ORIGINAL RESEARCH

The Relationships Between Patient Experience with Nursing Care, Patient Satisfaction and Patient Loyalty: A Structural Equation Modeling

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Purpose: When creating and managing patient loyalty, medical institutes always focus on medical technicians, overall healthcare quality, and hospital brands, and the role of nursing seems to be underappreciated. Empirical evidence about the relationship between patient experience with nursing care and patient loyalty is limited, especially in the Chinese healthcare system. This study aimed to explore to what extent patient experience with nursing care influences patient loyalty to the hospital and the impact routes.

Patients and Methods: This study is a multicenter cross-sectional survey. The STROBE was selected as the checklist in this study. Patient experience with nursing care, patient satisfaction and patient loyalty were collected from 1469 inpatients in three hospitals in China through a paper-based survey. Data were analyzed using SPSS and AMOS software; a structural equation model was established to explore the effect of patient experience with nursing care and satisfaction on patient loyalty using the PROCESS macro.

Results: There were significant direct and indirect effects between patient experience with nursing care and patient loyalty, explaining 32.0% of patient loyalty variance. Patient experience with nursing care had a direct and positive impact on patient loyalty (β=0.298, P<0.01), and better patient experience with nursing care was directly associated with better patient loyalty. In addition, the results also revealed the effect of patient experience with nursing care on patient loyalty was partially mediated by patient satisfaction with nursing care and overall hospital services (β=0.162, P<0.01).

Conclusion: This study confirmed the importance of nursing care in creating patient loyalty; improving the patient experience with nursing care would be beneficial to patient loyalty. When creating patient loyalty, hospital administrators and nursing managers should make efforts to develop positive patient experience of nursing care in daily clinical practice through organizational changes, culture shaping and staff education.

Keywords: patient experience, nursing care, patient satisfaction, patient loyalty

Introduction

During the past three decades, competition in the healthcare industry has increased rapidly and become a challenge for healthcare institutions in many countries,[1] such as Germany, Australia, France, and China.[2] In a competitive situation, healthcare providers must pay attention to attracting and maintaining customers. Healthcare success is not only the result of satisfied health-related outcomes and excellent technical skills, but also of retaining patients.[3] Loyalty is the customer's behavior to continue receiving services from a service provider.[4] Patient loyalty can be defined as the intention of re-selecting the same institution to meet future healthcare needs, or to recommend it to family or friends;[5] It is regarded as a key success factor for healthcare providers.[6] Patient loyalty is also positively related to a wide range of patient outcomes, particularly compliance with treatment plans and preventive measures.[7] Thus, for the sake of both

healthcare providers and recipients, hospital managers must manage patient loyalty effectively. To do this, understanding the factors determining patient loyalty is essential.

Patient-perceived service quality has been a well-recognized determinant of patient loyalty.[8] However, with regard to the impact routes between quality and loyalty, no consensus has been reached. Several studies have showed that quality has an indirect influence on patient loyalty,[9,10] while Choi et al[11] concluded that quality had direct and indirect influence on patient loyalty. More importantly, regarding the impact of nursing service quality on patient loyalty, many previous studies were less likely to accurately capture the essence of the inner-relationship between these two concepts and reveal nursing care's unique attributes of patient loyalty. Most study instruments were about the overall healthcare and used limited items in measuring nursing services,[11,12] which is inconsistent with the nature of comprehensive and multi-dimensional nursing care. Unrepresentativeness in the instrument makes it less sensitive to nursing care,[13] and nursing seems to be underappreciated in the shape of patient loyalty. Nurses are the single largest group of the healthcare workforce, playing an essential role in the delivery of healthcare services.[14] It has been well recognized that nurses have the prominent potential to develop a patient-centred healthcare system. Therefore, nursing should be attached more importance when cultivating patient loyalty.

