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Research Article

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Public Perceptions, Trust, and Utilization of Community Pharmacy Services in Sulaymaniyah City: A Cross-Sectional Study

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Abstract

Background: Community pharmacies are among the most accessible healthcare providers worldwide, yet public perceptions of pharmacists' roles differ across countries. In Sulaymaniyah City, limited data exists on how the public views and utilizes community pharmacy services. **Objective:** To evaluate public perceptions, satisfaction, trust, and willingness to use current and future pharmacy services. **Methods:** Between August and October 2024, a standardized questionnaire was distributed in pharmacies, clinics, and online to adults aged 18 years and older who were not healthcare professionals. **Results:** A total of 258 respondents participated; most were female (68.99%) and aged 18–39 years (72.87%). Pharmacies were primarily visited for prescription medicines (71.71%) and over-the-counter products (68.22%), with location being the most influential factor in pharmacy choice (70.54%). Nearly half of participants (45.74%) perceived pharmacists as more business-oriented than health-focused. Trust levels were moderate: 28% relied on the internet for medication-related information, while 30% consulted doctors or pharmacists. Key barriers to seeking advice included lack of privacy (38.37%), greater trust in physicians (29.84%), and pharmacist workload (29.46%). Overall, 51.55% of respondents reported being satisfied or very satisfied with pharmacy services. Willingness to use expanded services was high for minor ailment management (81.35%), medication counseling (77.17%), and health screening (72.62%) but lower for sexual health services (34.92%) and vaccination (32.80%). **Conclusions:** Respondents viewed pharmaceutical services positively, but they need improvements in privacy, trust, and acceptance of broader clinical roles.

Keywords: Community pharmacy; Iraq; Public perception; Pharmacy services; Patient trust; Role of pharmacists; Sulaymaniyah city.

تصورات الجمهور والثقة واستخدام خدمات الصيدلة المجتمعية في مدينة السليمانية: دراسة مقطعية

الخلاصة

الخلفية: تعد صيدليات المجتمع من بين أكثر مقدمي الرعاية الصحية سهولة في الوصول إلى الدواء ومع ذلك تختلف التصورات العامة عن أدوار الصيدالبيين بين الدول. في مدينة السليمانية، توجد بيانات محدودة حول كيفية رؤية الجمهور وكيفية استخدام خدمات الصيدلة المجتمعية. **الهدف:** تقييم تصورات الجمهور والرضا والثقة، والاستعداد لاستخدام خدمات الصيدلة الحالية والمستقبلية. **الطرق:** بين أغسطس وأكتوبر 2024، تم توزيع استبيان في الصيدليات والعيادات وغير الإنترنت للبالغين بعمر 18 عاماً فأكثر من غير المتخصصين في الرعاية الصحية. **النتائج:** شارك 258 مشاركاً معظمهم من الإناث (68.99%) تتراوح أعمارهم بين 18 و39 عاماً (72.87%). تمت زيارة الصيدليات بشكل أساسي للحصول على الأدوية الموصوفة (71.71%) والمنتجات التي تصرف بدون وصفة طبية (68.22%)، وكان الموقع هو العامل الأكثر تأثيراً في اختيار الصيدليات (70.54%). ورأى ما يقرب من نصف المشاركين (51.55%) أن الصيدالبيين يركزون على الجانب التجاري أكثر من الجانب الصحي. كانت مستويات الثقة متوسطة: 28% اعتمدوا على الإنترنت للحصول على معلومات متعلقة بالأدوية، بينما استشار 30% الأطباء أو الصيدالبيين. شملت الحواجز الرئيسية أمام طلب النصيحة نقص الخصوصية (38.37%)، وزيادة الثقة في الأطباء (29.84%)، وععبء عمل الصيدالبيين (29.46%). أفاد 51.55% من المشاركين بأنهم راضون أو راضون جداً عن خدمات الصيدلة. كانت نسبة الاستعداد لاستخدام الخدمات الموسعة مرتفعة لإدارة الأمراض البسيطة (81.35%)، والإرشاد الدوائي (77.17%)، والفحص الصحي (72.62%)، لكنها كانت أقل في خدمات الصحة الجنسية (34.92%) والتطعيم (32.80%). **الاستنتاجات:** تم النظر إلى خدمات الأدوية بشكل إيجابي، رغم أن هناك حاجة إلى تحسينات في الخصوصية والثقة وقبول الأدوار السريرية الأوسع.

