



Patients' Satisfaction with Quality of Health Care Services in Primary Health Care Centers in Baghdad, Iraq

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Quantitative Study

Abstract

Background: Patient satisfaction with primary health care (PHC) represents a key marker for the quality of health care delivery and this internationally accepted factor needs to be studied repeatedly for smooth functioning of the health care systems. This study was conducted to assess patient satisfaction level with quality of health care services provided by PHC centers in Baghdad, Iraq.

Methods: A cross-sectional study was conducted in 67 PHC centers in Al-Rasafa district of Baghdad City from April to July, 2016. The convenience sampling method was used to select the participants. A total of 67 PHC centers were selected from nine health sectors in Al-Rasafa district, out of a total of 120 centers, and interviewed with well-structured close-ended questions. Data analysis involved calculating descriptive statistics such as frequencies, percentages, means, standard deviations (SDs), and ranges. To determine the significance of differences in percentages, we employed the Pearson chi-square test or Fisher's exact test, as appropriate.

Results: A total of 325 patients participated in the study. The overall satisfaction rate was 70.16%. The highest score of satisfaction for the aspect of services was for physician services (76%), and the lowest score was for the other health care facilities (access, appointment, and building aspects) (53%).

Conclusion: Overall, the majority of patients expressed satisfaction with services provided by doctors, pharmacies, and laboratories. However, nursing care services received lower satisfaction ratings. The lowest levels of satisfaction were observed in relation to access, appointment, and building aspects. Socio-demographic characteristics did not exhibit a significant association with patient satisfaction. These findings highlight the importance of improving nurses' knowledge, attitudes, and skills, particularly in areas such as patient education and emotional support.

Keywords: Patients; Satisfaction; Primary health care centers

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Introduction

Patient satisfaction is a critical indicator of the quality of health care delivery and plays a vital role in assessing the effectiveness of primary health care (PHC) systems (Ahmad & Din, 2010). It is an internationally accepted measure that reflects patients' perceptions of the care they receive and their overall experience with health care services (Farley et al., 2014). Evaluating patient satisfaction repeatedly is essential for ensuring the smooth functioning of healthcare systems and identifying areas that require improvement (Friedel et al., 2023). Understanding patient satisfaction helps healthcare organizations identify strengths and weaknesses in their services, enabling them to make informed decisions and implement interventions to enhance patient experiences (Al-Abri & Al-Balushi, 2014; Gleeson, Calderon, Swami, Deighton, Wolpert, & Edbrooke-Childs, 2016).

A comprehensive health system aims to enhance the quality of care across six key dimensions: effectiveness, efficiency, accessibility, acceptability/patient-centeredness, equity, and safety [World Health Organization (WHO), 2015]. These dimensions reflect the core aspects of quality that healthcare should embody. In recent years, there has been a growing recognition of the importance of utilizing patient satisfaction surveys (PSS) as a tool for assessing and improving healthcare quality in developing countries. PSS allows for a systematic and consumer-oriented approach to gather patients' perspectives on the quality of care they receive, providing valuable feedback to enhance the standards of patient care (de Silva, 2014). By incorporating patient viewpoints, healthcare systems can work towards achieving higher quality standards and ensuring that care is patient-centered and aligned with their needs and preferences.

The majority of studies on patient satisfaction and healthcare quality have primarily focused on developed countries, leading to a limited understanding of these issues in developing countries. This knowledge gap is particularly evident in Iraq, where there is a scarcity of studies examining patient satisfaction and healthcare quality (Lafta & Al-Nuaimi, 2019). The concern over the quality of healthcare services in Iraq has resulted in a loss of trust in both public and private hospitals, leading to a growing trend of Iraqi patients seeking medical care in neighboring countries (Al Hilfi, Lafta, & Burnham, 2013). Given the circumstances and the absence of comprehensive studies assessing healthcare quality, it has become crucial to evaluate the quality of healthcare services in Iraq. In this context, the inclusion of the patient's perspective is essential in understanding and improving healthcare quality (Kremers et al., 2019).

The study was carried out to assess patient satisfaction level with quality of health care services provided by PHC centers in Baghdad City (Al-Rasafa district), Iraq.

Methods

This cross-sectional study was conducted in PHC centers at Al-Rasafa district of Baghdad City. In nine health sectors (Al Mada'in, Al Sadr, Al Rasafa, Baghdad Al-Jadida, Al-Adhamiyah, Al-Baladiyat, Al-Shaab, Al-Istiqlal), out of 120 PHC centers, 67 centers were selected by convenience sampling from these nine sectors in Al-Rasafa district. The study was conducted over a period of four months, from April to July, 2016. The collection of study sample was done three days per week.

