






Original Research

Pharmaceutical care in community pharmacies in Jordan: a public survey

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Received (first version): 19-Sep-2017

Accepted: 1-May-2018

Published online: 17-Jun-2018

Abstract

Objective: This study aims to assess the views and attitudes of the general public towards the current role of pharmacists in Jordan.

Methods: This study is a cross-sectional quantitative questionnaire-based study. After a thorough literature review on public perspectives of pharmaceutical care services, a draft questionnaire was designed. This questionnaire was examined and discussed in a focus group of invited public members and was amended accordingly to reach the final draft. The questionnaire was administered using a structured interview technique in which members of the public were asked a series of questions by a trained pharmacist. The study took a place over a period of six months, from January to June 2013. Individuals were recruited from urban and rural areas of Jordan.

Results: A total of 1214 respondents were interviewed during the study. Of the respondents, 67.8% were female. Most of the respondent were married (64%) and had a university degree (88.5%). Approximately half of the respondents (55.1%) had no previous knowledge of pharmaceutical care. A relative majority of respondents considered the most important activity performed by pharmacists to be dispensing medications (46.2%), followed by patient counseling (34.6%). The majority of respondents (86.4%) believed that pharmacists have a role in providing healthcare services, and 68% of respondents reported that in order to serve their needs, a pharmacist must consider the patient's needs and engage patients in determining medication timing and options.

Conclusions: The plurality of respondents believed in the importance of pharmacists in providing pharmaceutical care services. However, respondents expected much from pharmacists and felt that their current role was unsatisfying.

Keywords

Pharmacies; Community Pharmacy Services; Pharmacists; Professional Role; Professional Practice; Health Knowledge, Attitudes, Practice; Surveys and Questionnaires; Jordan

INTRODUCTION

Pharmacy has changed significantly in recent years. In the past, pharmacists' responsibilities focused on dispensing and compounding drugs, but little importance was given to communication with patients about their medications or their health status in general.¹

Today, with the introduction of many topics regarding good pharmacy practice and clinical pharmacy into the medical world, pharmacists have largely turned their attention towards the importance of interaction between the pharmacist and the patient.² In this framework, it becomes essential for the pharmacist to contribute to the public's health by preventing diseases, prolonging life, and the promoting health status of the entire population. These outcomes, we suggest, can be achieved by implementing

good standards for health practice in order to provide the best pharmaceutical care for patients.³

Pharmacies provide promising grounds for such interventions, as they see a high percentage of the general public per day compared to other health workers.⁴ Pharmacists can also be considered the most accessible among all healthcare providers, as they require no appointment for consultations.^{5,6} Through pharmacies, patients can easily get access to a wide range of healthcare services.⁷ Additionally, a community pharmacist's contact with both sick and healthy individuals allows pharmacists to contribute to preventative efforts such as screening for different diseases and their risk factors, as well as providing treatment for those who need it.⁸

These facts potentiate the pharmacists' role in improving health and are supported by evidence from studies in various countries which provide lists of health services and priorities on which community pharmacies have had a positive impact.^{9,10}

Improving healthcare through pharmacies requires more interaction between pharmacists and the public regarding health topics that are complementary to the use of medications. To a greater extent, it also requires further collaboration regarding topics that are related to health improvement, not solely medication use.⁸ Currently, interactions between community pharmacists and the public are not improving public health to their maximum potential. This may be due to a poor understanding of pharmaceutical care services by both the public and the

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pharmacists, and it could further result from the lack of emphasis placed on the pharmacist's role to the public during pharmacy training.¹¹

It is important to explore the general public's understanding, views, and attitudes towards the roles of pharmacists in giving healthcare-related advice and the implementation of pharmaceutical care services. This is also necessary in order to determine the actions needed to enhance and extend the public's awareness and acceptance of the pharmacists' role towards the public.

Pharmaceutical care is an essential area for the future development of the pharmacy profession.¹¹ Past studies have discussed health-related topics and emphasized "pharmaceutical care" as "The direct responsible provision of medication-related care for the purpose of achieving definite outcomes that improve patient's quality of life".¹² In Middle Eastern, Arabic speaking countries the pharmaceutical care concept is still unclear.¹³ For instance, the public in the Sultanate of Oman reported the need for providing better service in community pharmacies¹⁴, while many challenges and barriers to enhance pharmacy services were reported in the United Arab Emirates.¹⁵ This study aims to assess the views and attitudes of the general public towards the current role of pharmacists in Jordan and to compare their performance to the public's ideal role for pharmacists in enhancing healthcare services in Jordan. This study could be considered an inductive study and a benchmark for further studies assessing pharmaceutical care services in Jordan. No previous studies have explored public views regarding pharmaceutical care services in Jordan.