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INTRODUCTION

Community pharmacies have historically been linked to dispensing medications that meet regulatory quality standards [1]. Presently, they are thought to be among the most accessible healthcare facilities, offering a range of medical supplies and practical basic care services [2]. Pharmacists have shifted from a product-oriented to a patient-centered treatment paradigm in recent decades [3], with data from developed nations demonstrating that

increased pharmacy practice can have a major positive impact on public health [4]. Pharmaceutical care relies on patient-pharmacist trust, communication, and shared decision-making to improve health, prevent disease, and ensure safe, effective therapy [5]. Nonetheless, the public is still largely unaware of pharmacists' broader clinical duties, which are often restricted to pharmaceutical supply [6]. Although many countries currently cover services including prescription reviews, vaccinations, and clinical decision-making, according to the

International Pharmaceutical Federation (FIP, 2021), antiquated beliefs still exist and may prevent service uptake. Community pharmacists frequently operate as the initial point of contact for mild illnesses, including advice on drug-food combinations, counseling, device use demos, and instruction on side effects [7]. Their contribution to medication regimen optimization enhances results and quality of life [8]; however, adherence, trust, and engagement with these services are heavily influenced by public perception [9]. Although pharmacy practice in Iraq has undergone gradual development in community, hospital, and clinical settings, pharmacists are primarily responsible for medication dispensing, patient counseling, and medication supply, whereas prescribing continues to be physician-led within the healthcare system [10]. Researchers have extensively studied community pharmacy services worldwide, but little is known about how people in Sulaymaniyah perceive and utilize them. Cultural views, patient behaviors, healthcare systems, and laws all influence local practice. Efforts to enhance services could fall short if these elements are not understood. To fill that gap, this study investigates the attitudes, expectations, and perceptions of the community. The information will be used to highlight knowledge gaps, direct useful enhancements, and bolster confidence in pharmacist-led care.

METHODS

Study design and participants

Two community pharmacies and three clinics were picked in Sulaymaniyah City, Iraq, as a first approach, and they were visited by the researchers on different days of the week to come across a wide spectrum of the population. The subjects gave the researchers permission to participate in the study. Participants who were 18 years and above and who weren't in the health care community and was able to converse in Kurdish, English, or Arabic were randomly contacted and requested to participate. Consents were collected verbally from them and included declarations about data protection and anonymity. Participants who denied oral consent or could not answer the survey questions were excluded. As a second technique to boost the response rate, the researchers publicized the questionnaire link through social media platforms in Sulaymaniyah City, Iraq. A total of 258 participants were recruited using convenience sampling from a population of approximately 800,600 individuals. Although the sample size achieved was lower than the sample size recommended for a 5% margin of error due to logistical constraints and field accessibility, it was considered adequate for the planned analyses. With some modifications, the questionnaire was created based on comparable research conducted in the UK, Saudi Arabia, and Qatar [1,3,5]. The first version of the questionnaire was written in English, then it was translated into Kurdish

and tested on a small group of people (15 participants) to ensure it was accurate, useful, acceptable, and quick to fill out. The last questionnaire was sent out in Kurdish, which is the official language of Sulaymaniyah City. From August 2024 to October 2024, data was collected during normal business hours on weekdays.

Questionnaire and data collection

The Google Forms platform was used to make the questionnaire, which has been adapted from previously validated questionnaires [1,3,5] consisting of four sections. Personal information, including age group, gender, nationality, marital status, educational attainment, and salary range, was covered in the first section. The second section posed eleven questions regarding individuals' usage of their neighborhood pharmacy. It looked at how satisfied participants were with the services and pharmacists at the community pharmacy, as well as some things that would keep patients from going to a community pharmacist for help or advice in Sulaymaniyah City, Iraq. Section three collected information about how willing participants were to use community pharmacy services now or in the future. In addition, Section Four gathered information about how much the public trusts and has faith in community pharmacists and what they believe regarding the current community pharmacy services.

