SURGERY CANCELLATION: PERCEPTION OF SURGICAL BLOCK NURSES

Cancelamento cirúrgico: percepção de enfermeiros do bloco operatório

Cancelación quirúrgica: percepción de los enfermeros del quirófano

Emanuela Batista Ferreira e Pereira[1]*, Sâmia Tavares Rangel[2], Brenna Cavalcanti Maciel Modesto[3], Júlia Larissa de Souza Silva[4], Maria do Amparo Souza Lima[5], Jael Maria de Aquino[6]

ABSTRACT: Objective: To identify the perception of surgical block nurses of the reasons for the cancellation of elective surgeries and strategies to reduce suspension rates. **Method:** This is a qualitative study carried out in a tertiary hospital of Recife, Pernambuco, Brazil, with nurses working in the surgical block. Data were collected through recorded interviews with seven nurses responsible for elective surgeries. Data treatment was based on Bardin's content analysis technique. **Results:** The statements were grouped into two thematic categories: gaps in surgical planning, with three subcategories, and prevention of avoidable situations, with two subcategories. **Conclusion:** The causes for surgery cancellation were related to surgical environment planning and the patient's clinical preparation. The nurses defined these reasons as avoidable situations and considered effective communication and assertive leadership attitudes as strategies that reduce surgical suspension rates.
Keywords: Perioperative nursing. Quality indicators, health care. Elective surgical procedures. Withholding treatment.

RESUMO: Objetivo: Identificar a percepção de enfermeiros do bloco operatório sobre os motivos para o cancelamento de cirurgias eletivas e as estratégias para reduzir as taxas de suspensão. **Método:** Estudo de abordagem qualitativa realizado em um hospital de alta complexidade do Recife, Pernambuco, Brasil, com enfermeiros atuantes no bloco operatório. A coleta de dados foi realizada por meio de entrevistas gravadas com sete enfermeiros responsáveis pelas cirurgias eletivas. Para o tratamento dos dados, utilizou-se a técnica da análise de conteúdo de Bardin. **Resultados:** Os discursos foram agrupados em duas categorias temáticas: lacunas no planejamento cirúrgico, com três subcategorias, e prevenção de situações evitáveis, com duas subcategorias. **Conclusão:** Os motivos para o cancelamento de cirurgias estavam relacionados ao planejamento do ambiente cirúrgico e à preparação clínica do paciente. Os enfermeiros identificaram esses motivos como situações evitáveis e consideraram que a comunicação efetiva e atitudes de liderança assertivas são estratégias que reduzem os índices de suspensão cirúrgica.
Palavras-chave: Enfermagem perioperatória. Indicadores de qualidade em assistência à saúde. Procedimentos cirúrgicos eletivos. Suspensão de tratamento.

RESUMEN: Objetivo: Identificar la percepción de los enfermeros en el quirófano sobre los motivos de cancelación de las cirugías electivas y las estrategias para reducir las tasas de suspensión. **Método:** Estudio cualitativo, realizado en un hospital de alta complejidad en Recife, Pernambuco, Brasil, con enfermeros trabajando en quirófano. La recolección de datos se realizó mediante entrevistas grabadas con siete enfermeros responsables de cirugías electivas. Para el tratamiento de los datos se utilizó la técnica de Análisis de Contenido de Bardin (*Bardin Content Analysis*). **Resultados:** Los discursos se agruparon en dos categorías temáticas: brechas en la planificación quirúrgica, con tres subcategorías, y prevención de situaciones evitables, con dos subcategorías. **Conclusión:** Los motivos para cancelar cirugías estaban relacionados con la planificación del entorno quirúrgico y la preparación clínica del paciente. Los enfermeros identificaron estos motivos como situaciones prevenibles y consideraron que la comunicación eficaz y las actitudes de liderazgo asertivo son estrategias que reducen las tasas de suspensión quirúrgica.
Palabras clave: Enfermería perioperatoria. Indicadores de calidad de la atención de salud. Procedimientos quirúrgicos electivos. Privación de tratamiento.

