



Original Article

## Community Based Study: Patient's Satisfaction toward Community Pharmacy Services in Zawia City, Libya

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Received: 16/10/2024 | Accepted: 16/12/2024 | Published:21/12/24 | DOI: <https://doi.org/10.26719/LJMR.18.2.13>

### ABSTRACT

**Purpose:** Patient satisfaction is a crucial measure that assists decision-makers in evaluating the quality of healthcare services and determining the factors that contribute to the sustainability of these services. This study sought to explore the reasons for community pharmacy visits and assess patient satisfaction with the pharmaceutical services offered by community pharmacies.

**Methods:** A cross-sectional study was conducted over a period of three months from October, 2023 through January,2024 in zawiya city, Libya to evaluate patients satisfaction toward community pharmacy services by face to face interview.

**Results:** A total of 812 patients took part in this study, with the majority being female (70%). Around two-thirds of the respondents (63.4%) reported having no significant health conditions. Patients visited the pharmacy primarily for prescription refills (35.3%) and to purchase prescribed medications (34%), with the main reason for choosing a particular pharmacy is its location closed to their home (27%). The most common frequency of visits was once a month (36.4%). A large majority (80.3%) preferred in-person visits over online purchasing. In Zawia city, Libya, patients expressed moderate satisfaction with the overall services, with 50.9% giving an excellent score. However, they were dissatisfied with the lack of privacy (32%) and the waiting times for services.

**Conclusions:** In Zawia city, patients attended community pharmacies to receive traditional services and they hesitated to receive new services. Patients were moderately satisfied with community pharmacy services, and they expected much from pharmacists. Some demographic characteristics were important factor that affected patients' satisfaction such as the age, gender and educational level of patient.

**Keywords:** Community Pharmacy, Satisfaction, Pharmaceutical Services, Zawia.

### How to cite this article:

Meerah WA, Lazrak RR, Beshna EA, Hawissa SS, Aldeeb AA. Community based study: Patient's satisfaction toward community pharmacy services in Zawia City, Libya. *Libyan J Med Res.* 2024;18:76-84.



## INTRODUCTION

Community pharmacy services have undergone significant changes. With advancements in technology, a rise in chronic diseases, and a shortage of healthcare providers, the role of community pharmacists has expanded beyond merely dispensing medications. They now offer patient-centered services like medication counseling, drug monitoring, lifestyle changes, wound care, pressure testing, and weight management programs.<sup>1-3</sup>

Community pharmacists serve as the primary providers of medical information and are the most easily accessible healthcare professionals.<sup>4,5</sup> One key managerial challenge they face is ensuring patient satisfaction while delivering these pharmaceutical services. Patient satisfaction is a vital metric for assessing the quality of services offered and for identifying the factors that contribute to the effective implementation, enhancement, and sustainability of these services.<sup>3,6</sup> Several factors influence the level of patient satisfaction with pharmacy services, such as patient demographics, health status, healthcare provider characteristics, and patients' needs and expectations.<sup>7</sup>

Patients who were highly satisfied demonstrated better compliance, medication adherence, improved clinical outcomes, enhanced quality of life, reduced health complications, and fewer hospitalizations related to their chronic conditions.<sup>8,9</sup>

A thorough literature review on patients' satisfaction on community pharmacists and pharmacy services in the UK highlights the importance of public trust in expanding pharmacy-led services.<sup>10</sup> Previous studies have consistently shown that public confidence is a key. Gregory et al., in a qualitative study, observed that a pharmacist's behavior and attitude play a crucial role in either establishing or eroding patient satisfaction in Canadian pharmacies. Confidence is enhanced when the community pharmacy provides the necessary services with quick access to them. Trust is also enhanced when pharmacists show all respect to patients, recognize patient's needs, and are easy to reach.<sup>11</sup>

## MATERIALS AND METHODS

### *Study Design*

A cross-sectional study was conducted over a period of three months from October, 2023 through January, 2024 in Zawiya city, Libya.

