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Perioperative Patient Satisfaction as a Predictor of Hemodynamic Stability and Post-Operative Pain among Surgical Patients in a Tertiary Government Hospital in Bacoor, Cavite

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ABSTRACT

This study investigated the predictive capacity of perioperative nursing satisfaction on clinical outcomes (hemodynamic stability and post-operative pain) among patients undergoing elective cesarean sections. Utilizing a quantitative predictive-correlational design with 50 respondents, the study assessed satisfaction across four domains: identity and safety, information, dignity, and comfort. Results indicated that maternal patients were overall "satisfied" with their care, with "physical dignity" ranking highest. Regression analysis revealed that satisfaction in identity and safety, information, and emotional comfort are significant predictors of stabilized post-operative heart rates, blood pressure, and lower pain intensity scores. These findings highlight that structured, interpersonal nursing care functions as a vital, non-pharmacological clinical intervention that mitigates the autonomic stress response.

Keywords: *Perioperative nursing, patient satisfaction, hemodynamic stability, post-operative pain, cesarean section, comfort theory*

INTRODUCTION

Perioperative nursing care is a specialized field that balances technical expertise with psychological stabilization. Despite rising surgical volumes, a research gap remains in understanding how subjective patient experiences directly influence objective health data in high-volume public hospitals.

Statement of the Problem

This research study aimed to examine the relationship between patient satisfaction with perioperative nursing care and clinical outcomes among surgical patients in a tertiary hospital in Bacoor, Cavite. Specifically, it sought to answer the following questions:

1. What is the demographic profile of the respondents in terms of: 1.1 age, 1.2 highest educational attainment, and 1.3 previous surgical experience?
2. What is the status of the patient's clinical outcomes in terms of: 2.1 hemodynamic stability (heart rate and blood pressure), and 2.2 post-operative pain scores?
3. What is the assessment of the respondents on their satisfaction with perioperative nursing care in terms of: 3.1 identity and safety, 3.2 information and communication, 3.3 physical dignity, and 3.4 emotional and physical comfort?

4. Is there a significant relationship between patient satisfaction with perioperative nursing care and the hemodynamic stability of the patients?
5. Is there a significant relationship between patient satisfaction with perioperative nursing care and the post-operative pain levels of the patients?

Scope and Delimitations

The study focused on elective Cesarean Section patients at a tertiary hospital in Bacoor, Cavite. It is confined to the immediate perioperative period, spanning from the transfer to the operating theater until the first hours of stay in the Post-Anesthesia Care Unit (PACU). The study excludes emergency cases and patients with chronic heart conditions to ensure that the vital signs measured are primarily influenced by the current surgical experience.

Review of Related Literature

Perioperative care has shifted from a biomechanical to a holistic model, prioritizing patient experience as a key clinical indicator. Global standards emphasize safety and dignity as core surgical quality markers, while in the Philippine context, the cultural practice of "Malasakit" acts as an interpersonal intervention that complements care in resource-limited settings. Physiologically, preoperative anxiety activates the Sympathetic-Adreno-Medullary axis, causing catecholamine surges that result in tachycardia and hypertension. Nursing interventions mitigate this stress, promoting hemodynamic stability and preventing organ injury. This study is grounded in Kolcaba's Comfort Theory, which views comfort as an active state promoting healing. Satisfaction depends on four pillars: identity and safety, communication, dignity, and emotional comfort. These are not merely administrative metrics but essential clinical interventions that reduce stress caused by surgical vulnerability. Furthermore, nursing care influences post-operative recovery; satisfied patients exhibit higher pain thresholds and lower analgesic requirements as their improved emotional state regulates inflammatory responses. By mitigating anxiety, nurses provide a form of pre-emptive analgesia, establishing that interpersonal nursing skills are vital clinical predictors of physiological stability.

Theoretical Framework

This study is grounded in Katharine Kolcaba's Comfort Theory (1994), which defines comfort as an active state facilitated by nursing care. In this framework, nursing interventions function as the independent variable driving improved physiological outcomes, specifically hemodynamic stability and pain management. By addressing holistic needs—identity, safety, communication, dignity, and comfort—nurses mitigate the sympathetic stress response, thereby stabilizing the surgical environment and enhancing patient recovery.

