

Patients' satisfaction and views about pharmacists in community pharmacies as healthcare providers in Iraq: Najaf province

Helen F. Marzooq¹, Yahiya Ibrahim Yahiya², Ali M. Jaafar Abdulsahib³

¹DEPARTMENT OF CLINICAL PHARMACY, FACULTY OF PHARMACY, UNIVERSITY OF KUFA, NAJAF, IRAQ

²DEPARTMENT OF PHARMACOLOGY, FACULTY OF PHARMACY, UNIVERSITY OF ALKAHEEL, NAJAF, IRAQ

³DEPARTMENT OF PHARMACOLOGY, COLLEGE OF PHARMACY, UNIVERSITY OF ALAMEED, KARBALA, IRAQ

ABSTRACT

Aim: To assess the level of patient satisfaction and their opinions about the services provided by community pharmacists and their changes depending on the socio-demographic characteristics that influence the level of satisfaction and expectations of patients served in the city of Al-Najaf Al-Ashraf city of Iraq.

Materials and Methods: A structured questionnaire was allocated among patients who were staying pharmacies regarding aspects like accessibility, communication, and quality of services. A descriptive cross-sectional survey was executed utilizing a questionnaire that encompassed various dimensions of pharmaceutical services. The sample population comprised 449 patients who frequented a range of pharmacies with varying regularity within the province.

Results: A significant majority of individuals exhibit a favorable perception regarding community pharmacists in Al-Najaf Al-Ashraf, with patients articulating substantial satisfaction, recognition, and esteem for the contributions that pharmacists make within the healthcare team.

Conclusions: Pharmacists play a vital role in providing pharmaceutical care, and patients generally express satisfaction with their services. However, there is a significant need for additional initiatives to enhance the clinical skills of community pharmacists, identify factors affecting patient satisfaction, and conduct comparative research on pharmacy services in different regions of Iraq.

KEY WORDS: community pharmacists, patient satisfaction, pharmaceutical care

Wiad Lek. 2025;78(1):100-109. doi: 10.36740/WLek/199947 DOI

INTRODUCTION

Of the health professionals, community pharmacists are the most accessible. For one thing, the community pharmacy has longer hours of operation than other healthcare facilities, and a consultation with a pharmacist does not require an appointment [1, 2]. Many patients consider community pharmacists as their first point of contact with healthcare because advice regarding medication is provided more quickly and cheaply than from general practitioners' surgeries. This is especially evident in cities with less established medical services [3]. They develop strong relationships with their patients and are consequently able to promote trust and open communication. This ease of access allows them also to be very involved with major public health initiatives, including vaccinations and screenings, which further solidifies their value as healthcare providers. Their personalized advice and medication management further enhance patient

outcomes, thereby making them indispensable in the chain of healthcare. The International Pharmaceutical Federation, known as FIP, and WHO define GPP as the provision of optimum, evidence-based care for the benefit of patients with their needs being given due consideration. GPP is thus aligned with the services of pharmacists to meet the expectations of the public with respect to safety, efficacy, and access. GPP underpins the delivery of quality, patient-centered services that improve health outcomes and engender public trust [4]. The joint International Pharmaceutical Federation (FIP)/World Health Organization (WHO) guidelines defined good pharmacy preparation as the practice of pharmacy that responds to the needs of the people who use the pharmacists' services by providing optimal, evidence-based care, this definition helps to ensure that the pharmacist's practice is in line with what the people who use the pharmacists' services for [5].

PHARMACIST ROLE

The primary responsibility of the community pharmacist is still to prepare medication; however, community pharmacists have a bigger part in ensuring patients' well-being than just that. When it comes to proper drug administration, dosage, side effects, storage, and drug–drug and drug–food interactions, they assist patients in getting the most out of their medications [6, 7]. Community pharmacists also help patients adhere to their medication regimens better, recognize, treat, and avoid drug therapy issues in conjunction with other healthcare providers and prescribe and dispense medications in a reasonable and cost-effective manner [8, 9]. In addition, they lessen the financial and medical load of the patients while also educating them about their conditions and offering advice on minor illnesses [10]. Stronger relationships between pharmacists and healthcare providers can facilitate coordinated care for better chronic condition management and optimize medication therapy [2]. The preparation, procurement, storage, security, distribution, administration, dispensing, and disposal of medical supplies are all part of a pharmacist's job description [11]. Furthermore, pharmacists play a crucial role in monitoring patient outcomes and ensuring that therapeutic goals are met, which can lead to improved health results and reduced hospital readmissions [12]. They also contribute to public health initiatives by providing immunizations and health screenings, thereby enhancing community wellness and preventing disease outbreaks [13].

PERCEPTION OF COMMUNITY PHARMACISTS IN THE WORLD

Various international studies are conducted to assess the perception, degree of satisfaction, opinions, and observations of the public about the community pharmacy services. The empirical results in the United States and Canada showed that the patients were extremely satisfied with the service level of community pharmacies and had positive opinions about the community pharmacists [14] albeit in a retail environment, Canadian consumers viewed pharmacists as health professionals. European countries' patients generally had good perceptions of the role of a community pharmacist and appreciated their important contribution to the healthcare system [15–18]. In contrast, studies conducted in the Middle East, specifically in Saudi Arabia, the UAE, Iraq, Palestine, Jordan, and Qatar, have shown that there is mainly a negative perception of the current role of community pharmacists, with marked ignorance about their role [19–25].

