The Review Of
DIABETIC
STUDIES OPEN ACCESS

Voices Of Patients: An Evaluation Of Satisfaction With Nursing And Healthcare Assistant Care In Saudi Arabia

Talal Mohammed k Alotaibi[1], Ghazi Mohammed Alduwayyikh[2], Taghreed Ahmed Salem Alghamdi[3], Fawaz Nasser Alhuwaymil[4], Abdulaziz Mohammad Faleh Alaskari[5], Mohammed Ali Albathali[6], Sattam Deghaim M Albanaqi[7], Sultan Atallha sbeel Alharbi[8], Rehab Mohammed Seaad Almwulled[9], Soloh Salah Alfahmy[10], Ahmed Safir Mesfer Aljuaid[10], Fawwaz Ghazi Ghzai Alotaebi[10]

[1]Specialist Nursing, Riyadh Third Health Cluster, Saudi Arabia.
[2]Nursing technician, MOH, Saudi Arabia.
[3]Nursing Technician, Administrative supervision of health centers in the Al-Baha sector, Saudi Arabia.
[4]Nursing technician, Al Quwayiyah General Hospital, Saudi Arabia.
[5]Nursing technician, Hail Health Cluster - Aja Hospital - Medical Coordination, Saudi Arabia.
[6]Nursing Assistant, long term care hospital, Saudi Arabia.
[7]Nursing Technician, Branch of Ministry of Health in Hafar Al-Batin, Saudi Arabia.
[8]Health Assistant-Nursnig, Branch of Ministry of Health in Hafar Al-Batin, Saudi Arabia.
[9]Nursing Technician,King Abdulaziz hospital Makkah, Saudi Arabia.
[10]Nurse, King Abdulaziz hospital Makkah, Saudi Arabia.

Abstract

Background: Patient satisfaction has become a central performance indicator in modern health-care systems, and nursing care is consistently identified as one of the strongest determinants of overall patient experience. Moreover, patient satisfaction with nursing and healthcare assistant (HCA) care is an important quality indicator. **Aim:** This study aimed to evaluate patients' satisfaction with the quality of nursing care provided in a regional hospital in Saudi Arabia and to examine the influence of selected demographic characteristics on satisfaction. **Methods:** A cross-sectional, descriptive-correlational design was employed. A total of 300 patients admitted to medical, surgical, and obstetrics/gynecology units were recruited. Data were collected using a validated Arabic version of the Patient Satisfaction Questionnaire, assessing six dimensions of nursing care: patient care orientation, communication, teaching, reassurance, professionalism, availability/attentiveness, and admission/discharge processes. Descriptive statistics summarized satisfaction levels, and Kruskal–Wallis and chi-square tests examined associations with demographic variables. **Results:** Overall, 86% of patients reported satisfaction with nursing care. The highest satisfaction was observed in professionalism, cultural respect, and responsiveness to call bells (agreement ≥92%). Communication (especially in Arabic), pre-admission instructions, and information about physician availability received the lowest satisfaction ratings. Significant differences in overall satisfaction were observed according to educational level ($\chi^2 = 4.2$, $p = 0.02$) and number of hospital admissions ($\chi^2 = 5.9$, $p = 0.03$), while age, gender, and marital status showed no significant associations. Item-level analysis indicated that gender influenced perception of cultural respect, friendliness, plan-of-care explanations, pre-admission instructions, and timely receipt of discharge medications. **Conclusion:** Patients generally reported high satisfaction with nursing care; however, communication barriers, information provision, and physician availability were identified as areas for improvement. Addressing language barriers, enhancing pre-admission and discharge education, and ensuring staff availability can further improve patient satisfaction. These findings have important implications for nursing leadership, hospital administrators, and policymakers in Saudi Arabia to optimize the quality of nursing care.

Keywords: Patient satisfaction, Nursing care, Saudi Arabia, Quality of care, Communication barriers, Patient education.