Data collection and analysis

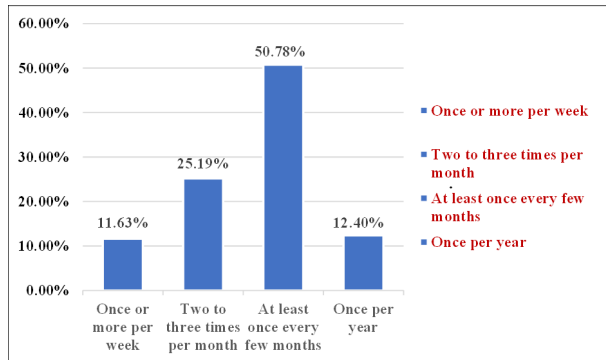
After being gathered and checked for accuracy, completed surveys were entered into SPSS Statistics version 20 (IBM, SPSS, Chicago, IL, USA). Databases to be evaluated and incomplete questionnaires were excluded from the analysis. Frequencies and percentages were computed for categorical data, and skew, mean, and standard deviation (SD) were computed for continuous data. Skew was determined to examine the distribution of responses, with negative values suggesting a trend toward willingness/positive replies and positive values showing a tendency toward neutrality or reluctance.

RESULTS

The sociodemographic characteristics of participants are summarized in Table 1. A total of 258 participants were included in the study. The majority were female, and most respondents were aged between 18 and 39 years and held a bachelor's degree or higher. When asked how often they visited a community pharmacy in the previous 12 months, most respondents said they only went sometimes, with more than half saying they only went once every few months (50.78%). On the other hand, weekly or more frequent visits were comparatively rare (11.63%) (Figure 1). Participants primarily visited community pharmacies to buy over-the-counter (OTC) products (68.22%) and prescription medications (71.71%), with a significant percentage also buying pharmaceutical items (44.19%).

Table 1: Participants' demographic information

Characteristics	n(%)
Age group (year)	
18-29	99(38.37)
30-39	89(34.5)
≥ 40	70(27.13)
Gender	
Male	80(31.01)
Female	178(68.99)
Marital Status	
Married	168(65.12)
Unmarried	90(34.88)
Educational Level	
High school or less	31(12.02)
Diploma	46(17.83)

**Figure 1:** Frequency of community pharmacy visits among participants in the Last 12 months.

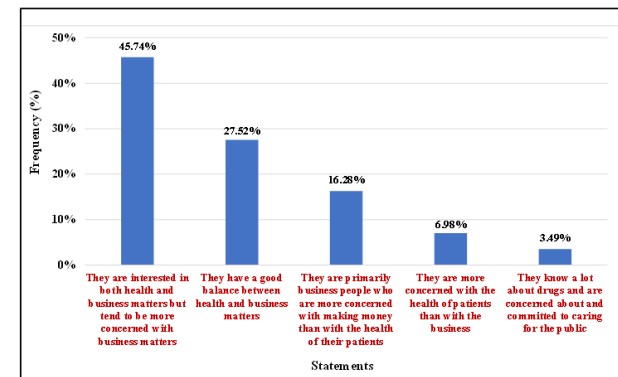
The most important consideration for choosing a particular pharmacy was its location (70.54%), which was followed by reasonable prices (45.35%) and the pharmacist's proficiency in answering questions about medications (43.41%). Conversely, the least taken into account elements were confidentiality/privacy (6.98%), rapid services (15.12%), and pharmacy appearance (17.54%) (Table 2).

Table 2: Participants' use of community pharmacy services

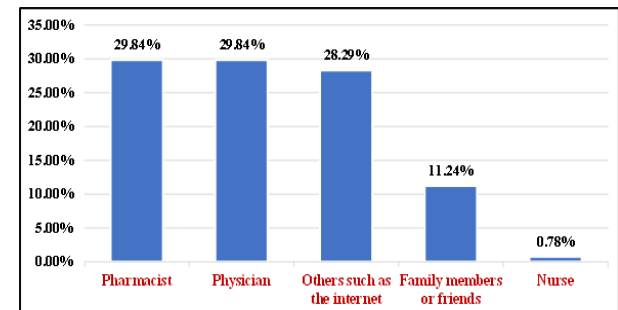
Characteristics	n(%)
<i>Reasons for visiting a community pharmacy</i>	
To purchase a prescription medication	185(71.71)
To purchase OTC medications	176(68.22)
To purchase para-pharmaceutical products*	114(44.19)
To purchase monitoring devices	27(10.47)
To ask for a pharmacist's advice	19(7.36)
To get general health information	8(3.1)
To get first aid information	3(1.16)
<i>Factors influencing the choice of any particular community pharmacy</i>	
Location	182(70.54)
Good and competitive prices	117(45.35)
Knowledge of the pharmacist and his or her ability to answer any drug or disease-related question	112(43.41)
Good range of products and services available	79(30.62)
Convenient working hours	68(26.36)
Friendliness of the pharmacy staff	62(24.03)
Acquaintance with a pharmacist and/or staff	53(20.5)
Attractive pharmacy appearance	45(17.54)
Quick services	39(15.12)
Confidentiality and privacy	18(6.98)