PATIENT SATISFACTION AND ITS USE AS INDICATOR

Patient satisfaction is a measure of the quality of the treatment received by the patient and services provided, so it

might be used to the assessment of healthcare services as a whole [26]. Since patient satisfaction reflects the actual quality of the treatment or service received, it has become a prominent metric for evaluating the quality of health care and pharmaceutical services play a critical role in this [27]. Information on patient satisfaction may be used to pinpoint particular areas of the service that require improvement in order to deliver high-quality pharmacy services. It is the duty of pharmacists to satisfy patients while acting in a polite and professional manner [28]. Patients adherence, compliance, and seeking medical assistance, are influenced by their level of pleasure, patients who are happy with their overall treatment are more likely to take their prescriptions as prescribed and are also less inclined to switch to a new healthcare provider and high levels of patient satisfaction are anticipated if Good Pharmacy Practice is implemented in the pharmacy and pharmacists fulfill the tasks that patients and society demand of them [29, 30].

AIM

The aim of this project is to assess the level of patient satisfaction and their opinions about the services provided by community pharmacists and their changes depending on the socio-demographic characteristics that influence the level of satisfaction and expectations of patients served in the city of Al-Najaf Al-Ashraf city of Iraq.

MATERIALS AND METHODS

STUDY DESIGN

This was through the employment of a cross-sectional descriptive study between November 2023 and March 2024 by interviewing patients visiting different pharmacies across various districts in Al-Najaf city, Iraq, using a pre-piloted questionnaire adapted from previous research work in Riyadh [19]. A total of 449 respondents were sampled. The survey instrument was divided into two parts in a systematic manner. The first part intended to produce relevant demographic information: age, gender, educational attainment, occupation, and frequency of visit to the pharmacy. The second part aimed to elicit attitudes towards community pharmacists by assessing patients' perceptions, opinions, and overall satisfaction with the role of the pharmacists in community pharmacy services. This survey employed a nominal scale because it encourages a response format that was simplified with three responses, "Yes," "No," and "I don't know." These response alternatives allow the ones responding to the survey to account for uncertainty.

Inclusion criteria stated that participants in the study included healthy adults of both genders, 18 years and

Table 1. The Survey’s Collection of Questions

Q1	Is the pharmacist available during the labelled hours?
Q2	Is the pharmacist primarily acting as a vendor or dispenser of treatment drugs?
Q3	Does the pharmacist offer counselling without needing to be asked? (Consider rephrasing to: “Does the pharmacist proactively offer counselling on medication use, side effects, or health conditions without being asked?”)
Q4	Does the pharmacist request about accordance with formerly dispensed prescriptions?
Q5	Does the pharmacist ask about other health issues or medications the patient has used previously before dispensing a new prescription? (This clarifies that the pharmacist should assess overall health conditions before providing new medications)
Q6	Does he inform the patients/consumers about the ongoing health camps and campaigns in his vicinity? e.g.: Polio eradication, cataract removal and family planning etc.
Q7	How important do you consider the role of a pharmacist in the healthcare system? (Avoid leading language and provide response options like: “Not important,” “Somewhat important,” “Important,” “Very important,” “Indispensable.”)
Q8	Does the pharmacist provide clear instructions on the timing and method of drug administration?

Table 2. Sociodemographic data of the respondents

	Parameter	Frequency	Percent
Age	18 – 29	209	46.5
	30 – 45	103	22.9
	46 – 60	83	18.5
	> 60	54	12.0
Gender	Male	202	45.0
	Female	247	55.0
Education	Uneducated	11	2.4
	Primary, secondary or high school level	122	27.2
	Collage or beyond bachelor degree	316	70.4
Employment status	Unemployed	189	42.1
	Government sector	152	33.9
	Private sector	80	17.8
	Retired	28	6.2
Number of visits to the pharmacy last year	1	33	7.3
	3 – 2	90	20.0
	5 – 4	82	18.3
	10 – 6	65	14.5
	>10	179	39.9

above, who can read and write to ensure that information derived from them is reliable.

Exclusion criteria comprised of exclusion of individuals below 18 years and for those with severe cognitive impairment, disabling them to understand the questionnaire properly, as well as those people who have severe health conditions that may hamper the successful running of the research (Table 1).

STATISTICAL ANALYSIS

For discrete variables, frequencies and percentages were calculated, and variables were cross-tabulated to derive

the relationship between the demographic factors and responses. Furthermore, the thematic analyses of the qualitative data provided through open-ended questions give a clear glimpse of in-depth experiences and perceptions of participants regarding their experiences with respect to the study’s focus. Comparisons across demographic groups highlighted differential responses significantly that would provide a basis for making decisions on further directions of research and practical application of findings. The major trend emergences out of the data pointed out not only similarities among participants but also identified unique challenges for particular groups.