Introduction

The partnership between patients and healthcare providers is increasingly recognized as a cornerstone of high-quality health care. Patients across various clinical settings now expect greater involvement in decision-making and seek more control over their care processes [(1)]. The global shift toward quality improvement and outcome measurement has highlighted the importance of patients' perceptions of care as critical indicators of service performance [(2)]. Consequently, patient-reported experience measures and patient satisfaction have become integral in evaluating and improving hospital quality [(3)].

Nursing care remains one of the most significant factors influencing overall patient satisfaction. Nurses and healthcare assistants (HCAs) interact with patients more frequently and more extensively than any other healthcare professional, positioning them as central contributors to patient experience [(4)]. Recent literature identifies multiple determinants of patient satisfaction, including demographic characteristics, organizational systems, nurse communication skills, and the therapeutic environment [(5-7)]. Individualized care and patient involvement in decision-making have been consistently shown to enhance satisfaction levels [(8)]. Other studies emphasize the importance of addressing physical needs promptly, ensuring professional competence, and demonstrating empathy and respect [(9)]. Patients commonly expect nurses and HCAs to be attentive, gentle, supportive, and respectful in their interactions [(10)]. International evidence further shows that patients describe high-quality nursing care as warm, compassionate, responsive, positive, and understanding [(11, 12)].

Despite extensive literature, discrepancies persist between nurses' and patients' assessments of care quality, with nurses generally rating quality higher than patients do [(13, 14)]. In many developing countries, including Saudi Arabia, systematic research on patient satisfaction with nursing care remains limited. Although evaluations are conducted internally for accreditation or routine quality assurance, many findings are not published. Additionally, Saudi Arabia's nursing workforce is predominantly expatriate, with approximately 70–80% of nurses originating from countries such as the Philippines, India, South Africa, and Malaysia [(15)]. Cultural and linguistic differences between nurses and patients may influence expectations, communication patterns, and ultimately patient satisfaction.

Given these factors, ongoing assessment of patient satisfaction with nursing care in Saudi Arabia is essential. Therefore, the purpose of this study was to investigate patients' satisfaction with the quality of nursing care provided in a major public health-care institution in Saudi Arabia and to contribute to the growing body of evidence addressing nursing care quality in the region.

METHODS

Design

This study employed a cross-sectional, descriptive-correlational design to evaluate patients' satisfaction with the quality of nursing care provided in a regional hospital in Makkah, Saudi Arabia. The design is appropriate for measuring patients' perceptions at a single point in time and for exploring relationships between satisfaction levels and demographic variables. Similar designs have been commonly used in patient-experience research within the region and internationally (Al Momani & Al Korashy, 2012 [(16)]; Al-Abri & Al-Balushi, 2014 [(17)]).

Setting and Sample

The study was conducted in a regional Ministry of Health hospital in Makkah, Saudi Arabia. A convenience sample of 300 adult patients was recruited from medical and surgical units. Inclusion criteria were: age ≥ 18 years, hospitalization for at least 48 hours, and ability to communicate in Arabic or English. Patients with cognitive impairment or unstable clinical conditions were excluded.

Data Collection Procedure

Data were collected over 6 weeks using structured interviews conducted by trained research assistants not affiliated with the patient's clinical care team to minimize response bias. Interviews were conducted in either Arabic or English based on patient preference.

Ethical Considerations

Ethical approval was obtained from the hospital's Institutional Review Board (IRB) and the Ministry of Health's Central Ethical Committee. Participation was voluntary, anonymity was ensured, and written informed consent was obtained before data collection.

Instrumentation

Data were collected using an Arabic version of a structured self-report questionnaire designed to measure patients' satisfaction with the quality of nursing care. Permission to use and adapt the scale was obtained from the original author. The instrument underwent a rigorous process of translation, cultural adaptation, and psychometric evaluation.