*Para-pharmaceutical products include, for example sunscreens, cosmetics, baby care or dental care products.

In terms of public perception, the largest proportion of respondents (45.74%) believed that community pharmacists are interested in both health and business matters but tend to prioritize business. Around 27.52% viewed pharmacists as maintaining a positive balance between health and business responsibilities. A smaller percentage (16.28%) considered them primarily business-oriented, while only 6.98% felt pharmacists are more concerned with patients' health. Just 3.49% perceived pharmacists as highly knowledgeable and fully committed to public care (Figure 2).

**Figure 2:** Participants' perceptions of community pharmacists.

When participants were asked who they consult first in case of a drug-related issue, pharmacists and physicians were equally identified as the primary source of information (30% each). This was followed closely by others such as the internet (28%), indicating a substantial reliance on non-professional sources. Nurses were the least consulted (1%) (Figure 3).

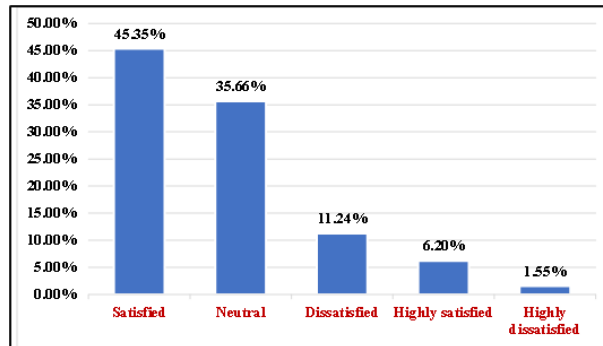
**Figure 3:** First source of consultation for drug-related questions among participants.

Several barriers were identified that may hinder patients from seeking advice from pharmacists. The most common barrier was a lack of privacy in the pharmacy (38.37%), followed by a higher level of trust in doctors (29.84%) and the idea that pharmacists are too busy (29.46%). The reluctance was also influenced by concern about the availability and expertise of pharmacists (Table 3). Most people who answered said they had a positive opinion of community pharmacy services in Sulaymaniyah City. 45.35% said they were satisfied and 6.20% said they were very satisfied.

Table 3: Perceived barriers to consulting pharmacists for medication-related information

Barriers	n(%)
Lack of privacy in the pharmacy	99(38.37)
Doctors are trusted more than pharmacists (doctors always tell me everything I need to know about my medications)	77(29.84)
Busyness of the pharmacists	76(29.46)
Lack of pharmacist's knowledge to answer drug and disease related questions	69(26.74)
Lack of awareness of the ability of the pharmacist to answer drug and disease related questions	37(14.34)
Unavailability of the pharmacists to answer my questions	31(12.02)
Rudeness of the pharmacists	23(8.91)
Fear or intimidation of asking the pharmacist (don't want to ask stupid questions)	22(8.53)
Doctor will be offended if I ask the pharmacist	8(3.1)

35.66% of people gave neutral answers, while 11.24% were unhappy and only 1.55% were very unhappy (Figure 4).

**Figure 4:** Participants' level of satisfaction with community pharmacy services in Sulaymaniyah City.

When asked about their willingness to use various community pharmacy services, participants expressed the highest interest in help with the management of minor

ailments, such as headache, heartburn, constipation, muscle pain, and minor skin problems (81.35%); counseling on medication use (77.17%); and assistance in selecting over-the-counter drugs such as painkillers, cough, cold, and flu medications, or parapharmaceutical products, including baby care products, hair products, and cosmetics (73.62%). Screening and monitoring for specific health conditions and diseases, such as measuring blood pressure and blood glucose, also received strong support (72.62%). With rates ranging from 59.52% to 64.03%, moderate willingness was observed for counseling on alcohol and drug abuse, healthy living advice, and smoking cessation guidance. On the other hand, there was less interest in sexual health information (34.92%), general dental health (52.21%), and vaccination and immunization services (32.80%), with the latter displaying the highest willingness response (47.20%) (Table 4).