[1]Ph.H in Surgery from Universidade Federal de Pernambuco (UFPE). Adjunct Professor of the Nursing School at Universidade de Pernambuco (UPE) – Recife (PE), Brazil.
[2]Nurse specialist in Surgical Center, Sterile Processing Department, and Post-Anesthesia Care Unit from UPE – Recife (PE), Brazil.
[3]Nurse specialist in Surgical Center, Sterile Processing Department, and Post-Anesthesia Care Unit from UPE. Master's student in Nursing from UPE/Universidade Estadual da Paraíba – Recife (PE), Brazil.
[4]Nursing Scholar at Universidade de Pernambuco – Recife (PE), Brazil.
[5]Master's degree in Adolescent Medicine from UPE. Assistant Professor of Faculdade de Enfermagem Nossa Senhora das Graças (FENSG), UPE – Recife (PE), Brazil.
[6]Postdoctoral degree in Nursing from Universidade Federal de Santa Maria (UFSM). Professor (*livre-docente* habilitation) of FENSG, UPE – Recife (PE), Brazil.
*Corresponding author: emanuela.pereira@upe.br
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INTRODUCTION

Surgical planning is an important organizational process for patients who will undergo an anesthesia and surgical procedure[1]. Its development requires the involvement of a multidisciplinary team consisting of surgeons, anesthesiologists, nurses, administrative services, and technical support, with specific roles for a qualified surgery scheduling[2].

Communication is an important condition for the structural organization of the surgical block (SB) and the strategic planning done by the nurse responsible for the surgical environment[3,4]. The use of tools, such as the surgery schedule board, ensures the scheduling routine and the planning of expected surgeries, guiding the nurse as to the projection and provision of adequate human resources and technology for the procedures[5].

From this perspective, the nurse must carry out the nursing process and systematize the care needed for the surgical experience. Understanding perioperative specificities, especially in the preoperative period, is crucial for a successful surgical process and for reducing complications associated with patient preparation[6].

Strategies to optimize the preoperative preparation and minimize occurrences that can influence the surgical schedule are recommended, including the preoperative visit, which is a step described in the systematization of perioperative nursing care. This step contributes to the therapeutic involvement of nurses and patients, as it provides adequate information and guidance concerning care prior to the surgical intervention, in addition to reducing patient anxiety[6,7].

The leadership of SB nurses mitigates operational gaps, such as failures stemming from the surgical schedule method, especially surgery suspensions due to avoidable mistakes[8].

The main indicators of the process that evaluates the quality of care provided by surgical services include determining the surgery cancellation rate and its contributing factors. An avoidable event has repercussions for the patient, family, surgical team, and health facility[2,9].

Despite efforts to plan and manage surgical scheduling, surgery cancellation is a public health problem. Studies indicate that the consequences of surgical suspension affect: patients and families, who need to reschedule their activities to suit the surgical experience; the administrative structure, which spends time, as well as human and material resources, for new scheduling; and, mainly, the financial structure, with considerable costs to enable rescheduling the surgery[2,3,5].

The literature corroborates the method of monitoring cancellation rates and the investigation of the main reasons or factors that cause the suspension of surgical intervention. Faced with this reality, solutions must be implemented[2].

Several factors contribute to surgery cancellation: clinical reasons, such as uncontrolled chronic diseases; lack of preoperative examinations; patient absence; prolonged operative time; lack of hospitalization beds; fragile communication and information technology processes[1,3,10,11].

Some strategies are recommended to minimize the suspension of interventions, such as: confirming the schedule on the eve of surgery; encouraging assertive communication between the facility's surgical team and users; implementing periodic meetings to discuss and plan future procedures; making preanesthetic visits; investigating and monitoring the reasons for suspension[5,12-14].

The relevance of this research is grounded in the evidence that surgery cancellation is a challenge for health professionals since studies have reported the feelings experienced by professionals when they assume the responsibility of notifying patients about the suspension of the anesthesia and surgical procedure. In addition, few qualitative studies have addressed nurses' perception of the causes of surgery suspension and the need to reflect on attitudes, decision-making, and effective actions to deal with the problem[8,15].

OBJECTIVE

To identify SB nurses' perception of the reasons for the cancellation of elective surgeries and strategies to reduce suspension rates.

METHOD

This descriptive qualitative study was conducted in a public tertiary hospital, reference in neurosurgery, traumatology and orthopedics, general surgery, and vascular surgery. The facility is located in the city of Recife, Pernambuco, Brazil. It has 830 registered beds and performs a monthly average of 400 elective surgeries and 500 emergency surgeries.

The population consisted of SB nurses of the said hospital. The non-probabilistic and intentional sample comprised

seven day-shift nurses. This shift was chosen because elective surgeries are only performed during this period.

For the selection of participants, the inclusion criteria were nurses with SB experience greater than six months and with experience in elective surgeries. The exclusion criteria were nurses on leave for more than three months and those working exclusively in emergency surgeries.

Information was collected between January and February 2016. The interviews were face-to-face, lasting, on average, 20 minutes, and conducted by the same interviewer in a private room in their own work environment.

