

Original Article

Patient satisfaction in outpatient medical care: the case of Iraq

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Abstract

Background: Healthcare providers are increasingly interested in patient satisfaction as an indicator to assess the quality of health services. This study investigates the level of satisfaction among Iraqi patients attending the outpatient (OP) clinic.

Methods: This was a cross-sectional study conducted from October to December 2019 among outpatient attendees in two busiest centers in Iraq. A convenience sample of 235 (response rate of 88.0%) completed the self-administered short-form patient satisfaction questionnaire (PSQ-18). The independent variables included socio-demographic, economic, and self-perceived health status. Data were analyzed in SPSS, where descriptive analysis (mean \pm standard deviation) and univariate (independent sample t-test, ANOVA test) and multivariate linear regression “Enter technique” was done at 0.05 level of significance and 95% confidence interval.

Results: The mean age of respondents was 39.3 (\pm 14.8). The sample was mostly women (55.3%), and 37.4% in the age group of 30-49 years. More than half of participants residing in the urban regions (54.5%) from families of monthly household income less than 500,000 Iraq Dinars (USD 400). However, the majority (70.6%) have the first visit to the OP clinic, and 53.6% self-perceived health as good or very good. Results of multiple linear regression showed that patients residents in rural regions ($B= 5.4$, $P < 0.001$), married ($B= 4.8$, $P < 0.001$), unemployed ($B= 4.7$, $P < 0.001$) and low educated ($B= 1.5$, $P < 0.051$) exhibited higher service satisfaction score compared to urban residents, single, employed and high educated participants respectively. However, patients aged fifty years and more ($B= -2.1$, $P < 0.001$) and those with poor health ($B=-2.5$, $P < 0.001$) exhibited lower service satisfaction scores compared to young age patients and the healthy participants, respectively.

Conclusion: The high demand for the use of health resources in metropolitan cities by the rural population indicates inequality in the distribution of health services and an increase in the rural-to-urban displacement.

Keywords: Outpatient, Satisfaction, PSQ-18, Iraq

Background

Among many services presented by health care providers, outpatient clinics sound to have some peculiarities, having the most significant percentage of people, the shortest time for the visit, and the least intervention [1]. Nonetheless, it remains one of the most critical measures for quality of service, whether in the primary healthcare clinics or outpatient clinics of the general hospitals [2]. Among reliable tools of assessment is patient satisfaction. Indeed, it highly varies within societies (inter-variation) and even within the same society (intra-

variation), but it tends toward the poor score in particularly in the middle and lower-income countries (MLIC) [3]. In Iraq, the health system has been systematically destroyed since the US- Despite spending tens of billions of US dollars over the past seventeen years, the Iraqi citizen did not see any development in the health system compared to neighboring countries or even countries that do not have such wealth as Iraq [5,6]. The main occupation forces (the American and British) did not present any definite plans to reform the health system. On the contrary, the competent Iraqi administrations were deliberately replaced with others proven to be corrupt for all [4, 6,7]. Therefore, the level of patient satisfaction in Iraq is expected to be worse [5], probably because of the internal conflicts, weak national health system, and inadequate support (financial and logistic) to the health institutions [8]. Obviously, there is an imbalance between the available physicians (low) and the number of visitors to

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outpatient clinics (high) [4,8]. Moreover, insufficient drugs and laboratory investigations add more burden. Ultimately, the client's trust in this service was noticeably affected [5,7]. Although this assessment of satisfaction is continuously done worldwide, it is hardy to be done in Iraq. This study aimed to assess the patients' satisfaction toward the outpatient clinic services in two busiest centers in the middle of Iraq.