### *Development and Validation of the Questionnaire*

The questionnaire containing a set of questions about pharmacy services such as speed of service, reason and frequency of visits, waiting time, screening and monitoring tests, and purchasing medication, about community pharmacies such as appearance, availability of medicines, use of a computerized system, waiting area, and privacy, and about satisfaction with the role of pharmacists and pharmacy services. Furthermore, inquiries concerning demographic attributes (age, gender, nationality, education, employment status, marital status, health status, and income) were incorporated. The survey was first created in English, and then a linguistic specialist translated it into Arabic. The survey characterized by its clarity, simplicity, and translation accuracy. The questionnaire took 10 minutes to complete on average and was meant to be given out during a face-to-face interview.

### *Study Participants*

Based on their geographic distribution, 43 community pharmacies in Zawiya City were chosen at random to receive visits. With the specific goal of including pharmacies from various parts of Zawiya, the pharmacies were chosen at random. It was asked and granted permission for pharmacists to speak with patients as soon as they entered the pharmacy. Every customer, regardless of gender, who answered the questionnaire, was given an interview by a designated pharmacist. They were informed of the purpose of the study and given the opportunity to fill out the questionnaire. The participants received assurances that the data collected through the surveys would be presented in groups and would remain secret. Out of the 1000 participants, 812 were enrolled in total.

### Sample Size and Sample Technique

Using the simple random sampling technique, 20-25 questionnaires were distributed across 43 pharmacies in Zawia city to gather 1000 participants. Out of these, 812 participants were successfully enrolled.

### Ethical Considerations

This research was conducted with the approval of the University of Zawia's ethical committee. Ethical issues, such as plagiarism, informed consent, data fabrication or falsification, and double publication or submission, were fully adhered to by the authors. To ensure confidentiality and reliability, participants' responses were anonymized. The study's purpose and content were explained to participants at the outset, and informed consent was obtained.

## RESULTS

### Demographic Characteristics of Respondents

Out of the 1,000 individuals approached, 812 agreed to participate, yielding a response rate of (81.2%). Among the participants, (53.9%) were between the ages of 21 and 39. The sample was predominantly female (70.2%), with males comprising (29.8%). Most respondents, (68.2%), held a college degree, indicating a higher education level compared to the general population. Nearly two-thirds of the participants (63.4%) reported no significant health issues. Among those with health concerns, diabetes mellitus was the most prevalent condition, affecting (11.2%) of participants, while other chronic illnesses (such as hypertension, cardiac issues, and asthma) were relatively uncommon. A detailed breakdown of demographic data is provided in [Table 1](#).

**Table 1.** Characteristics of the study respondents by demographics.

Variable	No	(%)
<b>Age</b>		
Less than 20 years	161	19.8
21-39	438	53.9
40-59	178	21.9
60 years and above	35	4.3
<b>Gender</b>		
Male	242	29.8
Female	570	70.2
<b>Education level</b>		
Illiterate	27	3.3
High school	132	16.3
College	554	68.2
Postgraduate	99	12.2
<b>Health status</b>		
Diabetes	91	11.2
Hypertension	66	8.1
Cardiac	36	4.4
Asthma	43	5.3
Other	61	7.5
None	515	63.4

### Factors influencing the choice of a community pharmacy

Participants were asked about their main reasons for visiting a pharmacy. The majority (35.3%) reported going to refill prescriptions (Figure 1), suggesting a significant number of repeat prescription users rely on community pharmacies for medication management. Other common reasons included purchasing medicines (34.0%), seeking medical advice (12.9%), miscellaneous purposes (9.5%), and buying toiletries or cosmetics (8.3%).

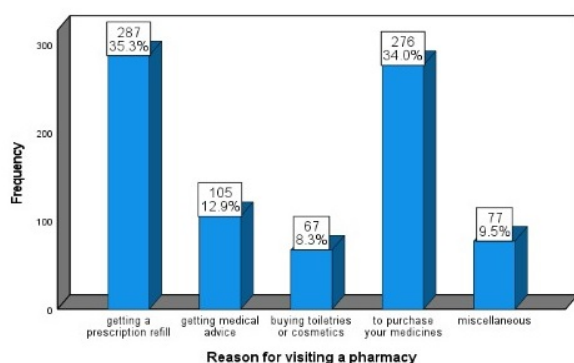


Fig 1. Reason for visiting a pharmacy.

We surveyed customers on why they chose to visit a specific community pharmacy, and the primary reason was its convenient location, as illustrated in Figure 2. This included proximity to their home (27.1%). Other factors influencing their choice of pharmacy included the availability of medicines (26.6%), the pharmacist’s expertise (25.6%), and the price of medicines (17.7%).