Table 4: Participants' willingness to use community pharmacy services

Are you willing to use those community pharmacy services if they are available?	Frequency (%)			Skew	Mean±SD (95% CI)
	Willing	Neutral	Unwilling		
Helping the management of minor ailments	81.35	13.89	4.76	-2.197	2.77±0.53 (2.6-2.73)
Counseling on using medications	77.17	17.72	5.12	-1.863	2.72±0.55 (2.65-2.79)
Helping in selecting an over-the-counter	73.62	18.9	7.48	-1.627	2.66±0.61 (2.59-2.73)
Perform proper screening and monitoring for specific health conditions and diseases	72.62	15.48	11.9	-1.482	2.61±0.69 (2.52-2.69)
Giving guidance and helping with smoking cessation	64.03	21.34	14.62	-1.084	2.49±0.74 (2.4-2.59)
Advice on a healthy diet, exercise, and weight management	59.52	21.43	19.05	-0.85	2.40±0.79 (2.31-2.5)
Counseling on alcohol dependence and drug misuse	58.27	20.47	21.26	-0.77	2.37±0.81 (2.27-2.47)
Counsel me about the disease that I am suffering from	56.18	21.12	22.71	-0.69	2.33±0.82 (2.23-2.44)
General dental health	52.21	20.08	27.71	-0.496	2.24±0.86 (2.14-2.35)
Giving information about sexual health	34.92	26.19	38.89	0.076	1.96±0.86 (1.85-2.07)
Vaccination and immunization	32.8	20.0	47.2	0.284	1.86±0.88 (1.75-1.97)

In general, participants had positive opinions about their trust and confidence in community pharmacists (Figure 5). Fewer participants saw pharmacists as their first point of contact for medication-related difficulties (42.13%), but trust was highest for pharmacists' competence to respond to queries about medications and diseases

(55.64%) and their genuine treatment of patients (53.15%). Aspects like being prepared to respond to questions about drugs (42.13%) and giving patients enough time for conversations (41.04%) were rated less favorably than maintaining prescription privacy

(67.97%), which suggests that there is room for improvement in the current services (Figure 6).

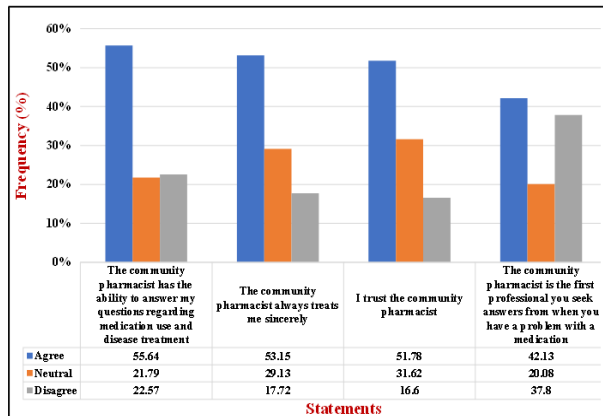


Figure 5: Participants' confidence and trust in community pharmacists.

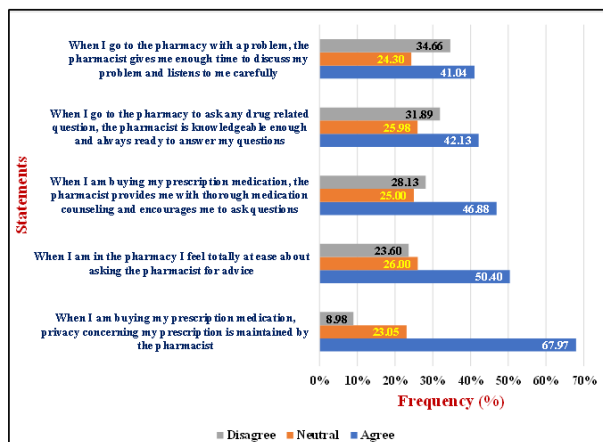


Figure 6: Participants' views of the current community pharmacy services.