Table 3. Distribution of patients' responses on the role of the pharmacist

Question	Frequency	Percent
Q1 Is the pharmacist available at the designated hours?		
Yes	309	68.8
No	44	9.8
Don't know	96	21.4
Q2 Is the pharmacist a mere vendor/dispenser of prescription drugs?		
Yes	85	18.9
No	346	77.1
Don't know	18	4.0
Q3 Does he offer counselling without asking?		
Yes	261	58.1
No	137	30.5
Don't know	51	11.4
Q4 Does he extract information about the compliance to the previously dispensed prescription?		
Yes	179	39.9
No	195	43.4
Don't know	75	16.7
Q5 Does he enquire about the related health problems and any other medication used in the past?		
Yes	268	59.7
No	135	30.1
Don't know	46	10.2
Q6 Does he inform the patients/consumers about the ongoing health camps and campaigns in his vicinity? e.g.: Polio eradication, cataract removal and family planning etc.		
Yes	73	16.3
No	271	60.4
Don't know	105	23.4
Q7 Do you perceive a pharmacist as an indispensable and effective part of the health care system?		
Yes	403	89.8
No	36	8.0
Don't know	10	2.2
Q8 Does the Pharmacist instruct about timings of drug administration?		
Yes	430	95.8
No	14	3.1
Don't know	5	1.1

RESULTS

AGE DISTRIBUTION

The age group of 18-29 years is the highest percentage among total respondents, at 46.5%, and this means that young adults are the frequenters of pharmacies, possibly due to augmented responsiveness about health or medication essentials on explanation of lifestyle circumstances. In the age group of 30-45 years there were 22.9%, in the groups of 46-60 years - 18.5% and over 60 years - 12%. Female respondents make up 55%, male - 45%. This might be indicative of the relative more active role of women in maintaining

health for themselves and their families, or an increased willingness on the part of females to participate in surveys about health services. A total of 70.4% of the respondents reported having a college education or higher, indicating a high level of educational attainment among participants. The highest percentage being 27.2%, have completed their primary, secondary, or high school. A small number of 2.4% represent uneducated. The rather high percentage of educated respondents could mean that people with a higher education level may be more likely to go to pharmacies or answer health-related surveys. The data indicates that 42.1

Table 4. Distribution of patients' responses by age

	Age group											
	18 - 29			30 - 45			46 - 60			> 60		
	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know
Q1	138 (66.0%)	19 (9.1%)	52 (24.9%)	66 (64.1%)	15 (14.6%)	22 (21.4%)	62 (74.7%)	8 (9.6%)	13 (15.7%)	43 (79.6%)	2 (3.7%)	9 (16.7%)
Q2	41 (19.6%)	158 (75.6%)	10 (4.8%)	26 (25.2%)	76 (73.8%)	1 (1.0%)	9 (10.8%)	71 (85.5%)	3 (3.6%)	9 (16.7%)	41 (75.9%)	4 (7.4%)
Q3	125 (59.8%)	69 (33.0%)	15 (7.2%)	53 (51.5%)	31 (30.1%)	19 (18.4%)	55 (66.3%)	21 (25.3%)	7 (8.4%)	28 (51.9%)	16 (29.6%)	10 (18.5%)
Q4	82 (39.2%)	85 (40.7%)	42 (20.1%)	39 (37.9%)	56 (54.4%)	8 (7.8%)	35 (42.2%)	33 (39.8%)	15 (18.1%)	23 (42.6%)	21 (38.9%)	10 (18.5%)
Q5	114 (54.5%)	67 (32.1%)	28 (13.4%)	64 (62.1%)	34 (33.0%)	5 (4.9%)	60 (72.3%)	18 (21.7%)	5 (6.0%)	30 (55.6%)	16 (29.6%)	8 (14.8%)
Q6	30 (14.4%)	124 (59.3%)	55 (26.3%)	17 (16.5%)	62 (60.2%)	24 (23.3%)	13 (15.7%)	53 (63.9%)	17 (20.5%)	13 (24.1%)	32 (59.3%)	9 (16.7%)
Q7	184 (88.0%)	19 (9.1%)	6 (2.9%)	90 (87.4%)	13 (12.6%)	0 (0.0%)	80 (96.4%)	2 (2.4%)	1 (1.2%)	49 (90.7%)	2 (3.7%)	3 (5.6%)
Q8	197 (94.3%)	8 (3.8%)	4 (1.9%)	98 (95.1%)	5 (4.9%)	0 (0.0%)	82 (98.8%)	0 (0.0%)	1 (1.2%)	53 (98.1%)	1 (1.9%)	0 (0.0%)

are unemployed; hence, this is the biggest single category. This may comprise of students, homemakers, or people who, at the time of inquiry, are not working. It follows that 33.9% are employed in government, and 17.8% work in the private sector. The relatively high part of government organizations could be connected to the employ assistances related with such jobs, like healthcare coverage, entailing regular visits to pharmacies. Another 6.2% of the respondents were retired; this means that smaller groups could have different health needs or routines compared to other segments. Employment status shows that 42.1% are unemployed, 33.9% work in the government sector, 17.8% are employed privately, and 6.2% are retired. In terms of pharmacy visits, 39.9% visited 10 times or more in the last year, 20.0% made 2-3 visits, 18.3% visited 4-5 times, 14.5% visited 6-10 times, and 7.3% had a single visit (Table 2). A considerable proportion 68.8% affirm that pharmacists are accessible during specified hours, while 89.8% regard them as a crucial component of the healthcare framework (Table 3). This suggests a robust conviction regarding the pharmacist's function extending beyond the mere distribution of pharmaceuticals.

