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Original Research Article

Consumers satisfaction with pharmaceutical services in community pharmacies in Benghazi-Libya

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ABSTRACT

Background: The pharmacist, as a front-line provider, is always in contact with patients who come to the pharmacy for various reasons. This study aimed to determine patients' satisfaction with pharmaceutical services provided by community pharmacists.

Methods: An anonymous, pre-piloted questionnaire-based study was conducted in Benghazi, Libya. Data were analyzed using SPSS, and results were expressed as frequency and percentage of respondents.

Results: A total of 281 completed questionnaires were received back. The majority (196, 69%) of respondents were female. The respondents were of different age groups, but most of them were between 17 and 24 (65.1%) years old. Over 50% of the participants were students (159, 56.6%). The majority of participants find the pharmacist helpful (96%), and 77% of the participants have categorized the pharmacist as a salesman. Most of the participants ask the pharmacist about how to use a medical device, the dose of medication, the frequency of use, the duration of treatment, and the side effects of the medication. Patients (113, 4.2%) do not ask the pharmacist because the physician provided information.

Conclusions: The results of the present study showed a moderate level of patient satisfaction with the help provided by the community pharmacist. However, the pharmacist needs to fully practice his or her role to the advantage of the patients, and the latter needs to be aware of what to expect and demand from the community pharmacist.

Keywords: Satisfaction, Community pharmacy, Consumer satisfaction, Patient, Pharmaceutical care service, Pharmacist

INTRODUCTION

The role of pharmacists in the health care system has tremendously evolved to embrace pharmaceutical care.¹ The profession is no longer product-centered; nowadays, pharmacists are responsible for maintaining patient health and promoting rational medicines to improve quality of life through patient assessment, disease management, proper consultation, and follow-up for great improvement to achieve therapeutic outcomes. Moreover, patient adherence to medication has been reported to be significantly improved due to increased patient satisfaction.^{2,3}

The problem in Libya is in the practice of the pharmacy profession by either non-health professionals or other healthcare professionals. These illegal, non-authorized non-pharmacists practice the profession by dispensing medications, inappropriately communicating with patients, and behaving in a non-ethical manner. The problem is progressively worsening because there is no strict control from the Ministry of Health and the syndicate of pharmacists. The latter issues a license to practice the profession to any graduate pharmacist who pays the registration fees. The syndicate does not run either licensure exams or continuing pharmaceutical educational programs.

At present, most published studies in developed countries have focused on patient satisfaction with pharmaceutical care services where pharmacy practice is still traditional, and as such the results are limited and cannot be generalised. However, since patients' satisfaction is essential in assessing the quality of healthcare systems in developed countries, a plethora of studies focused on investigations into such an important topic.⁴⁻⁹

While there are studies on patient satisfaction with primary care services in Arab countries, only a handful have explored patients' perspectives on pharmacy services. Several studies assessed patient satisfaction with pharmaceutical services in various countries, including Palestine, Saudi Arabia, Qatar, and the UAE.¹⁰⁻¹³

In Libya, there is a shortage of such studies; therefore, we decided to assess the satisfaction of the public with pharmaceutical services provided in community pharmacies in the city of Benghazi, the second largest city in Libya. Such studies will help in developing interventions and training programs designed to improve pharmacy services that meet patients' expectations.

METHODS

An anonymous, pre-piloted questionnaire-based study was conducted in Benghazi, Libya.

Inclusion and exclusion criteria

Participants included those 17 years of age or older who took at least two scheduled (regular) medications to ensure that they recently visited a community pharmacy. The younger age groups were excluded. All participants were briefed about the purpose and nature of the study, and their anonymous voluntary participation by filling out the questionnaire was considered consent to participate in the study.