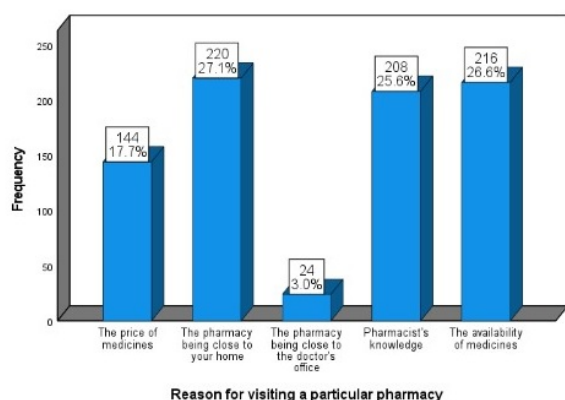


Fig 2. Reason for visiting a specific pharmacy.

Participants were surveyed on how often they visited a pharmacy, as illustrated in Figure 3. The most common frequency was once a month, reported by over a third (36.4%) of respondents. Meanwhile, 29.2% visited every few months, and 28.0% visited once a week. Additionally, 20.4% of consumers visited the pharmacy more than once a day.

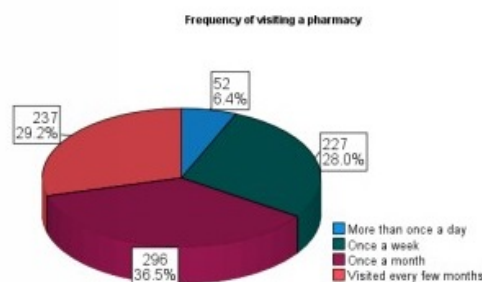


Fig 3. Frequency of visiting a pharmacy.

### Customer Opinions on Purchasing Medicines Online or Through Home Delivery

While the internet offers a convenient option for purchasing medicines, customers need to exercise caution, as some websites may sell prescription and over-the-counter drugs that are unsafe and could endanger health. When asked about their experiences and openness to buying pharmaceutical products online, a significant majority (80.3%) expressed a preference for the traditional in-person pharmacy visit over internet purchases or delivery services, highlighting the importance they place on direct access to a pharmacist. Home delivery was preferred by 12.7% of customers, while only 7% favored purchasing medicines online, as shown in Figure 4.

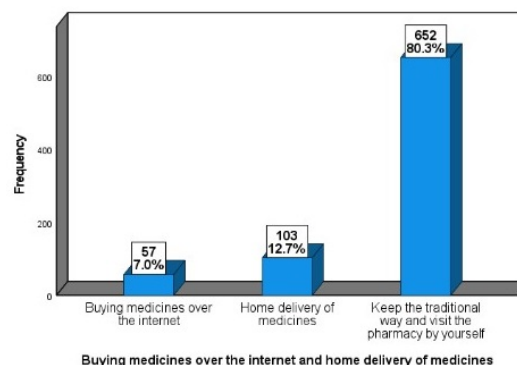


Fig 4. Buying medicines over the internet and home delivery of medicines.

### Customer Perceptions of Pharmacy Appearance, Waiting Area, Waiting Time, and Service Satisfaction

Overall, customers were satisfied with the appearance and cleanliness of the pharmacies, as illustrated in (Figure 5). The appearance of the pharmacies received an "excellent" rating from 58.6% of customers, while 30.4% rated it as "very good," and 11% as "good."

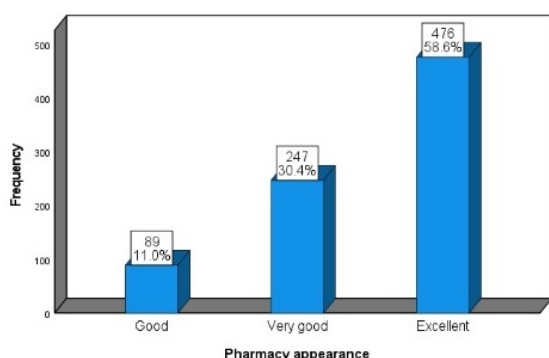


Fig 5. General Appearance of the pharmacy.