A convenience sample of patients attending PHC centers who had visited the PHC for different medical problems and agreed to participate in the study was used. All patients of PHC centers who were aged from 18 to 65 years old and had at least two visits to PHC center were included. While patients who had mental disorders were excluded as well as all emergencies to avoid delay in providing treatments and

any patient working in the health care institutions was also excluded.

The study was carried out by well-structured close-ended questions with multiple choices. This was performed by using Patient Satisfaction Questionnaire (PSQ) from previous study (Grogan, Conner, Norman, Willits, & Porter, 2000) which was translated to Arabic and modified by the researcher, and revised by the academic supervisor to be as near as possible to Iraqi culture.

The questionnaire includes two aspects: 1) socio-demographic aspect, consisting of questions regarding the general socio-demographic information of the participant patients (age, gender, marital status, number of children, occupation, education, family income) and 2) PSQ aspect, including eight domains in form of 49 questions. The satisfaction level is scored according to Likert scale score which contains 5 levels of satisfaction ranging from 1 = strongly disagree to 5 = strongly agree. In this study, it was modified to 3 levels including 1 = disagree, 2 = no opinion, and 3 = agree. With the use of quartile score, a score of more than 75% was considered good, 50%-74% accepted, and less than 50% was taken as poor (Shinde & Mohite, 2014).

The researcher started the distribution of questionnaire by introducing himself to the patients and explaining the aim of the study; verbal consent of the participants was obtained and privacy was considered as much as possible. The participant was thanked after filling out the questionnaire for his/her cooperation. Each visit lasted about 3-4 hours/day, 3 days/week during the working hours for each selected PHC center. An average of 10-14 questionnaires per day was collected. Each questionnaire lasted 15 to 20 minutes to be filled.

A pilot study was carried out on a sample from two PHC centers in Al-Rasafa district of Baghdad City consisting of 20 patients who answered the questionnaire items and were included in the study sample since no major changes were carried out. The purpose of the pilot study was to have an idea about the required time for filling the PSQ. This was on average of 15-20 minutes, to find out if there was any difficult, sensitive, or unclear questions, and to reveal any technical or administrative difficulties facing the researcher.

Analysis of data was carried out using the available statistical package of SPSS software (version 22, IBM Corporation, Armonk, NY, USA). Data were presented in simple measures of frequency, percentage, mean, standard deviation (SD), and range (minimum-maximum values). The significance of difference of percentages (qualitative data) was tested using Pearson chi-square test (χ^2 -test) with application of Yates' correction or Fisher's exact test whenever applicable. Statistical significance was considered whenever the P-value was equal or less than 0.05.

Ethical consideration: The following ethical considerations were ensured: researcher approval was obtained from Ethical Committee of Iraqi Board for Medical Specializations and from ministry of health to conduct this study, verbal consent from each participant was obtained prior to the start of data collection after explaining the aim of the study, data forms were anonymous, every subject was given the complete unconditioned choice to withdraw from the study at any time, and the confidentiality of data throughout the study was guaranteed and the patients were assured that all data were used for research purpose only.

Results

The total number of participants was 325. Participants' age was ranging from 18 to 65 years with a mean of 35.7 ± 12.3 years. The highest proportion of participants were found in age group of 20-29 (30.2%). The proportion of men was slightly more than

women with male to female ratio of 1.1:1. The highest proportion of participants were currently married (63.4%). Concerning the occupation, the highest proportion of participants were approaching the same between employees (47.1%) and unemployed (47.7%) and more than half of them (56%) lived in families composed of four to six members. Regarding educational level, more than two thirds of participants were in higher educational level (67.4%).

The distribution of participants according to opinion about health services regarding doctors is shown in table 1. The highest proportion of participants agreed about clear explanation before treatment (74.5%), doing everything needed to arrive at diagnosis (54.2%), telling enough about treatment (64.6%), full explanation of how the illness would affect patient's future health (56.9%), carefully checking everything when examining the patient (57.5%), being interested (49.8%), feeling unconfident discussing problems with the doctor (41.5%), proper examination even if the doctor was busy (52.9%), doctor knowledge when tests were necessary (70.8%), and if doctor was very understanding (57.8%). Patients disagreed about if the doctor made the patient feel he/she was wasting his/her time (40%), and if the doctor seemed to want to get rid of patient as soon as possible (44.6%). The total level of satisfaction for doctor aspect was: good (22.2%), fair (53.8%), and poor (24%).