Questionnaire design

A systematic process was used to develop an assessment tool that could be used within the Arabic context and establish its validity and reliability. The anonymous questionnaire was distributed over 3 months to eligible participants in public places, such as the streets and university students, in Benghazi. The questionnaire was distributed for validation to around 10 people with medical and nonmedical educational backgrounds, and all their recommendations were considered in the final version of the questionnaire to ensure that the responses matched the predetermined purpose of the study and to reduce errors. There was also a section inviting comments at the end of the questionnaire. A total of 281 questionnaires in both English and Arabic languages were distributed between October and December 2023. The survey consisted of four sections. The first section included questions about the demographic characteristics of respondents, such as gender, age, nationality, spoken language, and educational

background. The second section included questions to evaluate the services provided to participants on their last visit to the pharmacy. These included the time it took to collect the prescription, whether the respondent's experience in the pharmacy was satisfactory, and whether the participants visited the same pharmacy every time they needed to collect a prescription or another product. The third section inquired about the educational information participants received on their visit to the community pharmacy about disease and healthy lifestyles. The fourth section of the questionnaire was the overall patient's satisfaction with pharmacy services. Questions in this section dealt with whether all information about medications was politely delivered by the pharmacist and whether all side effects and proper storage were discussed. The average time for filling out the questionnaire was 20 minutes.

Ethical approval

Ethical approval was obtained from the Ethics Research Committee of the Libyan International Medical University, Benghazi, Libya (certificate reference number: PHR-2023-00142).

Statistical analysis

The participants' responses were encoded, and the data were analyzed using Statistical Package for the Social Sciences (SPSS version 20; Chicago, IL, USA). The questions were in different, distinct formats.

Three categories of relevant responses (agree, neutral, and disagree) were used in questions related to patients' satisfaction with the services provided by community pharmacies. The 95% confidence interval (CI) was determined for the yes answers (Table 2) to estimate the expected range of the "yes" response of the general population. This enabled more reader-comprehensible CIs for the relative proportions to be calculated. "yes" or "no" answer options were used in the evaluation of community pharmacy services and the role of pharmacists in patient education. Descriptive analysis was used to calculate the proportion of each group of respondents who agreed or disagreed with each statement in the questionnaire. A chi-square test was used to identify any significant difference among the participants' responses regarding certain statements in the questionnaire, with a significance level of $p < 0.05$.

RESULTS

Demographic characteristics of participants

A total of 281 questionnaires were received back. The majority (196, 69.8%) of respondents were females, and the respondents were of different age groups, but the majority (183, 65.1%) were of age ranging from 17-24 years with the least (3, 1.1%). the age group that participated in the study was those <60 years of age (Table

1). More than 50% (159, 56.6%) of the participants were students.

What questions participants ask the pharmacist?

When asked whether they ask the pharmacist about the side effects of drugs or how to use a special device, similar (about 40%) of the participants answered yes or no. However, higher proportions of participants (190, 67.7%, 235, 83.6%, and 226,80.4%) ask the pharmacist for the indication of the drugs, the dose, and the duration of use respectively (Table 2).

Responses to questions on visits to the pharmacy and how participants regard the pharmacist

Table 3 shows that the majority (270, 96.1%) of the participants find the pharmacist helpful and cooperative, but only 160 (57%) of the participants were satisfied with the services provided by the pharmacist. The number of visits to the pharmacy ranged between 1 and 30 per year, and 233 (83%) of the participants visited multiple pharmacies. Various reasons prevented the participants from asking the pharmacist but having earlier experience with the drug (96, 34.2%), and being given the information by the physician (121, 43.1%) were the most frequent answers. More than two-thirds (216, 76.9%) of the participants regard the pharmacist as a salesman (Table 3).

Table 1: Demographic characteristics of participants.

Demographic characteristics	Frequency (%) n=281
Gender	
Male	79 (28.1)
Female	196 (69.8)
Missing values	6 (2.1)
Age	
17-24	183 (65.12)
25-39	65 (23.1)
40-59	29 (10.3)
>60	3 (1.1)
Missing values	1 (0.4)
Marital status	
Single	220 (78.3)
Married	57 (20.3)
Divorced	3 (1.1)
Widower	0
Missing values	1 (0.4)
Occupation	
Business man	34 (12.1)
Employees	42 (14.9)
Police officer	0
Health care	20 (7.1)
Student	159 (56.6)
Unemployed	23 (14.9)
Missing values	3 (1.1)

Table 2: Responses of participants to the questions they ask when they visit the pharmacy.

