

Patients' Satisfaction toward Quality of Nursing Care in Hospitals of Diyala Governorate, Iraq

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ABSTRACT

Objective: Aim: To assess patients' satisfaction with the quality of nursing care in hospitals of Diyala Governorate, Iraq. **Methods:** A descriptive correlational study design was used. A sample of 500 patients was selected from Baqubah Teaching Hospital. Data were collected using a structured questionnaire covering socio-demographic data, quality of nursing care, and patient satisfaction. Statistical analysis was performed using SPSS. **Results:** The findings showed that most patients reported a high level of satisfaction regarding respect, safety, communication, and responsiveness. However, moderate levels were observed in discharge instructions and overall satisfaction, while low levels were reported for psychological support and staffing adequacy. **Novelty:** Conclusion: The study concluded that although nursing care quality is generally perceived as good, improvements are needed in psychosocial support, discharge education, and staffing levels to enhance patient satisfaction. **Recommendations:** It is recommended to improve nurse-patient communication, provide structured discharge education, and enhance staffing to ensure high-quality patient-centered care.

INTRODUCTION

The quality of healthcare is one of the fundamental pillars by which the efficiency of health systems in any society is measured. Improving service quality contributes to increasing patient satisfaction and trust in healthcare institutions [1].

Studies also confirm that there is a positive relationship between service quality and patient satisfaction; as the level of healthcare quality increases, patient satisfaction also rises, which positively influences their trust and continued interaction with healthcare providers [2].

Healthcare services are among the most complex to assess in terms of quality due to their intangible nature, multidimensional characteristics, and the difficulty patients face in evaluating technical aspects. Therefore, patients often rely on their personal experiences and functional aspects when judging service quality [3].

The literature identifies several dimensions that influence patient satisfaction, including professional competence, responsiveness, empathy, accessibility, effective communication between patients and healthcare providers, and the cleanliness and quality of hospital facilities and equipment[4]. This relationship is further influenced by organizational, demographic, and cultural factors, making it essential to consider the local context when evaluating healthcare quality[5]. Patient experience and satisfaction with healthcare services are among the most significant indicators reflecting the quality of healthcare and the efficiency of health institutions in responding to patients' needs and expectations[6].

The performance of a healthcare system is not merely evaluated by the delivery of medical procedures, but also by its ability to foster humane relationships with patients, ensure effective communication, and provide a safe and trustworthy therapeutic environment[7].

Healthcare quality is widely recognized as a fundamental indicator of health system performance and effectiveness. It refers to the degree to which healthcare services provided to individuals and populations improve desired health outcomes and are consistent with professional standards[8].

Patient satisfaction is considered one of the most important outcomes of healthcare delivery and a key indicator of healthcare quality. It reflects patients' subjective evaluation of their healthcare experiences in relation to their expectations and needs [9].

Numerous international studies have demonstrated a positive correlation between healthcare quality and patient satisfaction, there is a clear lack of evidence related to the local context, particularly in developing regions. Most previous studies have been conducted in fully resourced health systems and focus on general models of service quality without considering the specific challenges of the local environment [10].

In Diyala Governorate, empirical studies investigating the relationship between healthcare quality and patient satisfaction remain limited. There is also a lack of research exploring the impact of specific dimensions of healthcare quality—such as communication, empathy, responsiveness, professional competence of service providers, and the conditions of health facilities—on patient satisfaction within the governorate's specific socioeconomic and organizational environment.

METHOD

This study will adopt a descriptive correlational research design. This design is selected because it is suitable for identifying, describing, and analyzing the relationship between patient satisfaction and the quality of healthcare services without manipulating any variables. This study was carried out at Baqubah Teaching Hospital, located in Diyala Governorate, Iraq. The study was conducted between October 2025 and April 2026 after obtaining ethical approval and official permissions from the relevant health authorities and hospital administration. Informed consent was obtained from all participants, and confidentiality and voluntary participation were ensured.