Descriptive statistics of the responses to the patient questionnaires are presented as frequencies and percentages (Table 3). Pharmacist availability: most patients thought that pharmacists were available at particular times, which suggests that access was good. Indeed, 68.8% of patients thought that pharmacists were available at particular times, which suggests that they had good access, and negatively (9.8%), uncertain (21.4%). Although a significant portion of respondents answered yes 18.9% as opposed to "no" 77.1% when asked about pharmacists' roles in healthcare, the majority of

consumers do not see them as solely sellers, suggesting that they are aware of their wider responsibilities beyond simply delivering prescription drugs. Don't know were answered by 4.0% respondents. Very few people are unsure suggesting that the role of the pharmacist has been clearly taken into account. The results generally show that patients have a positive attitude towards pharmacists and their role, but at the same time indicate areas of concern in proactive counseling, compliance checks, and the communication of health campaigns. This will no doubt be helpful for the pharmacists in order to improve in their services and further strengthen their integral role within the healthcare system.

Descriptive statistics of the responses to the patient questionnaires by age are presented as frequencies and percentages (Table 4). The data underlines the fact that, in different age groups, there is considerable variation in response patterns, with the older ones tending to build stronger consensus while their younger counterparts reflect more uncertainty. These may be useful in framing appropriate communication strategies in order to bridge the knowledge gaps and enhance understanding across demographics.

Descriptive statistics of the responses to the patient questionnaires by gender are presented as frequencies and percentages (Table 5). The data shows strong agreement between the genders on some topics, like Q7 and Q8, but also points out the difference in uncertainty and disagreement, with females generally showing higher uncertainty and varied opinion. These gender-based insights can usefully inform more tailored communication and engagement strategies. The following are trends in the responses from male and female patients based on the eight questions (Q1

Table 5. Distribution of patients' responses by gender

	Gender					
	Male			Female		
	Yes	No	Don't know	Yes	No	Don't know
Q1	145 (71.8%)	27 (13.4%)	30 (14.9%)	164 (66.4%)	17 (6.9%)	66 (26.7%)
Q2	49 (24.3%)	142 (70.3%)	11 (5.4%)	36 (14.6%)	204 (82.6%)	7 (2.8%)
Q3	116 (57.4%)	62 (30.7%)	24 (11.9%)	145 (58.7%)	75 (30.4%)	27 (10.9%)
Q4	71 (35.1%)	93 (46.0%)	38 (18.8%)	108 (43.7%)	102 (41.3%)	37 (15.0%)
Q5	116 (57.4%)	69 (34.2%)	17 (8.4%)	152 (61.5%)	66 (26.7%)	29 (11.7%)
Q6	27 (13.4%)	135 (66.8%)	40 (19.8%)	46 (18.6%)	136 (55.1%)	65 (26.3%)
Q7	178 (88.1%)	20 (9.9%)	4 (2.0%)	225 (91.1%)	16 (6.5%)	6 (2.4%)
Q8	193 (95.5%)	8 (4.0%)	1 (0.5%)	237 (96.0%)	6 (2.4%)	4 (1.6%)

Table 6. Distribution of patients' responses by education level

	Uneducated			Primary, secondary or high school level			College or beyond bachelor degree		
	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know
Q1	9 (81.8%)	0 (0.0%)	2 (18.2%)	88 (72.1%)	5 (4.1%)	29 (23.8%)	212 (67.1%)	39 (12.3%)	65 (20.6%)
Q2	2 (18.2%)	8 (72.7%)	1 (9.1%)	25 (20.5%)	90 (73.8%)	7 (5.7%)	58 (18.4%)	248 (78.5%)	10 (3.2%)
Q3	4 (36.4%)	6 (54.5%)	1 (9.1%)	66 (54.1%)	42 (34.4%)	14 (11.5%)	191 (60.4%)	89 (28.2%)	36 (11.4%)
Q4	8 (72.7%)	3 (27.3%)	0 (0.0%)	38 (31.1%)	63 (51.6%)	21 (17.2%)	133 (42.1%)	129 (40.8%)	54 (17.1%)
Q5	7 (63.6%)	4 (36.4%)	0 (0.0%)	63 (51.6%)	37 (30.3%)	22 (18.0%)	198 (62.7%)	94 (29.7%)	24 (7.6%)
Q6	3 (27.3%)	7 (63.6%)	1 (9.1%)	18 (14.8%)	74 (60.7%)	30 (24.6%)	52 (16.5%)	190 (60.1%)	74 (23.4%)
Q7	11 (100.0%)	0 (0.0%)	0 (0.0%)	103 (84.4%)	15 (12.3%)	4 (3.3%)	289 (91.5%)	21 (6.6%)	6 (1.9%)
Q8	11 (100.0%)	0 (0.0%)	0 (0.0%)	114 (93.4%)	6 (4.9%)	2 (1.6%)	305 (96.5%)	8 (2.5%)	3 (0.9%)

through Q8). More than 88% of the male patients and more than 91% of the female patients strongly agreed "Yes" with Q7 and Q8. In table 5 there is clear agreement between the two groups in this trend.

