



Patients' Satisfaction with Nursing Care at Chawama First Level Hospital in Lusaka, Zambia

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Abstract

Introduction: Patient satisfaction is a crucial indicator of healthcare quality as it directly reflects the contentment of hospital clients. Obtaining timely and valuable feedback from patients regarding their satisfaction with nursing care is essential for enhancing healthcare quality.

Aim: To evaluate patient satisfaction with nursing care and identify factors influencing satisfaction among adult patients admitted to the medical and surgical wards at Chawama First Level Hospital.

Design and Methods: A quantitative analytical cross-sectional design was employed, involving 198 adult male and female patients. Data were collected through face-to-face interviews using the validated "Newcastle Satisfaction with Nursing Care Scale." The collected data were analyzed using descriptive and inferential statistics, including Chi-square, Fisher's exact, and binary logistic regression tests.

Results: The study revealed that patient satisfaction was 67.2%. Factors such as marital status, hospital stay length, and various nursing care aspects were associated with patient satisfaction. Prolonged hospital stays negatively impacted satisfaction, with a 16% decrease in likelihood for each additional day spent in the hospital (adjusted odds ratio [AOR]=0.84; 95% confidence interval [CI]: 0.71–0.99; p-value=0.037). Male patients exhibited a 44% higher likelihood of satisfaction compared to females. Patients who perceived nursing care provision as poor and good had 95% and at least 99% lower odds of satisfaction, respectively, compared to those who rated the care as excellent (poor: AOR=0.05, 95% CI=0.01, 0.15, p<0.001; good: AOR=0.01, 95% CI=0.00, p=0.05).

Conclusion and Recommendations: The current study revealed satisfaction levels and influential factors in nursing care. To improve overall satisfaction, focus should be on areas of lower satisfaction, like discharge instructions. Nursing administrators should consider patients' perspectives and opinions when planning and evaluating the quality of care to improve overall healthcare experiences.

Keywords: Patients satisfaction, Nursing care, Provision of nursing care dimensions, Quality of care, Newcastle satisfaction with nursing care scale

Introduction

Patient satisfaction with nursing care is a crucial aspect that influences healthcare policies, organizational practices, and nurses' behaviors. It refers to an individual's subjective evaluation and

emotional response resulting from the interaction between their expectations of nursing care and their perception of the actual care received.¹ It holds significant importance as it prompts efforts to improve service delivery within hospitals, enhances accountability

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among healthcare providers, and aims to meet patients' needs and expectations.²

Quantifying patient satisfaction can be challenging due to its dynamic nature, but it remains a primary indicator of successful healthcare delivery.³ Satisfied patients are more likely to engage in follow-up consultations, refer others to the healthcare facility, and exhibit better adherence to prescribed treatments, leading to improved health outcomes.⁴ Conversely, poor satisfaction with nursing care can negatively impact patients' perceptions of health services and overall health outcomes.^{5,6}

Several factors contribute to patient satisfaction with nursing care, including sufficient time for teaching and information sharing, timely responsiveness, comfort provision, nurse-patient relationships, nurse-physician interaction, and the nursing environment.⁶ While extensive research has been conducted globally, not much is known about patient satisfaction with nursing care in Zambia as a bulky of available studies examined the patient's satisfaction with general health care and not specifically satisfaction with nursing care, which has been observed by several researchers^{5,7,8} as a major determinant of the patient overall satisfaction with health care. Therefore, the aim of the study was to address this research gap by investigating patients' satisfaction with nursing care in Zambia.

Significance of the study

Patients' satisfaction surveys are valuable tools for both patients and hospitals. These surveys allow hospitals to identify patients' needs and areas for improvement, leading to the design of interventions to enhance the quality of care. They also demonstrate the hospital's commitment to delivering high-quality care, increasing trust among patients and the public. The study findings can be utilized by hospital management and nurses to implement interventions that promote patient satisfaction. Furthermore, the current study establishes a foundation for future research in this area.

Research questions

- 1) What is the level of patient satisfaction with nursing care provided at Chawama First Level Hospital?
- 2) What are the factors that influence satisfaction with nursing care provided at Chawama First Level Hospital?

Subjects and Method

Study design: The current study utilized an analytical cross-sectional research design.

Study participants: The current study comprised 198 adult male and female patients admitted to the medical and surgical wards, meeting specific inclusion criteria: patients capable of independent communication, those admitted for two or more days, and

aged 18 years and above during data collection.

Study setting: The research was conducted at Chawama First Level Hospital's Adult Medical and Surgical Wards, located in Lusaka's Chawama constituency. The Medical and Surgical Wards have a total of 35 beds and admit approximately 130 patients each month. The hospital serves a catchment population of 137,238 people.⁹ In addition to local residents, the hospital also receives patients from nearby communities, as well as referrals from clinics and health centers within and beyond the constituency.