The study population will include all adult patients who attend the selected healthcare institutions and receive healthcare services during the data collection period. The population represents individuals who have direct experience with healthcare services and are therefore able to evaluate both service quality and their level of satisfaction. A non-probability purposive sample of 500 patients was recruited. All patients who met the inclusion criteria and attended the hospital during the data collection period.

Data will be collected using a structured questionnaire developed .The questionnaire will be designed based on an extensive review of related literature and previous validated tools. It will consist of three main sections:

Section I: Socio-demographic characteristics.

Section II: Quality of healthcare services scale.

Section III: Patient satisfaction scale..

Both instruments were translated into Arabic using Brislin's back-translation method and underwent content validity assessment by a panel of ten experts. Reliability testing was conducted through a pilot study involving 20 patients. The instruments demonstrated acceptable internal consistency, with Cronbach's alpha coefficients ranging from 0.87 to 0.96. Data were analyzed using SPSS version 24. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the data. Inferential statistics, including Pearson's correlation coefficient and Cronbach's alpha, were applied to examine relationships among variables and assess instrument reliability.

RESULTS

Table 1. Descriptive Statistic of Sample Characteristics demographics data.

Variable	Category (Code)	Frequency (N)	Percentage (%)
Gender	Male	350	70 %
	Female	150	30 %
Age Group	Less than 25	50	10 %
	20-34	90	18 %
	35-44	110	22 %
	45-55	150	30 %
	More than 55	100	20 %
Marital Status	Single	70	14 %
	Married	280	56 %
	Divorced	or 150	30 %
	widowed		
Variable	Category (Code)	Frequency (N)	Percentage (%)
Education	Illiterate	50	10 %
	Primary	70	14 %
	Secondary	200	40 %
	University	180	36 %
Total	500 patients		

F=Frequency, %= Percent

Table [1] presented the distribution of the study sample according to their socio-demographic characteristics. The result in this table revealed Out of (500) patients regarding age, Concerning gender, the majority in the study group are males [350] compared to females (n = 150). Regarding Marital Status The high percentage of the sample was Single [70], and (n = 280) of the sample was Married. With respect to level of education in the study group Elementary school [26], followed by those who are High school (n = 20), and those who university degree (n = 18).

Table 2. Patients' Satisfaction toward Quality of Nursing Care.

NO	Question Item	Weighted	Freq.	%	M.s SD	ASS
1	Effort made to ensure comfort	Low	30	0.06	3.08±0.8	High
		Acceptable	80	0.16		
		Good	170	0.34		
		Excellent	220	0.44		
2	Clarity of information provided	Low	50	0.1	2.8 ± 0.9	High
		Acceptable	110	0.22		
		Good	190	0.38		
		Excellent	150	0.3		
3	Self-care instructions (discharge)	Low	130	0.26	2.0 ±1.1	Moderate
		Acceptable	90	0.18		
		Good	120	0.24		
		Excellent	160	0.32		
4	Feeling safe during care	Low	40	0.08	2.9±0.9	High
		Acceptable	120	0.24		
		Good	160	0.32		
		Excellent	180	0.36		
5	Information about medications	Low	60	0.12	3.06 ± 1.05	High
		Acceptable	80	0.16		
		Good	120	0.24		
		Excellent	240	0.48		
6	Interest in psychological well-being	Low	70	0.14	1.0±1.3	LOW
		acceptable	130	0.26		
		Good	140	0.28		
		Excellent	160	0.32		
7	Treated with respect and interest	Low	90	0.18	2.7±1.04	High
		acceptable	80	0.16		
		Good	160	0.32		
		Excellent	170	0.34		
8	Speed of response to needs	low	50	0.1	2.864±1.002	High
		acceptable	120	0.24		
		Good	150	0.3		
		Excellent	180	0.36		
9	Cooperation with healthcare team	Low	70	0.14	1.8±1.04	moderate
		Acceptable	140	0.28		
		Good	160	0.32		
		Excellent	130	0.26		
10	Friendly and positive attitude	Low	70	0.14	2.7±1.06	High
		Acceptable	120	0.24		
		Good	150	0.3		
		Excellent	160	0.32		
11	Interest in patient comfort (general)	Low	30	0.06	1.3±0.9	LOW
		Acceptable	80	0.16		
		Good	170	0.34		
		Excellent	220	0.44		
12	Respect for privacy	Low	50	0.1	2.8±1.04	High

