Original Article

Private versus Public Hospitals: Patient Satisfaction of Nursing Care Quality in Orthopaedic Wards

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Abstract

Background: Patient's satisfaction with nursing care is thought to be a key component in determining how patients perceive service quality. Quantifying patient satisfaction in both private and public healthcare settings can offer essential evidence on performance; consequently, reflected on quality management. **Aims:** This study aims to explore patients' satisfaction with the quality of nursing care. **Subjects and Methods:** A descriptive-cross-sectional study was conducted, involving 251 patients selected through a random selection method. Data were collected using the patient satisfaction with Nursing Care Quality Questionnaire, comprising a total of 20 items. The collected data were then analysed and interpreted using descriptive and inferential statistics. Data were analysed using SPSS V25. **Results:** The findings of the current study show that more than half (52.6%) of subjects were somewhat satisfied with the provided nursing education. Similarly, more than half (55%) of subjects were somewhat satisfied with the provided nursing care. Correspondingly, (60.2%) of subjects were somewhat satisfied with the overall provided nursing services, including both the educational and the actual direct nursing care. **Conclusions:** Overall, patients expressed general satisfaction with the inpatient nursing care they received, and their perceived needs and care expectations from nurses significantly influenced their satisfaction levels.

Keywords: Nursing, patient, quality of care, satisfaction

Introduction

In health or sickness, in peace or war, in private or public health sectors, advocating client's rights to get high-quality care was and will continue to be one of the most cherish able aspects of professional nursing identity.[1-3] Since Nightingale times until the present time, nurses are committed to advocate the aforementioned rights.[4] Such commitment can be actualised by providing standard-quality nursing care, aiming basically at achieving the maximum level of client's satisfaction with the provided nursing care.[5] A plethora of studies have confirmed that client's satisfaction is a crucial and frequently employed indicator for evaluating the healthcare quality.[6-8] Patient satisfaction can be defined as the client's perceived care equated with the anticipated care.[9] Therefore, the scientific literature have shown that success in achieving the maximum level of client satisfaction is a true reflection of organisational success in fulfilling the organisational quality marker of client-centred care.[10] Such an organisational success has a multi-faceted positive effect, which includes but is not limited to, healthier life quality, reduced medication errors, and health outcomes improvement. In other words, clients who experienced satisfaction with the provided care are most likely to have better compliance with the planned management, when equated with the unsatisfied clients.[11,12] Whether for short or a long time, for an acute or chronic health problem, for a child or an adult, hospitalisation can be stressful for patient and his or her family.[13] Stressors in the hospital environment are various. Examples are but not limited to knowledge deficit about the disease prognosis, fear

Received: 11-03-2025, **Revised:** 17-04-2025,
Accepted: 12-05-2025, **Published:** 01-08-2025

Access this article online

Quick Response Code:

Website: https://journals.lww.com/npmj

DOI: 10.4103/npmj.npmj_84_25

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How to cite this article: Ali ZH, Al-Fayyadh S, Isam SR, Hussein SM, Al-Ganmi AH, Al-Hadrawi H. Private versus public hospitals: Patient satisfaction of nursing care quality in orthopaedic wards. Niger Postgrad Med J 2025;32:197-203.

of unknown, social isolation, hospital-acquired infections and pain. Therefore, achieving hospitalised patient's satisfaction would be challenging for all the involved stakeholders. The challenge is even greater when managing hospitalised patients with musculoskeletal health problems, considering the complexity of the involved traumatic and non-traumatic health problems.[14] Searching the published literature within the past 10 years shows a lack of relevant studies that dissect the multi-faceted construct of patient's satisfaction in orthopaedic wards of equal importance, no national or regional study has compared patients' satisfaction in terms of the provided nursing care in private and public hospitals.[15] This justifies conducting the current study to address the literature gap particularly in Middle-eastern healthcare settings. Therefore, this study aimed explore patients' satisfaction with the quality of nursing care.

Materials and Methods

Ethical considerations

The joint Institutional Review Board (IRB) at the College of Nursing, University of Baghdad and the Ministry of Health (MoH) approved the study to be conducted on hospitalized patients in orthopaedic wards of 11 hospitals; whereas four of the aforementioned hospitals were public hospitals and the rest were private. The study protocol meets the applied standards of respecting and protecting human subjects' rights. The IRB reference number is 1044; dated 9 April 2019.

