The nurse-patient relationship is positively correlated with patient satisfaction with nurses' care

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Abstract

Background: Humanistic care is central to nursing practice, significantly influencing the nurse-patient relationship, patient satisfaction, and overall quality of care. However, research on the direct correlation between relational care and nursing care satisfaction remains limited. This study explores the relationship between nurse-patient relational care and patient satisfaction with nursing services, aiming to inform the development of relationship-based care models.

Methods:This study was conducted, using multi-stage stratified sampling across several hospitals. The study involved 350 valid responses collected. Data were gathered using the Nursing Care Satisfaction Scale and the Relational Care Scale. Statistical analysis, including Pearson correlation and hierarchical linear regression, was performed to assess the relationship between relational care and nursing care satisfaction.

Results: The average score for nurse-patient relational care was 4.38 ± 0.57 , while the average satisfaction score with nursing care was 5.40 ± 0.86 . A positive correlation was found between relational care and nursing care satisfaction (r = 0.35-0.37, p < 0.01). The dimensions of care, trust, and professional ethics significantly predicted nursing care satisfaction, after controlling for demographic factors such as age and region.

Conclusion: A positive nurse-patient relationship is closely associated with higher patient satisfaction with nursing care. This study highlights the importance of relational care in enhancing patient satisfaction and emphasizes the need for comprehensive approaches, including improved nursing education, humanistic care training, and hospital management, to further enhance the quality of nursing care. Future research should expand to different hospital departments to assess the effectiveness of these initiatives.

Introduction

Humanistic care forms the fundamental principle of nursing, encompassing the care provided by nurses to patients, by nursing managers to nurses, the mutual care shared among nurses, and the self-care practices of nurses themselves (1–4). Promoting humanistic care in nursing plays a crucial role in fostering positive nurse-patient relationships, enhancing the quality of nursing services, increasing patient satisfaction, and elevating the professional standing of nurses (5–8). The nurse-patient relationship and nursing care satisfaction are vital indicators of whether patients receive the care they expect and deserve from nurses (9, 10).

Research on the concept of caring is expansive, with much of the existing literature focusing on areas such as the nature of care, its application in clinical nursing, evaluation of care behaviors by nursing staff and patients, assessment of caregiving abilities, efficiency, and organizational atmosphere, as well as patients' experiences of care

(11, 12). However, there is a notable gap in studies examining the relationship between nursing staff and patients, particularly the link between nursing care satisfaction and relational care. A thorough review of the literature revealed limited research in these areas, with most studies being single-center and involving small sample sizes (13–15).

Methods

Inclusion criteria for patients were: (1) participants who were outpatients or stable inpatients; (2) patients over 18 years old or those with legal guardians over 18; (3) informed written consent provided by the patients or their legal guardians.

Exclusion criteria included: (1) patients unable to complete cognitive assessments; (2) patients without smartphones or who could not complete the survey using a smartphone.

Tools

General Information Questionnaire

A questionnaire was designed by the researchers to collect basic information from patients, including their hospital, gender, age, marital status, education level, residence, medical insurance type, family income, department visited, region, and whether surgery had been performed.

Nursing Care Satisfaction Scale

The Nursing Care Satisfaction Scale, developed by the Nursing Care Quality Control Committee of Houston Health Care System (17), was used. This scale contains 20 items across 12 domains, such as nursing coordination, nursing ability, emotional support, respect for individuality, physical comfort, trust, patient involvement, and environment (both physical and spiritual). Patients were asked to evaluate their satisfaction with the nursing care received during their last hospitalization, rating each item on a scale from 1 ("never") to 6 ("always"). A total score of 120 was possible, with higher scores indicating greater satisfaction. The Cronbach's α coefficient in this study was 0.98, indicating excellent reliability.

Relational Care Scale

Originally developed by Ray and Turkel in 2001 using grounded theory, and later validated through several qualitative and quantitative studies, the Relational Care Scale assesses three main dimensions: work ethics, trust, and care (18). The patient version consists of 15 items, each rated on a scale from 1 ("strongly disagree") to 5 ("strongly agree"). The maximum score is 75, with higher scores reflecting a stronger nurse-patient relationship. This study was the first to apply this scale in this context, and it demonstrated strong reliability, with a Cronbach's α coefficient of 0.98 for the overall scale. The reliability for the individual dimensions of trust, care, and ethics were 0.97, 0.98, and 0.95, respectively.

Data Collection Process

The survey was administered using a QR code on an online platform managed by the Humanistic Care Professional Committee. After obtaining consent from the nursing department and secretary at each participating hospital, the research team distributed the questionnaire to the head nurses of various hospital departments, explaining the purpose of the study. The head nurses were responsible for organizing patient participation and ensuring that each patient scanned the QR code and completed the questionnaire. Patients could only participate once, and the survey required completion before submission. The survey was conducted anonymously. Data entry was performed by two researchers, who cross-checked the original data to ensure accuracy. Any incomplete or low-quality responses were excluded. A total of 31,095 questionnaires were distributed, and 29,108 valid responses were received, achieving a completion rate of 93.6%.