The distribution of participants according to opinion about health services regarding pharmacy is shown in table 2. The distribution of participants according to opinion about health services regarding doctors is shown in table 1. The highest proportion of participants agreed about courtesy and respect by the pharmacy staff (73.8%), respecting privacy of conversations (62.5%), getting advice (51.7%), suitable amount of time (57.5%), perfect way of the pharmacist helps (56.9%), checking about work of medications (54.5%), pharmacist's instructions about taking medications (69.2%), clear written information (70.8%), pharmacist's help when a medication did not have the expected effect (47.7%), using information about previous conditions/drugs (41.8%), and working together with doctor (47.7%). The total level of satisfaction for pharmacy aspect was: good (41.8%), fair (36.3%), and poor (21.8%).

The distribution of participants according to opinion about health services regarding nursing is shown in table 3.

Table 1. The distribution of participants according to opinion about health services regarding doctors

Doctors	Agree [n (%)]	No opinion [n (%)]	Disagree [n (%)]
Doctor clearly explains what is wrong before any treatment	242 (74.5)	24 (7.4)	59 (18.2)
Doctor does everything needed to arrive at diagnosis	176 (54.2)	53 (16.3)	96 (29.5)
Doctor tells me enough about treatment	210 (64.6)	42 (12.9)	73 (22.5)
Doctor fully explains how illness will affect future health	185 (56.9)	51 (15.7)	89 (27.4)
Doctor is very careful to check everything when examining me	187 (57.5)	54 (16.6)	84 (25.8)
Doctor is always interested	162 (49.8)	71 (21.8)	92 (28.3)
Sometimes the doctor makes me feel I am wasting his/her time	123 (37.8)	72 (22.2)	130 (40.0)
I don't feel confident discussing my problems with the doctor	135 (41.5)	67 (20.6)	123 (37.8)
The doctor seems to want to get rid of me as soon as possible	112 (34.5)	68 (20.9)	145 (44.6)
Even when the doctor is busy I am examined properly	172 (52.9)	58 (17.8)	95 (29.2)
Doctor knows when tests are necessary	230 (70.8)	38 (11.7)	57 (17.5)
Doctor is very understanding	188 (57.8)	57 (17.5)	80 (24.6)

Table 2. The distribution of participants according to opinion about health services regarding pharmacy

Pharmacy	Agree [n (%)]	No opinion [n (%)]	Disagree [n (%)]
Courtesy and respect shown you by the pharmacy staff	240 (73.8)	35 (10.8)	50 (15.4)
Privacy of your conversations with the pharmacist is respected	203 (62.5)	73 (22.5)	49 (15.1)
I can get advice from the pharmacist about problems that might occur with medication	168 (51.7)	56 (17.2)	101 (31.1)
Amount of time it takes to get a prescription filled at your pharmacy is suitable	187 (57.5)	66 (20.3)	72 (22.2)
The way the pharmacist helps you to manage your medications is perfect	185 (56.9)	72 (22.2)	68 (20.9)
Pharmacist checks with you about how well your medications are working	177 (54.5)	60 (18.5)	88 (27.1)
Pharmacist's instructions about how to take your medication	225 (69.2)	46 (14.2)	54 (16.6)
Written information the pharmacist provides you about drug therapy and/or diseases is clear enough	230 (70.8)	54 (16.6)	41 (12.6)
Pharmacist's help when a medication does not have the expected effect	155 (47.7)	76 (23.4)	94 (28.9)
Pharmacist uses information about your previous conditions/drugs when assessing your drug therapy	136 (41.8)	78 (24.0)	111 (34.2)
Pharmacist works together with your doctor to make sure your medications are the best for you	155 (47.7)	75 (23.1)	95 (29.2)

The highest proportion of participants agreed about being reassuring (46.5%), and disagreed about not taking care to explain things carefully (46.2%), not listening carefully when they talked about their problems (43.1%), and if the practice nurse made the patient feel that he/she was wasting his/her time (41.8%). The total level of satisfaction for nursing aspect was: good (9.5%), fair (45.8%), and poor (44.6%).