Research design

This across-sectional study design was employed among patients admitted in Public hospital and private hospital. Study was carried out in public and private hospitals in Baghdad City, Baghdad Province. The government owns public hospitals in order to provide health-care services at relatively free costs, and a high patient flow is expected. Private hospitals are run as businesses and are owned by individuals. In current study were selected atotal 11 hospitals divided into (4 public and 7 private) from Baghdad City. The study was from February 2023 to November, 2024.

Setting and participants

The sample was collected from all Baghdad city major public and private hospitals specialising in orthopaedics. Of the 11 included hospitals; four were public and the rest were private hospitals. The sample of the study was patients who were hospitalised in orthopaedic units. The minimum required sample size is 235. This was calculated using the following standard parameters. Five percent error margin, 95% confidence level, 50% response distribution, 600 the population size, whereas the sample size was (251) participants. Non-probability samples purposive sampling involving 287 patients was initially recruited. However, only 251 subjects consented to participate. The inclusion criteria included both sexes of hospitalised patients who were within age range of (18–75) years at the time of data collection. On the other hand, patients who were clinically unstable were excluded.

Measurement and data collection

The data were collected using the 'Patient Satisfaction with nursing care quality questionnaire', a standardised tool developed by.[16] It consists of two parts: Demographic data and questions related to patient satisfaction with nursing care. The questionnaire contains 20items and offers five response options: Excellent, very good, good, fair, and poor. The researchers collected the data, with patients completing the questionnaires prior to their discharge from the hospital. Patients who agreed to participate in the study received an explanation of the study's purpose and signed an informed consent form. Participation was voluntary. Additionally, confidentiality and anonymity issues were detailed in the form. According to the cutoff points proposed by Majeed *et al.*, scores can be categorised as follows: 20–29: Dissatisfaction, 30–39: Somewhat satisfaction, and 40–60: Satisfied.

Data analysis

The distribution of the data was assessed using the single sample Kolmogorov–Smirnov test, as the significance values ≥0.05. For independent variables with two categories were used *t*-tests, and independent variables with more than two categories were used one-way analysis of variances (ANOVAs). Data analysis data were analysed using IBM Corp. IBM SPSS statistics for windows. Version 27.0. Armonk: IBM Corp; 2025.

Results

Table 1 the underlined numbers represent the highest

Table 1: Descriptive distribution of the study sample according to their sociodemographic

Variables	Frequency, *n* (%)
Sex	
Male	159 (63.3)
Female	92 (36.7)
Age categories (years)	
18–28	61 (24.3)
29–39	60 (23.9)
40–49	35 (13.9)
50–59	47 (18.7)
60–69	36 (14.3)
≥70	12 (4.8)
Educational attainment	
No read/write	25 (10.0)
Read/write	28 (11.2)
Primary school	43 (17.1)
Intermediate school	24 (9.6)
High school	65 (25.9)
Institute	20 (8.0)
College	41 (16.3)
Higher studies	5 (2.0)
Total	251 (100.0)

percentages of the presented variables. In which, more than half (63.3%) of the study sample were males. Almost quarter (24.3%) of the study sample were classified as young individuals within 18–28 years. In terms of educational attainment, more than a quarter (25.9%) of the study sample was high school graduates.

Table 2 shows that more than half (51%) of the subjects were diagnosed with fracture at multiple sites. In regard to their initial entry ward, 30.3% were admitted to the emergency department (ED). Concerning the type of hospital that the subjects were admitted to, more than half (69.3%) were admitted to a governmental hospital. Almost half 48.6% of subjects spent one to 3 days in the hospital. Similarly, more than half (56.6%) of the subjects were hospitalised in a private room. One third (33.1%) of the study sample were hospitalised in AL-Kindi hospital. Most of the subjects (69.3%) were admitted to a governmental hospital.