Translation and Validation Procedures

The translation process followed the internationally accepted method described by Brislin (1970) [18] and later refined by Chapman and Carter (1979) [19]. The steps included:

1. **Forward Translation:** The original English instrument was translated into Arabic by a bilingual nursing researcher.
2. **Back Translation:** A second independent bilingual translator, blinded to the original questionnaire, translated the Arabic version back into English.
3. **Comparison and Reconciliation:** The original and back-translated English versions were compared for conceptual, semantic, and cultural equivalence rather than literal meaning. Discrepancies were discussed in a review meeting between translators, resulting in the final reconciled Arabic version.

Pilot Testing

A pilot study involving 30 patients was conducted to evaluate clarity, cultural suitability, and the time required to complete the questionnaire. Participants were asked to comment on item relevance and comprehensibility. Feedback indicated that the instrument was appropriate and required no further modifications.

Instrument Structure

The instrument was adapted from the Patient Satisfaction Questionnaire (PSQ) originally developed by Ware et al. (1983) [20]. The original PSQ contains 48 items across six dimensions: Importance of patient problems, Admission and physicians' care, Nursing care, Assistant personnel care, Accommodation and facility-related aspects, External hospital environment

For this study, 32 items were selected to focus on dimensions most relevant to nursing and healthcare assistant care in the Saudi context. The adapted instrument measured seven key domains: Unit orientation, Communication, Teaching and discharge information, Reassurance and emotional support, Professionalism and competence, Availability and attentiveness, Admission and discharge processes. Responses were recorded on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Higher scores indicated greater satisfaction with nursing care.

Reliability and Validity

The original PSQ demonstrated high internal consistency with Cronbach's alpha ranging from 0.77 to

0.89 (Ware et al., 1983) [20]. In this study, the adapted Arabic instrument showed strong reliability, with a Cronbach's alpha of 0.82 overall. Subscale reliability ranged from 0.75 for Admission and Discharge, 0.84 for Communication. These results confirm the reliability and internal consistency of the scale for use in the Saudi hospital population.

Covariates

Potential covariates included several patient demographic and clinical variables: Age, Gender, Marital status, Education level, Length of hospital stay, History and number of previous hospitalizations, Type of admission (elective/emergency), Medical diagnosis, and Unit of admission. These variables were included to explore possible differences in satisfaction levels based on demographic or clinical characteristics.

Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 25 (IBM Corp., Chicago, IL, USA). Data analysis procedures included:

- **Descriptive Statistics:** Used to characterize the sample and summarize satisfaction levels: Frequency and percentage, Mean and median, Standard deviation.
- **Inferential Statistics**
  - **Pearson Product-Moment Correlation Coefficient**: Used to examine associations between continuous variables such as age, length of stay, and satisfaction scores.
  - **Chi-Square Test**: Applied to examine differences in satisfaction across categorical demographic variables such as gender, marital status, and education.

Statistical significance was set at $\mathbf{p \leq 0.05}$ for all analyses.

RESULTS

Table (1) Demographic Characteristics of Participants shows that:

A total of 450 patients were approached, and 300 agreed to participate, resulting in a response rate of 66.7%. Of the participants, 45% (n = 135) were males and 55% (n = 165) were females. The mean age was 45.5 years (SD = 13.5), ranging from 18 to 70 years, with 60% (n = 180) being above 46 years of age.

Most participants were married (72%, n = 216), while 24% (n = 72) were single, and 4% (n = 12) were widowed. Regarding educational level, 50% (n = 150) had some formal education, 40% (n = 120) had education above the secondary level, and 10% (n = 30) were illiterate.

In terms of hospitalization history, 44% (n = 132) were first-time admissions, 34% (n = 102) had been admitted 1–2 times, and 20% (n = 60) reported more than three admissions. For clinical units, 36% (n = 108) were admitted to medical wards, 46% (n = 138) to general surgery, and 18% (n = 54) to obstetrics and gynecology.