Theoretical Background
Patient Experience with Nursing Care

According to the existing literature,[15,16] the quality of health care contains two broad categories: technical quality (or outcome quality) and functional quality (or process quality). Technical quality refers to the accuracy of medical diagnoses and procedures, while functional quality is focused on the way health care is provided to the patients. Since patients rarely possess the necessary knowledge to judge the technical quality of services, their evaluation of quality is mainly based on their experience with care.[17]

Patient experience is a process indicator and mainly reflects the interpersonal aspects of care received. Patient satisfaction is an outcome measure of a patient's experience of care, along with health outcomes and confidence in the health system, reflecting whether the care provided has met the patient's needs and expectations. Given the causal link between process and outcome, the direct impact of patient experience with nursing care on the patient satisfaction has been expected theoretically.

Therefore, the first hypothesis is:

*H*1. Patient experience with nursing care has a positive and direct effect on patient satisfaction with nursing care.

Nurses spend more time with patients than any other healthcare professionals. Patient satisfaction has been associated in the research literature with a variety of nursing factors, including nurse-staffing levels, proportions of registered nurse (RN) skill-mix, nurses' work environment, and RN-physician collaboration.[18,19] In fact, it is also these factors that shape nursing care.

Therefore, we proposed the following hypothesizes:

*H*2. Patient experience with nursing care has a positive and direct effect on patient satisfaction with hospital services.

*H*3. Patient satisfaction with nursing care has a positive and direct effect on patient satisfaction with hospital services.

Patient Loyalty

Patient loyalty is a key determinant for the long-term success of any health care organization. Patient satisfaction has been identified as an antecedent for their loyalty, and the positive relationship between these two concepts has been confirmed in previous studies.[10,12] Thus, it is hypothesized that:

*H*4. Patient satisfaction with hospital services has a positive and direct effect on patient loyalty.

Nurses are responsible for delivering the highest proportion of care to patients in hospitals and therefore a main contributor to the quality of hospital care. Few studies have explored the impact of patient experience with nursing care on patient loyalty. A study conducted in the United States found that among six healthcare attributes (ie, admission process, nursing care, physician care, compassion for family/friends, pleasantness of surroundings, and discharge process), nursing care showed the most significant parameter estimate for patients' willingness to revisit and recommend the hospital to others.[20] However, empirical evidence supporting this claim is limited, especially for the Chinese healthcare system, which differs from the systems in America. Studies in China could help hospital managers to develop appropriate strategies targeted at nursing care to improve patient loyalty. It is proposed that:

*H*5. Patient experience with nursing care has a positive and direct effect on patient loyalty.

*H*6. Patient satisfaction with nursing care has a positive and direct effect on patient loyalty.

The present study aimed to explore how patient experience with nursing care can affect patient loyalty in a Chinese hospital setting. According to the American Customer Satisfaction Model developed by Angelova, service quality has a direct impact on patient loyalty, and satisfaction is the mediator between quality and loyalty.[21] Based on existing researches and theories, a hypothetical theoretical model was formed (Figure 1).

Methods
Aim
The aim of this study was to explore to what extent nursing care influences patient loyalty and the impact routes.

Design
This study is a multicenter cross-sectional survey. The STROBE was selected as the checklist in this study.[22] The reporting checklist is provided as a Supplementary File 1.

We consecutively recruited patients discharged from Zhongshan Hospital of Fudan University, Shanghai Tumor Center and Shanghai Fengxian District Hospital of Traditional Chinese Medicine between October 2021 and December 2021.