Table 2: Descriptive distribution of the study sample according to their clinical characteristics

Variables	Frequency, *n* (%)
Medical diagnosis	
Fracture	128 (51.0)
Amputation	57 (22.7)
Total hip replacement	15 (6.0)
Soft tissue repair	7 (2.8)
Osteotomy	5 (2.0)
Carpel tunnel syndrome	6 (2.4)
Knee joint replacement	5 (2.0)
Arthroscopy	11 (4.4)
Herniated disc	12 (4.8)
Osteomyelitis	5 (2.0)
Entry to wards	
Medical	66 (26.3)
Surgical	39 (15.5)
Orthopaedic	66 (26.3)
Emergency	76 (30.3)
Critical care	4 (1.6)
Hospitalisation duration/days	
1–3	122 (48.6)
4–6	97 (38.6)
7–9	22 (8.8)
≥10	10 (4.0)
Room type	
Alone	142 (56.6)
With another patient	4 (1.6)
Multiple patients	105 (41.8)
Hospitals names	
AL-Kindi	83 (33.1)
AL-Yarmouk	45 (17.9)
Alshaheed Ghazi Alhariri for surgical Specialties	25 (10.0)
Ibn sina	21 (8.4)
AL-Dewali	16 (6.4)
AL-Dhirgham	6 (2.4)
AL-Qimma	20 (8.0)
AL-Zahraa	12 (4.8)
AL-Bishara	13 (5.2)
AL-Alami	10 (4.0)
Hospital type	
Governmental	174 (69.3)
Private	77 (30.7)
Total	251 (100.0)

Table 3 descriptively classifies patient's satisfaction levels; whereas, more than half (52.6%) of subjects were somewhat satisfied with the provided nursing education. Similarly, more than half (55%) of subjects were somewhat satisfied with the provided nursing care. Correspondingly, (60.2%) of subjects were somewhat satisfied with the overall provided nursing services, including both the educational and the actual direct nursing care.

Table 4 highlighted a significant effect of sex on patient's satisfaction ($t = -3.886$, df = 249, $P = 0.000$). From the result of Levene's test for equality of variances, the null hypothesis is rejected.

Table 5 ANOVA revealed that there was a statistically significant difference in patient's satisfaction among hospitalisation duration groups (F [3, 247] = [5.319], P = [0.001]); hospitals types (F [2, 248] = [5.981], P = [0.003]); hospitalisation room type groups (F [2, 248] = [8.559], P = [0.000]); entry wards groups (F [4, 246] = [3.212], P = [0.014]). Yet, there was no statistically significant difference in patients satisfaction among age categories groups (F [5, 245] = [3.253], P = [0.007]); educational levels groups (F [4, 246] = [0.374], P = [0.827]); medical diagnosis groups (F [9, 241] = [1.889], P = [0.054]); and hospitalisation frequency groups (F [3, 247] = [3.218], P = [0.023]).

Table 3: Descriptive classification of patient's satisfaction levels

Satisfaction level	Frequency, *n* (%)
Satisfaction with provided patients education domain	
Dissatisfied	37 (14.7)
Somewhat satisfied	132 (52.6)
Satisfied	82 (32.7)
Satisfaction with the provided nursing care domain	
Dissatisfied	29 (11.6)
Somewhat satisfied	138 (55.0)
Satisfied	84 (33.5)
Overall patient's satisfaction	
Dissatisfied	25 (10.0)
Somewhat satisfied	151 (60.2)
Satisfied	75 (29.9)
Total	251 (100)

Table 4: Statistical differences in patient satisfaction with nursing services among ≤2-level variables

Overall satisfaction	Levene's test for equality of variances, *F*	Significant	*t*-test for equality of means			
			t	df	Significant (two-tailed)	Mean difference
Equal variances assumed	0.749	0.388	−3.886	249	0.000	−6.86804
Equal variances not assumed			−4.077	163.574	0.000	−6.86804

Df: Degrees of freedom

Table 5: Statistical differences in patient satisfaction with nursing services among ≥3-levels variables

Variables	Categories	Sum of squares	Degrees of freedom	Mean square	*F*	*P*
Satisfaction/age categories	Between groups	2741.281	5	548.256	3.253	0.007
	Within groups	41,296.488	245	168.557		
Satisfaction/hospitalisation duration	Between groups	2672.391	3	890.797	5.319	0.001
	Within groups	41,365.378	247	167.471		
Satisfaction/educational levels	Between groups	266.281	4	66.570	0.374	0.827
	Within groups	43,771.488	246	177.933		
Satisfaction/medical diagnosis	Between groups	2902.064	9	322.452	1.889	0.054
	Within groups	41,135.705	241	170.688		
Satisfaction/hospitalisation frequency	Between groups	1656.508	3	552.169	3.218	0.023
	Within groups	42,381.261	247	171.584		
Satisfaction/hospitals types	Between groups	2026.469	2	1013.234	5.981	0.003
	Within groups	42,011.300	248	169.400		
Satisfaction/entry wards	Between groups	2186.021	4	546.505	3.212	0.014
	Within groups	41,851.748	246	170.129		
Satisfaction/hospitalisation room type	Between groups	2843.312	2	1421.656	8.559	0.000
	Within groups	41,194.457	248	166.107		
Total		44,037.769	250			

