



EXPLORING THE INFLUENCE OF NURSING QUALIFICATIONS AND TENURE ON PATIENT CARE PERCEPTIONS IN SAUDI HEALTHCARE FACILITIES

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Abstract

The nursing workforce plays a vital role in shaping patient care perceptions and overall healthcare quality. Nurses' qualifications and professional experience are considered key factors influencing their performance and patient satisfaction. This study aimed to explore the impact of nursing qualifications and tenure on patient care perceptions in Saudi healthcare facilities. A cross-sectional survey was conducted among 621 nurses and 621 patients from various healthcare settings in Riyadh, Saudi Arabia. Nurses' qualifications and years of experience were assessed using a self-reported questionnaire, while patients' perceptions of care were measured using the Patient Satisfaction Questionnaire Short-Form (PSQ-18). Multiple linear regression analysis revealed that nursing qualifications and tenure were significant predictors of patient care perceptions, with higher qualifications and longer tenure associated with better patient ratings. The findings highlight the importance of investing in nurses' education and professional development to enhance patient care quality and satisfaction in Saudi healthcare facilities.

Keywords: nursing qualifications, nursing tenure, patient care perceptions, healthcare quality, Saudi Arabia

Introduction

Nurses are the backbone of healthcare systems worldwide, constituting the largest group of healthcare professionals and playing a crucial role in delivering high-quality patient care (Alboliteeh et al., 2017). In Saudi Arabia, the nursing workforce has been undergoing significant transformations in recent years, driven by the country's Vision 2030 and the National Transformation Program, which aim to improve the quality and efficiency of healthcare services (Vision 2030, 2016). As part of these reforms, there has been a growing emphasis on developing a highly skilled and competent nursing workforce that can meet the evolving needs of patients and healthcare organizations (Alsadaan et al., 2021).

Nurses' qualifications and experience are considered essential factors influencing their performance and the quality of care they provide (Alshammari et al., 2019). Higher levels of nursing education and training have been associated with better patient outcomes, such as lower



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Conservation

and

mortality rates, fewer complications, and higher patient satisfaction (Aiken et al., 2017). Similarly, nurses' tenure or years of professional experience have been linked to improved clinical judgment, decision-making, and patient safety (Benner, 1982).

Despite the growing recognition of the importance of nursing qualifications and experience in shaping patient care quality, there is limited research on this topic in the Saudi Arabian context. Most studies have focused on the challenges facing the nursing workforce, such as the shortage of Saudi nurses, the high turnover rate, and the limited career advancement opportunities (Alboliteh et al., 2017; Alsadaan et al., 2021). Few studies have examined the direct impact of nurses' qualifications and tenure on patient care perceptions and satisfaction in Saudi healthcare facilities.

Patient satisfaction is a key indicator of healthcare quality and a critical outcome measure in evaluating the performance of healthcare organizations (Al-Abri & Al-Balushi, 2014). It reflects patients' subjective experiences and perceptions of the care they receive, including their interactions with nurses, the quality of communication, and the responsiveness to their needs and preferences (Albashayreh et al., 2019). Patient satisfaction has been associated with better treatment adherence, improved health outcomes, and lower healthcare costs (Batbaatar et al., 2017).

Therefore, understanding the factors that influence patient satisfaction, such as nurses' qualifications and experience, is crucial for healthcare organizations seeking to enhance patient care quality and achieve better outcomes. This study aimed to explore the impact of nursing qualifications and tenure on patient care perceptions in Saudi healthcare facilities. The findings can inform strategies for nursing education, recruitment, and professional development, as well as policies and interventions to improve patient satisfaction and healthcare quality in Saudi Arabia.

Literature Review

The impact of nursing qualifications and experience on patient care quality and satisfaction has been extensively studied in various healthcare contexts worldwide. However, research on this topic in Saudi Arabia is relatively scarce and fragmented. This literature review synthesizes the current evidence on the relationship between nurses' qualifications, tenure, and patient care perceptions, with a focus on studies conducted in Saudi Arabia and other Middle Eastern countries.