Descriptive statistics of the responses to the patient questionnaires by education level (Table 6), employment status (Table 7) and number of visits to the pharmacy last year (Table 8) are presented as frequencies and percentages. Moreover, patients who visited the pharmacy six to ten times in the last year reported a higher availability rate of 84.6%, while patients who visited the pharmacy once a year reported the least availability 54.5%; males reported higher availability compared to females 71.8% and 66.4% respectively. The study showed that about 77% of the respondents anticipate the pharmacist to do more than just dispensing of medicine, and did not consider him as a mere vender. Only 18.9% respondents perceived

him as mere vendor (Table 3). Respondents aged 30-45, males and government sector workers reported more negatively 25.2%, 24.3% and 22.4% respectively (Tables 4, 7). People with education level of primary, secondary and high school reported more negatively in that regard with 51.6% (Table 6). The data showed that respondents were more positive in relation to the respondents aged 46-60, employees in the private sector and patients with single pharmacy visit annually 72.3%, 70.0% and 69.7% respectively (Tables 4, 7-8). The survey indicates that 89.9% of respondents felt that pharmacist is indispensable and an effective part of the health care system while 8% gave negative response. Respondents aged 46-60 and that which are uneducated reported more positively 96.4% and 100% respectively (Tables 4, 6). In response to the question about whether the pharmacist gives instructions about timing of the drug administration, the survey shows

Table 7. Distribution of patients' responses by employment status.

	Unemployed			Government sector			Private sector			Retired		
	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know
Q1	129 (68.3%)	11 (5.8%)	49 (25.9%)	106 (69.7%)	17 (11.2%)	29 (19.1%)	52 (65.0%)	15 (18.8%)	13 (16.3%)	22 (78.6%)	1 (3.6%)	5 (17.9%)
Q2	37 (19.6%)	144 (76.2%)	8 (4.2%)	34 (22.4%)	114 (75.0%)	4 (2.6%)	11 (13.8%)	65 (81.3%)	4 (5.0%)	3 (10.7%)	23 (82.1%)	2 (7.1%)
Q3	113 (59.8%)	61 (32.3%)	15 (7.9%)	78 (51.3%)	46 (30.3%)	28 (18.4%)	52 (65.0%)	23 (28.8%)	5 (6.3%)	18 (64.3%)	7 (25.0%)	3 (10.7%)
Q4	75 (39.7%)	70 (37.0%)	44 (23.3%)	52 (34.2%)	81 (53.3%)	19 (12.5%)	39 (48.8%)	32 (40.0%)	9 (11.3%)	13 (46.4%)	12 (42.9%)	3 (10.7%)
Q5	98 (51.9%)	61 (32.3%)	30 (15.9%)	101 (66.4%)	42 (27.6%)	9 (5.9%)	56 (70.0%)	21 (26.3%)	3 (3.8%)	13 (46.4%)	11 (39.3%)	4 (14.3%)
Q6	31 (16.4%)	112 (59.3%)	46 (24.3%)	15 (9.9%)	99 (65.1%)	38 (25.0%)	22 (27.5%)	40 (50.0%)	18 (22.5%)	5 (17.9%)	20 (71.4%)	3 (10.7%)
Q7	166 (87.8%)	19 (10.1%)	4 (2.1%)	140 (92.1%)	11 (7.2%)	1 (0.7%)	73 (91.3%)	4 (5.0%)	3 (3.8%)	24 (85.7%)	2 (7.1%)	2 (7.1%)
Q8	179 (94.7%)	7 (3.7%)	3 (1.6%)	144 (94.7%)	6 (3.9%)	2 (1.3%)	79 (98.8%)	1 (1.3%)	0 (0.0%)	28 (100.0%)	0 (0.0%)	0 (0.0%)

Table 8. Distribution of patients' responses by number of visits to the pharmacy last year