Data collection tools: Data was collected using a structured interview schedule consisting of three sections of socio-demographic characteristics, adopted Newcastle Satisfaction with Nursing Care Score (NSNS) developed by Thomas,¹⁰ and provision of nursing care dimensions scale developed by Laschinger.¹¹ Section 1 gathered socio-demographic information such as age, gender, level of education, marital status, religion, employment status, nature of condition/disease, presence of co-morbidity, history of admission, self-reported health status, and payment for the service. The NSNS consisted of 19 questions on a Likert scale designed to assess patient satisfaction with nursing care. The provision of nursing care dimensions scales also used a Likert scale consisting of seven questions to assess patients' experiences with individualized nursing care based on specified dimensions of care.

Scoring system: A pre-determined scoring system was utilized to measure patient satisfaction with nursing care and experience with nursing care dimensions. The NSNS was based on a 5-point Likert-type scale, ranging from 1 (not at all satisfied) to 5 (completely satisfied). The total score was calculated by summing the scores of all items from 19 questions, ranging from 0 to 95. A score of at least 78 indicated satisfaction with nursing care, while scores below 78 indicated dissatisfaction. The Likert scale for the provision of nursing care dimensions also ranged from 1 to 5. A score of 5 represented excellent, 4 represented very good, 3 represented good, 2 represented fair, and 1 represented poor. Participants with scores below 17.5 were categorized as having a poor experience, scores between 17.5 and 24.5 indicated a good experience, and scores of 24.5 and above indicated an excellent experience of nursing care.

Validity and reliability of the tool: Two research supervisors, a professor and a Doctor of Clinical Nursing Sciences, carefully reviewed the data collection instrument to ascertain the relevance and applicability of the questions. The instrument was found to be easy to administer. The reliability of scores on the NSNS and Dimensions of Nursing Care scale are dependable, with cronbach's alpha values of 0.96 and 0.97, respectively, demonstrating strong consistency and reliability of the tools.

Administrative design: Permission was obtained from the Dean of the School of Nursing Sciences at the University of Zambia, the Medical Superintendent of Chawama First Level Hospital, and the Director of the Lusaka District Health Office to conduct the study.

Ethical consideration: Ethical approval was obtained from the University of Zambia Biomedical Research Ethics Committee (UNZABREC) under reference number **3044-2022**, and a researcher recognition certificate was acquired from the National Health Research Authority (NHRA) under reference number **NHRAR-R 1121/12/09/2022**. The adopted data collection tools were correctly cited and Participants were provided with information sheets and consent forms, and were assured of confidentiality and anonymity. To protect participant privacy and safety, data were collected in private rooms.

Data collection process: The researcher and two research assistants gathered data over a three-month period, spanning from October to December 2022. participants were introduced to the study and provided with details about its objectives and advantages. Subsequently, informed consent was obtained for all the participants. Throughout the interviews, ethical principles such as respect, integrity, and transparency were upheld. Each interview had a duration of approximately 30 minutes. Gratitude was expressed to participants for their participation, and the interview schedules were securely stored.

Statistical design: After data collection, the interview schedules were reviewed, responses were coded, and the data was entered into an Excel spreadsheet and exported to SPSS version 27.0 for analysis. Categorical variables were summarized using frequencies and proportions, while continuous variables were summarized using minimum and maximum values, mean, and standard deviation. Chi-square, Fisher's exact, and binary logistic regression statistical tests were used to assess associations and differences in patients' satisfaction with nursing care and socio-demographic factors, as well as provision of nursing care dimensions and a significance level of $p \leq 0.05$ was considered statistically significant.

Results

Table 1 presents the socio-demographic characteristics of the participants

Fifty-one percent of the participants were male. The age group with the highest representation was 31-40 years (26.8%). The majority of participants were married (59.1%), followed by single participants (34.3%). The participants were predominantly Christians (88.4%), 61.0% were employed and 48.0% had completed secondary school.