DISCUSSION

This study evaluated public opinions, attitudes, and expectations about community pharmacy practice in Sulaymaniyah City, Iraq. Most participants visited pharmacies occasionally, mainly for prescription and over-the-counter medications, with location being the significant factor of pharmacy choice. While most held positive or neutral opinions on pharmacy services, many perceived pharmacists as more business-oriented than health-focused. Trust in pharmacists was moderate, with physicians and online resources being common providers of drug information. Obstacles to pharmacist consultation included a lack of privacy, a perceived heavy workload, and a lower level of trust in pharmacists compared to doctors. The highest desire to use pharmacy-led services was found for minor sickness care, medication counseling, and health screening, while the lowest was found for vaccinations and sexual health services. A plurality of females (68.9%) and the majority of respondents (72.9%) were between the ages of 18 and 39. This is consistent with other Middle Eastern surveys that show that women and younger people are more inclined to use pharmacies. El-Kholy *et al.* (2022), for

example, discovered comparable demographics in Saudi Arabia [3]. Given that women are typically in charge of family health, the study's preponderance of female responders may be a reflection of societal norms that encourage regular visits to the drugstore. Surveys carried out in Western settings show a more equal distribution of genders, indicating that cultural roles and the availability of healthcare have an impact on pharmacy use [7]. About 70% of participants had a diploma or above, and the majority (65.1%) were married. Because educated people value pharmacists' engagement in counseling and preventative treatment, more education enhances health-seeking behavior and receptivity to pharmacy services. Similar expectations were noted in Kuwait by Awad *et al.* (2017). But this study might underrepresent people who are older or less educated [4]. Only 11.6% routinely visited pharmacies, while 50.8% did so after several months, which indicates episodic pharmacy utilization for occasional and not a preventive drug need. El-Kholy *et al.* (2022) also demonstrated similar patterns [3]. The low frequency of pharmacy visits may reflect the healthcare system in Iraq, where patients visit the hospital and consult physicians to keep in touch with clinical data. In contrast, the UK and Australia employ pharmacists to manage chronic diseases. This study goes on to prove that Sulaymaniyah does not utilize pharmacists for preventive and follow-up care. Greater proportions of individuals attended pharmacies to purchase prescription medications (71.7%) and over-the-counter remedies (68.2%), despite only 44.2% of the individuals having purchased parapharmaceutical products. Few people requested information about health (3.1%) or pharmacist advice (7.4%). This indicates that, much like Qatar, pharmacists are mainly perceived as suppliers of drugs in Sulaymaniyah [5]. The most common factors influencing pharmacy choice were convenient location (70.5%), competent pharmacists (43.4%), and the reasonable price of the drug (45.3%). That suggests that cost and ease of use matter more than specialty knowledge. Cost and availability were also emphasized as one of the most important factors in similar studies conducted in Saudi Arabia and Kuwait, where clinical experience ranked second [11]. The factors with the least influence in choosing a pharmacy were privacy (7%) and availability of immediate services (15.1%), followed by the appearance of the pharmacy from the outside (17.5%). On the other hand, a complete examination indicated that privacy was valued in those countries where modern pharmaceutical services were present [12]. The low preference for privacy among the residents in Sulaymaniyah reveals likely ignorance about the existing pharmacy setting; this infrastructure contains very few private counseling places. Pharmacists, as described by almost half of the participants (45.7%), are seen in a combination of business and health, but they focus more on issues akin to business aspects rather than mainly medical ones; it is at least felt by society that pharmacy provides commercial rather than treatment