	Number of visits to the pharmacy last year														
	1			2 - 3			5 - 4			10 - 6			>10		
	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know	Yes	No	Don't know
Q1	18 (54.5%)	2 (6.1%)	13 (39.4%)	55 (61.1%)	6 (6.7%)	29 (32.2%)	62 (75.6%)	2 (2.4%)	18 (22.0%)	55 (84.6%)	3 (4.6%)	7 (10.8%)	119 (66.5%)	31 (17.3%)	29 (16.2%)
Q2	7 (21.2%)	24 (72.7%)	2 (6.1%)	16 (17.8%)	69 (76.7%)	5 (5.6%)	13 (15.9%)	65 (79.3%)	4 (4.9%)	14 (21.5%)	48 (73.8%)	3 (4.6%)	35 (19.6%)	140 (78.2%)	4 (2.2%)
Q3	22 (66.7%)	9 (27.3%)	2 (6.1%)	55 (61.1%)	29 (32.2%)	6 (6.7%)	42 (51.2%)	23 (28.0%)	17 (20.7%)	40 (61.5%)	16 (24.6%)	9 (13.8%)	102 (57.0%)	60 (33.5%)	17 (9.5%)
Q4	13 (39.4%)	14 (42.4%)	6 (18.2%)	31 (34.4%)	40 (44.4%)	19 (21.1%)	28 (34.1%)	31 (37.8%)	23 (28.0%)	28 (43.1%)	30 (46.2%)	7 (10.8%)	79 (44.1%)	80 (44.7%)	20 (11.2%)
Q5	23 (69.7%)	7 (21.2%)	3 (9.1%)	45 (50.0%)	29 (32.2%)	16 (17.8%)	51 (62.2%)	17 (20.7%)	14 (17.1%)	43 (66.2%)	18 (27.7%)	4 (6.2%)	106 (59.2%)	64 (35.8%)	9 (5.0%)
Q6	4 (12.1%)	17 (51.5%)	12 (36.4%)	10 (11.1%)	55 (61.1%)	25 (27.8%)	9 (11.0%)	45 (54.9%)	28 (34.1%)	8 (12.3%)	43 (66.2%)	14 (21.5%)	42 (23.5%)	111 (62.0%)	26 (14.5%)
Q7	28 (84.8%)	4 (12.1%)	1 (3.0%)	77 (85.6%)	9 (10.0%)	4 (4.4%)	76 (92.7%)	5 (6.1%)	1 (1.2%)	62 (95.4%)	2 (3.1%)	1 (1.5%)	160 (89.4%)	16 (8.9%)	3 (1.7%)
Q8	31 (93.9%)	2 (6.1%)	0 (0.0%)	86 (95.6%)	4 (4.4%)	0 (0.0%)	76 (92.7%)	3 (3.7%)	3 (3.7%)	63 (96.9%)	0 (0.0%)	2 (3.1%)	174 (97.2%)	5 (2.8%)	0 (0.0%)

that the majority of the patients 95.8% reported that the pharmacist gives.

DISCUSSION

A basic expectation of any profession that is designed to serve the public directly is that the profession should be accessible to the public. Most of the available positions should be filled. Whereas the absolute percentage of 68.8% is considerably less than the ideal of 100%, some leeway can be given

because patients did not know which of the individuals the technician was and which was the pharmacist. Despite this, in a 2012 study conducted by Al-Arifi in Riyadh, Saudi Arabia, as many as 71.4% of respondents said community pharmacists are accessible in their places of employment [19], indicating a positive perception of availability. This would tend to suggest that although confusion regarding function differentiation may exist, the community stays last to opinion pharmacists as a key basis for health-related questions and sustenance. Increasing the awareness among the public with

respect to the different roles of pharmacists and technicians would also quite adequately enable service utilization and, consequently, improve patient outcomes. Furthermore, it is stated that the primary factor preventing the patient from seeking guidance and, as a result, leading to inadequate therapy is unavailability [29]. Patients have high expectations from pharmacists; 77.1% of patients believe that pharmacists should assume more responsibilities and Bawazir (2004) found in the Kingdom of Saudi Arabia that 56.1% of the respondents believed that pharmacists were more interested in the business of dispensing of drugs than in other aspects of the profession. The poll puts into perspective the importance attached to pharmacist-driven counseling regarding drug use as stated by 58.1% of the respondents. According to Singhal et al., (2002), higher magnitudes of pharmacist-driven support are associated with increased patient satisfaction, reinforcing the need for personalized counseling at the level of pharmacy practice. In contrast, an Indian study showed that only 3 percent of their respondents replied that they received counseling spontaneously. This disparity in response suggests that more must be done in terms of communication and proactive involvement between the pharmacist and the patient for the complete pharmaceutical care package to be achieved. Moreover, initiated education and training programs targeting the enhancement of communication skills are ways through which the pharmacist can be better prepared with the means of handling questions from patients and furthering a collaborative healthcare setting. With 43.4% responding negatively, the pharmacist's contribution to increasing patient compliance is only viewed as adequate. This is greater than the 34.9% recorded by Al-Arifi in Saudi Arabia. Regarding the pharmacist's information-gathering role, the poll reveals that around 60% of respondents find the pharmacist asks about the patient's health state. Ibrahim et al., (2013) discovered that 60% of Baghdad residents do not think the pharmacist is attentive to that element [22]. A sizable fraction of respondents disagree that pharmacists ought to promote health campaigns more actively. This might be due to a number of things, such as a poor healthcare system, a lack of resources, and a failure to make the most of the pharmacist's abilities in this role. Numerous people die each year from diseases that can be avoided with immunizations [31]. Though pharmacies can be accommodating in this regard. Pharmacists are able to advise vaccinations and enlighten the public about immunizations. By doing this, the number of fatalities will be reduced and society's health will improve. In a 2016 research, Merks et al. discovered that many individuals in rural UK locations were unaware of the vaccination programs that were offered, which prevented them from taking use of them [32]. An effective profession should be seen as having important or essential individuals. If it were not the case, that profession's future would be in doubt [9]. Positive views of the role of pharmacists in society

are evident from the 89.9% of people who believe they are necessary. The pharmacist is the last healthcare provider to see a patient, so they have a crucial role to play in educating them about drug use. They should provide patients with clear instructions regarding medication forms and administration timings, as well as additional information if they need it. 95.8% of patients agree that the pharmacist has a responsibility to give clear instructions. Providing advice on when to administer drugs. Both doctors and pharmacists play a role in patient education. However, according to Alkhawajah et al., 20% of patients believe that pharmacists are more explicit in their instructions than doctors [33].

