

Patient's Satisfaction with Quality of Nursing Care and Services During the Sudan Conflict 2024: A Cross-Section Study

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Abstract

Background: Evaluating patient satisfaction periodically and regularly is vital in providing optimal nursing services. Overall, patient satisfaction reflects the quality of services offered and contributes to improving patients' experience.

Aim: This study assessed patient satisfaction regarding nursing services in surgical wards during the Sudan conflict at Merowe Military Hospital 2024.

Method: A descriptive cross-sectional study was conducted among fifty participants selected by convenience sampling technique. Data were collected by an interviewing questionnaire and analyzed using the Social Statistics Package program (SPSS) version (26). The results were displayed as frequency and percentage, a statistical test was used, and the level of statistical significance was calculated by chi-square and P values (≤ 0.05).

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Result: Based on sociodemographic information revealed that the largest age group is 18-30, making up 52% of the total. Regarding gender, males constitute the vast majority at 83.6%, while females comprise only 16.3%. Concerning Patient Satisfaction with nursing care, the areas of high satisfaction were nurse follow-up and monitoring (76% satisfied), Quick Review of Needs (80% satisfied), and Satisfaction with tranquility and comfort is lower (44%). The study reveals a significant correlation between education level and specific nursing services p. value was 0.000, and other independent variables were insignificant p. value more than 0.05.

Conclusion: The study concluded that there is high satisfaction, particularly with the responsiveness and professionalism of the nursing staff; there are clear areas where improvements are necessary. Addressing these areas, especially environmental factors and patient comfort could enhance patient satisfaction and overall healthcare quality.

Keywords: Patient satisfaction, Nursing services, Sudan conflict, Healthcare quality

المستخلص

الخلفية: يعد تقييم رضا المرضى بشكل دوري ومنتظم أمرًا حيويًا في تقديم خدمات التمريض المثلى. يعكس رضا المرضى بشكل عام جودة الخدمات المقدمة ويساهم في تحسين تجربة المرضى

الهدف: هدفت هذه الدراسة إلى تقييم رضا المرضى عن خدمات التمريض في أجنحة الجراحة خلال النزاع في السودان في مستشفى مروى العسكري 2024

المنهجية: تم إجراء دراسة وصفية مقطعية على خمسين مشاركًا تم اختيارهم باستخدام تقنية العينة المتاحة. تم جمع البيانات باستخدام

استبيان مقابلة وتم تحليلها باستخدام برنامج الحزمة الإحصائية للعلوم الاجتماعية الإصدار (26). تم عرض النتائج على شكل تكرار ونسبة مئوية، واستخدم اختبار إحصائي وتم حساب مستوى الدلالة الإحصائية باستخدام اختبار مربع كاي. ($P \leq 0.05$)

النتائج: بناءً على المعلومات الاجتماعية الديموغرافية، أظهرت النتائج أن الفئة العمرية الأكبر هي 18-30 سنة، وتشكل 52% من الإجمالي. بالنسبة للجنس، يشكل الذكور الغالبية العظمى بنسبة 83.6%، في حين أن الإناث يشكلن 16.3% فقط. فيما يتعلق برضا المرضى عن رعاية التمريض، كانت مجالات الرضا العالي تشمل متابعة الممرضات والمراقبة (76% راضون)، المراجعة السريعة للاحتياجات (80% راضون)، في حين أن الرضا عن الهدوء والراحة كان أقل (44%). أظهرت الدراسة أن هناك علاقة ذات دلالة إحصائية بين مستوى التعليم عند المشاركين والخدمات التمريضية حيث كانت القيمة الاحتمالية 0.00 أما بقية المتغيرات كانت العلاقة ليست ذات دلالة إحصائية القيمة الاحتمالية كانت أكبر من 0.05.

الخلاصة: خلصت الدراسة إلى وجود رضا عالٍ، خصوصًا فيما يتعلق باستجابة وكفاءة طاقم التمريض. ومع ذلك، هناك مجالات واضحة تحتاج إلى تحسين. معالجة هذه المجالات، خاصة العوامل البيئية وراحة المرضى، يمكن أن تعزز رضا المرضى وجودة الرعاية الصحية بشكل عام.