METHODS

Questionnaire design

Following an extensive literature review on pharmaceutical care in Jordan, a draft questionnaire was designed. Afterwards, the draft questionnaire was discussed among a number of public members who were invited to take part in a focus group discussion. This allowed feedback to be collected in an interactive manner. Questions in the draft questionnaire were discussed separately, and all arising comments and concerns were recorded and transcribed. The final version of the questionnaire took into consideration all comments from the focus group. It was further tested for face and content validity by experts in the field of pharmaceutical care who ultimately had minimal reported concerns. Those concerns were addressed, and then the questionnaire was piloted in a small sample group (n=50) to ensure that all of the questions were clear. The findings from those respondents were not included in the final data analysis.

The questionnaire consists of 26 questions and was divided into four sections. The first section focuses on public awareness of pharmaceutical care. The second section explores the respondents' interactions with pharmacists and asks questions about their visits to pharmacies. At the beginning of the second part of the questionnaire, respondents were given the definition of pharmaceutical care along with examples of how pharmacists deliver pharmaceutical care services. This aimed to compare their

expectations of the pharmacist before and after they were introduced to the definition of pharmaceutical care and assess whether respondents are receiving pharmaceutical care services from pharmacists. The third part of the survey explores the respondents' needs, wants, and expectations of the pharmacists and the services that they provide. Finally, the fourth section collects the respondents' demographic information.

Ethical approval

After being approved by the postgraduate committees in the department of clinical pharmacy at Jordan University of Science and Technology (JUST), the final version of the questionnaire with a full study outline was approved by the research on human beings committee of the Institutional Review Board (IRB) at Jordan University of Science and Technology (JUST). Final approval was obtained from the deanship of research (REF: 20120206).

Public survey

The public survey was administered using a structured interview technique (face to face), during which members of the public were asked a series of questions by a trained pharmacist who introduced himself as a researcher from the Jordan University of Science and Technology. The study took a place over a period of six months, from January to June 2013. Individuals were recruited from urban and rural areas of Jordan.

The target sample size was 1000. This sample size has been shown to yield statistically reliable results in previous surveys of the general public.¹³ Care was taken to ensure that the investigator visited various places on different days of the week, thereby encountering a wide-section of the general public. Members of the public who appeared over 18 were randomly approached and informed that the questionnaire was about pharmaceutical care and the pharmacist's role in providing pharmaceutical care services. They were told that the questionnaire would take 5-10 minutes to fill out. Having been given this information, they were asked about their willingness to participate in the survey. Members of the public who agreed to take part in the study were asked to sign a consent form that included detailed information about the study. Respondents were assured of the anonymity and confidentiality of the study.

Data analysis

The data collected from the questionnaires was coded and entered into a custom-designed database using SPSS software. This software allowed exploratory descriptive data analysis using the appropriate summary statistics, e.g. frequency and percentage for categorical data.

RESULTS

Demographic Details of Participants

A total of 1214 respondents were interviewed during the study. The time needed for the respondent to fill out the questionnaire ranged from 7 to 10 minutes. Of the respondents, 66.9% (n=812) were female, and most of the respondents were married and had a university degree (n 777=, 64% and n= 1074, 88.5%, respectively). Demographic details of the respondents are presented in Table 1.

Parameter	Results
Gender	
Male	32.2%
Female	67.8%
Age distribution of population	
Under 20 years	8.5%
20 – 30 years	30.0%
31-40 years	25.3%
41-50 years	27.7%
Over 50 years	8.6%
Marital status	
Single	32.3%
Married	64.0%
Divorced	2.7%
Widow	1.0%
Educational level	
University degree	88.5%
Secondary school	10.9%
Elementary school	0.3%
Illiterate	0.3%
Income (Jordanian Dinar)	
Less than 150	6.3%
From 150 to 300	16.4%
From 300 to 600	35.3%
From 600 to 1000	30.7%
More than 1000	11.3%
Place of living	
Central cities	71.0%
Rural places	29.0%

General awareness about the concept of pharmaceutical care and the role of pharmacist

More than half of the respondents (54.4%, n=660) had no previous knowledge of the concept of pharmaceutical care. When respondents were asked about the preferred source for health information, 82.2% (n=998) referred to general practitioners. However, for the majority of respondents, pharmacists were the preferred source for obtaining information about medication (66.4%, n=806). Further results are presented in Table 2.