Participants
A convenience sample of inpatients was recruited. We calculated the sample size according to the requirements for structural equation modeling, which demands a minimum sample size to be 100 or 200. We included as many participants as possible to get a robust model and reliable factor loadings and path coefficients. Our sample included only patients hospitalized for two days or more, able to read and understand Chinese and aged 18 years old or above. Patients with mental health problems were excluded. Eligible patients were invited to participate in the study on their discharge day. During the study period, a total of 1532 inpatients were eligible to participate in the study, 52 patients refused to
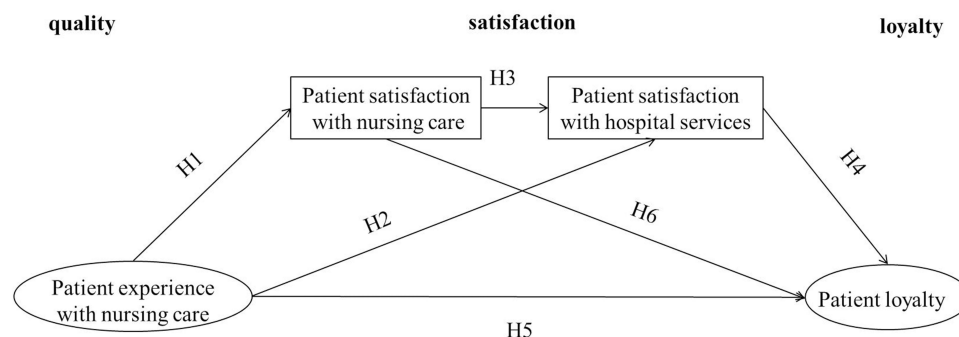

Figure 1 Hypothesized model.

participate (3.39%), and 11 patients' questionnaires were incomplete (0.71%). Finally, 1469 patients (95.90%) were analysed.

Measures
Patient Characteristics
The following socio-demographic and clinical characteristics of study participants were collected: age, sex, religion, family residence, medical assurance, educational level, household monthly income per capita, primary disease diagnosis, number of admissions within one year and days of hospitalization.

Patient Experience with Nursing Care
The definition of nursing care varies from country to country; it is therefore necessary to use an instrument that takes country-specific regulations into account. We chose the Inpatient Experience with Nursing Care Scale (IPENCS) developed by Chen et al[23] to analyse the relationship between patient experience with nursing care and their loyalty. The scale was designed to evaluate patients' perceptions of the quality of nursing care in Chinese hospitals. The instrument consists of 30 items, which were developed based on a review of the literature, interviews with patients and expert consultation, measuring patients' emotional care experience, professional care experience and coordinating care experience. To examine the scale's dimensionality and factor-based validity, Chen et al conducted exploratory and confirmatory factor analyses. The exploratory factor analysis revealed that seven main dimensions captured the structure of the underlying item set: admission and discharge management (five items); information and education (seven items); emotional support (three items); communication and coordination (five items); monitoring the progress of diseases (four items); responding requests (three items); patient safety and privacy protection (three items). The seven-dimension structure explained 70.79% of the variance, and the confirmatory factor analysis suggested a good overall model fit (CFI=0.965; GFI=0.918; TLI=0.960). The content validity was very good (mean item content validity index [I-CVI] 0.960). Internal consistency reliability was found to be acceptable, as indicated by a Cronbach's alpha of 0.951 and split-half reliability of 0.882.

We calculated each dimension of the quality of nursing care by taking the arithmetic mean of the underlying items. Most of the items were assessed by a 5-point Likert scale, where 1 represents "never" and 5 represents "always". Response options ranged from "strongly disagree" to "strongly agree" for the admission and discharge process. For each item, the patients were offered the option of indicating whether it was not relevant.

Patient Satisfaction
The patient satisfaction section measured patient satisfaction with nursing care and overall hospital services. Patient satisfaction with nursing care was assessed by responses to the question, "All in all, were you satisfied with the nursing care you received at the hospital?". The overall patient satisfaction question was "All in all, were you satisfied with the hospital services you received?". Both questions have a 10-point response option ranging from 1 to 10 (with 1 labeled "not at all satisfied" and 10 labeled "very satisfied").