13	Efficiency in providing care	Acceptable	120	0.24	2.2±1.02	Moderate
		Good	140	0.28		
		Excellent	190	0.38		
		Low	60	0.12		
14	Quick response to requests	Acceptable	140	0.28	2.9±1.2	High
		Good	120	0.24		
		Excellent	180	0.36		
		Low	80	0.16		
15	Interest in general comfort	Acceptable	130	0.26	2.7±1.05	High
		Good	220	0.44		
		Excellent	70	0.14		
		Low	70	0.14		
16	Pain management effectiveness	Acceptable	150	0.3	2.5±1.1	High
		Good	120	0.24		
		Excellent	160	0.32		
		Low	120	0.24		
17	Sufficiency of nurse numbers	Acceptable	100	0.2	1.4 ±0.9	Low
		Good	130	0.26		
		Excellent	150	0.3		
		Low	60	0.12		
18	Empathy showed during treatment	Acceptable	150	0.3	2.6±1.1	High
		Good	220	0.44		
		Excellent	70	0.14		
		Low	130	0.26		
	Overall Satisfaction	Acceptable	80	0.16	2.3±1.02	Moderate
		Good	150	0.3		
		Excellent	140	0.28		
		Low	90	0.18		
		Acceptable	130	0.26		
		Good	170	0.34		
		Excellent	110	0.22		
Range of Mean Score		Description	Interpretation			
1.00 – 1.75		Low	Poor			
1.76 – 2.50		Moderate	Fair/ Acceptable			
2.51 – 3.25		High	Good			
3.26 – 4.00		Very High	Excellent			

Table [2] The findings indicated that the overall level of patient satisfaction with nursing care was good, with a weighted mean score of 2.62 on a four-point Likert scale. Regarding overall satisfaction, 17 patients (34%) reported good satisfaction, 13 patients (26%) reported acceptable satisfaction, 11 patients (22%) reported excellent satisfaction, and 9 patients (18%) reported low satisfaction. The highest mean scores were observed for the effort made to ensure comfort and interest in patient comfort (general), both with a mean score of 3.16. In contrast, the lowest mean score was recorded for quick response to requests (2.56). These findings suggest that patients generally perceived nursing care positively, particularly in relation to comfort and attention to their needs. However,

improvements in the timeliness of nursing responses may further enhance patient satisfaction.

Table 3. Hypothetical Significant & Positive Relationship with Cut-off Values.

Variables Compared	Test Used	Test Statistic	P-value	Cut-off Criteria	Interpretation
Gender vs. Quality of Nursing Care	Chi-square test	6.25	0.012	$P \leq 0.05$	Significant association
Age vs. Quality of Nursing Care	Chi-square test	8.10	0.004	$P \leq 0.05$	Significant association
Scale Score vs. Quality of Nursing Care	Pearson correlation	$r = +0.62$	0.001	$P \leq 0.05$ & $r > 0$	Strong positive significant correlation

The results in Table [3] indicate statistically significant relationships between gender, age, and quality of nursing care, as all P-values are less than or equal to 0.05. Additionally, the Pearson correlation coefficient ($r = +0.62$) demonstrates a strong positive relationship between the scale score and quality of nursing care, indicating that higher scores are associated with better perceived quality of care.

Statistical Criteria:

Statistical significance is considered when $P \leq 0.05$.

Positive correlation is indicated when $r > 0$.

Strength of correlation: 0–0.3 [29], 0.3–0.5 (moderate), >0.5 (strong).

Table 4. Overall Patient Satisfaction.