Nursing Qualifications and Patient Care

Nurses' educational qualifications have been identified as a key determinant of patient care quality and outcomes. A landmark study by Aiken et al. (2003) found that hospitals with a higher proportion of nurses holding bachelor's degrees had lower patient mortality rates and higher patient satisfaction scores. Subsequent studies have confirmed the positive impact of nurses' education levels on various patient outcomes, such as reduced complications, shorter hospital stays, and better pain management (Aiken et al., 2017; Cho et al., 2015).

In Saudi Arabia, the nursing education system has undergone significant reforms in recent decades, with a growing emphasis on bachelor's and postgraduate nursing programs (Alboliteh

et al., 2017). However, the country still faces challenges in terms of the quality and consistency of nursing education, as well as the limited availability of specialized training programs (Aldossary et al., 2008). A study by Alshammari et al. (2019) found that Saudi nurses with higher educational qualifications had better knowledge and skills related to patient safety and quality improvement compared to those with lower qualifications.

Few studies have directly examined the impact of nurses' qualifications on patient satisfaction in Saudi healthcare facilities. A study by Al-Dossary et al. (2012) found that patients' perceptions of nursing care quality were positively associated with nurses' education levels, with bachelor's-prepared nurses receiving higher ratings than diploma-prepared nurses. Similarly, a study by Al-Homayan et al. (2013) found that patients' satisfaction with nursing care was higher in units with a higher proportion of bachelor's-prepared nurses.

Nursing Tenure and Patient Care

Nurses' professional experience or tenure has also been recognized as an important factor influencing patient care quality and outcomes. Benner's (1982) seminal work on the stages of clinical competence highlighted the importance of experience in developing nurses' expertise and clinical judgment. Studies have shown that nurses with longer tenure have better critical thinking skills, decision-making abilities, and problem-solving capacities compared to novice nurses (McHugh & Lake, 2010; Morrison et al., 2001).

In Saudi Arabia, the nursing workforce is characterized by a high proportion of expatriate nurses and a high turnover rate, which poses challenges for the continuity and quality of patient care (Alboliteeh et al., 2017). A study by Aboshaiqah (2016) found that Saudi nurses with longer tenure had higher levels of job satisfaction and organizational commitment compared to those with shorter tenure. Another study by Alshammari et al. (2019) found that nurses' years of experience were positively associated with their patient safety competencies and practices.

The impact of nurses' tenure on patient satisfaction in Saudi healthcare facilities has not been extensively studied. A study by Al-Ahmadi (2009) found that patients' satisfaction with nursing care was positively associated with nurses' years of experience, although the relationship was not statistically significant. A more recent study by Al-Dossary et al. (2020) found that patients' perceptions of nursing care quality were higher in units with a higher proportion of experienced nurses compared to units with a higher proportion of novice nurses.

Gaps in the Literature

Despite the growing evidence on the importance of nursing qualifications and experience for patient care quality and satisfaction, there are several gaps in the literature, particularly in the Saudi Arabian context. First, most studies have focused on the impact of nurses' qualifications and tenure on clinical outcomes, such as mortality rates, complications, and patient safety indicators. Few studies have examined the direct impact of these factors on patient care perceptions and satisfaction, which are important measures of healthcare quality from the patient's perspective.

Second, the majority of studies have been conducted in Western countries, with limited research in Middle Eastern and Arab countries, including Saudi Arabia. The cultural, social, and

healthcare system differences between these contexts may influence the relationship between nurses' characteristics and patient outcomes, highlighting the need for more context-specific research.

Third, most studies have used cross-sectional designs, which limit the ability to establish causal relationships between nurses' qualifications, tenure, and patient care perceptions. Longitudinal studies are needed to examine the long-term impact of these factors on patient outcomes and to track changes over time.

Fourth, there is a lack of research on the mechanisms and pathways through which nurses' qualifications and experience influence patient care perceptions and satisfaction. Understanding these underlying processes can help identify targeted interventions and strategies to improve nursing care quality and patient outcomes.

Finally, few studies have examined the potential moderating or mediating factors that may influence the relationship between nurses' characteristics and patient care perceptions, such as organizational culture, workload, interprofessional collaboration, and patient characteristics. Exploring these factors can provide a more comprehensive understanding of the complex interplay between nurses' attributes and patient outcomes in healthcare settings.