Descriptive statistics of the responses to the patient questionnaires are presented as frequencies and percentages (Table 3). Pharmacist availability: most patients thought that pharmacists were available at particular times, which suggests that access was good. Indeed, 68.8% of patients thought that pharmacists were available at particular times, which suggests that they had good access, and negatively (9.8%), uncertain (21.4%). Although a significant portion of respondents answered yes 18.9% as opposed to "no" 77.1% when asked about pharmacists' roles in healthcare, the majority of consumers do not see them as solely sellers, suggesting that they are aware of their wider responsibilities beyond simply delivering prescription drugs. Don't know were answered by 4.0% respondents. Very few people are unsure suggesting that the role of the pharmacist has been clearly taken into account. The results generally show that patients have a positive attitude towards pharmacists and their role, but at the same time indicate areas of concern in proactive counseling, compliance checks, and the communication of health campaigns. This will no doubt be helpful for the pharmacists in order to improve in their services and further strengthen their integral role within the healthcare system.

Descriptive statistics of the responses to the patient questionnaires by age are presented as frequencies and percentages (Table 4). The data underlines the fact that, in different age groups, there is considerable variation in response patterns, with the older ones tending to build stronger consensus while their younger counterparts reflect more uncertainty. These may be useful in framing appropriate communication strategies in order to bridge the knowledge gaps and enhance understanding across demographics.

CONCLUSIONS

Pharmacists play a vital role in providing pharmaceutical care, and patients generally express satisfaction with their services. However, there is a significant need for additional initiatives to enhance the clinical skills of community pharmacists, identify factors affecting patient satisfaction, and conduct comparative research on pharmacy services in different regions of Iraq.

REFERENCES

1. Eades CE, Ferguson JS, O'Carroll RE. Public health in community pharmacy: A systematic review of pharmacist and consumer views. *BMC Public Health*. 2011;11:582. doi: 10.1186/1471-2458-11-582.
2. Rutter P. *Community Pharmacy Symptoms, Diagnosis and Treatment*. Amsterdam, Elsevier. 5th Edition. 2017, p.400.
3. Jaradat N, Sweileh W. Drug Information for Community Pharmacies: Survey on Needs and Use of Drug Information with Special Focus on New Information Technology. *An-Najah Univ J Res*. 2003;17(2):287-300. doi:10.35552/anjra.17.2.633.
4. Khudair IF, Raza SA. Measuring patients' satisfaction with pharmaceutical services at a public hospital in Qatar. *Int J Health Care Qual Assur*. 2013;26:398-419. doi: 10.1108/IJHCQA-03-2011-0025.
5. Good Pharmacy Practice. Joint FIP/WHO guidelines on GPP: standards for quality of pharmacy services. International Pharmaceutical Federation. WHO Technical Report Series, No. 961. 2011.
6. American Society of Health-System Pharmacists. ASHP guidelines: minimum standard for pharmacies in hospitals. *Am J Health Syst Pharm*. 2013;70(18):1619-1630. doi: 10.2146/sp130001.
7. Hammerlein A, Griese N, Schulz M. Survey of drug-related problems identified by community pharmacies. *Ann Pharmacother*. 2007;41(11):1825-1832. doi: 10.1345/aph.1K207.
8. Nkansah N, Mostovetsky O, Yu C et al. Effect of outpatient pharmacists' non-dispensing roles on patient outcomes and prescribing patterns. *Cochrane Database Syst Rev*. 2010;7:CD000336. doi: 10.1002/14651858.CD000336.pub2.
9. Gu NY, Gai Y, Hay JW. The effect of patient satisfaction with pharmacist consultation on medication adherence. An instrumental variable approach. *Pharm Pract*. 2008;6(4):201-210. doi: 10.4321/s1886-36552008000400006.
10. Jackson JL, Chamberlin J, Kroenke K. Predictors of patient satisfaction. *Soc Sci Med*. 2001;52(4):609-20. doi: 10.1016/s0277-9536(00)00164-7.
11. Pharmacy Practice Law No. 40 of 1970, as amended, Iraqi Gazette. No. 1854. 1980.
12. Cerulli J. Patients' perceptions of independent community pharmacists. *J Am Pharm Assoc (Wash)*. 2002;42:279-282. doi: 10.1331/108658002763508551.
13. Stergachis A, Maine LL, Brown L. The 2001 national pharmacy consumer survey. *J Am Pharm Assoc (Wash)*. 2002;42:568-576. doi: 10.1331/108658002763029535.
14. Al-Arifi MN. Patients' perception, views and satisfaction with pharmacists' role as health care provider in community pharmacy setting at Riyadh, Saudi Arabia. *Saudi Pharm J*. 2012;20(4): 323-30. doi: 10.1016/j.jsps.2012.05.007.
15. Yang S, Kim D, Choi HJ, Chang MJ. A comparison of patients' and pharmacists' satisfaction with medication counselling provided by community pharmacies: a cross-sectional survey. *BMC Health Serv Res*. 2016;16:131. doi: 10.1186/s12913-016-1374-x.
16. Catic T, Jusufovic FI, Tabakovic V. Patients perception of community pharmacist in Bosnia and Herzegovina. *Mater Sociomed*. 2013;25:206-209. doi: 10.5455/msm.2013.25.206-209.
17. Cavaco AM, Dias JP, Bates IP. Consumers' perceptions of community pharmacy in Portugal: a qualitative exploratory study. *Pharm World Sci*. 2005;27:54-60. doi: 10.1007/s11096-004-2129-z.
18. Wirth F, Tabone F, Azzopardi LM et al. Consumer perception of the community pharmacist and community pharmacy services in Malta. *J Pharm Health Serv Res*. 2010;1(4):189-194. doi:10.1111/j.1759-8893.2010.00034.x.
19. Al-Arifi MN. Patients' perception, views and satisfaction with pharmacists' role as health care provider in community pharmacy setting at Riyadh, Saudi Arabia. *Saudi Pharm J*. 2012;20:323-330. doi: 10.1016/j.jsps.2012.05.007.
20. Bawazir AS: Consumer attitudes towards community pharmacy services in Saudi Arabia. *Int J Pharm Pract*. 2004;12:83-89. doi:10.1211/0022357023718.
21. Al Akshar S, Metwaly Z, Mohammed S. Patients' perception of community pharmacy practice in UAE: an overview. *IOSR J Pharm*. 2014;4:8-14. doi:10.9790/3013-0401108014.
22. Ibrahim IR, Al Tukmagi HF, Wayyes A. Attitude of Iraqi society towards the role of community pharmacists. *Inov Pharm*. 2013;4:1-10. doi: 10.24926/iip.v4i2.296.
23. Khmour MR, Hallak HO. Societal perspectives on community pharmacy services in West Bank - Palestine. *Pharm Pract (Granada)*. 2012;10:17-24. doi: 10.4321/s1886-36552012000100004.
24. Abdallah NY, Abu-Sbeat BS. Satisfaction with Community Pharmacies Services in Jordan: A Cross-Sectional Study. *Saudi Pharm J*. 2022;30(11):1646-1651. doi: 10.1016/j.jsps.2022.09.007.
25. El Hajj MS, Salem S, Mansoor H. Public's attitudes towards community pharmacy in Qatar: a pilot study. *Patient Prefer Adherence*. 2011;5:405-422. doi: 10.2147/PPA.S22117.
26. Illana F. La organización centrada en la satisfacción del paciente. *Rev Calid Asist*. 2003;18(5):259-60. (Spanish)
27. Barbosa CD, Balp MM, Kulich K et al. A literature review to explore the link between treatment satisfaction and adherence, compliance, and persistence. *Patient Prefer Adherence*. 2012;6:39-48. doi: 10.2147/PPA.S24752.
28. Surur AS, Teni FS, Girmay G et al. Satisfaction of Clients with the Services of an Outpatient Pharmacy at a University Hospital in Northwestern Ethiopia: A Cross-Sectional Study. *BMC Health Services Research*. 2015;15(1). doi: 10.1186/s12913-015-0900-6.