The distribution of participants according to opinion about laboratory and other health services is shown in table 4. The highest proportion of participants agreed about convenient location (63.1%), presence of clean waiting area (45.8%), availability of suitable waiting time to get the specimen collection services (46.5%), satisfaction with laboratory personnel welcoming approach (55.1%), presence of a clean blood drawing area in the laboratory (58.5%), and presence of clear, understandable, and complete information (43.4%). The total level of satisfaction for laboratory aspect was: good (34.5%), fair (35.1%), and poor (30.5%). Regarding accessibility, the highest proportion of participants agreed about hours of services (45.2%), receptionist's clear explanation (54.2%), receptionist's right question asking (63.1%), and if participants could speak to receptionists privately (56.6%). About appointment, the majority of participants agreed about difficulty to get an appointment with a doctor (42.2%) and choosing a doctor easily (41.5%), and disagreed about getting an appointment at a convenient time easily (45.8%).

Table 3. The distribution of participants according to opinion about health services regarding nursing

Nursing	Agree [n (%)]	No opinion [n (%)]	Disagree [n (%)]
Practice nurse does not take care to explain things carefully	115 (35.4)	60 (18.5)	150 (46.2)
Practice nurse does not always listen carefully when I talk about my problems	105 (32.3)	80 (24.6)	140 (43.1)
Practice nurse is always very reassuring	151 (46.5)	62 (19.1)	112 (34.5)
Practice nurse makes me feel I'm wasting his/her time	110 (33.8)	79 (24.3)	136 (41.8)

Table 4. The distribution of participants according to opinion about laboratory and other health services regarding laboratory

Laboratory & other health services	Agree [n (%)]	No opinion [n (%)]	Disagree [n (%)]
Laboratory			
Location of the laboratory within the health center is convenient	205 (63.1)	52 (16.0)	68 (20.9)
Clean waiting area in laboratory	149 (45.8)	50 (15.4)	126 (38.8)
Suitable waiting time to get specimen collection services (e.g., phlebotomy initiation)	151 (46.5)	72 (22.2)	102 (31.4)
Patients are satisfied with laboratory personnel welcoming approach	179 (55.1)	76 (23.4)	70 (21.5)
Clean blood drawing area in the laboratory	190 (58.5)	55 (16.9)	80 (24.6)
Clear, understandable, and complete information about when and how collect specimen out of the laboratory (e.g., stool, urine)	141 (43.4)	67 (20.6)	117 (36.0)
Accessibility			
Satisfied with the out-of-hours service	147 (45.2)	48 (14.8)	130 (40.0)
Receptionists explain things clearly to me	176 (54.2)	56 (17.2)	93 (28.6)
Receptionists ask patients the right questions	205 (63.1)	60 (18.5)	60 (18.5)
I can speak to a receptionist privately if I wish	184 (56.6)	53 (16.3)	88 (27.1)
Appointment			
Getting appointment at convenient time is easy	126 (38.8)	50 (15.4)	149 (45.8)
It is often difficult to get appointment with doctor	137 (42.2)	73 (22.5)	115 (35.4)
It is easy to see the doctor of my choice	135 (41.5)	77 (23.7)	113 (34.8)
Facility			
Building is good and does not need improvements	125 (38.5)	41 (12.6)	159 (48.9)
There are enough seats in the waiting room	123 (37.8)	42 (12.9)	160 (49.2)
The waiting room seats are comfortable	135 (41.5)	33 (10.2)	157 (48.3)
There is a clean restroom in the waiting area	135 (41.5)	51 (15.7)	139 (42.8)
The room is spacious, bright, and airy	118 (36.3)	51 (15.7)	156 (48.0)
General satisfaction			
Patients receive the best care from the staff working at this practice	151 (46.5)	62 (19.1)	112 (34.5)
Having absolute faith and confidence in doctors	130 (40.0)	69 (21.2)	126 (38.8)
Having thought of changing to another practice	144 (44.3)	82 (25.2)	99 (30.5)

Concerning facility, the highest proportion of participants disagreed about the quality of health building (48.9%), enough seats in waiting room (49.2%), if the seats were comfortable (48.3%), presence of clean restroom in the waiting area (42.8%), and if the room was spacious, bright, and airy (48%). Regarding general satisfaction, it was noticed that the highest proportion of participants agreed about receiving the best care from the working staff (46.5%), absolute faith and confidence in the doctors (40%), and having thought of changing to another practice (44.3%). The total level of satisfaction for these services was: good (22.8%), fair (30.2%), and poor (47.1%).

The distribution of participants' degree of satisfaction according to socio-demographic characteristics is shown in table 5. It was noticed that there was no significant association ($P \geq 0.05$) between degree of satisfaction and all variables regarding socio-demographic characteristics.