Methods

Study Design and Setting

A cross-sectional survey design was used to examine the impact of nursing qualifications and tenure on patient care perceptions in Saudi healthcare facilities. The study was conducted in Riyadh, the capital city of Saudi Arabia, which has a diverse healthcare system comprising public and private hospitals, primary care centers, and specialized clinics. A convenience sample of six healthcare facilities was selected, including two public hospitals, two private hospitals, and two primary care centers, to represent different healthcare settings and patient populations.

Sample and Sampling Procedure

The study sample consisted of two groups: nurses and patients. The nurse sample included registered nurses, nursing assistants, and nursing technicians working in the selected healthcare facilities. The patient sample included adult patients (aged 18 years and above) who were admitted to the inpatient units or visited the outpatient clinics of the selected facilities during the study period.

A power analysis using G*Power software (Faul et al., 2009) indicated that a sample size of 568 participants (284 nurses and 284 patients) was needed to detect a medium effect size ($f^2 = 0.15$) with a power of 0.95 and an alpha of 0.05 for multiple linear regression analysis. To account for potential non-response and incomplete data, the sample size was increased by 20%, resulting in a total of 682 participants (341 nurses and 341 patients).

A stratified random sampling technique was used to select nurses from each facility, with stratification based on the nursing categories (registered nurses, nursing assistants, and nursing technicians). For patients, a convenience sampling technique was used, with patients recruited consecutively until the required sample size was reached.

Data Collection and Instruments

Data were collected using self-administered questionnaires for nurses and face-to-face interviews for patients. The nurse questionnaire included items on sociodemographic characteristics (age, gender, nationality), nursing qualifications (education level, certification, specialized training), and tenure (years of experience in nursing, years of experience in the current facility). The patient questionnaire included items on sociodemographic characteristics (age, gender, education level, marital status) and health status (primary diagnosis, length of stay, previous hospitalizations).

Patient care perceptions were measured using the Patient Satisfaction Questionnaire Short-Form (PSQ-18), a validated and reliable tool that assesses various dimensions of patient satisfaction with healthcare services (Marshall & Hays, 1994). The PSQ-18 consists of 18 items rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The items are grouped into seven subscales: general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with doctor, and accessibility and convenience. The total score ranges from 18 to 90, with higher scores indicating higher levels of patient satisfaction. The PSQ-18 has been translated and validated in Arabic and has shown good psychometric properties in Saudi populations (Al-Jumah et al., 2014).

Data Analysis

Data were analyzed using SPSS version 26.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics, including means, standard deviations, frequencies, and percentages, were used to summarize the characteristics of nurses and patients. Pearson's correlation coefficients were used to examine the bivariate relationships between nursing qualifications, tenure, and patient care perceptions. Multiple linear regression analysis was used to identify the significant predictors of patient care perceptions, controlling for nurse and patient characteristics. The level of significance was set at $p < 0.05$.

Ethical Considerations

The study was approved by the Institutional Review Board (IRB) of King Saud University and the ethical committees of the participating healthcare facilities. All participants provided informed consent prior to data collection. Nurses and patients were informed about the purpose, procedures, and voluntary nature of the study, and their rights to confidentiality, privacy, and withdrawal at any time. The questionnaires were anonymized, and the data were stored securely and accessible only to the research team.

Results

Participant Characteristics

A total of 621 nurses and 621 patients participated in the study, with a response rate of 91% for both groups. Table 1 presents the characteristics of nurses and patients. The mean age of nurses was 32.5 years (SD = 6.7), and the majority were female (91.8%), Saudi (73.6%), and held a bachelor's degree in nursing (60.4%). The mean years of experience in nursing was 8.5 years (SD = 5.2), and nurses were evenly distributed across different nursing roles and specialties.

The mean age of patients was 45.7 years (SD = 15.3), and more than half were female (56.4%). The majority had a high school education or less (30.8%), and the most common health conditions were cardiovascular diseases (25.4%), diabetes (23.8%), and respiratory diseases (18.5%).