الكلمات المفتاحية: رضا المرضى، خدمات التمريض، النزاع في السودان، جودة الرعاية الصحية

Introduction:

Patient satisfaction is a vital indicator of healthcare quality and the outcome of healthcare services (**Abdel Maqsood et al.,2018**). Measuring patient satisfaction also provides crucial performance information, contributing to total quality management, which includes professional knowledge, competence, and the application of appropriate technology, as well as patients' perceptions of the care they receive (**Goh et al., et al. 2019**). Increasing competition in the healthcare industry underscores the importance of quality health services, and advancements in health-related information and technology drive the demand for enhanced healthcare quality, evolving expectations and opinions about healthcare, increased patient involvement, and heightened costs and competition (**Adia, M.A et al. 2022**). The quality and adequacy of healthcare services can be gauged by the views and satisfaction of patients and their relatives (**Merkouris A. et al., 2013**).

In today's consumer-oriented healthcare markets, a patient-centered measure of satisfaction with nursing care is a significant component of hospital quality management systems, and patients seek proper diagnosis and treatment, functional restoration, and symptom relief. Unsatisfactory outcomes can prompt patients to seek care elsewhere (**Ksykiewicz-Dorota A. et al., 2011**). Satisfied patients are more likely to follow prescribed medical regimens, contributing positively to health, and are more likely to recommend the hospital to others. Patient opinions are invaluable for healthcare planning and evaluation (**Buchanan J et al.,2015**). These changes necessitate restructuring healthcare services, including nursing, to improve the quality of treatment services.

Patient satisfaction has become a popular healthcare service quality measure (**Şişe, A. (2013)**).

Patient satisfaction with nursing services is an effective indicator of the quality of hospital services. Nursing care, which encompasses health promotion, patient support, education, and development, is crucial to hospital service and patient satisfaction (**Alasad et al., M.E. (2015)**). Satisfied patients positively impact the entire health system, making their perspectives essential for quality improvement. Nursing care is crucial for patient satisfaction and competitive healthcare service quality. Monitoring the relationship between nursing care and patient expectations is necessary to support service quality; high perceived performance and meeting patient expectations are essential to avoid dissatisfaction and ensure high satisfaction levels (**Molina-Mula et al., J. (2020)**).

The study conducted in Sudan aimed to assess the impact of nurse-managed health clinics (NMHCs) on patient satisfaction by utilizing a desk study approach. It revealed that patients attending NMHCs reported higher satisfaction levels than those attending traditional physician-led clinics. This increased satisfaction was attributed to the holistic and patient-centered approach of NMHCs (**Ibrahim, A. 2024**). Another study was done in Riyadh Province, Saudi Arabia, to investigate and measure COVID-19 patients' satisfaction levels with the quality of nursing care provided during their hospitalization or quarantine; the study employed a cross-sectional questionnaire to collect data from COVID-19 patients who were hospitalized or quarantined for at least 48 hours. The Arabic version of the Patient Satisfaction with Nursing Care Quality Questionnaire (PSNCQQ-Ar) was used to assess patient satisfaction levels. Descriptive statistics, Mann-Whitney U, and Kruskal-Wallis tests were performed to analyze the data. The study revealed that 96 patients reported relatively high satisfaction levels with the overall nursing care. High satisfaction was noted regarding the quality of care and the

information provided by nurses. Significant differences in satisfaction levels were observed in terms of age, educational level, place of origin, and patients' recommendations of the hospitals (**Alhowaymel et al., 2022**)

Studying patient satisfaction with nursing services during conflict is critical for understanding the difficulties and effectiveness of healthcare delivery in crises. Conflict zones provide unique challenges to delivering consistent and high-quality nursing care, which can dramatically impact patient satisfaction and overall healthcare results.

This study aimed to assess patient satisfaction regarding nursing services in surgical wards during the Sudan conflict at Merowe Military Hospital 2024 and correlate patients' demographical characteristics and satisfaction with nursing services.

Material and methods:

A descriptive cross-sectional hospital-based study design was applied from January to March during the Sudan conflict; it was conducted among male and female adult patients admitted to the surgical ward in Merowe Military Hospital, located in Sudan, a Northern state locality, aged between 18 to 60 years and more, and agreed to participate. Patients who were not willing to participate in the study and admitted to other wards were excused from the study.

Participants were selected using a convenience sampling technique based on their availability during the data collection period, and their number was fifty patients.

The study's independent variables were age, gender, level of education, and economic status. The dependent variable was Patient satisfaction regarding nursing services.