Waiting time was defined as the period from when pharmacy services were first requested to when the customer left the pharmacy. Customers rated their comfort and convenience during this waiting period as follows: 32.1% rated it excellent, 36.9% rated it very good, 29.7% rated it good, 1.0% rated it bad, and 0.2% rated it very bad (Figure 6).

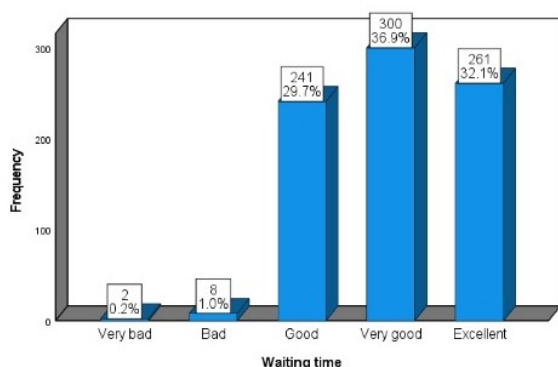


Fig 6. Waiting time.

Overall, respondents were generally pleased with the pharmacy's waiting area. Specifically, 34.6% rated it as very satisfactory, 27.0% as satisfactory, and 35.2% as fairly satisfactory. In contrast, 3.0% gave it a poor rating, and 0.2% rated it as very poor (Figure 7).

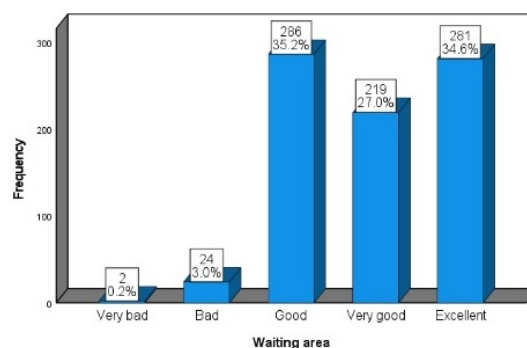


Fig 7. Waiting area.

The participants were asked to rate their overall satisfaction with pharmacy services. The results showed that satisfaction was rated highest as "excellent" by 50.9% of participants, followed by 32.8% rating it as "very good," and 10.2% as "good," as shown in (Figure 8).

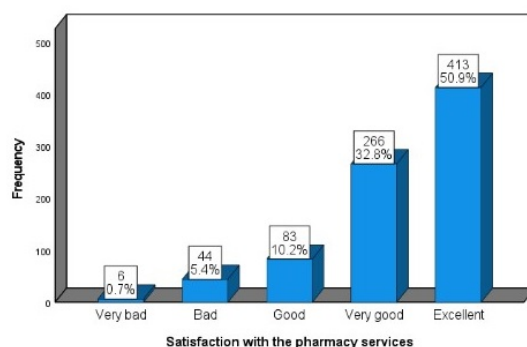


Fig 8. General Satisfaction with the pharmacy services.

### Customers' Perceptions of Pharmacy Facilities, Accessibility, and Privacy

The participants were asked to evaluate the amenities, accessibility, and services of their preferred pharmacy using the following response options: Yes, No, or Sometimes. The survey included inquiries about the pharmacy's appearance, the availability of medications and computerized

systems, as well as the waiting area. Table 2 presents the details of the participants' responses. Approximately 36.9% of respondents expressed satisfaction with the availability of medications at the pharmacy. A majority (65.4%) indicated that pharmacists were always available to assist them. However, 32.0% reported that there was no private area in the pharmacy for confidential conversations with the pharmacist. In terms of identifying the pharmacist among the non-pharmacist staff, over half (50.4%) said they could easily tell the pharmacist apart. Additionally, 719 respondents, or 88.5%, confirmed that the community pharmacy was equipped with a computer system.

## DISCUSSION

A total of 812 patients (570 women and 242 men), took part in this study, with the majority being female (70%). Female respondents reported higher satisfaction with pharmacy services compared to males, which was linked to their emotional responsiveness and greater openness to receiving information about their medications from the pharmacist.<sup>12-14</sup>

In the current study, Diabetic, Hypertensive, Cardiac and Asthmatic patients represent small subsample, this means most of the respondents attend community pharmacies for drug dispensing or drug counseling on minor conditions, but they are still unwilling to have pharmacists' consultations on issues related to their chronic diseases. This finding was in agreement with a recent study carried out in England as well as with a study conducted in Slovakia.<sup>15,16</sup> The explanation includes: the close relationship between patients with chronic diseases with their doctors, the fact that community pharmacists in Zawia city in Libya do not have access to their patients' electronic medical records. This highlights the necessity to improve the pharmacist's image and create a long-lasting relationship built on trust between the patient and pharmacist.

