is well known that CPs often acts as the first point of care for the healthcare consumers. Therefore, it is important to understand what exactly are the public's awareness, expectations and experience towards the role of CPs practicing in their environment. This enables the health and social scientists to evaluate the vitality and contribution of the community pharmacists' role in the community as public's perception determines the function of a community based pharmacist. The role of CPs is well versed and adopted in the developed world and there is ample information to support our claim.^[5,14,15] However, there is very little evidence that focuses the role of CPs in the developing world and multiple reasons are related

to this unavailability of information. Where the role of pharmacist is not established in a number of developing world, certain countries do not have dispensing separation and medicines are still dispensed by the prescribers. Moreover, in certain countries pharmacists are inclined towards hospital and industrial jobs and hence do not consider CP as a valuable source of income and practice. In the light of the above discussion, this research was planned to figure out what exactly is the awareness of CPs among general public? Additionally, the study was also aimed to highlight the expectations and experience of general public towards CPs for a better understanding of the needs and requirements of a localized.

METHODS

Study design and settings

This was a questionnaire based, cross sectional survey. The study was conducted among population members of Quetta city, Pakistan. Quetta is the provincial capital and largest city of Balochistan province of Pakistan. With an estimated population of 1,100,000, the city is a trade and communication centre between the Pakistan and Afghanistan. Quetta is an over-populated city with multiple ethnic groups residing in the city.^[16]

Questionnaire design and validation

Keeping the aim of the study in mind, a questionnaire was developed by the research team through mutual consensus, experience sharing and extensive literature review.^[17-20] The questionnaire was developed in English but was translated to Urdu (National language of Pakistan) by using standard translation protocols.^[21] The questionnaire was validated by four experienced pharmacists working in the community. With little modification, the questionnaire was subjected to pilot study on twenty participants. No change was required and the questionnaire showed acceptable reliability of 0.78. Data of the pilot study was not added to the actual research.

Study sampling and inclusion / exclusion criteria

By using an online calculator, the initial sample was three and eight five.^[22] However, based on the nature of the study and the possibility of attrition, we added a dropout rate of 10% to the initially calculated sample. There, four hundred and twenty three respondents were approached conveniently for the data collection.

Although there are almost 1300 registered CP in Quetta city, only 10% of the CP is being operated by practicing CPs (official, personal communication). For the inclusion criteria, we targeted people who had interaction with practicing CPs during the course of the past three months. For that very reason, we applied the population based formula and avoided the design effect as the inclusion criteria was very difficult to obtain. Those unfamiliar with Urdu language, having no interaction with CPs and immigrants from other countries were included.

Statistical analysis

The SPSS v.20.0 was used for data coding and analysis. Based on the objectives of the study, descriptive statistics were applied for data analysis.

Ethical approval

The departmental ethics committee at the Faculty of Pharmacy and Health Sciences, University of Balochistan, Quetta approved the study. Besides, written consent from the participants was also obtained. The participants were assured about the confidentiality of their responses and their rights to withdraw from the study.

RESULTS

Demographic characteristics of the study respondents

The demographic characteristics of the study respondents are presented in Table 1. The mean age of the respondents was 30.61±9.95 and males dominated the group (318, 75.2%). Majority of the study respondents were graduates (155, 36.6%) and 46% were employed with private employers.

Perceptions about community pharmacists' roles

The perception about community pharmacists' roles is shown in Table 2. Although majority of the respondents had positive perceptions towards the items of the questionnaire (Table 2), almost 60% of the respondents disagreed that CPs suggest the use of prescription medicines. Eighty one percent agreed that CPs provide consultation on how medicine works, identify and prevent errors and are good in explaining things to their level of understanding.

General awareness about CPs

A key finding of the current study was the availability of the CPs at the CP. Only 3% agreed that CPs is available at the pharmacies. Another significant statement was about the medications where 76.1% of the respondents agreed

Table 1: Demographic characteristics of study respondents.

Characteristics	Frequency	Percentage
Age (30.61±9.95)		
18-27	190	44.9
28-37	136	32.2
38-47	66	15.6
> 47	31	7.3
Gender		
Male	318	75.2
Female	105	24.8
Educational level		
Matriculation	47	11.1
Intermediate	101	23.9
Graduate	155	36.6
Master	120	28.4
Employment		
Government Job	85	20.1
Private Job	195	46.1
Unemployed	143	33.8
Income		
N/A	143	33.8
10001-20000	26	6.1
20001-30000	48	11.3
30001-40000	55	13.0
>40000	151	35.7

Table 2: Perceptions about community pharmacists' roles.