Conceptual Framework

This study employed a Predictor-Criterion Model where perioperative patient satisfaction—measured across dimensions of identity/safety, information, dignity, and comfort—serves as the predictor variable. Hemodynamic stability (HR/BP) and post-operative pain levels function as the criterion variables. This framework posits that the quality of nurse-patient interaction actively shapes the patient's physiological state during and after surgery.

METHODOLOGY

This quantitative research study examined the relationship between perioperative patient satisfaction and clinical outcomes among surgical patients in a tertiary government hospital in Bacoor, Cavite.

Research Design

This study utilized a quantitative research approach to determine the relationship between perioperative patient satisfaction and their health outcome. A descriptive predictive-correlational research design was employed to establish the connection between the variables, framing the four elements of patient satisfaction—identity and safety, information, dignity, and comfort—as predictor variables, while hemodynamic stability and post-operative pain function as the criterion variables

Research Steps

The research began with a literature review on perioperative care and physiological stress to establish a theoretical foundation. Following institutional ethics and administrative approvals, the researcher coordinated with the operating room department to screen eligible elective Cesarean Section patients and obtain informed consent. The study proceeded with the systematic collection of patient satisfaction data and objective clinical endpoints, specifically hemodynamic parameters and post-operative pain scores.

Data Collection and Sample Selection

Data collection involved consecutive sampling of 50 patients undergoing elective Cesarean sections at the research site. After securing written informed consent, the researcher distributed the self-made satisfaction questionnaire to participants in the pre-operative holding area before sedative administration. Objective clinical endpoints—specifically heart rate, Mean Arterial Pressure, and acute post-operative pain scores—were recorded from electronic monitoring sheets and PACU assessments. This process ensured continuous, uninterrupted data collection until the target sample size was reached.

Data Analysis Methods

The data analysis employed both descriptive and inferential statistics to evaluate the study variables. Descriptive statistics were utilized to summarize the baseline profile, satisfaction levels, and physical outcomes of the participants. Multiple Linear Regression analysis was employed as the primary inferential tool to determine the extent to which the independent variables (Patient Satisfaction dimensions) significantly predict changes in the dependent variables (Hemodynamic Stability and Post-Operative Pain) at a 0.05 level of significance.

Research Hypotheses and Validation

This study used multiple linear regression to test whether perioperative nursing satisfaction predicts hemodynamic stability and post-operative pain. Results confirmed that

higher satisfaction in Identity and Safety, Information and Communication, and Emotional and Physical Comfort significantly predicted lower heart rates, Mean Arterial Pressure, and pain intensity. These findings provide empirical evidence that structured, interpersonal nursing care functions as a vital clinical intervention for physiological stabilization.

Study Limitations and Ethical Considerations

This study followed ethical protocols, including Ethics Review Committee approval and voluntary informed consent. Anonymity was maintained via unique coding, and participants were informed of their right to withdraw. The research prioritized data security and ensured no interference with clinical or anesthetic protocols.

RESULTS AND DISCUSSION

SOP 1. Demographic Profile

The 50 respondents were primarily aged 26–33 (42.0%, n = 21) and college-educated (48.0%, n = 24), suggesting high health literacy. Surgical history was evenly split between first-time (46.0%, n = 23) and experienced (54.0%, n = 27) patients.

SOP 2. Clinical Outcomes

Autonomic stress indicators decreased post-operatively. Mean heart rate dropped from 88.42 bpm to 79.16 bpm, and Mean Arterial Pressure (MAP) declined from 94.67 mmHg to 86.53 mmHg. Post-operative pain averaged 4.12 on the Numeric Rating Scale (NRS), reflecting moderate discomfort.