The study reported an overall satisfaction rate of 83.7% for pharmacy services, (with 50.9% rated as excellent and 32.8% as very good), reflecting moderate satisfaction with community pharmacies. This result aligns with satisfaction levels found in studies from Slovakia (71.3%) and Spain (76%) respectively,<sup>17,18</sup> but is lower than those

**Table 2.** Services of the pharmacy.

	Yes		No		Sometimes	
	Count	%	Count	%	Count	%
Is the community pharmacy stocked with the medications or devices you require?	300	36.9	230	28.3	282	34.7
Is there anyone at the community pharmacy who can assist you?	531	65.4	145	17.9	136	16.7
Is there a location in the community pharmacy where you can talk privately?	317	39.0	260	32.0	235	28.9
Can you differentiate between the pharmacist and the non-pharmacist employees in a community pharmacy?	409	50.4	235	28.9	168	20.7
Does the community pharmacy utilize a computer system?	719	88.5	54	6.7	39	4.8

reported in previous studies from Pakistan (39.6%) and Portugal (39%) respectively.<sup>19,20</sup> Contributing to this difference is the requirement in Libya that all pharmacists must hold a pharmacy degree from a university and complete a training course before registering with the Libyan Pharmacists Association to work in a community pharmacy.

Satisfaction with community pharmacy services was significantly influenced by various factors, including, the location of the pharmacy and the promptness of the services (27.1%), the availability of medicines (26.6%), the pharmacist's knowledge (25.6%), and prices (17.7%). Patients also were satisfied with the availability of services all the time (65.4%).<sup>21,22</sup> Also, there are many reasons for visiting a pharmacy, including the need to purchase medicines (34%) recommended by doctors and to refill prescriptions (35.3%).

The current study also examined customers' opinions on the amenities and accessibility of pharmacies. Examples highlighted include availability of waiting areas, and waiting time, which significantly impacted, satisfaction with a particular pharmacy. Overall, most participants rated these aspects positively. Key factors influencing patient satisfaction with health care services were consultation services and waiting time.<sup>23,24</sup> Our findings showed that respondents rated waiting areas as either good (35.2%) or excellent (34.6%), while 36.9% were satisfied with the waiting time before consultations. Patients wait longer than expected were less satisfied with the service.<sup>25</sup> Anderson et al.<sup>26</sup> cautioned that short consultation times combined with long waiting times severely impact patient satisfaction, this must be avoided by health care providers. Additionally, several studies have explored privacy and confidentiality in pharmacies, including product service, conversations, medical information exchange, and purchased medications.<sup>27-29</sup>

Pharmacy staff should maintain discretion when addressing patients and offering counseling or screening services.<sup>28</sup> In our research, about 32% of participants identified lack of privacy in pharmacies as a barrier to seeking assistance from community pharmacists. In contrast, a study

from the Netherlands found that insufficient privacy in pharmacies discouraged customers from asking questions.<sup>30</sup> Therefore, there is a clear need to regulate the design of community pharmacy spaces to ensure patient privacy and good pharmacist patient relationship.<sup>31</sup>

## CONCLUSION

Patients in Zawia city typically attended community pharmacies through traditional way of services but were hesitant to adopt new services offered by pharmacists. While patients were moderately satisfied with the services, there was still room for improvement, as patients expected more from pharmacists. Satisfaction levels were influenced by demographic factors such as age, gender, and educational level, showing that these characteristics significantly affect patient satisfaction. Through this research, Authorities are encouraged to update policies to shift patient perceptions, helping them view pharmacists as healthcare providers who offer more than just drug dispensing.

This study can be foundational for future health-related research in Zawia and the wider western Libyan region, focusing on improving healthcare delivery through community pharmacies. This research is an important step toward understanding the role of community pharmacies in health systems and how public perceptions can evolve through policy changes and professional development.

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