Pharmacists' roles	Agree N (%)	Neutral N (%)	Disagree N (%)
Providing patient consultation on the way the medication works.	361 (85.3)	53 (12.5)	9 (2.1)
Suggesting the use of prescription medications to patients.	106 (25.1)	64 (15.1)	253 (59.8)
Treating minor illnesses.	308 (72.8)	65 (15.4)	50 (11.8)
Identifying and preventing prescription errors.	345 (81.6)	39 (9.2)	39 (9.2)
The pharmacist is good at explaining things in a way that I understand.	336 (79.4)	57 (13.5)	30 (7.1)
Monitoring outcomes of the effectiveness of the treatment.	281 (66.4)	99 (23.4)	43 (10.2)

that they can get any medication without prescription. Perhaps because of the very reason, only 29.8% of the respondents were satisfied with the services provided by CPs in Quetta city (Table 3).

Expectations from the CPs

The expectations for the CPs are highlighted in Table 4. Nearly 70% of the respondents expected CPs to take personal responsibility for resolving drug related problems, to educate them about the appropriate use of medicines and to monitor response of drug therapy. Additionally, 322 (76.1%) of the respondents stated that certain pharmacy receive can be improved and it should be discussed.

Experience with pharmacists

All respondents were positive when they were asked about their expectation from the CPs. Respondents agreed that CPs are a reliable source of drug information and are important healthcare professionals (80.4 and 77.3% respectively). Counseling was endorsed by 60% of the respondents while CPs were held responsible for resolving drug problems as shown in Table 5.

DISCUSSION

Worldwide, the roles and responsibilities of CPs is highly recognized and appreciated. Community pharmacists being approachable to general public as compared to their peers have a definite advantage. Additionally,

Table 5: Experience with pharmacists.

Experience	Agree N (%)	Neutral N (%)	Disagree N (%)
In my experience, pharmacist is a reliable source of general drug information.	340 (80.4)	67 (15.8)	16 (3.8)
In my experience, pharmacist is important healthcare professionals in the medical field.	327 (77.3)	67 (15.8)	29 (6.9)
Pharmacist routinely counsel patients regarding appropriate and safe use of medicines.	253 (59.8)	116 (27.4)	54 (12.8)
In my experience, pharmacists take personal responsibility for resolving drug-related problems they discover.	286 (67.6)	83 (19.6)	54 (12.8)

with the roles further extended to services like smoking cessation, health promotion, medication adherence clinics etc, the presence of CPs in health management is getting attention.^[23,24] Conversely, these well-established roles are practiced in the developed world and the situation in the developing region is very wretched. Pharmacists in majority of the developing world are still struggling to optimize their role as healthcare professionals.^[25] Shifting our concerns to the availability of CPs at the practicing premises in Pakistan, the condition is more or less same to what is reported in other developing countries. Even though, the Drug Court of Lahore, Punjab in its decision asked pharmacy owners to ensure the presence of a qualified pharmacist at the premises,^[26] the conditions are not changed in remote cities like Quetta. Community pharmacies are still being operated by unqualified personnel thus putting the life of the patients and population at risk. To highlight this professional negligence and to emphasize the importance of CPs, this study was planned accordingly.

Nearly sixty percent of our study respondents disagreed that pharmacist role is to suggest the use of prescription medicine to the patients (Table 2). One of the key responsibilities of the community pharmacist is to inform patients about the quality use of both prescribed and over the counter medicines.^[27] However, this is not what is seen in the developing world and the reasons are manifold. Majority of pharmacies in Pakistan are managed by diverse types of dispensers in terms of their qualification, knowledge, experience and ages. In legality, these pharmacies generally are registered by hiring a pharmacist, but in reality, they only rent a pharmacist license.^[28] Therefore, the people operating the pharmacies lack the qualification in answering the questions of the costumers and do not literally discuss medicine related issues with them. In addition, the prescription is written by a registered medical practitioner and because of lack of collaboration care, it is not appreciated by the prescriber when a pharmacist discusses the issues if present in the prescription. Lastly, majority of the pharmacies in Pakistan is just a premise where the patient / costumer just receives the medicine and leaves without a professional advice. We have to accept that CPs acts as a first-line treatment source for most of the population and policymakers have to utilize their potential in promoting quality use of medications. This is only possible if qualified CPs is present in the pharmacies and the stakeholders must make it sure that the pharmacies are only operated in their presence. We do agree with Hussain *et al.* that the opportunity do exists, but needs to be optimized accordingly.^[28]

Inline to what is discussed above, only 3.5% of the respondents agreed that a pharmacist is always available when they visit the pharmacy. We have to remember that opening a community pharmacy requires good amount of resources in shape of rentals, purchases, furniture and fixtures. A newly registered pharmacist lacks the finances and with the recession

Table 3: General awareness about CPs.