Data were collected using an interviewing questionnaire validated by a pilot study. It contains (19) questions. The questionnaire was divided into three sections: the first was demographic data, the second was about nursing care and services, and the third was about the environment provided by

nurses. Data were analyzed using SPSS (Statistical Package for Social Sciences SPSS, version (26). The results were displayed as frequency and percentage, a statistical test was used, and the level of statistical significance was calculated by chi-square and P values (≤ 0.05).

Ethical approval was obtained from the research committee at the faculty of nursing, the manager of Merowe Military Hospital, and the patient verbal consent

| Age | Items | Frequency | Percent |
|-------------------|--------------|-----------|---------|
| | 18 - 30 | 26 | 52% |
| | 31 - 45 | 12 | 24% |
| | 46 - 60 | 7 | 14% |
| | Above 60 | 5 | 10% |
| Gender | Male | 42 | 83.6% |
| | Female | 8 | 16.3% |
| Employment | Governmental | 34 | 68% |
| | Freelancing | 7 | 14% |
| | unemployment | 5 | 10% |
| | Private work | 4 | 8% |
| Educational level | Uneducated | 4 | 8% |
| | Basic | 9 | 18% |
| | Secondary | 19 | 38% |
| | University | 10 | 20% |
| | Postgraduate | 8 | 16% |
| Marital status | Single | 25 | 50% |
| | Married | 24 | 48% |
| | Widower | 1 | 2% |
| Economic status | High | 5 | 10% |
| | Medium | 38 | 76% |
| | low | 7 | 14% |

Results: Table (1): Socio demographic characteristics of participants (N=50)

Table (1) revealed the age distribution was 18 - 30 years. This age group comprises the most significant portion, with 26 individuals accounting for 52%. 31 - 45 years, this group has 12 individuals, making up 24% of the total. 46 - 60 years, seven individuals in this age range represent 14% of the total. Over 60 years was the smallest group, with five individuals accounting for 10% of the total; gender distribution shows that Males make up the majority, with 42 individuals making up 83.6% and only eight individuals are female, constituting 16.3%, employment status reflected that governmental employment is the largest employment category, with 34 individuals representing 68%, seven individuals are freelancers, making up 14%. There are five unemployed individuals, accounting for 10%. The smallest employment category, with four individuals, constitutes 8%, worked in the private sector. Regarding education level, four individuals were uneducated, making up 8%. Nine individuals have a primary education, representing 18%. The largest educational category, with 19 individuals, accounts for 38%. Ten individuals have university-level education, making up 20%. and eight individuals have postgraduate education, constituting 16%. About marital status, 25 individuals are single, making up 50%. 24 individuals are married, representing 48%. There is one widower, accounting for 2%. Economic Status Five individuals are in the high economic status category, making up 10%. The majority, with 38 individuals, fall into the medium economic status category, representing 76%. Seven individuals are in the low economic status category, constituting 14%. These results provide an overview of the surveyed population's demographics, employment, education, marital status, and economic conditions.

Table (2) Distribution of participants according to their satisfaction level with nursing services. (N=50)

| Items | Very satisfied =5 | Relatively Satisfied=4 | Between =3 | Relatively Dissatisfied=2 | Not satisfied at All=1 |
|--|-------------------|------------------------|------------|---------------------------|------------------------|
| Follow-up and monitor of nursing staff | 28 (56) % | 10 (20) % | 7(14) % | 3 (6) % | 2 (4) % |
| Regarding a quick review of nurses about the needs | 26(52) % | 14(28) % | 5(10) % | 2(4) % | 3(6) % |
| Speed of taking the necessary nursing measures (treatment and emergency cases) | 28(56) % | 12(24) % | 7(14) % | 1(2) % | 2(4) % |
| Explain the necessary procedures before and after the required operation. | 21(42) % | 13(26) % | 12(24) % | 2(4) % | 2(4) % |
| Nursing guidelines and advice | 29(58) % | 9(18) % | 6(12) % | 1(2) % | 5(10) % |
| Efficient nurse experience | 30(60) % | 9(18) % | 6(12) % | 3(6) % | 2(4) % |
| Nurses deal with family and companion | 36(72) % | 7(14) % | 5(10) % | 0(0) % | 2(4) % |
| The method of reception and transfer in the wards | 30(60) % | 9(18) % | 9 (18) % | 0(0) % | 2(4) % |
| The level of cleanliness of the environment | 17(34) % | 12(24) % | 8(16) % | 6(12) % | 7(14) % |
| Personal care | 23(46) % | 16(32) % | 5(10) % | 4(8) % | 2(4) % |
| Privacy | 28(56) % | 13(26) % | 6(12) % | 1(2) % | 2(4) % |
| Tranquility and comfort | 22(44) % | 9(18) % | 8(16) % | 5(10) % | 6(12) % |
| Amenities and entertainment | 16(32) % | 10(20) % | 6(12) % | 9(18) % | 9(18) % |