The distribution of participants' degree of satisfaction according to number of visits is shown in table 6. There was no significant association between degree of satisfaction and number of visits ($P = 0.379$).

Table 5. The distribution of participants' degree of satisfaction according to socio-demographic characteristics

Socio-demographic factors	Degree of satisfaction			Total (n = 325) [n (%)]	P (χ^2)
	Poor (n = 97) [n (%)]	Accepted (n = 158) [n (%)]	Good (n = 70) [n (%)]		
Age (year)					0.924
< 20	5 (27.8)	8 (44.4)	5 (27.8)	18 (5.5)	
20-29	28 (28.6)	50 (51.0)	20 (20.4)	98 (30.2)	
30-39	24 (25.3)	49 (51.6)	22 (23.2)	95 (29.2)	
40-49	22 (35.5)	28 (45.2)	12 (19.4)	62 (19.1)	
≥ 50	18 (34.6)	23 (44.2)	11 (21.2)	52 (16.0)	
Gender					0.064
Men	55 (32.4)	87 (51.2)	28 (16.5)	170 (52.3)	
Women	42 (27.1)	71 (45.8)	42 (27.1)	155 (47.7)	
Family members					0.859
1-3	30 (31.9)	46 (48.9)	18 (19.1)	94 (28.9)	
4-6	53 (29.1)	86 (47.3)	43 (23.6)	182 (56.0)	
≥ 7	14 (28.6)	26 (53.1)	9 (18.4)	49 (15.1)	
Education					0.757
Illiterate	2 (15.4)	7 (53.8)	4 (30.8)	13 (4.0)	
Primary	15 (36.6)	19 (46.3)	7 (17.1)	41 (12.6)	
Secondary	18 (34.6)	23 (44.2)	11 (21.2)	52 (16.0)	
Higher education	62 (28.3)	109 (49.8)	48 (21.9)	219 (67.4)	
Occupation					0.506
Employee	50 (32.7)	69 (45.1)	34 (22.2)	153 (47.1)	
Unemployed	40 (25.8)	82 (52.9)	33 (21.3)	155 (47.7)	
Retired	7 (41.2)	7 (41.2)	3 (17.6)	17 (5.2)	
Marital status					0.409
Single	21 (23.6)	48 (53.9)	20 (22.5)	89 (27.4)	
Currently married	67 (32.5)	98 (47.6)	41 (19.9)	206 (63.4)	
Divorced/widowed	9 (30.0)	12 (40.0)	9 (30.0)	30 (9.2)	

Discussion

In current study as for the patients' socio-demographic correlates of satisfaction with the services offered, there was no association between patients' satisfaction and age, gender, monthly income, marital status, and educational level. This agreed with Al-Sakkak et al. (2008) who found no significant deference in patients' satisfaction in relation to their gender, marital status, occupational status, and their average monthly income. It agreed also with Mohamed et al. (2015) concerning gender, marital status, and income, and with Goel et al. (2014) concerning age group. Moreover, it agreed with Mohanan et al. (2010) who stated that there was no relation between all the demographic differences and satisfaction of patients. Azhar et al. (2016) found in their study that marital status was related to satisfaction but not strong enough to be considered as a predictor for satisfaction.

The influence of socio-demographic characteristics on patients' satisfaction has been examined in various studies, yielding differing results. One study indicated that patients with higher incomes demonstrated higher levels of satisfaction compared to those with moderate incomes (Karaca & Durna, 2019).

Table 6. The distribution of participants' degree of satisfaction according to number of visits

Number of visits	Degree of satisfaction			Total (n = 325) [n (%)]	P (χ^2)
	Poor (n = 97) [n (%)]	Accepted (n = 158) [n (%)]	Good (n = 70) [n (%)]		
< 3	51 (29.8)	88 (51.5)	32 (18.7)	171 (52.6)	0.379
≥ 3	46 (29.9)	70 (45.5)	38 (24.7)	154 (47.4)	

Conversely, several studies (Akhtari-Zavare et al., 2010; Arslan & Kelleci, 2011; Ozsoy, Ozgur, & Durmaz, 2007) have found that income did not have a significant impact on satisfaction with nursing care. In contrast, a separate study revealed that individuals with lower socioeconomic status and less education tended to exhibit lower levels of satisfaction with their healthcare (Shinde & Kapurkar, 2014). These findings highlight the complex relationship between socio-demographic factors and patient satisfaction.