Awareness	Agree N (%)	Neutral N (%)	Disagree N (%)
Pharmacist is an important component of any medical team.	375 (88.7)	33 (7.8)	15 (3.5)
A pharmacist is always available when I visit my pharmacy.	15 (3.5)	96 (22.1)	312 (73.7)
I can get any medicine without prescription.	322 (76.1)	61 (14.4)	40 (9.5)
I feel comfortable talking to the pharmacist about my minor illness.	256 (60.5)	108 (25.5)	59 (13.9)
Pharmacist is the right person to seek advices about medicines.	344 (81.3)	68 (16.1)	11 (2.6)
I trust pharmacist's advice about medicine use.	276 (65.2)	115 (27.2)	32 (7.6)
I am satisfied with the service provided by pharmacists in Quetta.	126 (29.8)	76 (18.0)	221 (52.2)

Table 4: Expectations from pharmacist and services provided.

Expectations	Agree N (%)	Neutral N (%)	Disagree N (%)
I expect pharmacists to take personal responsibility for resolving any drug-related problems.	284 (67.1)	88 (20.8)	51 (12.1)
I expect pharmacists to educate me about the appropriate and safe use of medicines.	304 (71.9)	95 (22.5)	24 (5.7)
I expect pharmacists to monitor response of drug therapy and inform me whether it encounters any drug related problems or not.	288 (68.1)	113 (26.7)	22 (5.2)
There are things about the pharmacy services that I receive that could be better.	322 (76.1)	56 (13.2)	45 (10.6)

increasing day by day in Pakistan cannot think of obtaining the funds through funding institutes because of high markups. The situation is worse in cities like Quetta as there is little support from the government officials in providing loans and financial support to new graduates in starting their business. The businessmen operating pharmacies also pay very little to the fresh graduates that make practicing at the community pharmacy less lucrative. Moreover, with lack of jobs in the governmental sector and little opportunities in the private sector, pharmacists are forced to rent their pharmacy license and work at other places to compensate their living expenses. Unfortunately, this situation is ongoing for the past decades and with the influx of new graduates will become even worse as it is today. To overcome this state, one promising sector for the fresh graduates is community pharmacy and the policymakers have to come up with sound policies to involve the pharmacist at community pharmacies. The mandatory appointment and presence of qualified pharmacist at the community pharmacies with an attractive package should be forced upon that will result in adjusting the fresh graduates as well as promoting quality use of medicines that in return will result in health promotion and management of the society.

An important finding of the study was about customers' suggestion and opinion. Three hundred and twenty two (76.1%) of the agreed that there are things about the services received that can be improved. This is a positive sign where the people are willing to share their ideas and opinions in order to improve the services. The customer feedback is an important issue and this finding should be taken up by the policymakers in order to improve services at the community pharmacies.^[29] In continuity, majority of our respondents had positive expectations and experiences with CPs (Table 4 and 5). They considered CPs as reliable source of information, an important healthcare professional for patient education and counseling and expected that CPs have to take responsibility for resolving drug related issues. This is in line to what is reported from studies of the same nature.^[30,31] Opposing to the positive image of our study finding, Awad *et al.* reported a negative perceptions of community pharmacists and moderate expectations of roles at community pharmacies.^[18] The authors also highlighted the need of designing multifaceted interventions to advance the community pharmacy practice. The positive expectations and experience clearly shapes a way where community pharmacies can be used as medication management centers without additional finances and expenditures. This is only possible if the pharmacies are operated by qualified pharmacists and should be the priority policy of the stakeholders involved in health and medicine management in Pakistan.

CONCLUSION

To summarize the discussion, our study respondents had positive attitudes, experiences and constructive expectations towards CPs. The findings also indicated consumer preferences for the evolution of community pharmacist professional services in Pakistan. For a resource deprived settings, the services of CPs should be utilized in order to safeguard quality use of medications. Furthermore, establishing the professional roles of CPs will also result in overall acceptance of the general image of pharmacists in the healthcare system and the society.

LIMITATION

We are well aware that the limited number of CPs practicing at the pharmacies has hindered a number of issues to be highlighted. It is quite possible that consumers who regularly visited CPs had a good overall perception thus leading to possible bias. However, with the limited number of CPs at the pharmacies that was unavoidable. An improvement to the study could be a repetition in metropolitan cities like Lahore and Karachi

where quite a good number of pharmacies are operated by CPs. This will give a clear picture of perception, awareness, expectations and experiences towards the role of CPs in Pakistan.

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CONFLICT OF INTEREST

The authors have no conflict of interest to declare. No funding was received for this study.

ABBREVIATIONS USED

CPs: Community pharmacists

CP: Community pharmacies

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