Table (2) presents data on patient satisfaction regarding various aspects of nursing care, using a scale that ranges from "Very satisfied" to "Not satisfied at all. A detailed breakdown of the

data shows that Most patients (76%) are either very satisfied or relatively satisfied with the follow-up and monitoring by the nursing staff, indicating strong performance in this area. Most patients (80%) feel that nurses are quick in reviewing their needs, but a small percentage (10%) are unsatisfied. Most (80%) are satisfied with the promptness of nursing measures in treatment and emergencies. While high satisfaction (68%), a notable percentage (24%) is neutral, indicating room for improvement in communication. Most (76%) are satisfied with the guidelines and advice nurses provide, though some dissatisfaction exists (12%). Most patients (78%) view the nursing experience as efficient. High satisfaction (86%) with how nurses interact with families and companions, with minimal dissatisfaction. Intense satisfaction (78%) in reception and transfer methods, with no relative dissatisfaction. Cleanliness satisfaction is lower (58%) than in other categories, indicating an essential area for improvement. Most patients (78%) are satisfied with personal care, though a small percentage are dissatisfied, and there is high satisfaction (82%) with privacy, with minimal dissatisfaction. Satisfaction with tranquility and comfort is lower (44%), indicating room for improvement. This category has the lowest satisfaction (52%) and highest dissatisfaction (36%), suggesting a need for significant enhancement.

Based on the weighted average of all the items in the table, the overall satisfaction level is approximately 4.05 on a scale of 1 to 5. This indicates that, on average, respondents are generally "Relatively Satisfied" to "Very Satisfied" with the various aspects of nursing care being evaluated.

Table (3) represents a correlation background showing the relationships between selected participants' Sociodemographic characteristics and certain dependent variables.

| Control Variables | | Age | Gender | Education level | |
|--|-------------------|--------------|--------|-----------------|--------|
| The method of reception and transfer in the wards, speed of taking the necessary nursing measures (treatment and emergency cases), and a quick review of nurses about the need | Age | Correlation | 1.000 | .044 | 0.752 |
| | | Significance | . | .771 | 0.000 |
| | Gender | Correlation | 0.044 | 1.000 | -0.102 |
| | | Significance | 0.771 | | 0.495 |
| | Educational level | Correlation | -0.752 | -0.102 | 1.000 |
| | | Significance | 0.000 | 0.495 | . |

Table (3) displays relationships between the selected participants' Sociodemographic characteristics. Variables were age, gender, and educational level of the individuals involved, and a particular dependent variable included (the method of reception and transfer in the wards, the speed of taking the necessary nursing measures (treatment and emergency cases), a quick review of nurses about the patient's needs). This represents a combined variable assessing the quality of nursing procedures and response times.

Correlation Values: Correlation coefficients range from -1.00 to 1.00

- 1.00 indicates a perfect positive correlation.
- -1.00 indicates a perfect negative correlation.
- 0.00 indicates no correlation.

For the data in the table, the Interpretation was:

Age Correlation with age itself, the correlation is 1.000, as expected since any variable perfectly correlates with itself and age and Gender; the correlation is 0.044, which is very weak and

positive, suggesting little to no relationship between age and gender in this context, age and education level the correlation is -0.752, which is a strong negative correlation. This suggests that the education level tends to decrease as age increases. Regarding gender and educational level, the correlation is -0.102, a weak negative correlation, indicating a very slight tendency for gender to be related to education level, but this is not strong enough to be significant.