services. In joint Kuwaiti literature, the general public perceived that pharmacists were more engaged in medication dispensing compared to actual clinical practices [4]. This perception may risk profaning trust in pharmacists' clinical services. In the British survey, a high number of respondents perceived pharmacies primarily as shops focused on trade, with only 27.5% agreeing that pharmacists balance business and health. An emphasis on health is predominant in pharmacy practice systems such as those of Australia and the United Kingdom [13]. A mere 6.9% suggested pharmacists put patients' well-being ahead of their self-interests; 3.5% thought they were highly skilled, committed to public health, and took part in events to make drugs safer. In a South Korean study, perceived ability, commitment, and concern about commercial interest affected the pharmacist's trust [14]. In this study, pharmacists and doctors were almost equally selected as the main source of drug-related problems (29.8% each). This might indicate that pharmacists in Sulaymaniyah are increasingly being perceived as educated and approachable, though they also seem to retain their role alongside doctors. The situation in Jordan and the United Arab Emirates was similar, with doctors remaining as the most influential health care decision-makers despite recognition of pharmacists being an accessible source of pharmaceutical information [15]. Additionally, Hindi *et al.* (2018), in a systematic review, noted that public trust in pharmacists' capabilities of issuing prescriptions has been thriving globally, particularly in places where pharmacy practice focuses are moving from commercialized to patient care-oriented clinical aspects [16]. Over one quarter (28.3%) claimed to have, for the first time ever, looked up drugs on the internet, thereby raising dependency on virtual health sources. The digital platforms make rapid access possible, but self-medication and misinformation are hazards. According to a Saudi Arabian study, many patients choose to look for drug guidance online, which can occasionally result in abuse [17]. The lack of privacy was the most frequently reported barrier (38.4%), which means that structural barriers may create a situation where it is difficult to discuss sensitive health-related issues frankly. Hattingh *et al.* (2015) demonstrated that when pharmacy space is underutilized, not only does confidence in patients and associated acceptance of an enhanced range of services drop instantly, but so do the staff who are available to deliver these services [18]. One third of respondents (29.8%) chose doctors, as they had more confidence in them. This challenge is also in line with Jordan and Iraq studies, where participants view doctors as more knowledgeable and comprehensive when providing medical advice [15]. On the other hand, findings from the UK reveal that when pharmacists participate in multidisciplinary care, patients are more confident in accepting their advice [16]. Some (29.5%) said that the pharmacist was too busy, and about 12% said that they were not available. This shows that staffing and

workload problems can affect the relationship between pharmacists and patients. Analogous limitations were reported in Australia due to high dispensing requirements resulting in limited counseling time [19]. Particularly, one quarter (26.7%) of the respondents were concerned about understanding, and more than 10% (14.3%) did not know that their pharmacists had a clinical degree. In Qatar, misconceptions were also observed, with people generally underestimating the role of pharmacists compared to their expectations, generally underestimating the role of pharmacists more than dispensing services [5]. However, an extensive study conducted by Shrestha *et al.* (2022) indicated that biopharmaceutical pharmacist-led interventions can significantly improve patient health and medication adherence, which contrasts with the public's expectations of pharmacists' skills [20]. Almost half of the respondents (45.3%) were satisfied with community pharmacy services, and 6.2% were highly satisfied. While most held positive opinions, there is an opportunity for improvement. A Saudi Arabian survey found over 50% of participants were satisfied, particularly with pharmaceutical access; however, fewer expressed great satisfaction [21]. Variables such as more trust in physicians (63.1%) and less privacy in pharmacies (45.7%) have also been recognized as main problems, according to a 2024 Jordanian study published by Jarab *et al.* [22]. These findings are in line with previous research that has demonstrated how social interactions and privacy attitudes sometimes hinder a patient from seeking the help of pharmacists. To enhance patient satisfaction, these issues—addressing these issues is essential for improving patient satisfaction. The greatest interest, with 81.35% expressing a fair willingness, was in the management of minor ailments such as headache, heartburn/indigestion, constipation, muscular pain/soreness, and minor skin conditions. This finding is also in line with community pharmacists leading the management of minor health conditions [23], as pharmacy-led treatment of minor illnesses can enhance patient access to care and lessen the pressure on healthcare services. In addition, responses that expressed a high need for advice on over-the-counter (OTC) pharmaceuticals (like cough medications, pain relievers, and parapharmaceutical products) (73.62%) or advice about how to take one's own medication were also common (77.17%). This trend is an indication of the increasing importance and tasks of the pharmacist for advice related to self-care and treatment of common ailments [24]. Mean willingness (72.62%) was allocated to preventative and health monitoring sessions on issues like blood pressure and blood sugar levels. This illustrates the increasing emphasis on pharmacies as a preventive health care site, which is used for the identification of early warning symptoms of chronic diseases such as diabetes and hypertension [25]. Moderate levels of agreement (59.52%–64.03%) were also reported for being willing to have alcohol and drug