The interviews were recorded for data gathering and had the following guiding questions:

- What factors contribute to the suspension of elective surgeries?
- What actions can the nurse who works in the surgical center take to change surgery suspension rates?

The data obtained from the guiding questions, through recorded interviews, were transcribed, and the nurses' statements were organized into three stages: sorting, classification, and final analysis of the information collected. The nurses were named by the letter E and listed according to the order of the interview.

Data treatment was based on Bardin's content analysis technique[16], as "a set of communication analysis techniques" characterized by a variety of forms and adaptation to communication. The data interpretation of the nurses' interviews produced units of analysis, which were categorized and subcategorized. The categories used were based on a priori analysis.

The Ethics Committee of the facility approved the research project, under opinion No. 48766215.0.0000.5198. The study complied with Resolution No. 466/2012 on ethical aspects of research involving human beings. Each nurse was invited to participate in the study and asked to sign the Informed Consent Form.

RESULTS

Seven nurses who worked in elective surgeries of the facility participated in the study. Aiming at meeting the research objectives and taking into account the analysis of the material collected, two thematic categories emerged from the transcription and interpretation of the interviewees' statements:

- gaps in surgical planning;
- prevention of avoidable situations.

The first thematic category, gaps in surgical planning, consists of arguments that reinforce three subcategories: mistakes in surgical scheduling, prediction and provision of materials and equipment, and failures in preoperative care.

The first subcategory, mistakes in surgical scheduling, denotes the nurses' perceptions of the surgical scheduling process performed in the referred service and its influence on surgery cancellation rates. The second subcategory, prediction and provision of materials and equipment, represents the factors that comprise the administrative and managerial organization of surgical services. The third subcategory, failures in preoperative care, indicates the nurses' perception of important factors, such as preparation of preoperative fasting, as well as performance and verification of laboratory and imaging tests. The units of analysis express unmet clinical conditions for the confirmation of the surgical procedure (Table 1).

The second thematic category, prevention of avoidable situations, has two subcategories: effective communication and assertive leadership. The units of analysis emphasize the actions and attitudes that the nurse can strengthen to contribute to reducing suspension rates (Table 2).

Table 1. Factors that contributed to the suspension of elective surgeries, according to conceptual categories and subcategories.

Category	Subcategory	Unit of analysis
Gaps in surgical planning	Mistakes in surgical scheduling	"*We know that we can't perform more than one major surgery. So, despite the residents scheduling three, four, we know that only one will happen.*" (E-1) "*So, scheduling more surgeries for a room that everybody knows can only have one is the reason for this surgical suspension rate.*" (E-2)

Continua...

Table 1. Continuation.

Category	Subcategory	Unit of analysis
Gaps in surgical planning	Prediction and provision of materials and equipment	"*To reduce suspensions, we must have quality materials to use. Many items are lacking. It's not causing surgery suspension, but stress in general since we're going through a crisis in the hospital.*" (E-3) "*Surgeries are often suspended for lack of certain equipment necessary for a particular procedure.*" (E-4) "*We have to check before starting the surgery, especially the surgical tables, light, and instruments, like the electric scalpel, which are the main materials and can't fail* [...]. *So, to reduce the suspension rate, the nurse should check these materials and equipment that always act up.*" (E-2)
	Failures in preoperative care.	"*The ideal would be confirming that the patient is fasting and checking the exams before they leave their room since many suspensions occur because the patient has low platelets, low Hb and Ht, ending up without clinical conditions for the surgery.*" (E-4) "*Additional tests should be scheduled; greater attention should be given to zero out the patient's diet because we see this problem all the time.*" (E-6) "*To reduce suspensions, we should improve in 100% the patient's preoperative period, not only the nursing team but the medical team as well, regarding fasting, hygiene, preoperative examinations. That's basically it.*" (E-7)

Hb: hemoglobin; Ht: hematocrit.

Table 2. Actions of surgical block nurses to change surgery suspension rates, according to conceptual categories and subcategories.

Category	Subcategory	Unit of analysis
Prevention of avoidable situations	Effective communication	"*The nurse can help reduce suspension rates because, knowing in advance the surgeries that will happen by checking the surgery schedule board, we can prepare our part ahead in regard to materials that will be required in the room and even the equipment as well.*" (E-1) "*The surgical center nurse has to confirm if the patient's name is on the board, pick up the patient's examinations. If they notice any changes, they must show it immediately to the doctor, confirm with the team if the patient who is next on the board will really be admitted.*" (E-5)
	Assertive leadership	"*The nurse must test the materials that are in the room to see if they are in good conditions. We should always call the engineers to fix the issues, and if the surgery can't happen in that room, we, unfortunately, have to close it off.*" (E-3) "*The block nurse can contribute to reducing suspension rates by paying attention to laboratory tests, the diet, the use of medications that might interfere with the surgery and cause its suspension.*" (E-6)

DISCUSSION

The SB is an environment marked by complex practices that require high accuracy and efficiency. As a high-risk sector, with several anesthesia and surgical, diagnostic, and therapeutic procedures, it demands an interdisciplinary effort to satisfy the patients' needs and mediate technologies and work processes peculiar to health care[8].