Discussion

The main finding of the present study is that patients who were treated in both private and public healthcare settings were somewhat satisfied with both the provided nursing care and patient's teaching. Such findings were disappointing considering the fact that nurses must actualize their crucial role as advocates for patients, as well as clients, with musculoskeletal disorders, assisting them in their journey toward regaining full independence by facilitating personal readjustment.[17-22] Given the challenging circumstances in Iraq, it is important to acknowledge that this task may be difficult.[23] Consequently, it is necessary for both the MoH and the World Health Organization to enhance its crucial and indispensable support to the Iraqi nurses by providing mentorship and promoting the nursing role within the multidisciplinary team responsible for providing care to patients who are hospitalised with musculoskeletal disorders.[24,25] In the field of nursing, where the core of the nurse-client therapeutic relationship is based on providing the optimum level of care, it is essential that the highest level of client's satisfaction is targeted.[26] However, gaining patient's optimum satisfaction in the orthopaedic ward is a not straightforward task. To highlight the aforementioned fact, estimated that between June 2011 and October 2014, one orthopaedic clinic collected standardised new patient forms and analysed 3151 responses for satisfaction and likelihood to recommend practice. Obtaining 'excellent' or 'very good' satisfaction was strongly correlated to quality service markers, such as time required responding to patients request, caring environment, and nurse: patient ratio.[27] In another study, 182 patients were retrospectively analysed in an outpatient orthopaedic clinic. An increased patient satisfaction was seen for older patients and also correlated with time spent with the primary healthcare providers, who were the surgeons. Satisfaction was not associated with waiting time, and the authors noted that most patients could not accurately predict waiting time over 15 min until they had waited longer than 60 min.[28] Similarly, in a survey of 130 patients who were referred to a spine surgery clinic for initial evaluation, those with a high self-rated disability level and those whose surgeon recommended against surgery demonstrated lower patient satisfaction with the experience.[29] Of equal importance, Hassan *et al*. (2024) published a paper on a scale that measured patients' expectations of lumbar spine surgery and found it to be valid and reliable. In that study of 420 lumbar spine surgery patients were enrolled, they found a wide variation in preoperative expectations. Those who were younger and those with higher Oswestry Disability Index (greater self-reported disability) demonstrated the highest expectations about their surgery. Surprisingly, surveying 810 patients in 43 hospitals showed that the weakest factor affecting patient-reported satisfaction was the treatment outcome.[30] On one hand, having had only one previous hospitalisation experience decreased the probability of being