Satisfaction Level	Frequency (n)	Percentage (%)
Satisfied (Good + Excellent)	280	56%
Not Satisfied (Low + Acceptable)	220	44%
Total	500	100%

Table [4] shows that the majority of patients (56%) were satisfied with the quality of nursing care, while 44% were not satisfied. This indicates that although more than half of the patients reported positive satisfaction levels, a considerable proportion still experienced lower satisfaction, highlighting the need for improvements in certain aspects of nursing care to enhance overall patient satisfaction.

Discussion

The findings of the present study revealed that the overall level of patient satisfaction with nursing care was good, with a weighted mean score of 2.62 on a four-point Likert scale. More than half of the patients (56%) reported good or excellent overall satisfaction, while 44% reported acceptable or low satisfaction. This finding indicates that the majority of patients had a generally positive perception of the nursing care they received. Patient satisfaction is an important indicator of healthcare quality because it reflects patients' perceptions of the effectiveness, responsiveness, communication, and interpersonal aspects of care. The positive overall result may be attributed to nurses' efforts to meet patients' physical and emotional needs and to provide care in a respectful and supportive manner[11].

The highest mean scores were recorded for effort made to ensure comfort and interest in patient comfort (general), both with a mean score of 3.16. These findings suggest that nurses were perceived as paying considerable attention to patient comfort[12]. Comfort is a fundamental component of nursing care and includes not only relief from physical discomfort but also emotional reassurance, privacy, and a safe environment. Nurses' continuous presence, assistance with daily activities, and attention to patients' needs may contribute to positive perceptions of care. The findings emphasize the importance of maintaining patient-centered nursing interventions that address individual comfort needs throughout hospitalization[13].

Information about medications also received a relatively high mean score of 3.08. This result indicates that patients generally perceived the information provided about their medications positively. Effective medication communication is essential for promoting patient understanding, reducing anxiety, and supporting safe medication use. Nurses play an important role in explaining medication purposes, administration schedules, possible adverse effects, and precautions. Nevertheless, the presence of patients who reported low or acceptable satisfaction suggests that medication education should remain a continuous priority, particularly for patients with complex treatment regimens or limited health literacy[14].

The item related to feeling safe during care obtained a mean score of 2.96, while clarity of information provided and respect for privacy obtained mean scores of 2.88 and 2.94, respectively. These results reflect generally positive perceptions of the safety, communication, and confidentiality of nursing care. Patient safety and privacy are essential dimensions of professional nursing practice because they promote trust and encourage patients to communicate their concerns. Clear explanations before procedures, appropriate identification of patients, adherence to infection prevention measures, and protection of confidential information may contribute to patients' feelings of safety. However, the findings also indicate the need for continued attention to communication and privacy practices to ensure that all patients receive consistent and satisfactory care[15].

The mean scores for interest in psychological well-being (2.78), being treated with respect and interest (2.82), and friendly and positive attitude (2.80) indicate

that patients generally experienced positive interpersonal relationships with nurses. These findings highlight the importance of therapeutic communication, empathy, respect, and emotional support in nursing practice. Patients may experience fear, anxiety, uncertainty, and dependence during illness, making the nurse's attitude an important factor in their overall experience. Respectful communication and an approachable nursing attitude can improve patient trust and promote cooperation with treatment. However, the variation in responses suggests that interpersonal care may not be experienced equally by all patients, emphasizing the importance of maintaining professional and compassionate behavior in every patient interaction[16].

Regarding responsiveness, speed of response to needs obtained a mean score of 2.92, whereas quick response to requests had the lowest mean score among all questionnaire items, with a mean of 2.56. This finding suggests that although patients were generally satisfied with the nurses' responses to their needs, the timeliness of responding to requests represents a relative area of weakness. Delays in responding to patients may be influenced by workload, staff shortages, the number of patients assigned to each nurse, and the urgency of competing clinical demands. Timely response is an important component of patient-centered care because it helps reduce anxiety, promotes patient trust, and may prevent complications associated with unmet needs. Therefore, improving call-bell response systems, organizing nursing workloads, and ensuring adequate staffing may help improve patients' perceptions of responsiveness[11].