Table 1: Socio-demographic characteristics of participants (N=198).

| Variable | Frequency | Percentage |
|--------------------------------|------------|------------|
| Gender | | |
| Female | 97 | 49 |
| Male | 101 | 51 |
| Total | 198 | 100 |
| Age group | | |
| 31-40 | 53 | 26.8 |
| 41-50 | 47 | 23.7 |
| 51-60 | 30 | 15.2 |
| 60+ | 24 | 12.1 |
| Total | 198 | 100 |
| Marital status | | |
| Single | 37 | 18.7 |
| Married | 117 | 59.1 |
| Widowed | 26 | 13.1 |
| Divorced | 18 | 9.1 |
| Total | 198 | 100 |
| Religion | | |
| Christian | 175 | 88.4 |
| Muslim | 19 | 9.6 |
| Hinduism | 1 | 0.5 |
| Other | 3 | 1.5 |
| Total | 198 | 100 |
| Level of education | | |
| No education | 15 | 7.6 |
| Primary | 59 | 29.8 |
| Secondary | 95 | 48 |
| Tertiary | 29 | 14.6 |
| Total | 198 | 100 |
| Employment status | | |
| Not employed | 77 | 38.9 |
| Employed | 121 | 61.1 |
| Total | 198 | 100 |
| Having co-morbidities | | |
| Yes | 99 | 50 |
| No | 99 | 50 |
| Total | 198 | 100 |
| Payment for the service | | |
| Yes | 57 | 28.8 |
| No | 141 | 71.2 |
| Total | 198 | 100 |
| Nature of condition | | |

| | | |
|---------------------------------------|------------|------------|
| Medical | 119 | 60.1 |
| Surgical | 79 | 39.9 |
| Total | 198 | 100 |
| History of admission | | |
| Yes | 97 | 49 |
| No | 101 | 51 |
| Total | 198 | 100 |
| Self-reported health status | | |
| Poor | 63 | 31.8 |
| Good | 135 | 68.2 |
| Total | 198 | 100 |
| Length of hospital stay (days) | | |
| Minimum | 2 | |
| Maximum | 20 | |
| Mean | 5.17 | |
| Standard deviation | 2.537 | |

Most of the participants (60.1%) were admitted for medical conditions, while the rest, 39.9% were admitted for surgical conditions. There was little variation in admission history, as 49.0% (97) of participants had been admitted previously, which was almost

identical to the 51.0% (101) who had never been admitted. Most of the participants (71.2%), did not pay for any of the medical-surgical services offered. Fifty percent of the participants had reported having another illness or chronic condition that was not being treated at the time of admission.

Most of the participants (68.2%), reported being in a stable health condition at the time of the interview. The minimum and maximum number of days spent in the hospital were two (2) and twenty (20) days respectively with the mean of 5.17 and a standard deviation of 2.537.

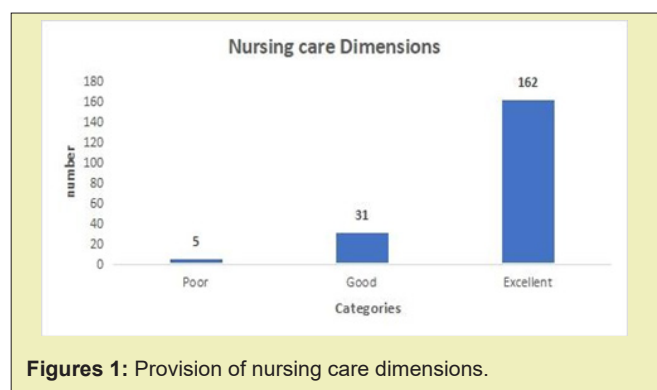
Table 2 presents the participants' ratings of the provision of nursing care dimensions

Among the participants, 44.9% (89) reported that nurses were excellent in providing help to patients. Similarly, 45.5% (91) and 43.9% (87) reported that nurses were excellent in their responsiveness to patients and in their skill and competence, respectively. Nurses were rated excellent by 43.9% (87) of the participants for creating a restful atmosphere. In terms of coordination of care, 34.8% (69) of the participants rated nurses as excellent. Patients' privacy obtained the highest rating, with 46.5% (92) of the participants evaluating nurses as being excellent at protecting their privacy. On the other hand, giving discharge instructions had the lowest rating, with only 33.8% (67) of the participants reporting that nurses were excellent in providing instructions upon discharge.

Table 2: Provision of Nursing Care Dimensions (N=198).

| Variable (N=198) | Excellent | Very good | Good | Fair | Poor |
|--------------------------------|-----------|-----------|-----------|----------|----------|
| Helpfulness | 89(44.9%) | 73(36.9%) | 23(11.6) | 12(6.1%) | 1(0.5%) |
| Nursing staff response time | 90(45.5%) | 65(32.8%) | 20(10.1%) | 13(6.6%) | 10(5.1%) |
| Skill and Competence of Nurses | 87(43.9%) | 75(37.9%) | 29(14.6%) | 5(2.5%) | 2(1.0%) |
| Restful Atmosphere | 87(43.9%) | 65(32.8%) | 35(17.7%) | 10(5.1%) | 1(0.5%) |
| Privacy | 92(46.5%) | 78(39.4%) | 16(8.1%) | 11(5.6%) | 1(0.5%) |
| Giving discharge instructions | 67(33.8%) | 79(39.9%) | 37(18.7%) | 12(6.1%) | 3(1.5%) |
| Coordination of care | 69(34.8%) | 73(36.9%) | 45(22.7%) | 7(3.5%) | 4(2.0%) |