Patient Loyalty
Patient loyalty was defined as the intention to revisit the same medical facility or recommend it to others. Two items on the questionnaire were viewed as indicators of loyalty: willingness to revisit ("Do you want to continue visiting this hospital when you develop a new health problem?") and willingness to recommend ("Would you recommend this hospital to your friends and family when they seek your advice?"). Both questions were measured on a 5-point scale ranging from 1 to 5 (with 1 labeled "definitely no" and 5 labeled "definitely yes").

Ethical Considerations
The study was approved by the Research Ethics Committee of the Zhongshan Hospital of Fudan University (approval number B2020-074). The recruitment of study subjects was on a voluntary basis. Before participating in the study, all respondents signed an informed consent regarding the study purpose, data confidentiality issues and their right to withdraw from the study anytime during data collection.

Data Analysis

Statistical analyses were conducted using IBM-SPSS software V.25 (IBM Corp), AMOS 23.0 version. Descriptive analysis was performed for participants' characteristics and their responses to items about satisfaction and experience. Values are expressed as the mean and SD for continuous variables or percentages for categorical variables. Structural equation modeling (SEM) was applied to explore the effect of patient experience with nursing care and satisfaction on patient loyalty. The relationships between variables in the hypothesized model were examined using Spearman correlation analysis. Controlling for age, sex, marital status, education levels, household monthly income per capita and number of hospital admissions within 1 year in the association of patient experience with nursing care and patient loyalty was tested using the PROCESS macro version 3.3 (Model 6) for SPSS. Results of the mediation models were interpreted using standardized path coefficients *(β)* and squared multiple correlations (R^2). We used bootstrap inference for model coefficients with 5000 resamples to estimate the 95% confidence intervals (CI) to test the significance of direct and indirect effects between variables. The upper limit of CI (ULCI) and the lower limit of CI (LLCI) not containing 0 indicate the significance of the pathway. We used root-mean-square error of approximation (RMSEA) value, standardized root-mean-square residual (SRMR) value, goodness-of-fit index (GFI) value, and Tucker–Lewis index (TLI) value[24] to evaluate the model fit via AMOS software.

Results

Sociodemographic and Clinical Characteristics of the Study Participants

A total of 1469 participants with a mean age of 56.11 years were recruited. Of these, 56.71% (833) were men, and 48.67% (715) were diagnosed with cancer. The detailed demographic and clinical characteristics of the participants are shown in Table 1.

Descriptions and Factor Loadings of Study Variables

As shown in Table 2, the total patient experience score was 4.61 (0.38); the dimension of patient safety and privacy protection had the highest score (4.89±0.29) and the dimension of information and education had the lowest (4.38±0.68). Regarding patient satisfaction with overall hospital services, 83.39% of patients gave their care a high global rating (9 or 10), and an additional 13.82% rated their care as 7 or 8, whereas only 2.79% gave a rating of 6 or less. Regarding patient satisfaction with nursing care, 85.57% of patients gave their care a high global rating (9 or 10), and an additional 11.91% rated their care as 7 or 8, whereas only 2.52% gave a rating of 6 or less. The patient loyalty items were skewed toward a positive assessment: 4.65 for willingness to revisit the hospital and 4.62 for willingness to recommend the hospital to others on a scale of 1–5, where 5 represents the best score. Sixty-nine percent of the patients said that they would definitely revisit the hospital when they develop a new health problem, and sixty-seven percent of the patients said that they would definitely recommend the hospital to their friends and family. The value of factor loadings ranged from 0.58 to 0.99 (>.40) showing that latent variables were well measured by their observed indicator variables.

Correlations of Study Variables

Before testing the proposed theoretical model, a correlation matrix was prepared. As shown in the Table 3, there was a significant correlation between patient experience with nursing care, patient satisfaction and patient loyalty. Better patient experience with nursing care had significant relationships with better patient satisfaction and better patient loyalty. The correlations were moderate to high in general (r = 0.388–0.951, P<0.01).