In addition, the findings of the present study are consistent with previous studies highlighting the significance of effective communication and patient-centered care in enhancing patient satisfaction (Epstein & Street, 2011; Rathert, Wyrwich, & Boren, 2013). Participants in this study generally agreed on the importance of doctors providing clear explanations, thorough examinations, and sufficient information about treatment, which is consistent with the literature on patient satisfaction (Goh & Vehviläinen-Julkunen, 2016; Shinde & Kapurkar, 2014). These aspects of care are crucial in fostering trust, shared decision-making, and a positive patient-provider relationship.

In line with previous research, our study found similar patterns of agreement and disagreement in participants' opinions about pharmacy and nursing services (Akhtari-Zavare et al., 2010; Arslan & Kelleci, 2011; Ozsoy et al., 2007). Consistent with the existing literature, our findings highlight the significance of courtesy, respect, and clear communication as key factors influencing patient satisfaction (Finefrock et al., 2018; Zygiaris, Hameed, Ayidh, & Ur, 2022). These results are consistent with the patient-centered care approach, which emphasizes the importance of respectful and effective communication between healthcare providers and patients (Epstein et al., 2005; Rathert et al., 2013). However, the relatively low level of satisfaction with nursing services observed in our study suggests potential areas for improvement in patient-centered care and communication. This finding aligns with previous research that emphasizes the need for enhancing nursing care practices to meet patients' expectations and preferences (Suhonen et al., 2012; Lake, Sanders, Duan, Riman, Schoenauer, & Chen, 2019). Addressing these areas of concern through targeted interventions and training programs could lead to improved patient experiences and higher levels of satisfaction with nursing services.

The results of the study revealed varying levels of satisfaction with laboratory and other health services. The findings showed that a significant proportion of participants (63.1%) reported being satisfied with the convenience of the services provided. This is consistent with the previous research that has emphasized the importance of convenient healthcare services in enhancing patient satisfaction, assessing customer satisfaction with clinical laboratory services at King Abdullah Medical City in Makkah, Saudi Arabia (Almatrafi et al., 2018). However, it is worth noting that a considerable proportion of participants (35.1%) expressed fair satisfaction, and 30.5% reported poor satisfaction with laboratory and other health services. These findings suggest that there is room for improvement in these areas to enhance overall patient satisfaction. Similar findings have been reported in previous studies, indicating the need for interventions to address issues related to convenience, cleanliness, and information provision in healthcare settings (Dawson, Doll, Fitzpatrick, Jenkinson, & Carr, 2010; Rathert et al., 2013). Improving these aspects can contribute to a more patient-centered approach and ultimately lead to higher levels of patient satisfaction.

Conclusion

The overall satisfaction was accepted with majority of patients who were satisfied

with health care services provided by doctor, pharmacy, and laboratory. Patient satisfaction rate with nursing care services was generally low. The lowest satisfaction rate was for access, appointment, and building aspects. There was no significant association between patient satisfaction and socio-demographic characteristics. According to the findings in the current study, it is recommended to continue improving the knowledge, attitudes, and skills of the nurses dealing with patients as well as improving their skills of providing knowledge and emotional support for their patients through participation in health education programs. Policy makers should focus on correlates of satisfaction, namely, accessibility to health facility, nursing care, and management of health care facility. In addition, continuous supervision of patient satisfaction levels should be done to deduce methods for improving health care service delivery by the PHC centers, and measures should be taken to reduce and eliminate any source of dissatisfaction.

Conflict of Interests

Authors have no conflict of interests.