Methods

Study design

A cross-sectional study was conducted from October to December 2019 at the outpatient medical care of Baquba Teaching Hospital (Diyala Province), and Samarra Hospital (Salah al Din Province) in Iraq. A self-administered questionnaire was distributed among patients receiving clinical consultations and treatment at outpatient clinics. A well-trained data collectors' team was recruited to collect the data using a convenience sampling technique. Iraqi citizen aged 18 years and more willing to participate, and successfully finished the outpatient healthcare visit have included. Severely illness, illiterate patients, unwilling to participate, healthcare professional have excluded. The sample size was calculated to be 267 based on 50.0% expected prevalence rate of health service satisfaction [9] and 0.05 level of accuracy with a confidence interval of 90% [10, 11]. Twenty-one questionnaires were excluded due to exclusion criteria (Table 1) and the missing data. The total response rate was 88.0% (235/267).

Study tool

The study instrument consists of three parts. The first part included items on sociodemographic factors (gender, age, and marital status). The second part included the patients' socioeconomic and health characteristics (household income, employment status, education level, type of residence, overall health perception, and purpose of visit to the clinic). The third part was the Short-Form Patient Satisfaction Questionnaire (PSQ-18). The PSQ-18 was developed by Marshall and Hays [12] to explore patient satisfaction towards healthcare service in various clinical settings, including outpatient departments.

PSQ-18 is comprised of eighteen items with seven dimensions. These items were scored on a five-point Likert scale ranging from one (strongly agree) to five (strongly disagree). As reported by Marshal and Hyas [12], some elements of PSQ-18 are formulated to reflect satisfaction with medical care, while others are formulated to reflect dissatisfaction. Therefore, the scores of "1,2,3,5,6,8,11,15,18" items have been reversed to obtain the total satisfaction score [12]. However the seven subscales are yielded by averaging the score of the related items as follows: the General satisfaction (3rd and seventeenth items), technical quality (second, fourth, sixth and fourteenth items), interpersonal manner (tenth and eleventh items), communication (first and thirteenth items), financial aspects (fifth and seventh items), time spent with the doctor (twelfth and fifteenth items), and accessibility and convenience (eighth, ninth, sixteenth and eighteenth items) [12]. The PSQ-18 questionnaire was forward-backward translated into Arabic by two academic and linguistic experts. The instrument was pilot-tested with fifteen participants (not included in the study). Content validity (CV) was performed using the technique of the content validity rate (CVR) [13].

Statistical analysis

The data were entered and analyzed using the Package for Social Sciences (SPSS) (version 16.0, IBM, Armonk, NY). All variables were subjected to descriptive analysis.

The internal consistency of the scale was tested using Cronbach's alpha. PSQ-18 scores were presented as mean and standard deviations. The total satisfaction scores were tested for normality. An independent student *t*-test and ANOVA test were recruited to compare the overall score of patient satisfaction across different study variables. The post hoc test was used to determine where the significant difference was in the ANOVA test. The "Enter" technique was considered to obtain the significant factors associated with patient satisfaction scores in multiple linear regression analysis. Multicollinearity was checked between independent variables, and the accepted level of significance was set below 0.05 ($P < 0.05$).

Results

Sample Characteristics

A total of two hundred and thirty-five patients. The mean (\pm SD) age of the patients was 39.3 (\pm 14.8) years, and the majority 88 (37.4%) were in the age group of 30-49 years. More than half of respondents were females (130, 55.3%), married (126, 53.6%), unemployed (121, 51.5%), low education (136, 57.9%) and residing in the rural regions (128, 54.5%). Most of the patients 164 (74.0%) with a monthly household income of less than 500,000 Iraq Dinars (IQD) which equivalent to USD 400. Most patients perceived a "good" health status 105 (43.8%), and the majority came to the clinic for "new visit" (166, 70.6%) (Table 1).