Figure 1 illustrates the aggregated scores on the provision of nursing care dimensions:

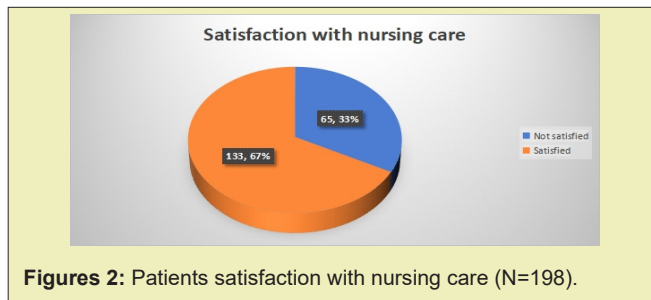


The majority of participants, 81.8% (162), reported that nurses were excellent in providing dimensions of nursing care.

Table 3 highlights significant findings from five specific questions on patient satisfaction with nursing care.

Regarding the amount of time spent with them, 22.2% (44) of participants said they were completely satisfied. Approximately 43.0% (86) of participants were completely satisfied with the nurses' abilities to listen to their concerns and anxiety. When asked how well the nurses understood their needs, 47.0% (93) of participants said they were completely pleased. Additionally, 42.3% (84) and 38.9% (77) of respondents said they were completely satisfied with how nurses treated them as individuals and how they made their family and friends feel at ease, respectively.

Figure 2 presents the aggregated findings on patients' satisfaction with nursing care.



Figures 2: Patients satisfaction with nursing care (N=198).

Majority of participants, 67.2% (133), expressed satisfaction with the nursing care they received.

Table 4 results of the Chi-square and Fishers exact tests.

Table 3: Patient's satisfaction with nursing care scores on the Likert scale (N=198).

| Newcastle Satisfaction with Nursing care Scales (NSNS) | Not at all satisfied | Barely satisfied | Quite satisfied | Very satisfied | Completely satisfied |
|---|----------------------|------------------|-----------------|----------------|----------------------|
| 1. The amount of time spent with you | 2.0% (4) | 11.1% (22) | 29.8% (59) | 34.8% (69) | 22.2% (44) |
| 2. How capable nurses were at their job | 0.0% (0) | 3.5% (7) | 20.2% (40) | 34.3% (68) | 41.9% (83) |
| 3. There always being a nurse around if you needed one | 2.5% (5) | 9.6% (19) | 13.1% (26) | 30.3% (60) | 44.4% (88) |
| 4. The amount nurses knew about your care | 0.5% (1) | 3.0% (6) | 16.7% (33) | 31.8% (63) | 48.0% (95) |
| 5. How quickly nurses came when you called for them | 2.5% (5) | 8.1% (16) | 13.1% (26) | 31.3% (62) | 44.9% (89) |
| 6. The way the nurses made you feel at home | 0.5% (1) | 5.6% (11) | 15.7% (31) | 29.9% (59) | 48.2% (95) |
| 7. Amount of information given about your condition and treatment | 1.5% (3) | 6.6% (13) | 21.7% (43) | 36.4% (72) | 33.8% (67) |
| 8. How often nurses checked to see if you were okay | 0.5% (1) | 4.5% (9) | 13.6% (27) | 41.9% (83) | 39.4% (78) |
| 9. Nurses' helpfulness | 0.0% (0) | 2.5% (5) | 11.2% (22) | 35.5% (70) | 50.8% (100) |
| 10. The way nurses explained things to you | 0.5% (1) | 4.0% (8) | 15.2% (30) | 42.4% (84) | 37.9% (75) |
| 11. How nurses helped put your relatives' or friends' minds at rest | 1.5% (3) | 6.1% (12) | 15.2% (30) | 34.8% (69) | 42.4% (84) |
| 12. Nurses' manner in going about their work | 0.0% (0) | 2.5% (5) | 17.7% (35) | 41.9% (83) | 37.9% (75) |
| 13. The type of information nurses gave to you about your condition and treatment | 1.5% (3) | 4.0% (8) | 24.7% (49) | 31.8% (63) | 37.9% (75) |
| 14. Nurses' treatment of you as an individual | 0.5% (1) | 5.1% (10) | 14.6% (29) | 40.9% (81) | 38.9% (77) |
| 15. How nurses listened to your worries and concerns | 2.5% (5) | 5.1% (10) | 9.6% (19) | 39.4% (78) | 43.4% (86) |
| 16. The amount of freedom you were given on the ward | 1.5% (3) | 2.5% (5) | 15.2% (30) | 41.4% (82) | 39.4% (78) |
| 17. How willing nurses were to respond to your requests | 0.5% (1) | 7.6% (15) | 16.2% (32) | 37.4% (74) | 38.4% (76) |
| 18. The amount of privacy nurses gave you | 0.5% (1) | 3.5% (7) | 15.2% (30) | 36.4% (72) | 44.4% (88) |
| 19. Nurses' awareness of your needs | 2.5% (5) | 5.1% (10) | 15.2% (30) | 30.3% (60) | 47.0% (93) |