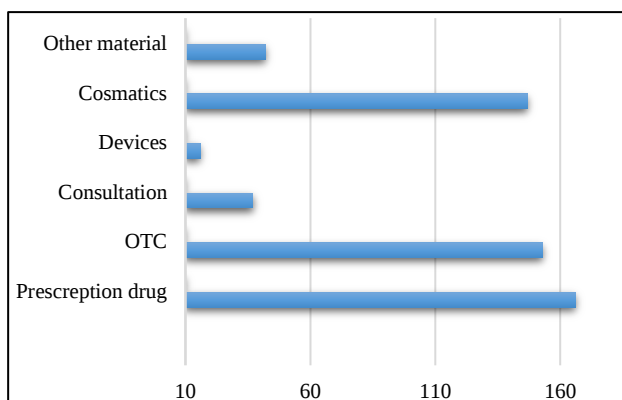
Question	Frequency (%), n=281
Do you ask the pharmacist about how to use special device?	
Yes	168 (59.8)
No	49 (17.4)
Sometimes	61 (21.7)
Missed values	3 (1.1)
Do you usually ask the pharmacist about the indication for your prescribed drug?	
Yes	190 (67.7)
No	42 (14.9)
Sometimes	45 (16)
Missed values	4 (1.4)
Do you ask about the dose of the drug?	
Yes	235 (83.6)
No	21 (8.2)
Sometimes	23 (8.2)
Missed values	2 (0.7)
Do you ask about the duration of drug?	
Yes	226 (80.4)
No	29 (10.3)
Sometimes	25 (8.9)
Missed values	1 (0.4)
Do you ask about the side effect of the drug?	
Yes	118 (42)
No	115 (40.9)
Sometimes	46 (16.4)
Missed values	2 (0.7)

Table 3: Responses to questions on visits to the pharmacy and how participants.

Question	Frequency (%), n=281
How you regard the pharmacist?	
Health professional	65 (23.1)
Salesman	216 (76.9)
Do you visit one or multiple pharmacies?	
One pharmacy	48 (17.1)
Multiple pharmacies	233 (82.9)
What is the number of your visits to the pharmacy per year?	
1	23 (8.2)
2	57 (20.2)
10	37 (13.2)
15	42 (15)
20	31 (11)
25	17 (6.1)
30	74 (26.3)
What are your reasons for not asking the pharmacist?	
Feeling shy	17 (6.1)
No isolated counselling room	95 (33.8)
Lack of time	121 (43.1)
Previous experience with the drug	11 (3.9)
Information was given by the physician	20 (7.1)
Do not trust the pharmacist	17 (6.1)
Are you satisfied with the pharmacy services?	
Yes	161 (57.3)
Neutral	110 (39.1)
No	10 (3.6)

Reasons for visiting the pharmacy

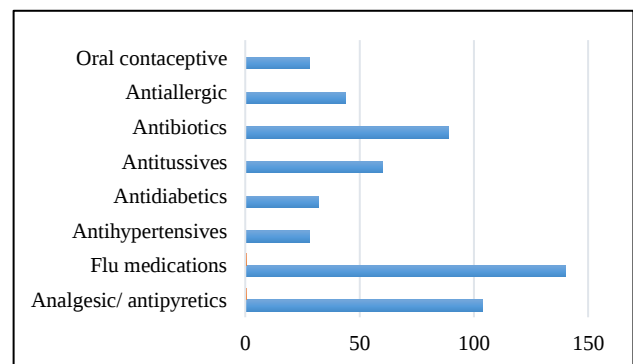
Figure 1 shows the various reasons to visit the pharmacy. The most common of these were to purchase prescription drugs (166, 59.1%), Over-the-counter drugs (154, 54%), and cosmetics (146, 52%).

**Figure 1: Reasons to visit the pharmacy.**

The most commonly purchased drugs

As shown in Figure 2, the three most commonly purchased drugs by the participants were drugs for cold (140, 50%), antipyretic drugs (104, 37%), and antibiotics (89, 31.7%).

Figure 2 shows the information provided by the pharmacist about the dispensed drug. The proportions of participants receiving information on the method of administration of the drug (151, 53.7%), frequency of administration (167, 59.4%), side effects (39, 13.9%), and methods of storage (19, 6.8%).