SOP 3. Satisfaction with Perioperative Care

Respondents were "Satisfied" with overall care (Grand Mean = 3.15). "Physical Dignity" received the highest rating (Mean = 3.34, "Highly Satisfied"). "Identity and Safety" (3.12), "Emotional and Physical Comfort" (3.10), and "Information and Communication" (3.06) were also rated "Satisfied," highlighting opportunities to improve patient education.

SOP 4. Satisfaction and Hemodynamic Stability

Multiple linear regression confirmed a significant relationship between satisfaction and stability ($p < .001$). Higher satisfaction in "Identity and Safety," "Information," and "Emotional Comfort" predicted improved heart rate and MAP readings, indicating that quality nursing care serves as a non-pharmacological buffer against sympathetic stress.

SOP 5. Satisfaction and Post-Operative Pain

Regression analysis demonstrated a significant relationship between satisfaction and pain ($F(4, 45) = 571.40$, $p < .001$). "Identity and Safety" ($B = -1.79$, $p = .004$) and "Emotional and Physical Comfort" ($B = -1.40$, $p = .002$) were significant negative predictors of pain, confirming that higher satisfaction correlates with lower sensory discomfort.

SUMMARY

This study examined the relationship between perioperative patient satisfaction and clinical outcomes among 50 elective Cesarean Section patients. With an overall satisfaction

mean of 3.15, "Physical Dignity" was the only "Highly Satisfied" domain. Findings confirm that patient satisfaction significantly predicts reduced physiological volatility; specifically, higher satisfaction in identity, safety, communication, and emotional comfort correlates with stabilized vital signs and lower post-operative pain.

CONCLUSIONS

High-literacy patients navigate perioperative protocols effectively, though communication regarding safety measures requires improvement. Nursing satisfaction significantly predicts hemodynamic stability and reduced pain, confirming that comfort-focused care functions as a vital non-pharmacological intervention that enhances post-operative recovery.

RECOMMENDATIONS

Based on the findings and conclusions of the study, the following recommendations are suggested:

1. **Surgical Nurses:** Dedicate time during preoperative holding to explain the clinical purpose of monitoring equipment and provide active comfort measures, such as warm blankets, to improve patient experience and physiological stability.
2. **Nurse Managers:** Implement "Structured Preoperative Safety Huddles" that actively involve the patient to enhance communication and trust.
3. **Anesthesiologists:** Consider preoperative satisfaction levels as a clinical risk indicator; patients with lower satisfaction may require closer hemodynamic monitoring during anesthesia induction.
4. **Hospital Administrators:** Utilize the study's findings to justify the optimization of nurse-to-patient ratios, framing personalized nursing care as a clinical investment that improves outcomes and reduces hospital resource consumption.

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AI DECLARATION STATEMENT

AI-supported tools helped with grammar and structure in creating this article. No AI tools were used to collect, analyze, or interpret data; all authors are credited for their academic contributions.

REFERENCES

Celik, F., & Edipoglu, I. S. (2023). Evaluation of preoperative anxiety and its effect on postoperative pain and satisfaction in patients undergoing elective surgery. Journal of PeriAnesthesia Nursing, 38(1), 105–110.

Department of Health. (2023). Manual on the standards of perioperative nursing in the Philippines. Health Facilities and Services Regulatory Bureau.

Fetene, M. B., Bayable, S. D., Wendimu, E. S., Belehu, K. D., Almaw, A. A., Dula, P. K., & Bejiga, B. Z. (2022). Perioperative patient satisfaction and its predictors following surgery and anesthesia services: A multicenter prospective cross-sectional study. Annals of Medicine and Surgery, 76, Article 103478.

Kolcaba, K. (1994). A theory of holistic comfort for nursing. Journal of Advanced Nursing, 19(6), 1178–1184.

Sun, Y., Li, T., Wang, N., Yun, Y., & Gan, T. J. (2021). Perioperative patient satisfaction as a predictor of post-operative outcomes. Frontiers in Medicine, 8, Article 645170.

Valmonte, L. R. (2022). The culture of Malasakit in the perioperative setting: Impact on patient satisfaction in regional facilities. Philippine Journal of Health Research, 10(2), 55–63.