Patients with secondary education had 22% higher odds of satisfaction compared to those with tertiary education, but this difference was not statistically significant (AOR=1.22, 95% CI=0.18, 8.42, p=0.843). Compared to those with a tertiary education, the likeli-

Participants age and provision of nursing care dimensions are the only variables which showed statistical significance with p-values 0.003 and <0.001 respectively. The rest of the variables did not show statistical significance.

Table 5 presents the results of the Binary Logistic Regression

The analysis revealed the following findings: In terms of hospital stay duration, the likelihood of patient satisfaction decreased by 16% for each additional day spent in the hospital (adjusted odds ratio [AOR]=0.84; 95% confidence interval [CI]: 0.71–0.99; p-value=0.037). Regarding gender, male patients exhibited a 44% higher likelihood of being satisfied than females, although the association was not statistically significant (AOR=1.44, 95% CI=0.63, 3.32, p=0.390).

hood of satisfaction was 54% lower among patients with a primary education, and 20% lower among those with no formal education. Notably, these specific educational categories did not demonstrate statistical significance in relation to patient's satisfaction.

Table 4: Results from the chi-square and fisher's exact test (N=198).

| Variable | Not Satisfied-n (%) | Satisfied n (%) | TOTAL n (%) | P-value (Chi2) |
|---|---------------------|-----------------|-------------|----------------------|
| Age | | | | |
| 18-30 | 24 (54.5) | 20 (45.5) | 44 (100.0) | 0.003 ^{FE*} |
| 31-40 | 15 (28.3) | 38 (71.7) | 53 (100.0) | |
| 41-50 | 16 (34.0) | 31 (66.0) | 47 (100.0) | |
| 51-60 | 4 (13.3) | 26 (86.7) | 30 (100.0) | |
| 60+ | 6 (25.0) | 18 (75.0) | 24 (100.0) | |
| Gender | | | | |
| Female | 34 (35.1) | 63 (64.9) | 95 (100.0) | 0.514 |
| Male | 31 (30.7) | 70 (69.3) | 101 (100.0) | |
| Level of Education | | | | |
| No education | 4 (26.7) | 11 (73.3) | 15 (100.0) | 0.383 ^{FE} |
| Primary | 15 (25.4) | 44 (74.6) | 59 (100.0) | |
| Secondary | 34 (35.8) | 61 (64.2) | 95 (100.0) | |
| Tertiary | 12 (41.4) | 17 (58.6) | 29 (100.0) | |
| Marital status | | | | |
| Single | 18 (48.6) | 19 (51.4) | 37 (100.0) | 0.153 |
| Married | 35 (29.9) | 82 (70.1) | 117 (100) | |
| Divorced | 7 (26.9) | 19 (73.1) | 26 (100) | |
| Widowed | 5 (27.8) | 13 (72.2) | 18 (100) | |
| Religion | | | | |
| Christian | 56 (32.0) | 119 (68.0) | 175 (100.0) | 0.79 ^{FE} |
| Muslim | 8 (42.1) | 11 (57.9) | 19 (100.0) | |
| Hindu | 0 (0.0) | 1 (100.0) | 1 (100.0) | |
| Others | 1 (33.3) | 2 (66.7) | 3 (100.0) | |
| Employment status | | | | |
| Not employed | 22 (28.6) | 55 (71.4) | 77 (100.0) | 0.309 |
| Employed | 43 (35.5) | 78 (64.5) | 121 (100.0) | |
| Nature of condition | | | | |
| Medical | 44 (37.0) | 75 (63.0) | 119 (100.0) | 0.127 |
| Surgical | 21 (26.6) | 58 (73.4) | 79 (100.0) | |
| Having other chronic illness/condition | | | | |
| Yes | 29 (29.3) | 70 (70.7) | 99 (100.0) | 0.267 |
| No | 36 (36.7) | 63 (63.3) | 99 (100.0) | |
| History of admission | | | | |
| Yes | 35 (36.1) | 62 (63.9) | 95 (100.0) | 0.339 |
| No | 30 (29.7) | 71 (70.3) | 101 (100.0) | |
| Self-reported health | | | | |
| Poor | 23 (36.5) | 40 (63.5) | 63 (100.0) | 0.451 |
| Good | 42 (31.1) | 93 (68.9) | 135 (100.0) | |
| Payment for service | | | | |
| Yes | 22 (38.6) | 35 (61.4) | 57 (100.0) | 0.272 |
| No | 43 (30.5) | 98 (69.5) | 141 (100.0) | |
| Nursing care dimensions | | | | |

