THE RELATIONSHIP BETWEEN QUALITY OF NURSING CARE AND PATIENTS' SATISFACTION LEVEL IN PUBLIC HOSPITALS, LAHORE, PAKISTAN

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Abstract

Objective: This study aimed to evaluate patients' satisfaction with the quality of nursing care and examine the association between patient characteristics and their level of satisfaction in public hospitals in Lahore, Pakistan.

Design: A cross-sectional descriptive correlational design was adopted for this research.

Methods: A convenience sampling technique was employed to recruit 1014 inpatients from six major hospitals in Lahore, including three public sector hospitals, two semi-private institutions, and one university-affiliated teaching hospital. Data collection was conducted from January 2025 to March 2025 using the Urdu-translated version of the Patient Satisfaction with Nursing Care Quality Questionnaire. Statistical analysis included Pearson correlation, independent t-tests, one-way ANOVA, and hierarchical multiple regression.

Results: The study involved 1014 participants with a mean age of 51.3 years (SD = 18.6), with females representing 59.9% of the sample. Over two-thirds of respondents had some form of health insurance coverage, and 62.7% reported being unemployed. The average satisfaction score regarding nursing care quality was 68.2 (SD = 12.9), indicating a generally high level of satisfaction. Key factors significantly associated with higher satisfaction included higher household income ($p < 0.001$), higher educational attainment ($p = 0.003$), presence of health insurance ($p < 0.001$), admission to private or specialized units ($p < 0.001$), occupancy of single-bed rooms ($p = 0.001$), excellent self-rated health status ($p < 0.001$), and willingness to recommend the hospital to others ($p < 0.001$).

Conclusions: Patients' satisfaction with nursing care quality is significantly influenced by both individual and institutional characteristics. Hospital administrators should incorporate these findings into quality improvement strategies to enhance nursing care experiences and patient outcomes across public sector facilities in Pakistan.

INTRODUCTION

High-quality nursing care is recognized as a cornerstone of effective healthcare delivery and plays a vital role in shaping patient satisfaction worldwide (Agha et al., 2018; WHO, 2016). In Pakistan, where public hospitals continue to manage high patient volumes with limited resources, the quality of nursing significantly influences patient perceptions of healthcare (Gohar et al., 2024; Saad Ahmed Javed et al., 2018). Nurses are often the primary point of contact during inpatient stays, and their competence, communication, and responsiveness can either reinforce trust in the system or exacerbate patient dissatisfaction (Ghafoor & Malik, 2018; Gohar et al., 2024).

Empirical studies conducted in Lahore have revealed noticeable disparities in nursing care quality and patient satisfaction across public and private institutions. For instance, Gohar et al. (2024) reported that over 40% of patients in public tertiary hospitals sometimes felt they were not treated respectfully or promptly by nursing staff, as measured by the HCAHPS survey in four major public hospitals. In contrast, private and semi-private hospitals in the region consistently scored higher for responsiveness and communication (Gohar et al., 2024). Similarly, comparative research indicated that constructs such as empathy, tangibility, and assurance were significantly stronger predictors of satisfaction in private settings than in public hospitals (Saad Ahmed Javed et al., 2018).

Despite the Ministry of Health and provincial bodies like the Punjab Healthcare Commission advocating for standardized care (Punjab Healthcare Commission, 2010), the implementation of these standards in public hospitals remains uneven (Punjab Healthcare Commission, 2010; Kurji, 2016). Challenges such as understaffing, inadequate nurse training, and inconsistent enforcement of nursing practice guidelines contribute to lower satisfaction scores in public institutions (Ghafoor & Malik, 2018; Saad Ahmed Javed et al., 2018). These systemic gaps underscore the importance of assessing nursing care quality as part of quality improvement efforts, especially in high-volume public settings.

This study aims to fill this research gap by evaluating the relationship between nursing care quality and patient satisfaction in public hospitals in Lahore, Pakistan. By examining how socio-demographic factors, clinical context, and institutional characteristics influence satisfaction levels, this research will provide evidence to inform nursing policy and practice. Findings from this study can support targeted interventions—such as enhanced nurse training, improved nurse-patient communication practices, and strengthened clinical governance—ultimately contributing to more patient-centered care in public healthcare settings.

1. Materials and Methods

This study employed a descriptive correlational cross-sectional design to evaluate patient satisfaction with the quality of nursing care in public hospitals across Lahore, Pakistan. The design aimed to identify patterns and associations between patient demographics, hospital characteristics, and their satisfaction levels.