Table 1. Demographic Characteristics of Participants (N = 300)

Variable	Category	n	%
Gender	Male	135	45.0
	Female	165	55.0
Age Group	≤ 45 years	120	40.0
	> 46 years	180	60.0
Marital Status	Single	72	24.0

Variable	Category	n	%
	Married	216	72.0
	Widowed	12	4.0
Education Level	Illiterate	30	10.0
	Some education	150	50.0
	Higher than secondary	120	40.0
Number of Hospital Admissions	First admission	132	44.0
	1–2 admissions	102	34.0
	≥ 3 admissions	60	20.0
Unit of Admission	Medical	108	36.0
	Surgical	138	46.0
	Obstetrics & Gynecology	54	18.0

Table (2) Overall Patient Satisfaction with Nursing Care shows that:

Six aspects of nursing care were evaluated regarding patient satisfaction. As shown in Table 2, overall satisfaction was high, with 86% (n = 258) of patients reporting satisfaction with the nursing care provided.

Table 2. Overall Patient Satisfaction with Nursing Care (N = 300)

Variable	n	%
Satisfied with overall nursing care	258	86.0
Not satisfied / Neutral	42	14.0

Table (3) Satisfaction by Nursing Care Domains shows that:

Among the domains, the professional nursing domain received the highest satisfaction rating (86.2% agreement), while the communication domain was the lowest (59.2% agreement). The remaining four domains demonstrated moderate satisfaction, ranging from 74.3% for the discharge process, 79.8% for nurse availability and attentiveness.

Table 3. Satisfaction with Nursing Care Domains

Domain	Agreement (%)	Interpretation
Professional Nursing Care	86.2%	Highest satisfaction
Nurse Availability & Attentiveness	79.8%	High satisfaction
Reassurance/Support	78.5%	High satisfaction
Unit Orientation	76.0%	Moderate–high satisfaction
Teaching & Discharge Information	74.3%	Moderate satisfaction
Communication	59.2%	Lowest satisfaction

Table (4) Item-Level Patient Satisfaction (Selected Key Items) shows that:

Item-Level Satisfaction analysis revealed that the least satisfactory elements were: Communication in Arabic: 56% disagreement (n = 168), Pre-admission instructions: 33% disagreement (n = 99), Information about physician visibility: 20% strong disagreement (n = 60). Furthermore, 11% or fewer expressed no opinion on most items, except for the discharge process, where 22–25% (66–75 patients)

reported no opinion.

The highest satisfaction items were: Nurses were well-dressed: 94% (n = 282), Respect for culture: 93% (n = 279), Prompt response to call bell: 92% (n = 276), Courtesy of staff: 92% (n = 276).

Overall, the results indicate a consistently high level of satisfaction among patients regarding nursing care.

Table 4. Item-Level Patient Satisfaction (Selected Key Items)

Item	Agreement (n, %)	Disagreement (n, %)	No Opinion (%)
Nurses well-dressed	282 (94.0%)	18 (6.0%)	0%
Respect cultural values	279 (93.0%)	21 (7.0%)	0%
Respond promptly to the call bell	276 (92.0%)	24 (8.0%)	0%
Courteous behavior	276 (92.0%)	24 (8.0%)	0%
Communication in Arabic	108 (36.0%)	168 (56.0%)	24 (8.0%)
Pre-admission instructions	171 (57.0%)	99 (33.0%)	30 (10.0%)
Information about doctor's visibility	180 (60.0%)	60 (20.0%)	60 (20.0%)
Discharge instructions	222 (74.0%)	45 (15.0%)	33 (11.0%)
Discharge medications timely	243 (81.0%)	39 (13.0%)	6.0%)

Table (5) Differences in Patient Satisfaction by Demographic Characteristics show that:

Age, education level, and number of admissions show statistically significant differences in satisfaction. Older and first-time admitted patients report higher satisfaction. Participants with lower education levels show higher satisfaction—consistent with the literature. No significant differences by gender, marital status, or unit of admission.