Structural Model

Test of the Hypothesized Model and Parameter Estimates

Our proposed model set the measured variables as patient satisfaction with nursing care and patient satisfaction with hospital services. Patient experience with nursing care and patient loyalty were the latent variables. The fit was good for the proposed model (GFI = 0.948, CFI = 0.964, SRMR=0.0383, RMSEA = 0.081.). However, the path coefficients between patient experience with nursing care and patient satisfaction with hospital services, and the path coefficients between patient satisfaction with nursing care and patient loyalty were not significant (Figure 2). Patient experience with

Table 1 Socio-Demographic and Clinical Characteristics of Study Participants

Characteristics	Value
Sex, n(%)	
Male	833, 56.71%
Female	636, 43.29%
Age, mean ± SD	56.11±13.35
Marital status, n(%)	
Single	62, 4.22%
Ever married	1407, 95.78%
Literacy level, n(%)	
Primary education or below	297, 20.22%
Secondary education	810, 55.14%
College education or above	362, 24.64%
Household monthly income per capita, n(%)	
<5000 RMB	582, 39.62%
5000–9999 RMB	574, 39.07%
>10,000 RMB	313, 21.31%
Main source of medical expense, n(%)	
Urban medical insurance	927, 63.10%
Rural medical insurance	348, 23.69%
Commercial medical insurance	22, 1.50%
Personal funds	172, 11.71%
Residence, n(%)	
Rural areas	474, 32.27%
Urban areas	778, 52.96%
Rural-urban fringe areas	217, 14.77%
Patient admitting ward, n(%)	
Medical ward	723, 49.22%
Surgical ward	746, 50.78%
Diagnosed with cancer, n(%)	
Yes	715, 48.67%
No	754, 51.33%
Number of hospital admissions within 1 year, n(%)	
1	904, 61.54%
2	253, 17.22%
3	116, 7.90%
>3	196, 13.34%

nursing care is positively associated with patient satisfaction with nursing care (H_1, β=0.5545, t-value=25.5209, p<0.001). Patient satisfaction with nursing care is positively associated with patient satisfaction with hospital services (H_3, β=0.7495, t-value=37.1582, p<0.001), but patient experience with nursing care had no effect on the patient satisfaction with hospital services (H_2, β=0.0292, t-value=1.4484, p=0.1477). Patient experience with nursing care (H_5, β=0.2901, t-value=11.0823, p<0.001) and patient satisfaction with hospital services (H_4, β=0.4158, t-value=12.2776, p<0.001) are positively associated with patient loyalty, but patient satisfaction with nursing care had no effect on the patient loyalty (H_6, β=−0.0653, t-value=−1.7916, p=0.0734). So H_1, H_3, H_4, H_5 hypotheses were accepted, and H_2 and H_6 were rejected.

Therefore, we removed patient experience with nursing care - patient satisfaction with hospital services path and patient satisfaction with nursing care - patient loyalty path, and the modified model had adequately fitting indexes

Table 2 Descriptions and Factor Loadings of Study Variables

Latent Variables (L) and Observed Variables (O)	Mean ± SD	Range	Factor Loading
Patient experience with nursing care(L)	4.61 ± 0.38	1–5	
Admission and discharge management (O)	4.51±0.56	1–5	0.69
Information and education (O)	4.38±0.68	1–5	0.78
Emotional support (O)	4.53±0.52	1–5	0.77
Communication and communication (O)	4.67±0.48	1–5	0.78
Monitoring the progress of diseases (O)	4.69±0.42	1–5	0.82
Responding requests (O)	4.62±0.44	1–5	0.66
Patient safety and privacy protection (O)	4.89±0.29	1–5	0.58
Patient satisfaction with nursing care(O)	9.37±1.12	1–10	–
Patient satisfaction with hospital services(O)	9.41±1.06	1–10	–
Patient Loyalty (L)	4.63±0.58	1–5	
Patients' willingness to revisit the hospital (O)	4.65±0.58	1–5	0.95
Patients' willingness to recommend the hospital (O)	4.62±0.60	1–5	0.99