Statistical Analysis

Data were first entered into Excel and then imported into SPSS 25.0 for analysis. The two-person cross-check method was used to ensure data accuracy. Pearson correlation analysis was conducted to assess relationships between variables. Hierarchical linear regression analysis was employed to examine the impact of relational care on nursing care satisfaction. A p-value of <0.05 was considered statistically significant.

Results

A total of 350 valid questionnaires were collected across various provinces. The average score for nurse–patient relational care was 4.38 ± 0.57 , while the average satisfaction score regarding nursing care was 5.40 ± 0.86 . The scores for the 12 different aspects of nursing relationship satisfaction ranged from 5.11 to 5.49. The highest satisfaction was observed in areas such as nursing ability (5.49 ± 0.89) and emotional support (5.47 ± 0.88) , while lower scores were found in aspects like family participation (5.11 ± 1.28) and the spiritual environment (5.35 ± 1.04) .

There were significant differences in nursing care satisfaction based on various demographic factors, including gender, age, marital status, education level, place of residence, family income, medical department visited, type of medical insurance, and region. However, no significant differences were found related to whether patients had

undergone surgery. Specifically, male patients, older patients, married patients, those with lower education levels, urban dwellers, individuals with higher incomes, surgical patients, those with higher Medicare plans, and patients from the northeastern region reported higher satisfaction with nursing care.

The overall score of relational care, along with the scores for its individual dimensions, showed a positive correlation with nursing care satisfaction (r = 0.35-0.37, p < 0.01). The trust dimension had the lowest correlation coefficient (r = 0.35), while the care dimension and relational care scored the highest as seen in Table 2.

In the hierarchical linear regression analysis, gender, age, marital status, education level, place of residence, family income, department treated, medical insurance type, and region were used as control variables, while relational care was the independent variable and nursing care satisfaction the dependent variable, 3. The results indicated that age, region, and the care, trust, and professional ethics dimensions of relational care were significant predictors of nursing care satisfaction (p < 0.05). To simplify the regression equation, only age and region were included as control variables, while other unrelated variables were excluded. After controlling for age and region, the dimensions of care, trust, and professional ethics in relational care were found to significantly predict nursing care satisfaction

Table 1. Comparison of nursing care satisfaction scores of subjects with different demographic characteristics.

Project	Grouping	Score $(x \pm s)$	Statistics	p
Gender	Male	5.43 ± 0.85	4.77a	< 0.001
	Female	5.38 ± 0.87		
Age	18–34	5.34 ± 0.91	44.46 ^b	< 0.001
	35–39	5.41 ± 0.84		
	≥60	5.47 ± 0.82		
Marriage	Unmarried	5.36 ± 0.90	9.20 ^b	< 0.001
	Married	5.41 ± 0.85		
	Other	5.33 ± 0.94		
Level of education	Primary school the following	5.42 ± 0.86	3.15 ^b	0.013
	Junior high school	5.42 ± 0.85		
	High school/technical secondary school	5.40 ± 0.87		
	College	5.37 ± 0.88		
	Bachelor degree or above	5.40 ± 0.86		
Location	City	5.43 ± 0.85	17.67 ^b	< 0.001
	Towns	5.39 ± 0.88		
	Rural	5.36 ± 0.87		
Per capita monthly household income (SAR)	<3,000	5.36 ± 0.88	10.65 ^b	< 0.001
	3,000-<5,000	5.40 ± 0.86		
	5,000-<8,000	5.44 ± 0.83		
	>8,000	5.42 ± 0.86		
Department	Internal medicine	5.41 ± 0.85	18.03 ^b	< 0.001
	Surgical	5.45 ± 0.83		
	The department of obstetrics and gynecology	5.32 ± 0.92		
	Pediatric	5.30 ± 0.93		
	The critical	5.25 ± 0.90		
	Outpatient service	5.27 ± 0.94		
	Other	5.48 ± 0.85		
Health care type	Health care in cities and towns	5.42 ± 0.85	14.95 ^b	< 0.001
	The city health care	5.42 ± 0.84		
	Provincial health care	5.46 ± 0.80		
	Commercial insurance	5.35 ± 0.86		
	At public expense	5.41 ± 0.86		
	At his own expense	5.27 ± 0.95		
	Other	5.35 ± 0.90		
Operation	Yes	5.40 ± 0.86	-2.36a	0.18
	No	5.42 ± 0.85		

at-value.

^bF-value.