| | | | | |
|--------------|------------------|-------------------|--------------------|-----------------------|
| Poor | 5 (100.0) | 0 (0.0) | 5 (100.0) | <0.001 ^{FE*} |
| Very good | 26 (83.9) | 5 (16.1) | 31 (100.0) | |
| Excellent | 34 (21.0) | 128 (79.0) | 162 (100.0) | |
| Total | 65 (32.8) | 133 (67.2) | 198 (100.0) | |

Key: FE= Fishers' exact text,

Table 5: Univariable and multivariable binary regression (N=198).

| Variable | Unadjusted odds ratio (95%CI) | P-value | Adjusted odds ratio (95% CI) | P-value |
|--------------------------------|-------------------------------|---------|------------------------------|---------|
| Age | | | | |
| 18-30 | Ref | | | |
| 31-40 | 3.04 (1.31, 7.06) | 0.01* | 2.40 (0.74, 7.75) | 0.143 |
| 41-50 | 2.33 (0.01, 5.42) | 0.05* | 1.09 (0.31, 3.82) | 0.898 |
| 51-60 | 7.80 (2.33, 26.11) | 0.001* | 4.85 (0.95, 24.67) | 0.057 |
| 60+ | 3.60 (1.20, 10.79) | 0.022* | 0.99 (0.21, 4.67) | 0.993 |
| Gender | | | | |
| Female | Ref | | | |
| Male | 1.22 (0.67, 2.21) | 0.514 | 1.44 (0.63, 3.32) | 0.39 |
| Level of Education | | | | |
| Tertiary | Ref | | | |
| No formal education Primary | 1.94 (0.50, 7.58) | 0.34 | 0.80 (0.14, 4.52) | 0.796 |
| Secondary | 2.07 (0.81, 5.32) | 0.13 | 0.46 (0.09, 2.44) | 0.364 |
| | 1.26 (0.54, 2.96) | 0.586 | 1.22 (0.18, 8.42) | 0.843 |
| Marital status | | | | |
| Single | Ref | | | |
| Married | 2.22 (1.04, 4.73) | 0.039* | 1.62 (0.47, 5.47) | 0.441 |
| Divorced | 2.57 (0.87, 7.57) | 0.87 | 2.74 (0.49, 15.32) | 0.25 |
| Widowed | 2.46 (0.73, 8.31) | 0.146 | 2.65 (0.38, 18.40) | 0.325 |
| Employment status | | | | |
| Not employed | Ref | | | |
| Employed | 0.73 (0.39, 1.35) | 0.31 | 0.52 (0.22, 1.26) | 0.15 |
| Length of hospital stay | 0.78 (0.68, 0.90) | <0.001* | 0.84 (0.71, 0.99) | 0.037* |
| Nursing care dimensions | | | | |
| Excellent | Ref | | | |
| Very good | 0.00 (0.00) | 0.999 | <0.01 ((0.00) | 1 |
| Poor | 0.051 (0.02, 0.14) | <0.001* | 0.05 (0.01, 0.15) | >0.001* |

CI = Confidence interval

Patients who reported being employed had a 48% lower likelihood of being satisfied with nursing care than those who were not employed, but this association was not statistically significant (AOR=0.52, 95% CI=0.22, 1.26, p=0.297). Patients who perceived the quality of nursing care provision as poor and good had 95% and at least 99% lower odds of satisfaction, respectively, compared to patients who rated the provision of nursing care dimensions as excellent (poor: AOR=0.05, 95% CI=0.01, 0.15, p<0.001; good: AOR=0.01, 95% CI=0.00, p=0.05).

Discussion

Socio-demographic characteristics and patients' satisfaction with nursing care Patient satisfaction with nursing care can be influenced by various socio-demographic factors, including gender, age, marital status, education level, and employment status.¹² The findings of the current study revealed that age, marital status, and length of hospital stay were significant factors related to patients' satisfaction with nursing care. Religious affiliation, presence

of co-morbidity, and history of hospitalization were deemed confounding variables and excluded from the final regression model.