Table 3 Correlations of Patient Experience with Nursing Care, Patient Satisfaction and Patient Loyalty
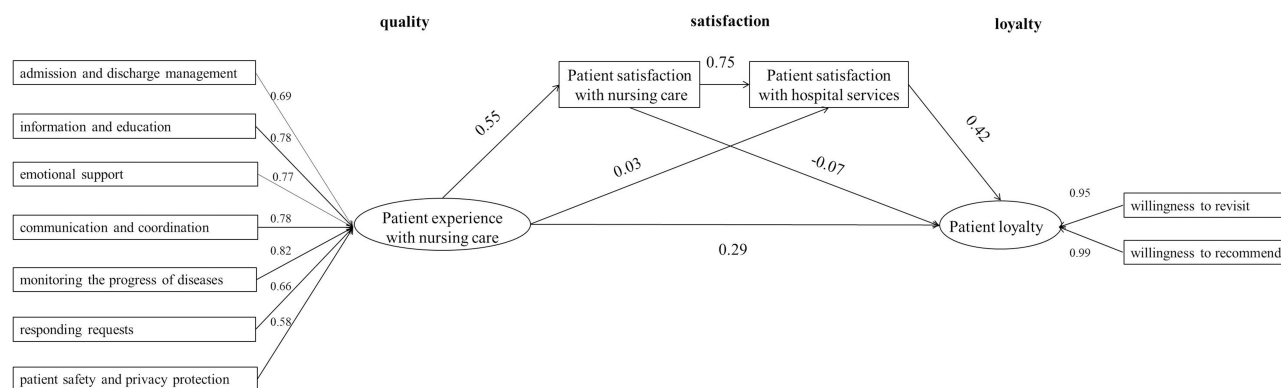
Variable	1	2	3	4	5
1.patient experience with nursing care	–	0.554**	0.445**	0.428**	0.439**
2. patient satisfaction with nursing care	0.554**	–	0.766**	0.388**	0.429**
3.patient satisfaction with hospital services	0.445**	0.766**	–	0.475**	0.502**
4. patients' willingness to revisit the hospital	0.428**	0.388**	0.475**	–	0.951**
5.patients' willingness to recommend the hospital	0.439**	0.429**	0.502**	0.951**	–

Note: **p<0.01.

(GFI = 0.947, CFI = 0.963, SRMR = 0.0391, RMSEA = 0.080.). According to the structural model, 33.4, 58.6, and 32.0% of the variance in patient satisfaction with nursing care, patient satisfaction with hospital services, and patient loyalty, respectively were explained. The final model is shown in Figure 3, showing a relatively strong explanatory power.

Effect Analysis

Using bootstrap estimation, the direct and indirect effects of patient experience with nursing care were tested for significance. The results showed that patient experience with nursing care has a significant direct effect on patient loyalty (β=0.298, $p<0.001$). In addition, the results also revealed the effect of patient experience with nursing care on

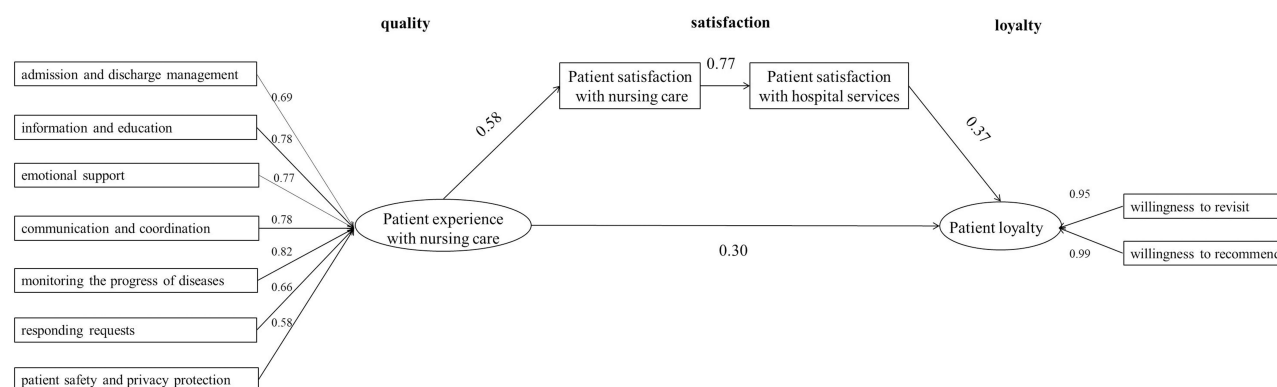**Figure 2** The proposed model with standardized coefficients.