use counseling, healthy living advice, and smoking cessation advice provided by telephone. These results suggest increasing recognition of the contribution made by pharmacists to public health and lifestyle modification programs and are consistent with previous research that considered smoking cessation programs [26]. Participants reported a high level of belief in the community pharmacists with respect to trust and confidence. There was a significantly larger proportion of respondents (55.64%) who agreed that pharmacists were capable of answering questions concerning medications and handling diseases. This is in line with previous findings, which indicated that pharmacists are crucial to patient education and support for health care [27]. Furthermore, it was agreed by 53.15% of the participants that patients were approached with courtesy by community pharmacists, thus showing the importance of personal relationships as a key factor in patient care and satisfaction. This finding is in line with the context of similar studies that have shown that patients value pharmacists' honesty as well as professionalism and care [28]. It is also remarkable to observe that at the start of the process, fewer respondents (42.13%) referred first to community pharmacies facing drug questions regularly. This result does not agree with the findings of Deniz *et al.* (2025) [29], who showed higher trust in pharmacists as a source for medication information. The gap observed in the present study may reflect the complex nature of patient care, as patients often rely on physicians for medication-related issues in addition to online sources. Consistent with Gidman *et al.* (2012) [30], who also highlighted the importance of privacy and confidentiality in building patients' confidence in CPCM, there was high agreement (67.97%) among study participants when it came to statements about prescription privacy, indicating that they believe pharmacists deserve the trust placed in CPCM. Room for improvement. However, the lower scores for items such as feeling prepared to address drug problems (42.13%) and having sufficient time for patient communication (41.04%) [9] indicate that, although people perceive pharmacists as trustworthy, there is still significant opportunity to improve communication and ensure that patients receive enough time and attention to resolve their issues. According to the study, the public's opinion concerning local pharmacists is prevalently favorable, in particular when it relates to their ability to answer drug and illness-related questions (55.64%) and the fact that they treat patients as people rather than purely numbers on a prescription (53.15%). However, lower numbers (42.13%) reported the pharmacist as a first point of care, suggesting alternative healthcare professionals might be playing more prominent roles under referral patterns, as argued by Gregory [31]. The study identified some of the key components to trust-building between patients and pharmacists, including availability, friendliness, and respect. Patients have more trust in pharmacy services when the patients value friendly pharmacists and have in-

depth discussions about prescription medications. The same results were observed in Ojha *et al.* (2023) [11], for whom trust and expertise were the most important determinants of patients' satisfaction with pharmaceutical care services. Trust's significance in driving patient engagement and positively impacting the entire experience is further underlined by the finding that patients who trusted their pharmacists were more likely to request advice. Added to the above are two services that still need improvement to improve overall patient satisfaction, even with favorable feedback: available time for conversation with patients and readiness to answer questions.

Study Limitations

This study was limited by low sample size and convenience sampling, though it was adequate for the analyses performed but may limit the generalizability of the findings to the broader population. Additionally, younger and female participants were overrepresented, and elderly and male participants were underrepresented; therefore, the results may not fully reflect the views of all segments of the population.

Conclusion

This study presents valuable information about the perceptions, expectations, and utilization of community pharmacy services by the general public in Sulaymaniyah City, Iraq. The overall attitudes of the participants were positive toward community pharmacies, and they generally considered pharmacists to be confident medication-related experts. However, pharmacists continue to be mainly responsible for dispensing medications, patient counseling, and medication supply rather than being providers of broader clinical and public health services. These findings suggest that the future expansion of community pharmacy practice in Sulaymaniyah, Iraq, will depend not only on service availability but also on increasing public awareness of pharmacists' professional competence, improving pharmacist-patient interaction, and strengthening the privacy infrastructure. The transition towards a patient-centered pharmacy model could be facilitated by strengthening the integration of community pharmacists into the health system and targeted awareness-raising campaigns. These results should be used as references by policymakers, pharmacy regulators, and healthcare managers when establishing strategies to optimize the role of community pharmacists in public health in Sulaymaniyah City and other similar contexts. Moreover, subsequent research employing more representative sampling techniques is essential to ascertain public expectations and facilitate the transition of community pharmacists to patient-centered healthcare delivery in Iraq.

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Conflict of interests

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Data sharing statement

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request.

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