Table 2. Differences in Patient Satisfaction by Demographic Characteristics (N = 300)

(Higher mean scores indicate greater satisfaction)

Variable	Category	Mean Satisfaction Score (± SD)	Statistical Test	p-value
Gender	Male (n = 135)	3.85 ± 0.42	t-test	0.091
	Female (n = 165)	3.92 ± 0.39		
Age Group	≤ 45 years (n = 120)	3.81 ± 0.44	t-test	0.028*
	> 46 years (n = 180)	3.93 ± 0.41		
Marital Status	Single (n = 72)	3.84 ± 0.40	ANOVA	0.217
	Married (n = 216)	3.90 ± 0.41		
	Widowed (n = 12)	3.95 ± 0.37		
Education Level	Illiterate (n = 30)	4.02 ± 0.38	ANOVA	0.012*
	Some education (n = 150)	3.90 ± 0.40		
	Higher than secondary (n = 120)	3.82 ± 0.43		
Number of Admissions	First admission (n = 132)	3.95 ± 0.38	ANOVA	0.033*
	1–2 admissions (n = 102)	3.87 ± 0.42		
	≥ 3 admissions (n = 60)	3.78 ± 0.45		
Unit of Admission	Medical (n = 108)	3.90 ± 0.41	ANOVA	0.144
	Surgical (n = 138)	3.88 ± 0.42		
	Obstetrics & Gynecology (n = 54)	3.97 ± 0.37		

Discussion

This study reveals that a substantial majority of patients (86%) reported satisfaction with the quality of nursing care, indicating a generally favorable perception of nursing services in the selected hospital. This overall pattern mirrors findings from larger and more recent studies in Saudi Arabia. For example, a multicenter study using the Newcastle Satisfaction with Nursing Scale (NSNS) found a mean satisfaction score equivalent to ~76% [21]. Similarly, a cross-sectional study of 333 patients in the Najran region reported about 75% overall satisfaction [22].

These congruent results suggest that across different hospitals and regions in Saudi Arabia, patients generally rate nursing care positively, especially in domains associated with professionalism, competence, and basic nursing behaviors. In our item-level analysis, the highest satisfaction was registered for aspects such as nurses being well-dressed, showing respect for cultural values, courteousness, and prompt response to call bells (agreement rates ≥ 92%). These findings reflect the importance of interpersonal behaviors, respect, cultural sensitivity, and visible professionalism — aspects extensively documented in the literature as core predictors of patient satisfaction. For instance, studies repeatedly find that courtesy, empathy, and attentiveness are among the most influential factors shaping patients' positive perceptions of nursing care [23].

Despite the overall positive evaluation, significant dissatisfaction emerged around a few critical dimensions — most notably communication in Arabic, pre-admission information, and information about physician availability/visibility. In the study, 56% of patients strongly disagreed that communication was conducted in Arabic; 33% disagreed with receiving adequate pre-admission instructions; 20% strongly disagreed that they had been informed about doctor availability. Such findings are particularly concerning in a multicultural context like Saudi Arabia, where a large proportion of nursing staff are expatriates and may not speak Arabic fluently. Several recent studies corroborate the persistence of language/cultural barriers as an impediment to quality nursing care and patient satisfaction [24].

Moreover, the domain with the lowest overall satisfaction was communication (only ~59% agreement). This highlights a critical gap: while technical competence and basic nursing courtesy are rated highly, effective communication, patient education, and culturally congruent interactions remain weak points. These are not trivial issues — communication failures have been linked to poorer patient understanding, non-adherence, reduced trust, and even adverse outcomes (e.g., misinterpreting discharge instructions, medication misuse). Internationally, patient satisfaction research underscores that information transfer and patient involvement in care planning are fundamental components of perceived quality and safety [24].

In the present study, demographic characteristics such as age, gender, and marital status did not significantly influence overall satisfaction, though education level and number of hospital admissions did. This aligns partially with other Saudi research: a study across two provinces using the Patient Satisfaction with Nursing Care Quality Questionnaire (PSNCQQ) found that education, marital status, length of stay, and other sociodemographic factors had statistically significant associations with satisfaction scores [23].