Figure 3 The final model with standardized coefficients.

patient loyalty is partially mediated by patient satisfaction with nursing care and overall hospital services (*β*=0.162, *p*<0.001). The two mediators in this study, patient satisfaction with nursing care and overall hospital services, were not only related to patient experience with nursing care but also associated with patient loyalty, and they mediated the relationship between patient experience with nursing care and patient loyalty. The total, direct and indirect effects are shown in Table 4.

Discussion

This study analyzed the mechanism and routes by which patient experience with nursing care impacts patient loyalty among 1469 patients in three public hospitals in metropolitan Shanghai, China. The results showed patient experience with nursing care has a significant direct effect on patient loyalty. In addition, the effect of patient experience with nursing care on patient loyalty is partially mediated by patient satisfaction with nursing care and overall hospital services. The findings would provide theoretical and practical implications for the nursing management and nursing practice.

Theoretical Implications

Patient experience is a multi-dimensional construct encompassing a number of elements of care, representing both the interpersonal components of the care received and patients' interactions with health institutions. The core of patient experience is the preference and values of patients, and patient experience reflects quality of care from patients' perspectives.[25] The better patients' feedback about their experience, the more likely they will feel valued by healthcare providers and have high loyalty towards hospitals. During hospitalization, nurses spend the most time with patients among all medical professionals and provide a wide range of services under the holistic care framework.[26] It has been proposed that nurse domain were by far the most important factors in determining patients' experience, followed by doctor, environment, and other staffing domains.[27] This study showed that patient experience with nursing care directly and significantly influences how patients judge hospital services and their willingness to revisit and recommend the hospital. This finding may add to the body of literature that calls for the importance of nursing care on creating patient loyalty.

Table 4 Total, Direct and Indirect Effects of Patient Experience with Nursing Care on Patient Loyalty (n=1469)

Pathway	Effect	*β*	Bootstrap SE	Boot CI Lower Limit	Boot CI Upper Limit
PENC→PL	Total	0.460**	0.030	0.408	0.502
PENC→PL	Direct	0.298**	0.035	0.231	0.344
PENC→PSNC→PSHS→PL	Indirect	0.162**	0.020	0.132	0.199

Note: **p<0.01.
Abbreviations: PENC, Patient experience with nursing care; PL, Patient loyalty; PSNC, Patient satisfaction with nursing care; PSHS, Patient satisfaction with hospital services.

On the one hand, this study found that patient experience with nursing care also affected patient loyalty indirectly, and patient satisfaction was the mediator in the model. It has been proved that even after adjusting for six sociodemographic and three disease-related factors, the patient experience with nursing care explained a large amount of the variation in overall patient satisfaction,[28] which, in turn, may lead to a higher patient loyalty, since the positive relationship between patient satisfaction and patient loyalty has been widely studied.[20,29] An increased understanding of how patient experience with nursing care is related to patient loyalty was obtained from these findings, indicating providing an optimal nursing care experience is an efficient strategy to improve patient loyalty.