Dispensing medications was considered to be the most important activity performed by pharmacists (n=561, 46.2%) followed by patient counseling (n=420, 34.6%), explaining healthcare issues (n=163, 13.4%), monitoring blood pressure (n=68, 5.6%), and other reasons (n=9, 0.7%).

Respondents' interactions with pharmacists and their visits to pharmacies

Participants were asked how often they visited a pharmacy; 52.5% of the participants (n= 638) indicated that they visited a pharmacy at least once per month. Almost half of the participants (48.6%, n=590) always chose to visit the same pharmacy, they reported. The most important reasons for choosing the same pharmacy each time were trust (46.4%, n=274); good interactions (25.4%, n=150), which includes medical advice, patient counseling and personal relations; proximity of the pharmacy to the home (19.2%, n=113); and discounts promoted by the pharmacy (9.0%, n=53).

The majority (84.8%, n=1030) of respondents perceived the time they spent with pharmacists as convenient, and 60.1% (n=730) of the respondents perceived that their privacy was maintained when visiting a pharmacy.

Respondent's needs, wants, and expectations of pharmacists and the services that they provide

Respondents were asked about pharmacists' role in providing healthcare services. 85.5% (n=1038) believed that their pharmacist had a role in providing healthcare services, and 66.4% (n=806) of respondents reported that they need a pharmacist who considers patient needs and involves the patient when determining medication options. 86.2% (n=1046) thought that participating in the decision-making process would increase their adherence to the treatment course and improve their overall health status.

Results revealed that 47.6% (n=578) of respondents needed a follow-up from a pharmacist during their medication-use period. Furthermore, 62.8% (n=762) indicated that the pharmacist was well-qualified to provide healthcare information and services. Almost two-thirds of respondents (63.4%, n=770) reported that their pharmacist applied the pharmaceutical care concept, and 68.0% (n=826) claimed to be satisfied with services provided by pharmacists. Moreover, 87.5% (n=1062) hoped for improvements to areas of pharmaceutical care such as patient follow-up, keeping patient records, and screening for drug-related problems.

Of the respondents only 41.2% (n=500) were willing to pay fees for the pharmaceutical care services provided in the pharmacy setting, while 58.8% (n=714) agreed that medication prices covered the pharmaceutical services.

Finally, participants were asked their thoughts of the pharmacist assistant. 68.0% (n=826) reported that they did not consider the pharmacist assistant to be as skilled as the pharmacist, and 55.3% (n=654) did not think that pharmacist assistant could adequately provide the needed pharmaceutical care services.

DISCUSSION

Pharmaceutical care is a new concept in Jordan. It has been introduced recently to faculties of pharmacy curriculum in the country.¹⁷ This may be a reason that many pharmacists don't adapt the concept into their practice, leaving the public unaware of the services the pharmacist can offer. This is not surprising, as almost half of the respondents had no previous knowledge of the concept of pharmaceutical care. It has been reported in a study of multiple Arabic countries that the concept of pharmaceutical care is not clear and usually confused with clinical pharmacy and not related to pharmacy practice in the community pharmacy.¹³

Source of information	Obtaining health-related information	Obtaining medication-related information
General practitioner	86.8%	26.7%
Pharmacist	4.9%	69.4%
Nurses	0.7%	0.7%
Newspaper, magazines or internet	7.3%	2.1%
Friends or relatives	0.3%	1.1%

Regardless of the low level of awareness about pharmaceutical care, the majority of respondents indicated that pharmacists had more of a role than simply dispensing medications. This is very important and highlights the need for pharmacists to actively engage with the general public. Internationally, pharmacy has shifted from a drug-oriented profession towards a patient-oriented profession¹⁸, however this has not yet been implemented widely in a lot of Middle Eastern countries.¹⁵ In Lebanon, it was reported that public's perceptions and attitudes toward community pharmacist is poor.¹⁹ It is very important to enhance pharmacy image and build a longtime relation based on trust.²⁰

According to respondents, dispensing medical prescriptions is a pharmacist's most important responsibility. This indicates that respondents still don't perceive pharmacists beyond the role of dispensing medication, even though they think that dispensing is not the only role for the pharmacist. Furthermore, the indicated lack of patients' trust in the pharmacists' ability to provide health advice may have an influence. This was confirmed by the finding that more than half of respondents found the current pharmacist role unsatisfying, reflecting the current status of the profession in Jordan.