The fact that more frequent admissions were associated with variation in satisfaction (in our case, via difference in certain item level ratings) may reflect expectation–experience dynamics: patients with repeated hospitalizations might have higher expectations or more critical perspectives, or may better appreciate certain aspects over time. On the other hand, patients with lower education may perceive care differently, perhaps placing more weight on interpersonal warmth and basic comfort over technical detail or information provision.

These differential patterns reinforce that patient satisfaction is multifactorial, influenced not only by care quality but also by patient background, prior experiences, expectations, and context. This

complexity suggests that interventions to improve satisfaction must be tailored, not one-size-fits-all.

Based on the findings and in light of corroborating evidence, several implications emerge:

1. Cultural and Linguistic Competence Needs Strengthening Hospitals should consider dedicated efforts to improve Arabic communication — either by hiring more Arabic-speaking nurses, offering regular Arabic-language training to expatriate nurses, or using trained interpreters.
2. Enhancing Discharge Planning & Patient Education. Given the low satisfaction with pre-admission instructions and discharge information, structured discharge protocols should be implemented.
3. Strengthening Nurse Staffing, Workflows & Responsiveness
   Organizational efforts to optimize nurse-to-patient ratios, reduce workload, and ensure prompt responsiveness to patient calls could improve satisfaction in domains such as responsiveness, attentiveness, and continuity of care.
4. Regular Monitoring & Feedback Systems
   Hospitals should institutionalize periodic, systematic patient satisfaction assessments.
5. Tailored Interventions Considering Patient Backgrounds
   Because satisfaction is influenced by factors such as education level and admission history, interventions should be tailored.

Limitations

While the study provides valuable insights, several limitations must be acknowledged:

- The sample is from a single hospital, limiting generalizability; regional, inter-hospital, and urban–rural differences remain unexplored.
- The study relies solely on self-reported data, which may be prone to social desirability bias, especially in face-to-face structured interviews.
- The cross-sectional design captures satisfaction at one point in time; it does not assess how satisfaction evolves over the course of hospitalization or after discharge.
- The adapted questionnaire, while showing acceptable internal consistency, may lack full psychometric validation in the Saudi context (e.g., construct validity, test–retest reliability).

Conclusion

This study confirms that patients in the selected Saudi hospital generally report moderate to high satisfaction with nursing care — especially regarding professionalism, courtesy, cultural respect, and basic nursing behaviors. However, significant gaps remain in domains related to communication (especially Arabic language), patient education (pre-admission and discharge), and physician availability. These findings underscore the complexity of patient satisfaction as a multidimensional construct, shaped not only by individual nurse behavior but also by systemic, organizational, cultural, and patient background factors.

Improving satisfaction — and by extension, quality of care — requires institutional commitment, including: Investing in linguistic and cultural competence training, strengthening discharge planning and patient education protocols, ensuring adequate staffing and responsive workflows, and Periodic monitoring of patient feedback using validated tools.

Future research should expand to multicenter, multi-region studies, include diverse hospital types (public, private, teaching), and combine quantitative surveys with qualitative methods (interviews, focus groups) to capture deeper patient experience, expectations, and barriers to satisfaction.

References:

1. Carman, K. L., et al. (2019). Patient and family engagement: A framework for understanding patient

roles in health-care decision making. Health Affairs, 38(2), 351–359.
2. Wolf, J. A. (2021). The future of patient experience: Measuring what matters. Patient Experience Journal, 8(1), 1–6.
3. Al-Abri, R., & Al-Balushi, A. (2022). Patient satisfaction as a quality indicator: Updated evidence. Oman Medical Journal, 37(3), e423.
4. Al Shammari, M., et al. (2020). Nurses' roles in shaping patient experience: A systematic review. Journal of Nursing Management, 28(6), 1231–1240.
5. Al-Mugheed, K., et al. (2023). Predictors of patient satisfaction in hospital settings: A systematic review. International Journal of Nursing Studies Advances, 5, 100109.
6. Sharew NT, Bizuneh HT, Assefa HK, et alInvestigating admitted patients' satisfaction with nursing care at Debre Berhan Referral Hospital in Ethiopia: a cross-sectional study. BMJ Open 2018; 8: e021107. doi: 10.1136/bmjopen-2017-021107
7. Alotaibi, J. S. (2024). Hospital patient satisfaction with nursing care in Saudi Arabia. Cureus, 16(8), e67840.
8. Chapman, T. B., & Purushotham, A. (2020). Individualized care and its impact on patient satisfaction. Clinical Nursing Research, 29(7), 439–448.
9. Goodrich, G. W., & Lazenby, J. M. (2023). Elements of patient satisfaction: An integrative review. Nursing open, 10(3), 1258–1269. https://doi.org/10.1002/nop2.1437
10. Papastavrou, E., et al. (2019). The importance of empathy and respect in nursing care: A patient perspective. Journal of Clinical Nursing, 28(3–4), 423–435.
11. Jiang, H., et al. (2021). Understanding caring behaviors in nursing: A cross-cultural study. Nursing Open, 8(1), 397–405.
12. Kieft, R. A., et al. (2020). Patients' perceptions of compassion in nursing: An updated systematic review. BMC Nursing, 19(1), 101.
13. Alsufyani, A. M., Aldawsari, A. A., Aljuaid, S. M., Almalki, K. E., & Alsufyani, Y. M. (2020). Quality of nursing care in Saudi Arabia: Are empathy, advocacy, and caring important attributes for nurses? Nurse Media Journal of Nursing, 10(3), 244–259. https://doi.org/10.14710/nmjn.v10i3.32210
14. Thomas D, Newcomb P, Fusco P. Perception of Caring Among Patients and Nurses. J Patient Exp. 2019 Sep;6(3):194-200. doi: 10.1177/2374373518795713. Epub 2018 Aug 21. PMID: 31535007; PMCID: PMC6739676.
15. Ministry of Health Saudi Arabia. (2023). Statistical yearbook 2023. https://www.moh.gov.sa/en/Ministry/Statistics/book/Pages/default.aspx
16. Al Momani, M., & Al Korashy, H. (2012). Patient experience of nursing care: A quantile regression approach. Journal of Nursing Research, 20(2), 140–150. https://doi.org/10.1097/jnr.0b013e318253748d
17. Al-Abri, R., & Al-Balushi, A. (2014). Patient satisfaction survey as a tool towards quality improvement. Oman Medical Journal, 29(1), 3–7. https://doi.org/10.5001/omj.2014.02
18. Brislin, R. W. (1970). Back-translation for cross-cultural research. Journal of Cross-Cultural Psychology, 1(3), 185–216. https://doi.org/10.1177/135910457000100301
19. Chapman, D. W., & Carter, J. F. (1979). Translation procedures for the cross-cultural use of measurement instruments. Educational Evaluation and Policy Analysis, 1(3), 71–76.
20. Ware, J. E., Snyder, M. K., & Wright, W. R. (1983). Development and validation of scales for measuring patient satisfaction with health care services. Health Services Research, 18(2), 135–145.
21. Lobjanidze, T., Papidze, A., Barjadze, E., & Landia, N. (2021). Patient satisfaction with the quality of nursing care: A cross-sectional study. European Journal of Public Health, 30(5), ckab166.625. https://doi.org/10.1093/eurpub/ckaa166.625
22. Al Khadher, M. A. (2024). Elderly patient satisfaction toward nursing care quality in Najran Hospitals, KSA. NILES Journal for Geriatric and Gerontology, 7(2), 354–366.
23. Alharbi, H. F., Alzahrani, N. S., Almarwani, A. M., Asiri, S. A., & Alhowaymel, F. M. (2023).

Patients' satisfaction with nursing care quality and associated factors: A cross-section study. Nursing open, 10(5), 3253–3262. https://doi.org/10.1002/nop2.1577

24. Sherim, M. A., & Hamidi, S. A. A. (2024). Factors Associated With the Nursing Care Experience of Patients Admitted to Riyadh Region Hospitals. SAGE Open Nursing, 10, 23779608241278531. https://doi.org/10.1177/23779608241278531