For the significance, values help us to determine whether the correlations are statistically significant about the data in Table Three age and gender; the significance value is 0.771, which is much higher than the typical alpha level (0.05), meaning this correlation is not statistically significant, for the variables age and education level: The significance value is 0.000, which is less than 0.05, indicating that the correlation is statistically significant and about gender and educated level the significance value is 0.495, which is also higher than 0.05, meaning this correlation is not statistically significant. The table summary shows that age and education have a statistically significant strong negative correlation, and gender shows no significant correlation between age and education level.

Discussion of Findings:

Compared to doctors and other healthcare workers, nursing staff is the most prevalent professional category. It has the most direct patient contact (**Kasa & Gedamu,2019**). Patient satisfaction and their expectations of care serve as valid indicators of high-quality nursing care even during crisis and conflict. This cross-sectional study was conducted in Merowe Military Hospital, located in Sudan, a Northern state locality, to assess patient's satisfaction with nursing care and services during the Sudan conflict.

The discussion of findings based on sociodemographic information revealed that the largest age group is 18-30, making up 52% of the total, suggesting that younger individuals dominate the surveyed population. This may reflect younger

individuals' greater engagement or availability in health services, possibly due to more acute health concerns or frequent interactions with healthcare services. Those aged 46-60 comprise 14%, while the over-60 group is the smallest at 10%. The lower representation of older adults might reflect a healthier aging population or lower survey participation among this age group; these findings were inconsistent with the study done in Saudi Arabia (**Alhassan, E.M. et al. 2024**) aimed to assess Patients' satisfaction with the quality of nursing care and 45.8 % of the participants were aged between 41 and 60 years. Regarding gender, males constitute the vast majority at 83.6%, while females comprise only 16.3%; this also agrees with a previous study conducted in Saudi Arabia, which revealed that Most patients in the study were male (61.5). This significant gender disparity could be influenced by cultural or societal factors that impact healthcare access or survey participation, possibly suggesting that men are more likely to engage with the healthcare system or that women may face barriers to accessing these services, mainly in rural areas and concerning conflict situations. For the Employment Status, the majority are government employees (68%), reflecting the possible stability and healthcare access of governmental jobs; the Freelancers and unemployed individuals make up 14% and 10%, respectively, indicating diverse economic backgrounds but leaning toward formal employment, about Educational Level the most prominent group has secondary education (38%), followed by university-educated individuals (20%), and postgraduate education (16%). The strong presence of secondary and higher education individuals suggests a reasonably well-educated population, likely leading to greater health awareness and more informed engagement with healthcare services, and the 8% uneducated group indicates a small but significant segment that might face challenges in healthcare access or comprehension, potentially affecting their satisfaction levels.

Regarding economic Status, most individuals (76%) are in the medium economic status category, similar to a study in Pakistan done to assess patient satisfaction, and 72.6% of participants had earnings of up to 30000 PKRs per month, which means they were in the medium economic status (**Afridi et al., (2024)**). This suggests a relatively balanced economic distribution that could indicate moderate access to healthcare services; the 14% in the low economic status group might face more challenges in healthcare access, which could reflect in their satisfaction levels, especially during conflict.

Concerning Patient Satisfaction with Nursing Care: The areas of high satisfaction were nurse follow-up and monitoring (76% satisfied), indicating strong performance in ongoing patient care, a critical aspect of healthcare quality. Quick Review of Needs (80% satisfied) Demonstrates efficiency in addressing patient needs, which is crucial for patient trust and comfort. Promptness in Nursing Measures (80% satisfied) and high satisfaction in emergency and treatment responses highlight the effectiveness of the nursing staff. Nurses' Interaction with Families (86% satisfied) Very high satisfaction in this area suggests that nurses are perceived as compassionate and communicative, fostering a supportive environment. Reception and Transfer Methods (78% satisfied) Efficient patient flow and care transitions contribute to overall patient comfort and satisfaction; privacy (82% satisfied); high satisfaction with privacy indicates that patients feel respected and secure in their environment. Cleanliness (58% satisfied): This lower satisfaction score points to a significant area needing attention. Cleanliness is fundamental to patient care, impacting infection control, patient comfort, and tranquility and comfort (62% satisfied). This relatively lower score suggests that the environment might lack a calm and restful atmosphere, essential for patient recovery. in amenities and entertainment (52% satisfied, 36% dissatisfied), the lowest satisfaction level here, with the highest dissatisfaction, indicates a critical need for

improvement. Better amenities and entertainment options could enhance patient comfort and well-being, which are often overlooked but vital for overall satisfaction, especially during extended hospital stays.