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References

- Aharony, L., & Strasser, S. (1993). Patient satisfaction: what we know about and what we still need to explore. *Med Care Rev.*, 50(1), 49-79. doi:10.1177/002570879305000104 [doi]. Retrieved from PM:10125117
- Akhtari-Zavare, M., Abdullah, M. Y., Syed Hassan, S. T., Said, S. B., & Kamali, M. (2010). Patient Satisfaction: Evaluating Nursing Care for Patients Hospitalized with Cancer in Tehran Teaching Hospitals, Iran. *Global Journal of Health Science*, 2(1), 117. doi:10.5539/gjhs.v2n1p117 [doi].
- Al-Abri, R., & Al-Balushi, A. (2014). Patient satisfaction survey as a tool towards quality improvement. *Oman Med J*, 29(1), 3-7. doi:OMJ-D-13-00247 [pii];10.5001/omj.2014.02 [doi]. Retrieved from PM:24501659
- Al Hilfi, T. K., Lafta, R., & Burnham, G. (2013). Health services in Iraq. *Lancet.*, 381(9870), 939-948. doi:S0140-6736(13)60320-7 [pii];10.1016/S0140-6736(13)60320-7 [doi]. Retrieved from PM:23499042
- Al-Sakkak, M. A., Al-Nowaiser, N. A., Al-Khashan, H. I., Al-Abdrabulnabi, A. A., & Jaber, R. M. (2008). Patient satisfaction with primary health care services in Riyadh. *Saudi Med J*, 29(3), 432-436. doi:20070806' [pii]. Retrieved from PM:18327374
- Almatrafi, D., Altaaweel, N., Abdelfattah, M., Alomari, A., Yaseen, W., Alsulami, M. et al. (2018). Assessment of customer satisfaction with the clinical laboratory services provided in King Abdullah Medical City, Makkah. *The Egyptian Journal of Hospital Medicine*, 70(11), 2029-2037. doi:10.12816/0044864 [doi].
- Arslan Ç., Kelleci M. Bir üniversite hastanesinde yatan hastaların hemsirelik bakımından memnuniyet düzeyleri ve ilişkili bazı faktörler. *Anadolu Hemsirelik Ve Sağlık Bilimleri Dergisi*. 2011; 14(1): 1-8.
- Azhar, A., Rahman, M. M., & Arif, M. T. (2016). Satisfaction on primary health care services in sarawak, malaysia: evidence from a cross-sectional community based study. *Malaysian Journal of Public Health Medicine*, 16(3), 267-273.
- Dawson, J., Doll, H., Fitzpatrick, R., Jenkinson, C., & Carr, A. J. (2010). The routine use of patient reported outcome measures in healthcare settings. *BMJ.*, 340, c186. doi:bmj.c186 [pii];10.1136/bmj.c186 [doi]. Retrieved from PM:20083546

de Silva, D. (2014). *Helping measure person-centred care: A review of evidence about commonly used approaches and tools used to help measure person-centred care*. London, UK: The Health Foundation.

Epstein, R. M., Franks, P., Fiscella, K., Shields, C. G., Meldrum, S. C., Kravitz, R. L. et al. (2005). Measuring patient-centered communication in patient-physician consultations: theoretical and practical issues. *Soc Sci Med*, 61(7), 1516-1528. doi:S0277-9536(05)00083-3 [pii];10.1016/j.socscimed.2005.02.001 [doi]. Retrieved from PM:16005784

Epstein, R. M., & Street, R. L. (2011). The values and value of patient-centered care. *Ann Fam Med*, 9(2), 100-103. doi:9/2/100 [pii];0090100 [pii];10.1370/afm.1239 [doi]. Retrieved from PM:21403134

Farley, H., Enguidanos, E. R., Coletti, C. M., Honigman, L., Mazzeo, A., Pinson, T. B. et al. (2014). Patient satisfaction surveys and quality of care: an information paper. *Ann Emerg Med*, 64(4), 351-357. doi:S0196-0644(14)00132-2 [pii];10.1016/j.annemergmed.2014.02.021 [doi]. Retrieved from PM:24656761

Finefrock, D., Patel, S., Zodda, D., Nyirenda, T., Nierenberg, R., Feldman, J. et al. (2018). Patient-centered communication behaviors that correlate with higher patient satisfaction scores. *J Patient Exp.*, 5(3), 231-235. doi:10.1177_2374373517750414 [pii];10.1177/2374373517750414 [doi]. Retrieved from PM:30214931

Gleeson, H., Calderon, A., Swami, V., Deighton, J., Wolpert, M., & Edbrooke-Childs, J. (2016). Systematic review of approaches to using patient experience data for quality improvement in healthcare settings. *BMJ Open*, 6(8), e011907. doi:bmjopen-2016-011907 [pii];10.1136/bmjopen-2016-011907 [doi]. Retrieved from PM:27531733

Friedel, A. L., Siegel, S., Kirstein, C. F., Gerigk, M., Bingel, U., Diehl, A. et al. (2023). measuring patient experience and patient satisfaction-how are we doing it and why does it matter? A comparison of European and U.S. American approaches. *Healthcare.(Basel.)*, 11(6). doi:healthcare11060797 [pii];healthcare-11-00797 [pii];10.3390/healthcare11060797 [doi]. Retrieved from PM:36981454

Goel, S., Sharma, D., Bahuguna, P., & Goel, S. (2014). Predictors of patient satisfaction in three tiers of health care facilities of North India. *J Community Med Health Educ*, S2, 002. doi:10.13140/RG.2.1.4352.4964 [doi].