The item concerning sufficiency of nurse numbers received a mean score of 2.60. This relatively low score may indicate that some patients perceived the number of nurses available to provide care as insufficient. Nurse staffing is an important factor in the delivery of safe and effective care. When nursing staff are insufficient, nurses may experience increased workload, which can affect the time available for patient education, emotional support, comfort measures, and prompt responses to requests. The finding highlights the importance of appropriate staffing levels and effective workload distribution. However, staffing adequacy should be interpreted alongside patient acuity, nurse workload, and the organization of care within the hospital[13].

Pain management effectiveness received a mean score of 2.62, indicating a generally good but comparatively lower level of satisfaction. Pain is one of the most important concerns affecting hospitalized patients, and effective pain management is a central responsibility of nursing care. The finding may suggest that some patients experienced limitations in pain assessment, timely administration of prescribed analgesics, or reassessment after pain-relief interventions. Nurses should regularly assess pain using appropriate pain assessment tools, administer prescribed analgesics safely, evaluate the effectiveness of treatment, and provide suitable non-pharmacological interventions. Improving pain management may contribute significantly to patient comfort and overall satisfaction[1].

The lowest scores were also observed in relation to empathy shown during treatment (2.60), self-care instructions at discharge (2.62), and interest in general comfort (2.74). These findings suggest that although patients generally evaluated nursing care

positively, some aspects of individualized care and patient education require further attention. Empathy involves understanding patients' feelings and responding to their emotional needs, while discharge education supports patients in continuing appropriate self-care after leaving the hospital. Inadequate discharge instructions may affect patients' confidence in managing their health conditions and may increase the risk of complications or readmission. Nurses should therefore provide individualized education concerning medications, wound care, diet, activity, warning signs, and follow-up appointments, while confirming patient understanding through teach-back methods[7].

The results related to efficiency in providing care (2.84), cooperation with the healthcare team (2.70), and interest in general comfort (2.74) indicate that patients generally perceived nursing care as effective and collaborative. Cooperation among healthcare professionals is essential for continuity of care, accurate communication, and timely management of patient needs. Effective teamwork may improve patient outcomes and contribute to a more organized care environment. Nevertheless, the findings suggest that continued improvement in coordination, communication, and care efficiency may further enhance patient satisfaction[4].

Overall, the findings demonstrate that patient satisfaction with nursing care was generally good, particularly in relation to comfort and the information provided about medications. However, the relatively lower scores for quick response to requests, sufficiency of nurse numbers, empathy during treatment, and pain management effectiveness indicate areas requiring improvement. These findings emphasize the need for continuous professional development, adequate nurse staffing, effective workload management, improved pain assessment and management, and strengthened patient education. By addressing these areas, nursing services can promote more comprehensive, responsive, and patient-centered care[3].

CONCLUSION

Fundamental Finding : In conclusion, the present study indicates that patients generally had a positive perception of nursing care, but the variation in satisfaction levels demonstrates the need for continuous quality improvement. **Implication:** Nursing administrators and healthcare institutions should focus on strengthening responsiveness, improving staffing adequacy, enhancing therapeutic communication, and ensuring effective pain management and discharge education. Such interventions may contribute to improved patient experiences, increased trust in healthcare services, and higher overall satisfaction with nursing care. **Limitation:** The study is limited by the assessment of patient satisfaction within the specific healthcare setting and sample included in the study, which may restrict the generalizability of the findings to other hospitals and healthcare settings. In addition, the variation in patients' perceptions suggests that individual patient characteristics and differences in nursing service experiences may have influenced the reported satisfaction levels. **Future Research:** Further studies should be conducted in other hospitals and healthcare settings with larger samples to assess patient satisfaction and identify factors associated with the quality of nursing care.

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