After conducting Pearson's correlation test and binary logistic regression analysis, age showed a statistically significant correlation with patient satisfaction (p -value=0.003) in the Fisher's exact test. However, after controlling for confounding, age did not show statistical significance in the binary logistic regression model. On the other hand, the length of hospital stays remained a significant factor, indicating that as the number of days spent in the hospital increased, the likelihood of satisfaction decreased. This discovery presents a contradiction to a previous study conducted by Belany¹³ which suggested a favorable association between longer hospital stays and increased levels of satisfaction. There is a potential for extended hospitalization to be associated with the exacerbation of health issues, increased financial burden, and heightened susceptibility to infections. As a result of these considerations, it can be expected that persons who experience prolonged hospital stays will have reduced likelihood of being satisfied with the nursing care they receive.

The current study revealed that married patients are more likely to experience higher levels of satisfaction compared to single patients, indicating the importance of marital status as a significant predictor. These findings align with the research conducted by Al-saqri in Saudi Arabia,¹⁴ where it was observed that married males exhibited greater satisfaction. Additionally, Gondamani¹⁵ study support these results, suggesting that married patients may experience increased satisfaction when receiving emotional support and advocacy for improved care from their spouses. The current study further emphasizes that husbands and wives can play a supportive and advocating role for their partners, contributing to enhanced satisfaction with nursing care during hospitalization.

Gender was discovered to have no statistical significance with nursing care. However, male patients were 1.44 times more likely to be satisfied than female patients. This finding is consistent with some studies^{16,17} that also reported higher satisfaction levels among men although there was statistical significance. Differences in data collection tools and cultural characteristics may contribute to variations in the results. It is worth noting that women may pay more attention to hygiene, care and may experience higher levels of anxiety if such needs are not met, which could influence their satisfaction with nursing care. Factors such as hygiene maintenance in the hospital environment and the nature of being sick may contribute to lower satisfaction among women compared to men.

The current study revealed that patients with a secondary education were more likely to be satisfied compared to those with a tertiary education. Patients with only a primary education and no

formal education were less likely to be satisfied with nursing care. These findings contradict studies conducted in Ethiopia,^{8,18} which reported higher satisfaction among patients with lower education levels. Patients with higher education levels may have higher expectations and be more critical of the care they receive, which could impact their satisfaction. However, it should be noted that these variables did not reach statistical significance. Other studies in Poland^{16,19} revealed no association between education level and patient satisfaction with nursing care. In terms of employment, employed patients were less likely to be satisfied compared to unemployed patients. This observation could be related to employed patients being unhappy with hospitalization due to lost work anticipated job disruptions.

Finally, the current study discovered several socio-demographic characteristics associated with patient satisfaction with nursing care. Age, marital status, and length of hospital stay were noted to be significant influences. These findings contribute to the understanding of patient satisfaction and highlight the importance of taking these characteristics into account when providing patient-centered care and addressing potential sources of dissatisfaction. However, it is important to note that the significance of these factors may vary across different cultural contexts and healthcare settings.⁶

Level of patients' satisfaction with nursing care

Patient satisfaction with nursing care is considered a crucial indicator of healthcare quality.²⁰ Nursing care has a significant impact on overall hospital satisfaction.²¹ Therefore, it is essential to measure and enhance patient satisfaction as it contributes to healthcare improvement efforts.

In accordance with the primary objective of the current study, an assessment was conducted to determine the level of patient satisfaction with nursing care. This assessment involved comparing the findings with existing literature from various regions globally. The findings of numerous studies conducted in various countries indicate that a significant proportion of patients expressed satisfaction with the quality of nursing care provided. The current study observed a satisfaction rate of 67.2%, which surpasses the reported results from previous studies conducted in Taiwan (35.0%),¹² Western China (60.0%),²² and North-eastern Ethiopia (48.4%). Contrarily it was lower than the findings of Kannan²³ in Nepal and Acharya²⁴ in South India, where 79.86% and 94.3% of patients reported satisfaction with nursing care.

Variations in patient satisfaction levels may be attributed to differences in cultural factors, healthcare systems, and patient expectations across the study populations in different countries. The current study may have been conducted in a specific setting that possessed distinct characteristics that were more closely aligned

with the needs and preferences of the patients, resulting in elevated levels of satisfaction ratings.

However, it is important to acknowledge that there may be additional factors, which were not examined in the current study, that could potentially impact patient satisfaction with nursing care. Additional research and thorough investigations are necessary to acquire a more profound comprehension of the specific factors that contribute to increased patient satisfaction in the current study and to formulate more reliable conclusions.