satisfied with communication; on the other hand, being hospitalised more than once had a negative effect on overall experience and on the patient – nurse relationship.[31] All the aforementioned studies have highlighted the complex nature of orthopaedic wards, which may reflect variation in study findings in terms of patient satisfaction. The displayed findings in Table 3 are inconsistent with findings produced by this difference between the aforementioned studies and this study's findings may be due to a range of factors, including but not limited to: Variations in patient demographics, differences in hospital environments and payment options, potential shortcomings in nursing care provided within studied the hospitals, nurse: Patients ratio, patients health status acuity, patients' health literacy level, and raised patient demands for quality services, and variations in the research approaches used in the aforementioned studies.[32-36] A plethora of studies have investigated how the perceived healthcare services quality is influenced by sociodemographic characteristics.[37-39] In the instance in question, 14,934 people with an average age of 54, the majority of whom were female, and a primary school education were found to have high levels of customer satisfaction. It was observed that, in terms of communication and the patient experience with nurses, gender had only a statistically significant impact. Men were more likely than women to provide higher scores.[31] Studies with similar findings found that age, education, and self-reported health status were statistically significant predictors of client satisfaction with hospital care. Being older and healthier increases the likelihood of declaring high self-satisfaction. In contrast, less educated patients were more satisfied than those with a university education. The results highlighted that patients who were older, male, less educated, and healthier tended to evaluate hospital service more positively than others.[40] As hypothesised in the current study, patient's satisfaction significantly differs when comparing the provided nursing care between major public and private hospitals. Consistent findings were reported in the literature, highlighting similar levels of patient satisfaction in many developing nations.[7,9,11,41-44] Moreover, even in developed nations suchas USA, UK, Canada and Australia. Inconsistent results were reported.[45-48] This difference can be explained by the fact that patient's satisfaction varies based on various factors such as anticipations, service utilisation encounters, and emotional or cognitive reactions post-service consumption and selection.[49] Other than the aforementioned important variables, both the work setting and the individual attributes of nurses are important factors that reflect the level of patient care quality.[50] Of equal importance, patients or clients who do not have to worry about the financial costs of their healthcare by being covered with social welfare or even covered by a governmental insurance agency are expected to experience lower levels of psychosocial distress. This may free their mind to focus more on the quality of nursing care they receive, focussing on many essential and even non-essential angles of the received care. This can explain their higher satisfaction rating. Of equal importance, patients or clients who have been treated under the umbrella of universal or free healthcare services may perceive it as an act of governmental support or public sector duty, which has the potential to improve their overall satisfaction and experience with the orthopaedic nursing care they receive. Conversely, ratings about healthcare provider service quality are slightly higher in magnet status hospitals than in other regular hospitals, which could be in part explained by the qualities and competencies that the healthcare providers have and their advanced credentials.[11] Private hospitals are more focussed in meeting the demands of their clients in order to ensure that their patients keep coming back to them. Furthermore, as only a particular class of patients can afford the fees charged by private hospitals, their patient burden is less. Hence, healthcare providers have more time to spend with each patient. Time spent with healthcare providers is directly proportionate to patient satisfaction.[51] Whether a planned admission or an urgent admission, both were found to be predictors for patients' satisfaction. Whether patients were hospitalised in a medical or obstetric–gynaecologic–paediatric ward, they generally judged hospital service more positively than patients hospitalised in a surgical ward like orthopaedic ward.[31] In 2016, a multicentre study revealed that patients who were admitted through the ED had lower satisfaction than patients admitted through other pathways.[52]

In line with other studies, a planned admission tended to have a positive influence on patient satisfaction.[53] To sum up, healthcare policy makers, nurses, and all the stakeholders should target the third level of the Kano Model. Targeting a nursing care service that exceeds clients' expectations. This cannot be achieved without active and meaningful nurse engagement advocating their client's best interest. Patient satisfaction is enhanced when they feel empowered and have a sense of control over their care. Orthopaedic nurses should be well-equipped with both the essential and advanced competencies that enable them to get their clients the maximum level of satisfaction.

Limitation of the study

One of the major bulletin limitations when using descriptive designs is the inability to determine causality. Therefore, the researchers are determined to use a repeated measures design as the following step. Moreover, since the quantitative data was obtained using a self-administered survey, there is a potential for response bias from the participants, leading to some constraints on the data's validity.

Conclusions

It is essential for hospital administrators and healthcare policymakers to create thorough plans focused on improving satisfaction within the targeted setting. Efficient verbal communication of nurses with patients is the most modifiable factor in patient satisfaction. Patient satisfaction is the main component of quality care in orthopaedic wards; accordingly, any interventions to improve this indicator are of great importance. Holding interpersonal communication skills

workshops for nurses and encouraging nurses that have good communication with patients are suggested. Further interventional studies in this area are also recommended.

Study implication(s)

This study results can assist orthopaedic nurses in enhancing hospitalised patients' satisfaction with provided nursing care by shedding light on the factors that impact it. With a deeper understanding of variables such as patients' gender, length of hospital stay, hospital type, room type and entry wards, orthopaedic nurses can develop personalised or tailored care approaches to enhance patient experiences and overall satisfaction. When compared with one-size-fits-all, tailored nursing care plans in orthopaedic ward are the ultimate goal, to get client's maximum level of satisfaction.

Acknowledgements

Authors would like to acknowledge and appreciate the study participants' willingness to share their data in this study. Of equal importance, special thanks to all the targeted hospitals managerial staff that facilitated the data collection process.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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