Data were collected using a structured questionnaire comprising two parts. The first section captured demographic and clinical characteristics such as age, gender, education, employment status, income level, health insurance, type of hospital and ward, chronic conditions, number of roommates, perceived health status, and whether the patient would recommend the hospital. The second part used the Urdu-translated version of the Patient Satisfaction with Nursing Care Quality Questionnaire (PSNCQQ), originally developed in English. This 19-item tool utilizes a 5-point Likert scale (1 = poor to 5 = excellent) with a score range of 19–95, measuring satisfaction in two dimensions: information provision (items 1–5) and direct care (items 6–19). The Urdu version demonstrated strong psychometric properties, with content validity indices (CVI) ranging from 0.83 to 1.0, and a Cronbach's alpha of 0.96.

Participants were recruited through convenience sampling from six hospitals: three major public hospitals (Jinnah Hospital, Ganga Ram Hospital, and Services Hospital), two semi-private facilities (Fatima Memorial and Ghurki Hospitals), and one university-affiliated teaching institution (Mayo Hospital). Medical, surgical, gynecology, postpartum, intermediate, and critical care units were included. Patients were eligible if they had stayed at least two days, were medically stable, cognitively sound, and

able to understand Urdu. Those with unstable conditions or stays shorter than two days in specialized units were excluded. The required sample size was determined using a standard formula with a 95% confidence level and a 3% margin of error, yielding a minimum sample of 996 participants. A total of 1,300 patients were approached, and 1,014 agreed to participate, resulting in a 78% response rate. Data collection occurred from January 2025 to March 2025, following approval from the institutional ethics committee. Trained data collectors facilitated the process using internet-connected tablets and self-

administered online forms. Informed consent was obtained electronically. Data were analyzed using SPSS version 22. Descriptive statistics summarized patient characteristics, while inferential analyses, including Pearson correlation, independent t-tests, one-way ANOVA (with Scheffe post hoc tests), and hierarchical multiple regression, identified factors significantly associated with satisfaction. Key assumptions of normality, independence, variance homogeneity, and multicollinearity were verified prior to regression modeling.

2.   Results

Table 1: Patients' Characteristics (n = 1014)

Characteristic	n	%
Gender		
Male	407	40.1
Female	607	59.9
Marital status		
Married	785	77.4
Single	142	14.0
Divorced	42	4.1
Widowed	45	4.4
Employment status		
Employed	331	32.7
Unemployed	636	62.7
Student	47	4.6
Education level		
Primary or less	136	13.4
Secondary	422	41.6
University	456	45.0

The study included 1,014 participants, of whom 59.9% were female and 40.1% male. Most respondents were married (77.4%), while smaller proportions were single (14.0%), widowed (4.4%), or divorced (4.1%). Regarding employment status, 62.7% were unemployed, 32.7% employed, and 4.6% were students. In terms of educational attainment, 45.0% had university-level education, 41.6% had completed secondary education, and 13.4% had primary education or less.

Table 2: Mean Scores of PSNCQQ Items (n = 1014)

Item	Mean (SD)
Overall PSNCQQ Score	**68.2 (12.9)**
Nurses' response to patient requests	3.8 (1.0)
Level of privacy maintained	4.0 (1.1)
Friendliness and courtesy	3.9 (1.0)

Provision of clear explanations	3.7 (1.2)
Attention to needs	3.8 (1.1)
Time nurses spent	3.6 (1.2)
Helpfulness of information	3.7 (1.2)
Skillfulness	3.9 (1.0)

The mean overall patient satisfaction score was 68.2 (SD = 12.9), indicating a generally high level of satisfaction with nursing care. Among individual items, the highest-rated aspects were privacy (M = 4.0, SD = 1.1), friendliness and courtesy (M = 3.9, SD = 1.0), and nursing skillfulness (M = 3.9, SD = 1.0). Areas rated slightly lower included the time nurses spent with patients (M = 3.6, SD = 1.2) and the clarity of explanations provided (M = 3.7, SD = 1.2). Overall, patients expressed favorable perceptions of nursing attentiveness, responsiveness, and professionalism.