Table 1 Patient characteristics (n=235)

Characteristics	Category	N	%
Gender	Female	130	55.3
	Male	105	44.7
Age (years)	<30	82	34.9
	30-49	88	37.4
	> 50	65	27.7
Marital status	Single	109	46.4
	Married	126	53.6
Employment	Employed	121	51.5
	Unemployed	114	48.5
Monthly household income (USD*)	<200	64	27.2
	200-399	110	46.8
	400-1000	44	18.7
	>1000	17	7.2
Education level	High education	136	57.9
	Low education	99	42.1
Residence	Rural	128	54.5
	Urban	107	45.5
Overall health perception	Very good	23	9.8
	Good	103	43.8
	Middle-acceptable	85	36.2
	Bad	24	10.2
Purpose of visit	New visit	166	70.6
	Follow up	69	29.4

*1 USD=Iraqi Dinar 1200 (Exchange in December 2019)

Patient satisfaction with outpatient medical care

Table 2 presents the patient satisfaction score with outpatient medical care. Cronbach's alpha values for the seven subscales of PSQ-18 had values ranging between 0.71 and 0.79. The mean (\pm SD) of patient satisfaction score was the highest in terms of institutional factors, particularly "technical quality" (15.4 ± 2.8) and was the lowest in terms of general satisfaction towards healthcare service acquired by patients (5.8 ± 1.8). The mean (\pm SD) of the total satisfaction score was 61.5 ± 9.2 , and the score ranged between 32 and 89.

Association between sample characteristics and outpatient medical care satisfaction

There was a statistically significant difference between groups determined by one-way ANOVA ($F(2,27) = 36.392, P < 0.001$). A Tukey post hoc test revealed that patients aged less than 30 years (64.4 ± 8.0) and patients aged 30–49 years (64.2 ± 7.5) perceived higher service satisfaction in comparison to patients aged 50 years and more ($54.3 \pm 8.8, P = 0.005$) and ($54.3 \pm 8.8, P = 0.001$) respectively. However, there was no statistically significant difference between patients aged less than 30 years, and patients aged 30–49 years ($P = 0.989$).

Married patients exhibited higher service satisfaction (66.1 ± 7.2) than single patients (56.3 ± 8.5) ($P < 0.001$). Unemployed patients exhibited higher service satisfaction (67.4 ± 6.0) than employed patients (56.0 ± 8.2) ($P = 0.001$). Patients with low education exhibited higher service satisfaction (63.5 ± 9.0) than high education (60.1 ± 9.1) ($P = 0.005$). Patients resident in rural region exhibited higher service satisfaction (67.9 ± 6.7) than urban residents (56.2 ± 7.5) ($P <$

0.001). There was no statistically significant difference between genders ($p=0.281$) and the purpose of the visit ($P = 0.110$) and health service satisfaction.

There was a significant association between self-perceived health status and the health service satisfaction ($P < 0.001$); a post hoc test revealed that patients who perceived very good health exhibited higher service satisfaction (68.9 ± 8.8) in comparison to patients perceived good health ($63.0 \pm 8.4, P = 0.019$), acceptable health ($59.4 \pm 7.9, P < 0.001$), and bad health ($55.4 \pm 11.1, P < 0.001$). Moreover, a post hoc test revealed that patients who perceived good health exhibited higher service satisfaction (63.0 ± 8.4) in comparison to patients perceived acceptable health ($59.4 \pm 7.9, P = 0.024$), and bad health ($55.4 \pm 11.1, P < 0.001$). There was no statistically significant difference between acceptable and bad health ($P = 0.188$) (Table 3). There was a significant association between monthly income and the health service satisfaction ($P < 0.001$); a post hoc test revealed that patients who received income of more than US\$ 1000 exhibited higher service satisfaction (67.5 ± 9.7) in comparison to patients received less than USD 200 ($58.4 \pm 9.7, P < 0.001$), and the patients who received USD 200-400 ($60.6 \pm 8.8, P = 0.013$). Moreover, a post hoc test revealed that patients who received USD 400-1000 exhibited higher service satisfaction (66.1 ± 7.0) in comparison to patients who received less than USD 200 ($58.4 \pm 9.7, P < 0.001$), the patients who received USD 200-400 ($60.6 \pm 8.8, P = 0.003$). However, there was no statistically significant difference between the patients who received USD 1000 and who received USD 400-1000 ($P = 0.941$), and also there was no statistically significant difference between the patients who received less than USD 200 and who received USD 200-400 ($P = 0.407$) (Table 3).