29. Gastelurrutia MA, de San Vicente OG, Erauncetamurgil O et al. Customers' expectations and satisfaction with a pharmacy not providing advanced cognitive services. *Pham World Sci.* 2006;28(6):374–6. doi: 10.1007/s11096-006-9049-z.
30. Singhal PK, Gupchup GV, Raisch DW et al. Impact of pharmacists' directive guidance behaviors on patient satisfaction. *J Am Pharm Assoc.* 2002;42(3):407–412. doi: 10.1331/108658002763316824.
31. Hurley-Kim K, Goad J, Seed S, Hess KM. Pharmacy-based travel health services in the United States. *Pharmacy.* 2019;7:5. doi: 10.3390/pharmacy7010005.
32. Merks P, ŚWieczkowski D, Jaguszewski MJ. Patients' perception of pharmaceutical services available in a community pharmacy among patients living in a rural area of the United Kingdom. *Pharm Pract (Granada).* 2016;14:774. doi: 10.18549/PharmPract.2016.03.774.
33. Alkhawajah AM, Eferakeya AE. The Role of Pharmacists in Patients' Education on Medication. *Public Health.* 1992;106(3):231–2. doi: 10.1016/s0033-3506(05)80541-4.

The author express his gratitude to all participants who cooperate to fill the survey to complete this work, also many thanks to collecting data teams those volunteer to help and finally thanks to Mr. Mohammed Alarifi for his permission to use his questionnaire to make this article.

CONFLICT OF INTEREST

The Authors declare no conflict of interest

CORRESPONDING AUTHOR

Helen F. Marzooq

University of Kufa

299G+HPX, Kufa Street, Najaf, Iraq

e-mail: helenf.almuntefki@uokufa.edu.iq

ORCID AND CONTRIBUTIONSHIP

Helen F. Marzooq: 0000-0003-0415-1546 **B** **C** **D**

Yahiya Ibrahim Yahiya: 0000-0001-8678-0623 **A** **D**

Ali M. Jaafar Abdulsahib: 0009-0001-7210-8200 **C** **F**

A – Work concept and design, **B** – Data collection and analysis, **C** – Responsibility for statistical analysis, **D** – Writing the article, **E** – Critical review, **F** – Final approval of the article

RECEIVED: 28.09.2024

ACCEPTED: 06.01.2025