These findings of the study revealed relatively high reported levels of overall patient satisfaction with nursing care, provided care and provided information. Our main results are similar to many similar studies nationally and internationally. For example, this result is consistent with a recent survey conducted among approximately 100 COVID-19 patients in Riyadh, Saudi Arabia, where high satisfaction with nursing care was reported (Alhowaymel et al., 2022). The results are consistent with research conducted in Oman among over 290 patients (Albashayreh et al., 2019), in Jordan among over 350 patients from thalassemia units (Al-Awamreh & Suliman, 2019), in Turkey among over 600 discharged patients (Karaca & Durna, 2019), and in Spain among 200 intensive care unit–discharged patients (Romero-García et al., 2019). However, our main results are inconsistent with two studies conducted in Ethiopia among over 250 patients (Sharew et al., 2018) and over 560 patients (Kasa & Gedamu, 2019) both found that under half of the patients were unsatisfied. Another study that examined the satisfaction of patients or caregivers with nurses found moderate levels of satisfaction (Elayan & Ahmad, 2018).

Regarding the discussion of correlations and sociodemographic factors, there was a strong negative correlation (-0.752), indicating that as age increases, education levels tend to decrease; this could be due to older individuals having had less access to education in the past, reflecting broader societal trends over time, about gender and other factors the weak correlations between gender and other factors suggest that gender does not significantly influence satisfaction levels or the other variables studied, indicating that both male and female patients likely have similar experiences and expectations in this healthcare setting.

The overall satisfaction level of 4.05 indicates that, on average, patients are generally satisfied with the nursing care received. However, the areas with lower satisfaction scores, particularly cleanliness, tranquility, and amenities, highlight the need for targeted improvements to enhance the overall patient experience.

Conclusion:

The findings provide a comprehensive understanding of the patient population's demographics and satisfaction levels with nursing care. While there is generally high satisfaction, particularly with the responsiveness and professionalism of the nursing staff, there are clear areas where improvements are necessary. Addressing these areas, especially environmental factors and patient comfort could further enhance patient satisfaction and overall healthcare quality.

References:

1. Abdel Maqsood, A.S., Oweis, A.I. & Hansa, F.S. (2018) 'Differences between patients' expectations and satisfaction with nursing care in a private hospital in Jordan', *International Journal of Nursing Practice*, 18, pp. 140–146. doi: 10.1111/j.1440-172X.2012.02008 . x .
2. Goh, M.L., Ang, E.N.K., Chan, Y.H., He, H.G. & Vehviläinen-Julkunen, K. (2019) 'Patient satisfaction with the quality of nursing care', *Nursing Open*, 6(2), pp. 535–545. doi: 10.1002/nop2.237.
3. Adia, M.A., et al. (2022) 'Patients' satisfaction regarding nursing services at short stay in Omdurman teaching hospital', *Journal of Nursing and Healthcare* [Online]. Available at: DOI or URL (Accessed: Date).
4. Merkouris, A., Apostolakis, I., Papathanassoglou, E. & Pistolas, D. (2013) 'The association between stressful life events and depressive symptoms among Cypriot university students: a cross-sectional descriptive correlational study', *BMC Psychiatry*, 13(1), Article 1121. doi: 10.1186/1471-244X-13-1121.