Additionally, this study found that patient experience with nursing care had no direct impact on patient satisfaction with hospital service, which may be explained by the relationship between patient experience and patient satisfaction. It is well known that patient satisfaction is an outcome measure of a patient's experiences of care, along with health outcomes and confidence in the health system.[30] Therefore, although patients do not have a good experience of nursing care, they could still be satisfied with nursing care if they have achieved positive health outcomes so that they may be satisfied with the overall hospital services. This is supported by the finding that the effect of patient experience with nursing care on patient satisfaction with hospital service was partially mediated by patient satisfaction with nursing care (Figure 3). What is noteworthy is that patient satisfaction with nursing care alone cannot mediate the relationship between patient experience with nursing care and patient loyalty; the mediation effect will be significant only when both patient satisfaction with nursing care and patient satisfaction with hospital service serve as mediators, which may be explained by the role of nursing care.

Practical Implications

In the age of patient-centred care, patient experience has become an increasingly critical indicator in assessing healthcare quality and is being used more frequently to determine hospital performance and hospital reimbursement.[31] Recently, measuring and reporting patient experience has been an important part of value-based health care in China. Our study showed that patients had better nursing care experiences with "patient safety and privacy protection" (4.89±0.29), "monitoring the progress of diseases" (4.69±0.42) and "communication and coordination" (4.67±0.48). The year 2022 is the 12th anniversary of the launch of the Quality Care Demonstration Project by the Chinese government, aimed at improving the satisfaction of patients, society and the government through high-quality nursing care.[32] Driven by the implementation of the "high-quality care project", Chinese nursing services have been largely improved in terms of patients' physical care. However, there should be an urgent recognition of patients' needs for psychological and emotional support, and information needs. The results of our study showed that patients had worse experience with "information and education" (4.38±0.68), "admission and discharge management" (4.51±0.56) and "emotional support" (4.53±0.52), which was in line with the study of Senarat and Gunawardena.[33] These problems of nursing practices may be partly due to the severe shortage of nursing workforce in China. According to the latest health statistics from National Health Commission of the People's Republic of China, The number of registered nurses per 1000 population in 2021 was 3.34 in China,[34] much lower than that of western countries. The inadequate nursing workforce increases the difficulty of responding to patients' needs. As a result, nurses do not have enough time to provide health education, continuing care, and emotional comfort, which leads to missed care and ultimately bad patient experiences and patient loyalty.[35] Compared with the other determinants that influence patient loyalty, such as the reputation and the image of hospitals, experience with nursing care is amendable and actionable. Therefore, improving the patient experience with nursing care is the most efficient way to improve patient loyalty.

Limitations

This study was conducted in three hospitals in Shanghai. Therefore, our findings may not be generalizable. However, Shanghai represents the top level of medical technology and management in China and is an exemplary health care model for other facilities throughout the country; thus, our results can be regarded as representative of China to a considerable extent. Moreover, a quantitative method was used to measure patient satisfaction and loyalty. These variables are subjective, and so using the single quantitative method may not reflect patients' views or perceptions wholly and accurately. Future studies in the patient loyalty area may combine the qualitative approach.

Conclusion

This study provides evidence of the importance of patient experience with nursing care in improving patient loyalty. It demonstrates that nursing should be more involved in the shape of hospital brands. This new knowledge could contribute to new understanding of patient loyalty and enrich existing theories, and could enable hospital managers to develop interventions that could greatly create and maintain patient loyalty, resulting in more effective and efficient healthcare management.

Implication of Hospital Management

Understanding the underlying relationship between patient-perceived quality of nursing care and patient loyalty would enable nursing managers to develop strategies to create patient loyalty, resulting in more effective and efficient healthcare management. Further efforts should be made by hospital administrators and nursing managers to overcome the tendency to streamline the care delivery by standardized processes and determine how positive patient experience of nursing care can be developed and rooted in daily practice through organizational changes, culture shaping and staff education.

Data Sharing Statement

Data will be available from the corresponding author on request.

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Disclosure

The authors report no conflicts of interest in this work.

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