Table 2. Correlation between relational care, scores of each dimension and nursing care satisfaction

	Variable	1	2	3	4	5
1	Trust	1				
2	Care	0.94	1			
3	The professional ethics	0.93	0.96	1		
4	Relationship of care	0.97	0.99	0.98	1	
5	Satisfaction with nursing care	0.35	0.37	0.36	0.37	1

Discussion

The survey involving 350 patients revealed an average satisfaction score of 5.40 ± 0.86 , indicating a moderately high level of satisfaction, consistent with findings from Jia et al. (19). Research highlights that qualities like kindness, selflessness, and commitment are central to nursing care, rooted in various religious and cultural values (20). Liu's study identified that patients valued the humanitarian care provided by nurses the most (21). In this study, patients reported the highest satisfaction with the nurses' professional expertise and emotional support. However, the satisfaction with family involvement and the spiritual environment was lower. This suggests that while patients appreciate the technical skills and emotional reassurance provided by nurses, they desire more involvement from their families in their treatment processes. Previous research indicates that clinical nurses' ability to deliver humanistic care is still developing (22, 23), primarily due to the focus on technical training rather than on emotional and spiritual care (24). Therefore, it is essential to train nurses to enhance their observational and interpersonal skills, particularly since patients undergo both physical and psychological changes during their illness. Nurses, due to their closer interactions with patients, are in a unique position to offer both emotional and spiritual support, helping patients to feel more confident in their recovery.

The study found that age, gender, marital status, education, residence, family income, type of medical insurance, and department were all significant factors affecting nursing satisfaction. Older patients, especially those aged 60 or above, tended to report higher satisfaction, likely because they have fewer demands and are more content with the evolving humanistic care. This pattern aligns with Milutinović et al.'s research, which also found that older patients generally had higher satisfaction with nursing care (25). Other studies have indicated that nurses over 35 years old have the best humanistic care skills, thanks to their greater life and work experience (26). Younger nurses, lacking such experience, may struggle more with empathizing and establishing rapport with patients. Therefore, enhancing the humanistic care skills of nurses under 35 is crucial. Furthermore, male patients generally expressed higher satisfaction levels than females, which may be due to differences in sensitivity between the genders. Married individuals reported the highest satisfaction, consistent with findings from studies, which show that married individuals tend to be happier than those who are unmarried (29). Urban residents were also more satisfied than rural residents, likely due to better healthcare infrastructure. Patients with middle income levels and those with lower educational attainment expressed higher satisfaction, which could reflect differing expectations of care quality based on socioeconomic status. Additionally, those with provincial or municipal medical insurance were more satisfied compared to those without insurance, likely because the latter group may feel more critical or demanding when paying for services out-of-pocket. Patients in surgical departments reported the highest satisfaction, followed by those in other departments, which is attributed to the faster recovery times and shorter hospital stays typical of surgical patients. However, patients in critical care units or emergency departments sometimes reported lower satisfaction, despite nurses' strong commitment to providing humanistic care. In these settings, patients' severe conditions limit their interaction with nurses, making it difficult to form strong relationships. Overall, special attention should be given to women, single, divorced, or widowed patients, as well as outpatients and patients in critical care or emergency departments, to enhance humanistic care services.

The results of this study indicated a positive correlation between the nurse-patient relationship and patient satisfaction with nursing care (r = 0.37, p < 0.001). The hierarchical regression analysis further identified that caring, trust, and professional ethics within the nurse-patient relationship were significant predictors of patient satisfaction. Factors such as maintaining eye contact, showing respect for patients' choices, and fostering trust between nurses and patients were all essential in building a strong relationship. This, in turn, had a profound impact on patient satisfaction. However, since satisfaction with nursing care is only one aspect of overall patient satisfaction, these variables only explained 37% of the variance. As Hu (31) suggested, improving nurses' humanistic care abilities can be achieved by enhancing nursing education on these topics, fostering a positive work environment, supporting nurses' work-life balance, optimizing staffing, and integrating smart technologies into nursing. A supportive work environment contributes to greater job satisfaction among nurses, which can, in turn, lead to better care for patients. Hospitals and managers can further enhance nurse-patient relationships by considering the quality of care, nursing

services, and professional evaluations as part of performance metrics, promoting collaboration and mutual trust between nursing teams and leadership. This will help establish a nurturing atmosphere of care that improves both patient and nurse satisfaction.

Conclusion

This study examined the relationship between patient satisfaction with nursing care and the nurse-patient relationship in hospitals through a multicenter survey. The findings suggest that a positive nurse-patient relationship is closely associated with higher patient satisfaction with nursing care, offering valuable insights for developing relationship care models. However, patient satisfaction with nursing care is influenced by numerous factors, including the broader healthcare system, governmental policies, and the patients themselves. Although the nurse-patient relationship plays a crucial role, a comprehensive approach, including improvements in nursing education, humanistic care training, and hospital management, is necessary to enhance overall satisfaction. Since 2019, experts in the field have developed and implemented guidelines for humanistic care practices in hospitals, and training programs have been established in numerous hospitals to address these needs. Future research should expand to include other departments, such as orthopedics, cardiology, and oncology, to assess the effectiveness of these initiatives across diverse healthcare settings.

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