5. Ksykiewicz-Dorota, A., Sierpińska, L., Gorczyca, K. & Rogala-Pawelczyk, G. (2011) 'Patient satisfaction with the quality of nursing care', *Nursing Open*, 6(2), pp. 535–545. doi: 10.1002/nop2.237.
6. Buchanan, J., Dawkins, P. & Lindo, J.L. (2015) 'Patient satisfaction with the quality of nursing care', *Nursing Open*, 6(2), pp. 535–545. doi: 10.1002/nop2.237.
7. Şişe, A. (2013) 'Patient satisfaction with nursing care', *Nursing and Health Sciences*, 15(3), pp. 315–320. doi: 10.1111/nhs.12033.
8. Alasad, J., Tabar, N.A. & Aburuz, M.E. (2015) 'Patient satisfaction with nursing care: Measuring outcomes in an international setting', *Journal of Nursing Administration*, 45(11), pp. 563–568. doi: 10.1097/NNA.0000000000000261.
9. Molina-Mula, J. & Gallo-Estrada, J. (2020) 'Impact of nurse-patient relationship on quality of care and patient autonomy in decision-making', *International Journal of Environmental Research and Public Health*, 17(3), p. 835. doi: 10.3390/ijerph17030835.
10. Ibrahim, A. (2024) 'Impact of nurse-managed health clinics on patient satisfaction in Sudan', *American Journal of Health, Medicine and Nursing Practice*, 10(3), pp. 36-47.
11. Alhowaymel, F., Abaoud, A., Alhuwaimel, A., Alenezi, A. & Alsayed, N. (2022) 'COVID-19 patients' satisfaction levels with nursing care: A cross-sectional study', *SAGE Open Nursing*, 8. doi: 10.1177/23779608221078163.
12. Kasa AS, Gedamu H.(2019) Predictors of adult patient satisfaction with nursing care in Amhara region, Northwest Ethiopia public hospitals. *BMC Health Serv Res.* 21;19(1):52. doi: 10.1186/s12913-019-3898-3. PMID: 30665400; PMCID: PMC6341709.)
13. Alhussin, E.M., Mohamed, S.A., Hassan, A.A., Al-Qudimat, A.R., Doaib, A.M., al Jonidy, R.M., al Harbi, L.I. & Alhawsawy, E.D. (2024) 'Patients' satisfaction with the quality of nursing

care: A cross-sectional study', *International Journal of Africa Nursing Sciences*, 20, p. 100690.

14. (Afridi et al., S. (2024). Patient Satisfaction Towards Quality of Nursing Care at a Public Sector Tertiary Care Hospital Karachi: Patients Satisfaction Towards Quality of Nursing Care . *Pakistan Journal of Health Sciences*, 5(02), 19–23. <https://doi.org/10.54393/pjhs.v5i02.1263>

15. A lhowaymel, F., Abaoud, A., Alhuwaimel, A., Alenezi, A., & Alsayed, N. (2022). COVID-19 Patients' satisfaction levels with nursing care: A cross-sectional study. *SAGE Open Nursing*, 8, 23779608221078164. <https://doi.org/10.1177/23779608221078163>

Web of Science® Google Scholar

16. Albashayreh, A., Al-Rawajfah, O. M., Al-Awaisi, H., Karkada, S., & Al Sabei, S. D. (2019). Psychometric properties of an Arabic version of the patient satisfaction with nursing care quality questionnaire. *The Journal of Nursing Research: JNR*, 27(1), 1–9. <https://doi.org/10.1097/jnr.0000000000000273>

17. Al-Awamreh, K., & Suliman, M. (2019). Patients' satisfaction with the quality of nursing care in thalassemia units. *Applied Nursing Research*, 47, 46–51. <https://doi.org/10.1016/j.apnr.2019.05.007>

18. Karaca, A., & Durna, Z. (2019). Patient satisfaction with the quality of nursing care. *Nursing Open*, 6(2), 535–545. <https://doi.org/10.1002/nop2.237>

19. Romero-García, M., Delgado-Hito, P., de la Cueva-Ariza, L., Martínez-Momblan, M. A., Lluch-Canut, M. T., Trujols-Albet, J., Juvé-Udina, M.-E., & Benito, L. (2019). Level of satisfaction of critical care patients regarding the nursing care received: Correlation with sociodemographic and clinical variables. *Australian Critical Care*, 32(6), 486–493. <https://doi.org/10.1016/j.aucc.2018.11.002>

20. Sharew, N. T., Bizuneh, H. T., Assefa, H. K., & Habtewold, T. D. (2018). Investigating admitted patients' satisfaction with

nursing care at Debre Berhan referral Hospital in Ethiopia: A cross-sectional study. *BMJ Open*, 8(5), e021107. <https://doi.org/10.1136/bmjopen-2017-021107>

21. Kasa, A. S., & Gedamu, H. (2019). Predictors of adult patient satisfaction with nursing care in public hospitals of Amhara region, Northwest Ethiopia. *BMC Health Services Research*, 19(1), 52. <https://doi.org/10.1186/s12913-019-3898-3>

22. Elayan, R. M., & Ahmad, M. M. (2018). A new approach to exploring satisfaction with nursing care by nurses themselves. *Journal of Clinical Nursing*, 27(7–8), e1501–e1507. <https://doi.org/10.1111/jocn.14274>.