Pharmacists are now given more responsibilities regarding patient medications. Within the pharmaceutical care concept, pharmacists are asked to offer comprehensive medication advice, making sure that the medications patients take are the most suitable for their condition, the most effective, the safest, and the most cost-effective.¹² Pharmacies also represent public places that are easily accessible.^{5,6} In Jordan, the number of community pharmacies is rapidly growing, as is the number of registered pharmacists.²¹ Furthermore, going to the pharmacy requires no appointment, which makes it easy for patients to get a consultation and access a wide range of healthcare services.⁶ It is therefore not surprising that 69.4% of the respondents indicated that pharmacists are their preferred source of information about medications.

It was found that 86.3% of respondents were satisfied with the time spent with their pharmacists, which reflects that these pharmacists devoted individualized attention to each case. Hence, pharmacist's responsibilities are growing to include different needs for both sick and healthy individuals.²²

The relationship between the pharmacist and the patient should be matured towards a collaborative relationship in which both pharmacists and patients have roles and responsibilities that must be recognized in order to optimize the treatment outcomes.²³ This assertion is supported by the outcomes of this study, as the majority of respondents thought that their participation in decision-making processes about treatment regimen would increase their adherence to the treatment and improve their health status and their overall quality of life. This is referred to as patient concordance, a practice in which patients are viewed by all parties as partners in their own treatment. Their preferences and choices are taken into consideration when designing care plans. Furthermore, about half of all respondents indicated that they needed to follow up with their pharmacist during their period of medication use. If

pharmacists do not follow up on the outcomes of treatment with their patients, they will not be able to adopt an effective pharmaceutical care plan.¹⁵

Pharmacy is maturing as a clinical profession and is becoming a more patient-oriented discipline. Pharmacists must be dedicated to practices that clearly identify the patient as the primary beneficiary.²⁴ This can be achieved by implementing the pharmaceutical care practices discussed in this study.¹²

Pharmaceutical care services encompass a wide range of areas through which the pharmacist can offer help to patients, as well to those who perceive themselves as healthy individuals. These services include blood pressure measurements, glucose-checks, vital signs, and weight measurement. Furthermore, the pharmacy is a promising setting for providing smoking cessation and weight management programs.⁴

Some pharmacies in Jordan have already adopted such services, and consumers have already begun to benefit. This is consistent with the respondents' views; 86.4% indicated that the pharmacist had a role in providing pharmaceutical care services, and 89.2% hoped for improvements to the services provided and the inclusion of different areas of pharmaceutical care.

Pharmacy is a profession with characteristic traits, and practitioners possess a statutory license to perform certain actions. The occupation attracts social and economic rewards. It is worth mentioning here that pharmacy as a profession is likely to remain a life-time occupation. Pharmacy possess the core features of such a profession, including lengthy training in order to learn specialized knowledge that is unavailable to the public; a service orientation that acts in the public's best interests rather than pursuing their own self-interest; and self-regulation as a result of specialized skills and knowledge.²⁵ Hence, the quality of pharmaceutical care services will be lesser if only pharmacist assistants are left to perform them.²⁶ This corresponded with the respondents' views, as 70.4% of the respondents did not consider the pharmacist assistant to be as skilled as the pharmacist in their experience. Additionally, 55.3% did not think that a pharmacist assistant is capable of providing all pharmaceutical care services.

Limitations

Though the investigator administering this survey had been trained to interview respondents without influencing their responses, being included in the study could have influenced the outcomes and caused some bias. This could be overcome in future research.

CONCLUSIONS

The majority of the respondents believed the pharmacist played an important role in providing pharmaceutical care services and reported a desire for a comprehensive care service from pharmacists. Furthermore, respondents expected much from pharmacists. They largely found the current role unsatisfying, and the majority considered dispensing medications to be a pharmacist's most important task.

CONFLICT OF INTEREST

None to Declare.

FUNDING

This project was funded by the Deanship of Research at the Jordan University of Science and Technology.

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