Table 2 Subscale reliability of PSQ-18 and health service satisfaction scores ($n = 235$)

Characteristics	Cronbach's alpha	Scores mean (\pm SD)
General satisfaction	0.77	5.8(1.8)
The medical care I have been receiving is just about perfect.		
I am dissatisfied with some things about the medical care I receive.		
Technical quality	0.71	15.4(2.8)
I think my doctor's office has everything needed to provide complete medical care.		
Sometimes doctors make me wonder if their diagnosis is correct.		
When I go for medical care, they are careful to check everything when treating and examining me.		
I have some doubts about the ability of the doctors who treat me.		
Interpersonal manner	0.72	6.7(2.3)
Doctors act like forced to treat or too impersonal towards me.		
My doctors treat me in a very friendly and courteous manner.		
Communication	0.78	7.7(1.7)
Doctors are good at explaining the reason for medical tests.		
Doctors sometimes ignore what I tell them.		
Financial aspects	0.79	6.4(2.2)
I feel confident that I can get the medical care I need without being set back financially.		
I have to pay for more of my medical care than I can afford.		
Time spent with the doctor	0.71	7.4(1.7)
those who provide my medical care sometimes hurry too much when they treat me.		
Doctors usually spend plenty of time with me.		
Accessibility and convenience	0.71	12.1(2.7)
I have easy access to the medical specialists I need.		
Where I get medical care, people have to wait too long for emergency treatment.		
I find it hard to get an appointment for medical right away.		
I am able to get medical care whenever I need it.		

Factors associated with outpatient medical care satisfaction among patients by multiple linear regression

Patients aged 50 years and more had, on average, 2.1 (95% CI-3.1-1.1) lower service satisfaction scores as compared to young age patients ($P < 0.001$). The married patient had, on average, 4.8 (95% CI 3.2- 6.4) higher service satisfaction scores as compared to single (unmarried, divorced, and widow) ($P < 0.001$). The unemployed patient had on an average 4.8 (95% CI 3.0-6.5) higher service satisfaction score as compared to employed ($P < 0.001$). The low educated patient had, on average, 1.5(95% CI 0.01-3.0) higher service satisfaction compared to the higher educated patient ($P = 0.051$). Patients who perceived health as not good had, on average, 2.5 (95% CI-3.4-1.6) lower service satisfaction compared to patients who perceived health as good and very good ($P < 0.001$). Patients residents in rural regions had, on average, 5.4 (95% CI 3.4-7.2) higher service satisfaction compared to the residents in the urban region ($P < 0.001$) (Table 4).

Table 3 Association between sample characteristics and health service satisfaction ($n = 235$).

Characteristics	Mean (SD)	P-value
Gender		0.281
Female	62.1(8.8)	
Male	60.8(9.7)	
Age (years)		<0.001
<30	64.4(8.0)	
30-49	64.2(7.5)	
≥ 50	54.3(8.8)	
Marital status		<0.001
Married	56.3(8.5)	
Single	66.1(7.2)	
Employment		<0.001
Unemployed	56.0(8.2)	
Employed	67.4(6.0)	
Monthly household income		<0.001
<200	58.4(9.7)	
200-399	60.6(8.8)	
400-1000	66.1(7.0)	
>1000	67.5(8.1)	
High education level		0.005
Low education	60.1(9.1)	
High education	63.5(9.0)	
Residence		<0.001
Urban	56.2(7.5)	
Rural	67.9(6.7)	
Overall health perception		0.001
Very good	68.9 (8.8)	
Good	63.0 (8.4)	
Middle-acceptable	59.4 (8.0)	
Bad	55.4 (11.1)	
Purpose of visit to the clinic		0.110
New visit	60.9 (9.4)	
Follow up	63.0 (8.4)	

Discussion

Outpatient consulting clinics represent the most prominent arms of public health services in Iraq. The outpatient clinics attract a high percentage of patients, especially those with limited incomes. In the current study, the authors aimed to explore the

factors affecting patient satisfaction with the busiest outpatient medical centers. Similar to earlier studies [9] and inconsistent with original psychometric properties concluded by Marshall and Hays [12], the Cronbach's alpha values of the PSQ-18 subscales had values greater than 0.70 suggesting an acceptable internal consistency.