**Figure 2: The most commonly purchased drugs on visiting the pharmacy.**

The type of information given by the pharmacist when purchasing a drug

Figure 3 shows the type of information given by the pharmacists to the patients when purchasing a drug. These

include in order the frequency of administration (167, 59.4%), route of administration (152, 54.1%), side effects (39,13.9%), and method of storage of medicine at home (19, 6.8%).

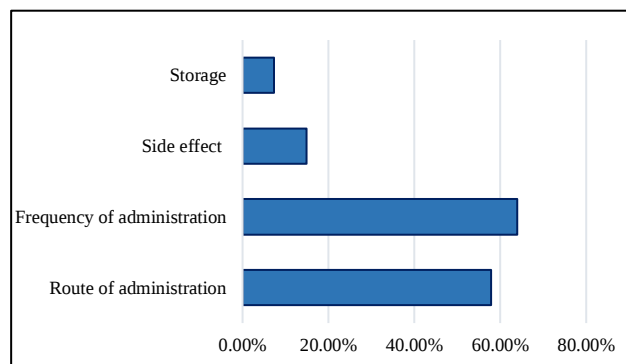


Figure 3: Information given by the pharmacist to the patient who is purchasing a drug.

DISCUSSION

The role of pharmacists in the healthcare system has tremendously evolved from product-centered to patient-centered. Pharmacists are now exercising an effective role through patient assessment, disease management, proper consultation, and follow-up in order to improve therapeutic outcomes.^{2,14} It has also been shown that patients' satisfaction with pharmaceutical care services markedly improves patients's adherence to prescribed medications.¹⁴

In the present study, the majority of participants were university single females in the age range of 17-24 years. With such characteristics, one expects a better understanding of the information, if any, provided by the pharmacists and also an ability to read and understand the instructions given in the medication package inserts. Misunderstanding of instructions in package inserts has been associated with medication errors and the development of adverse effects, particularly in patients with low literacy or those with multiple medications for various disease conditions.¹⁵ However, a study evaluating patient information leaflets given during a consultation observed that many patients are not getting oral or written instructions from their healthcare providers on the safe and effective use of their prescription medication.¹⁶ Results of the current study indicated that a large proportion of the participants asked the pharmacist how to use a medical device, drug indication, dose, and duration of treatment, but less than 50% asked about the side effects of the prescribed drug.

In the present study, most (77%) of the participants regard the community pharmacist as a salesman rather than a healthcare professional; this is far more than the Saudi patients, where about 56% thought that the pharmacist was concerned with business matters.¹⁷ However, over half of the participants (57.3%) in the present study were satisfied

with the services they received. This is similar to that (51.9%) in Saudi Arabia but lower than that (94%) in Malta and South Korea (74.6%).¹⁸⁻²⁰ Only less than 4% were unsatisfied with the pharmacy services, while about 40% remained neutral. Visiting multiple pharmacies, the absence of a consultation room, and a lack of time on the side of the patient may account for the moderate satisfaction rate in the present study. Customers visit the pharmacy to purchase prescription drugs, OTC, and cosmetics for the flu, followed by analgesics, antipyretics, and antibiotics.

Our results indicate moderate satisfaction of patients with pharmaceutical services provided by community pharmacists. Efforts to increase the awareness of the public towards their expectations and the information they should ask the community pharmacists must be enhanced.

The main limitations of the present study are the small sample size and the geographical area being restricted to Benghazi. Therefore, the results cannot be generalized because the sample size was small. Moreover, the use by respondents of several community pharmacies makes their satisfaction assessment a general rather than specific grading. We suggest for future research a study based on the questionnaire that deals with patient's expectations and the knowledge of pharmacists on what services should be provided.

CONCLUSION

Even though over half the participants were satisfied with the pharmaceutical services they receive in community pharmacies, pharmacists should encourage useful communication with patients, provide educational instructions and information about patients' conditions and treatment, and gain their trust in them as healthcare providers. It is also important to increase the public's awareness of what they should expect when visiting a community pharmacy and their rights to ask relevant questions about their conditions and treatment.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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