The satisfaction level of 67.2% in the current study closely aligns with the 60.5% reported by Zhang²⁵ who utilized a similar methodology and data collection tools. This suggests that using comparable tools and approaches in different study sites can yield similar results.

Patient satisfaction is a vital component of the healthcare industry and is routinely integrated into healthcare planning and evaluation as a key indicator of high-quality care.²⁶ Therefore, measuring and improving patient satisfaction with nursing care is essential for enhancing healthcare quality and patient outcomes. The findings of the current study contribute to the understanding of patient satisfaction and highlight the importance of considering healthcare context in assessing satisfaction levels.

Provision of nursing care dimensions and patients' satisfaction with nursing care

Understanding the drivers of patient satisfaction is crucial for implementing effective interventions to improve satisfaction levels, enhance health outcomes, and prevent re-hospitalization.²⁷ While there may be variations in research findings, there is a consensus that satisfaction is influenced by both endogenous factors related to care structure, process, and outcome, as well as exogenous factors related to patient characteristics.²⁸

The current study, in line with Arders' consonance theoretical framework,⁴ aimed to explore factors that impact patient satisfaction from within the healthcare system. These factors comprised seven specific aspects of nursing care, each closely connected to the care process and its ultimate outcomes. The dimensions under investigation included patients' privacy, response time of nursing staff, helpfulness, skill and competence, creating a calm atmosphere, coordinating care, and delivering discharge instructions effectively.

Using Likert scales that ranged from poor, fair, good, very good and excellent, each dimension was assigned a score before combining the final ratings for each patient. Notably, when striving for an excellent rating in each aspect, the highest score was achieved by the privacy dimension at 46.5%. This was closely followed by nurs-

ing staff response time at 45.5% and helpfulness at 44.9%. Skill and competence, along with establishing a restful atmosphere, were also impressive with scores of 43.9%. The coordination of care received a score of 34.8%, and finally, giving discharge instructions received a rating of 33.8%.

Moreover, when considering the collective dimensions of nursing care, the statistical analyses using chi-square and binary logistic regression showed significant results between nursing care dimensions and patients satisfaction. This highlights the significant role that these dimensions play in shaping the overall satisfaction of patients within the healthcare experience.

This significant finding holds great importance as these dimensions exert varied influences on satisfaction. The diversity in their effects on satisfaction is key observation derived from the current study. For instance, the dimension of privacy, a pivotal component of healthcare services. It encompasses safeguarding and upholding the confidentiality of personal, physical, and psychological information that holds sensitivity to patients.²⁹ All these components collectively contribute to shaping satisfaction with nursing care.

Confidentiality of a patient's medical records is one aspect of patient privacy, and nurses play a critical role in respecting and preserving this privacy. Patients need to trust that healthcare providers will maintain their privacy and confidentiality, which is essential for developing effective patient-provider relationships. Nurses' respect for patient privacy forms the foundation for building trust, and it is important for nurses to prioritize and uphold patient privacy. The current study not only revealed the level of patient satisfaction with nursing care but also identified the met and unmet needs of patients at Chawama First Level Hospital. Understanding and addressing these needs can contribute to improving patient satisfaction and overall healthcare quality.³⁰⁻³⁹

Conclusion

In conclusion, the current study emphasizes patient satisfaction in healthcare, particularly nursing care. Marital status, hospital stay length, and nursing care aspects were associated with patient satisfaction, which was 67.2%. Long hospital stays decreased patient satisfaction. To shorten hospital stays and improve patient satisfaction, nurses must prioritize fast and efficient care. To satisfy patients, the study emphasizes high-quality nursing care. Nurses should prioritize privacy, care coordination, skill and competency, discharge instructions, helpfulness, nursing response time, and a relaxed environment. The findings inform Chawama First Level Hospital nurse care planning and evaluation. Patient satisfaction with nursing care and its affecting elements can increase care quality and satisfaction. This research helps healthcare personnel improve patient happiness and experiences.

Recommendation

1. The Ministry of Health Zambia, should make patient satisfaction surveys mandatory in health facilities so as to learn on the areas needing attention or improvement to improve this satisfaction.

2. Considering that provisions of nursing care dimensions is an important feature in patients' satisfaction, the hospital management should put up a system to provide tailored on-the-job training to their professionals in the facility in order to improve their skills for enhancing patients' satisfaction.

3. To continue providing competitive nursing care and meeting the patient's expectations, the hospitals should consider taking routinely feedback from the patients after discharge and their opinions for improving nursing care should be taken into serious consideration so that quality of nursing care is improved thus improved levels of patient's satisfaction.

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Conflicts of Interest

The author confirms that this article content has no conflict of interest.

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