Table 3: Relationship between Patient Satisfaction and Sample Characteristics

Variable	Mean (SD)	Test	p-value
Gender		t = 1.52	0.129
Male	67.5 (12.7)		
Female	68.7 (13.1)		
Marital status		F = 3.76	0.011
Married	67.7 (13.0)		
Single	69.8 (12.5)		
Divorced	71.2 (11.6)		
Widowed	67.5 (12.6)		
Employment status		F = 2.77	0.063
Employed	68.7 (12.6)		
Unemployed	67.9 (13.1)		
Student	70.9 (12.4)		

Patient satisfaction scores showed slight variation across demographic groups. Although females reported marginally higher satisfaction (M = 68.7, SD = 13.1) than males (M = 67.5, SD = 12.7), the difference was not statistically significant (p = 0.129). Marital status had a significant association with satisfaction (p = 0.011), with divorced (M = 71.2, SD = 11.6) and single patients (M = 69.8, SD = 12.5) reporting higher satisfaction than married individuals (M = 67.7, SD = 13.0). Employment status approached statistical significance (p = 0.063), where students (M = 70.9, SD = 12.4) showed the highest satisfaction compared to employed and unemployed patients.

Table 4: Predictors of Patient Satisfaction with Nursing Care

Predictor	B	SE	β	p-value
Education	1.13	0.37	0.09	0.003
Hospital type	2.65	0.52	0.16	<.001
Ward type	1.84	0.59	0.09	0.002
Room type	2.30	0.68	0.10	0.001
Perceived health	2.61	0.55	0.15	<.001
Recommend hospital	4.35	0.58	0.22	<.001

Multiple regression analysis identified several significant predictors of patient satisfaction with nursing care. Higher education levels (B = 1.13, p = 0.003) were positively associated with satisfaction, suggesting that more educated patients reported better experiences. Institutional factors also played a key role; patients admitted to better-rated hospital types (B = 2.65, p < .001), specialized wards (B = 1.84, p = 0.002), and single-occupancy rooms (B = 2.30, p = 0.001) reported significantly higher satisfaction levels. Additionally, patients who perceived their health status as good (B = 2.61, p < .001) and those who expressed a willingness to recommend the hospital (B = 4.35, p < .001) had the highest satisfaction, indicating strong associations between personal perception and care evaluation.

3.　　Discussion

Consistent with prior Pakistani research, this study found high overall patient satisfaction with nursing care (M = 68.2, SD = 12.9), particularly concerning privacy, nurses' friendliness, and technical competence. Hussain et al. (2019) similarly reported strong satisfaction levels in public hospital outpatient settings, with communication emerging as the most highly rated domain.

Although gender differences in satisfaction were not significant—a finding mirrored in Claro's (2022) cross-national study—marital status stood out as statistically significant, with single and divorced patients reporting higher satisfaction than married individuals. Claro noted similar demographic effects on satisfaction, particularly regarding marital status and educational attainment.

Our regression analysis identified key predictors: higher education (B = 1.13, p = .003), hospital type (B = 2.65, p < .001), ward type (B = 1.84, p = .002), single-room accommodation (B = 2.30, p = .001), perceived good health (B = 2.61, p < .001), and willingness to recommend the hospital (B = 4.35, p < .001). These findings align with Javed and Ilyas (2019), who underscored that institutional characteristics and patient socio-economic background significantly shape satisfaction in Pakistani hospitals.

Notably, lower satisfaction scores related to communication—such as clarity of explanations—corroborate international evidence emphasizing the centrality of nurse-patient interaction. Naz et al. (2024), in a burn unit setting in Pakistan, reported that weak communication adversely affected patient satisfaction and recommended on-the-job communication training for nurses. Likewise, research in Lahore confirms a strong link between interpersonal communication skills and perceived care quality (Rahman et al., 2024).

Overall, this study supports broader literature linking education, institutional environment, effective communication, and patient perception to nursing care quality (Javed & Ilyas, 2019; Papastavrou et al., 2014; Naz et al., 2024). Targeted quality improvement initiatives—such as continuous professional development for communication, upgrading ward infrastructure, ensuring adequate staffing, and patient-centered care policies—are essential for aiming higher in patient-reported nursing care outcomes in public hospitals.

4.　　Conclusion

This study highlights a generally high level of patient satisfaction with nursing care in public hospitals in Lahore, with key strengths noted in nurses' professionalism, privacy maintenance, and courtesy. Satisfaction varied by marital status and education, while institutional factors such as hospital type, ward, and room settings significantly influenced perceptions of care. Communication-related domains scored slightly lower, indicating a need for targeted improvement. The results underscore the importance of enhancing nurse-patient communication, investing in infrastructure (e.g., single rooms), and promoting patient-centered practices to further improve satisfaction. Addressing these factors can support more responsive, respectful, and effective nursing care in Pakistan's public healthcare system.

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