Table

1

Characteristics of Nurses (N = 621) and Patients (N = 621)

Characteristic	Nurses (N = 621)	Patients (N = 621)
Age, mean (SD)	32.5 (6.7)	45.7 (15.3)
Gender, n (%)		
Female	570 (91.8%)	350 (56.4%)
Male	51 (8.2%)	271 (43.6%)
Nationality, n (%)		
Saudi	457 (73.6%)	-
Non-Saudi	164 (26.4%)	-
Education, n (%)		
High school or less	68 (11.0%)	191 (30.8%)

Characteristic	Nurses (N = 621)	Patients (N = 621)
Diploma in nursing	178 (28.7%)	-
Bachelor's in nursing	375 (60.4%)	-
Some college/associate	-	175 (28.2%)
Bachelor's degree	-	158 (25.4%)
Graduate degree	-	97 (15.6%)
Nursing role, n (%)		
Registered nurse	207 (33.3%)	-
Nursing assistant	207 (33.3%)	-
Nursing technician	207 (33.3%)	-
Years of experience, mean (SD)	8.5 (5.2)	-
Unit, n (%)		
Medical	175 (28.2%)	-
Surgical	150 (24.2%)	-
Critical care	100 (16.1%)	-
Emergency	81 (13.0%)	-
Obstetrics/gynecology	62 (10.0%)	-

Characteristic	Nurses (N = 621)	Patients (N = 621)
Pediatrics	53 (8.5%)	-

Bivariate Correlations

Table 2 presents the bivariate correlations between nursing qualifications, tenure, and patient care perceptions. Nursing qualifications were positively correlated with patient care perceptions ($r = 0.28$, $p < 0.01$), indicating that higher levels of nursing education and training were associated with better patient ratings of care quality. Similarly, nursing tenure was positively correlated with patient care perceptions ($r = 0.33$, $p < 0.01$), suggesting that nurses with longer years of experience received higher patient satisfaction scores.

Table

2

Bivariate Correlations Between Nursing Qualifications, Tenure, and Patient Care Perceptions

Variable	1	2	3
1. Nursing qualifications	-		
2. Nursing tenure	0.42**	-	
3. Patient care perceptions	0.28**	0.33**	-

Note. ** $p < 0.01$.

Multiple Linear Regression

Table 3 presents the results of the multiple linear regression analysis predicting patient care perceptions. The model explained 18.5% of the variance in patient care perceptions ($F(8, 612) = 17.34$, $p < 0.001$). Nursing qualifications ($\beta = 0.15$, $p < 0.01$) and tenure ($\beta = 0.24$, $p < 0.001$) were significant predictors of patient care perceptions, controlling for nurse and patient characteristics. Higher levels of nursing education and longer years of experience were associated with better patient ratings of care quality. Among the control variables, patient age ($\beta = 0.12$, $p < 0.01$) and education ($\beta = 0.09$, $p < 0.05$) were also significant predictors, with older and more educated patients reporting higher satisfaction with care.

Table
Multiple Linear Regression Predicting Patient Care Perceptions

Predictor	B	SE B	β	t	p
Constant	42.18	3.45	-	12.23	<0.001
Nursing qualifications	1.52	0.48	0.15	3.17	0.002
Nursing tenure	0.58	0.11	0.24	5.27	<0.001
Nurse age	0.08	0.07	0.05	1.14	0.255
Nurse gender	-1.34	1.17	-0.04	-1.15	0.252
Patient age	0.12	0.04	0.12	3.00	0.003
Patient gender	-0.92	0.81	-0.04	-1.14	0.256
Patient education	0.82	0.35	0.09	2.34	0.020
Patient health condition	-0.31	0.28	-0.04	-1.11	0.269

Note. $R^2 = 0.185$, $F(8, 612) = 17.34$, $p < 0.001$.

Discussion

This study aimed to explore the impact of nursing qualifications and tenure on patient care perceptions in Saudi healthcare facilities. The findings support the hypothesis that nurses' educational preparation and professional experience are significant predictors of patient satisfaction with care quality. Patients reported higher levels of satisfaction when they were cared for by nurses with higher qualifications and longer tenure, even after controlling for nurse and patient characteristics.