Goh, M. L., & Vehviläinen-Julkunen, K. (2016). Hospitalised patients' satisfaction with their nursing care: An integrative review. *Singapore Nursing Journal*, 43(2), 11-27.

Grogan, S., Conner, M., Norman, P., Willits, D., & Porter, I. (2000). Validation of a questionnaire measuring patient satisfaction with general practitioner services. *Qual Health Care*, 9(4), 210-215. doi:10.1136/qhc.9.4.210 [doi]. Retrieved from PM:11101705

Ahmad, I., & Din, S. (2010). Patients Satisfaction from the Health Care Services. *Gomal Journal of Medical Sciences*, 8(1), 95-97.

Karaca, A., & Durna, Z. (2019). Patient satisfaction with the quality of nursing care. *Nurs Open*, 6(2), 535-545. doi:NOP2237 [pii];10.1002/nop2.237 [doi]. Retrieved from PM:30918704

Kremers, M. N. T., Zaalberg, T., van den Ende, E. S., van Beneden M., Holleman, F., Nanayakkara, P. W. B. et al. (2019). Patient's perspective on improving the quality of acute medical care: determining patient reported outcomes. *BMJ Open Qual.*, 8(3), e000736. doi:bmjoq-2019-000736 [pii];10.1136/bmjoq-2019-000736 [doi]. Retrieved from PM:31637327

Lafta, R. K., & Al-Nuaimi, M. A. (2019). War or health: a four-decade armed conflict in Iraq. *Med Confl.Surviv.*, 35(3), 209-226. doi:10.1080/13623699.2019.1670431 [doi]. Retrieved from PM:31597450

Lake, E. T., Sanders, J., Duan, R., Riman, K. A., Schoenauer, K. M., & Chen, Y. (2019). A meta-analysis of the associations between the nurse work environment in hospitals and 4 sets of outcomes. *Med Care*, 57(5), 353-361. doi:10.1097/MLR.0000000000001109 [doi]. Retrieved from PM:30908381

Mohamed, E. Y., Sami, W., Alotaibi, A., Alfarag, A., Almutairi, A., & Alanzi, F. (2015). Patients' satisfaction with primary health care centers' services, Majmaah, Kingdom of Saudi

of Saudi Arabia. *Int J Health Sci (Qassim.)*, 9(2), 163-170. doi:ijhs-9-2-163 [pii]. Retrieved from PM:26309435

Mohanan, K., Kaur, S., Das, K., & Bhalla, A. (2010). Patient satisfaction regarding nursing care at Emergency Outpatient Department in a tertiary care hospital. *Journal of Mental Health & Human Behaviour*, 15(1), 54-58.

Ozsoy, S. A., Ozgur, G., & Durmaz, A. A. (2007). Patient expectation and satisfaction with nursing care in Turkey: a literature review. *Int Nurs Rev.*, 54(3), 249-255. doi:INR534 [pii];10.1111/j.1466-7657.2006.00534.x [doi]. Retrieved from PM:17685908

Rathert, C., Wyrwich, M. D., & Boren, S. A. (2013). Patient-centered care and outcomes: a systematic review of the literature. *Med Care Res Rev.*, 70(4), 351-379. doi:1077558712465774 [pii];10.1177/1077558712465774 [doi]. Retrieved from PM:23169897

Shinde, M., & Mohite, V. (2014). A study to assess knowledge, attitude and practices of five moments of hand hygiene among nursing staff and students at a tertiary care hospital at Karad. *International Journal of Science and Research (IJSR)*, 3, 311-321.

Shinde, M., & Kapurkar, K. (2014). Patient's satisfaction with nursing care provided in selected areas of tertiary care hospital 1. *International Journal of Science and Research (IJSR)*, 3, 150-161.

Suhonen, R., Papastavrou, E., Efstathiou, G., Tsangari, H., Jarosova, D., Leino-Kilpi, H. et al. (2012). Patient satisfaction as an outcome of individualised nursing care. *Scand.J Caring.Sci*, 26(2), 372-380. doi:10.1111/j.1471-6712.2011.00943.x [doi]. Retrieved from PM:22070423

World Health Organization. (2015). *World health statistics 2015*. Geneva, Switzerland: WHO.

Zygjaris, S., Hameed, Z., Ayidh, A. M., & Ur, R. S. (2022). Service quality and customer satisfaction in the post pandemic world: A study of saudi auto care industry. *Front.Psychol*, 13, 842141. doi:10.3389/fpsyg.2022.842141 [doi]. Retrieved from PM:35360585