In the final model, patients aged fifty years and more, married, unemployed, low education in a rural region, and those self-perceived health statuses as not good, exhibited significant associations with patient satisfaction scores.

In this study, patients residing in rural regions exhibited the highest service satisfaction, followed by married and unemployed patients. The rural residents are five and half times ($B=5.4$, $P < 0.001$) more satisfied with OP health services than the urban residents. The adoption of wrong policies for health management since 2003 has negatively reflected on the quality and continuity of health services provided in Iraq [5,7]. Most of the districts, villages, or human communities, far from the city center, lack basic health services, especially specialized ones [14]. Moreover, most of the study sample was from areas prone to armed conflict, which caused large waves of internal displacement. The extension of the displacement periods for years led to great demographic changes and the mixing of rural and urban residents and vice versa. Therefore, most rural populations tend to contact the OP clinics of public hospitals in big cities. A state of undeclared competition emerged between urban and rural residents to benefit from health care services. In the absence of suitable alternatives, dissatisfaction with health services among urban residents was evident. The lack of medical services in the countryside may be considered one of the main weaknesses in managing the security, services, and reconstruction files in conflict-affected areas. Ali jadoo et al. [15] and Al-Samarrai et al. [16] found that most of the IDPs have refused to return to their homes due to the security situation and lack of services.

Previous studies indicated that accessing the required health care among the rural population was more difficult compared to urban areas [17,18,19]. Other studies have discussed the difference between rural and urban residents regarding expectations and utilization of health care services [20,21] and the differences in the level of satisfaction [22,23]. However, the level of expectations towards quality of care was higher among urban residents [24,25].

Besides, this study showed that the unemployed respondents are five times ($B=4.746$, $P < 0.001$) more satisfied with OP health services than the employed. However, there was no difference between high or low-income people. It may be related to the economic situation, the nature of society, the demographic composition in Iraq, and the ability to adapt after displacement. Furthermore, the society in Iraq is characterized by male dominance, a high rate of early marriage, and a big family with an average of seven members, especially in the countryside [26]. The greater the number of family members, the less labor is needed on the farm. Outpatient clinics are sometimes the best choice for families with limited income because they prioritize spending on housing or food overspending on health [27,28]. However, the educational opportunities are less compared to cities, and thus the percentage of unemployed is higher.

Table 4 Factors associated with health service satisfaction among patients by multiple linear regression ($n = 235$)

Predictors	B	Std. Error	Beta	P-value	95% CI lower-upper
Age group (≥ 50 years)	-2.103	0.495	-0.181	<0.001	-3.1-1.1
Marital Status (married)	4.816	0.800	0.262	<0.001	3.2-6.4
Employment Status (Unemployed)	4.746	0.909	0.259	<0.001	3.0-6.5
Education Level (low)	1.448	0.740	0.078	0.051	-0.01-3.0
Self-Assessment of Health (not good)	-2.504	0.459	-0.220	<0.001	-3.4-1.6
Place of Residency (rural)	5.338	0.925	0.290	<0.001	3.5-7.2

Moreover, the low educated people are one and half times ($B=1.5$, $P =0.051$) more satisfied with outpatient clinics than high educated people because they are less aware of their rights on the quality of medical services. There is much evidence that a low level of education and poor economic resources are associated with patient satisfaction [17, 23, 29].