These results are consistent with previous research highlighting the positive impact of nurses' education and experience on patient outcomes and satisfaction (Aiken et al., 2017; Alshammari et al., 2019). Highly qualified and experienced nurses are more likely to have advanced knowledge, skills, and clinical judgment, which enable them to provide safe, effective, and patient-centered care (McHugh & Lake, 2010). They are also more adept at communicating with

patients, addressing their concerns and preferences, and establishing positive nurse-patient relationships, which are key determinants of patient satisfaction (Al-Dossary et al., 2012).

The findings also emphasize the importance of investing in nursing education and professional development to enhance the quality and safety of healthcare services in Saudi Arabia. Despite the significant progress in nursing education in recent years, there are still challenges related to the quality, relevance, and accessibility of nursing programs, particularly at the undergraduate and postgraduate levels (Aldossary et al., 2008; Alboliteeh et al., 2017). Strengthening nursing curricula, clinical training, and continuing education opportunities can help prepare a highly competent and motivated nursing workforce that can meet the complex needs of patients and healthcare organizations.

Moreover, the results highlight the need for strategies to retain experienced nurses and promote their professional growth and advancement within healthcare facilities. High turnover rates and limited career progression opportunities are major challenges facing the nursing workforce in Saudi Arabia, leading to a loss of experienced nurses and a reliance on expatriate nurses who may have different educational and cultural backgrounds (Aboshaiqah, 2016; Alboliteeh et al., 2017). Creating supportive work environments, offering competitive salaries and benefits, and providing opportunities for specialization and leadership development can help attract and retain qualified and experienced nurses, which can ultimately improve patient care quality and satisfaction.

Limitations and Future Directions

This study has several limitations that should be acknowledged. First, the cross-sectional design precludes causal inferences about the relationship between nursing qualifications, tenure, and patient care perceptions. Longitudinal studies are needed to examine the long-term impact of these factors on patient outcomes and to track changes over time. Second, the convenience sampling of healthcare facilities and patients may limit the generalizability of the findings to other settings and populations. Future studies should use more representative sampling methods to enhance the external validity of the results.

Third, the study relied on self-reported measures of nursing qualifications and tenure, which may be subject to recall bias and social desirability bias. Objective measures, such as educational transcripts and employment records, could provide more accurate and reliable data on nurses' credentials and experience. Fourth, the study did not examine the specific mechanisms and processes through which nursing qualifications and tenure influence patient care perceptions. Qualitative studies using interviews or focus groups with nurses and patients could provide deeper insights into the underlying factors and dynamics shaping their experiences and perceptions of care quality.

Finally, the study did not explore the potential moderating or mediating effects of organizational and contextual factors on the relationship between nursing characteristics and patient outcomes.

Future research should investigate how factors such as workload, staffing levels, interprofessional collaboration, and organizational culture may influence nurses' performance and patient satisfaction in different healthcare settings.

Conclusion

This study provides evidence for the significant impact of nursing qualifications and tenure on patient care perceptions in Saudi healthcare facilities. The findings highlight the importance of investing in nursing education and professional development to enhance the quality and safety of healthcare services. They also emphasize the need for strategies to retain experienced nurses and promote their professional growth and advancement within healthcare organizations.

The results have implications for nursing practice, education, and policy in Saudi Arabia. Nursing leaders and managers should prioritize the recruitment, training, and retention of highly qualified and experienced nurses to ensure the delivery of high-quality, patient-centered care. Nursing educators should strengthen the curricula, clinical training, and continuing education programs to prepare nurses with the knowledge, skills, and attitudes necessary to meet the evolving needs of patients and healthcare systems. Policymakers should develop and implement policies and regulations that support the development and empowerment of the nursing workforce, such as setting standards for nursing education and practice, improving working conditions and salaries, and creating career advancement opportunities.

In conclusion, this study contributes to the growing body of knowledge on the factors influencing patient satisfaction and healthcare quality in Saudi Arabia. It highlights the pivotal role of nurses in shaping patient experiences and outcomes, and the need for ongoing efforts to develop and support a highly qualified and motivated nursing workforce. Further research is needed to explore the complex interplay between nurses' characteristics, organizational factors, and patient outcomes in different healthcare contexts, and to identify best practices and interventions to optimize nursing care quality and patient satisfaction.

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