Unlike to findings of previous studies conducted in Malaysia [9], China [17], Pakistan [29] respondents aged fifty years and more ($B= -2.103$, $P <0.001$) and those who perceived their health as poor ($B=-2.504$, $P <0.001$) are about two times and a half less satisfied with outpatient clinics services than healthy and younger age groups. Most of the older people suffer from chronic diseases and thus describe themselves as poor health. The older people are more likely to be less oriented towards the state of health institutions in Iraq (i.e., expecting optimal services), and therefore, dissatisfaction is often linked to the access and quality of health care available to them. Kelly et al. [30] pointed out that the elderly has a general feeling of neglect, especially concerning health care.

Additionally, gender has no impact on the level of satisfaction towards the OP healthcare services. However, previous studies reported a relationship between patient satisfaction and gender; Woods and Heidari [31] found that females were less satisfied than males; while Chandra et al. [32] found that females expressed higher satisfaction toward OP department compared to their counterpart male patients.

This study's results were consistent with that conducted in Baghdad (capital of Iraq) regarding antenatal care. Similarly, low educated and unemployed showed high satisfaction. However, the old age women were more satisfied with the accessibility and services provided in primary healthcare centers [33]. Our study's findings were supported by the results of a study conducted in Erbil (North of Iraq) [34]. The authors found no gender differences regarding satisfaction levels, and satisfaction was high among low-income patients. However, patients aged forty and more were more satisfied than the younger age group. Moreover, our results were inconsistent with that reported by a study conducted in Karbala (South of Iraq) [35]. Authors found women more satisfied than men in most of the health services in the primary healthcare center.

Most of the previous studies were conducted in areas such as Baghdad [33], Northern [34], and Southern [35,36] of Iraq, where the security situation and the level of health services were acceptable. Therefore, the respondents rated the satisfaction moderate to a high level. In contrast, our respondents belong to the central and western regions, subjected to successive waves of armed violence, and forced displacement, with insecurity and lack of services [15,16,37].

This study complained about some limitations. Although the data were collected from the outpatient department of major hospitals in two different provinces, however, the results cannot be generalized, but it can represent the case of the middle region of Iraq where the information was collected. Cross-sectional studies do not allow establishing a causal relationship between the variables as in this study.

Conclusion

Patient satisfaction was the highest in terms of institutional factors, particularly "technical quality" and "accessibility and convenience," but satisfaction was the lowest in terms of general satisfaction towards healthcare service. Patients in the age group of fifty years and more, married, unemployed, low educated, self-perceived bad health, and the rural residents were significantly related to patient satisfaction. Any efforts made to enhance patient satisfaction must be directed towards reducing the consumption of outpatient clinics in public hospitals by improving the primary healthcare services in the rural areas and activating the family doctor's system throughout the country.

Abbreviation

OP: Outpatient; MLIC: the middle and lower-income countries (MLIC); PSQ: Patient Satisfaction Questionnaire; CV: Content Validity; CVR: Content Validity Rate; SPSS: Package for Social Science; USD: United States Dollar; IQD: Iraqi Dinar; M: Mean; SD: Standard Deviation

Declarations

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Availability of data and materials

Data will be available by emailing drsaadalezzi@gmail.com

Authors' contributions

SAAJ is the principal investigator of the study who designed the study and coordinated all aspects of the research including all steps of the manuscript preparation. He is responsible for the study concept, design, writing, reviewing, editing, and approving the manuscript in its final form. SMY, MAA, and ASM contributed to the collecting the data, analysis, and interpretation of data, drafting the work, writing the manuscript, and reviewed and approved the manuscript. All authors read and approved the final manuscript.

Ethics approval and consent to participate

We conducted the research following the Declaration of Helsinki, and the protocol was approved by the Ethic Committee of Faculty of Medicine, University of Diyala, Iraq (Ref: 1023 at 26-March-2019). Moreover, written informed consent was obtained from each included patient who were willing to participate after explanation of the study objectives and guarantee of secrecy.

Consent for publication

Not applicable

Competing interest

The authors declare that they have no competing interests.

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