SB management seeks to provide a safe intraoperative period and has proven to be an important nursing role. The management duties of this professional have the purpose of qualifying the nursing care and ensuring the effective working of the surgical service[6].

Failure in the nurse's managerial actions can lead to surgery delay and even cancellation, an event stemming from the lack of planning and with potentially preventable reasons[1,10].

The surgical planning weaknesses identified in a study on strategies for reducing surgery suspensions and delays were: communication between the SB and the sterile processing department (SPD), communication between the SPD and surgical teams, surgical scheduling, and technological suitability[5].

As a solution to these issues, systematic meetings called schedule review have been consolidated as a tool for managing the quality of the surgery cancellation indicator. The practice promotes the active participation of those responsible for planning the procedure and brings solutions to the main reasons that lead to surgery suspension, delay, or transfer[5].

Among the main challenges faced by SB nurses, the following stand out: material management, nursing team management, and cooperation with the multidisciplinary team's work. However, the nurse's cooperation with the SB support services optimizes time and the prediction and provision of material resources, in addition to favoring a workflow based on more efficient instruments of communication[8].

The challenges faced by SB nurses enhance surgery cancellation causes related to human resources, especially to the health team and the patient[11,17]. Nevertheless, studies underline non-declared reasons or unjustified causes[3,14].

Preoperative evaluation and preparation are highlighted as important tools to avoid surgery suspension. Nurses and anesthesiologists describe double-check verification systems as structured interventions to confirm a proper preoperative evaluation[18].

The preoperative visit is an example of a tool used to reduce the risk of inadequate preoperative preparation. It aims to provide information about the pre-, intra-, and postoperative periods, decreasing patient anxiety and stress, thus contributing to better recovery after the procedure[5].

Study on the frequency of and reasons for surgery cancellation after the admission of patients to the operating room (OR) identified that some cases of suspension could have been avoided or that surgery could have been postponed before the admission to the OR and anesthesia[19].

Cancellation prevention can be supported by advanced methods to confirm the surgical schedule, such as implementing a standardized preoperative assessment checklist, which analyzes risks, essential preoperative examinations, clinical history, and hemodynamic stability of the patient. In addition, the reinforcement of effective communication among surgical teams, nurses, patients, and family members is a strategy that improves administrative planning[20-22].

The SB interviewees' statements emphasized that the nurse's work can reduce surgery suspension rates. Studies[6-8] underline this professional's responsibility in predicting and providing materials and equipment required for the proper performance of anesthesia and surgical procedures.

Other investigations have also identified the nurses' attitudes before the issue of surgery suspension. These attitudes range between passivity, restlessness, and involvement in effective actions to deal with the problem. The actions performed include: identifying the reasons for cancellation, fretting over the problem for feeling responsible for the patient, proposing solutions to the reasons for cancellation, guiding the nursing team regarding the damage to the patient, systematizing direct care to decrease tensions caused by surgery suspension, and preparing for a new surgical scheduling[23,24].

From this perspective, the nurse's personal attitude raises the health care quality, especially by demonstrating the importance of the nursing process and the actions of multidisciplinary care[19].

We stress the difficulties in categorizing the reasons for surgery cancellation due to issues such as accuracy and definition of the causes for suspension and, especially, to the characteristics of cancellation records, which depend on the individual responsible for the notification, as well as how the description was made. Such differences lead some causes to be listed in more than one category[21].

The scarcity of studies concerning health professionals' perception of surgery cancellation and the predominance of studies on suspension rates according to surgical specialties and on the reasons for surgery suspension based on surgery cancellation indicators represent limitations of the research. In addition to the above issues, multifactorial causes hinder the understanding of the theme and need to be investigated in order to contribute to actions for the planning and management of surgical services.

FINAL CONSIDERATIONS

SB nurses' perception of the reasons for surgery cancellation is related to gaps in surgical planning and prevention of avoidable situations. These reasons are regarded as situations arising from failures in surgery scheduling, prediction and provision of materials and equipment for the procedure, and preoperative care. Effective communication and assertive leadership attitudes are considered strategies that minimize suspension rates.

The multidisciplinary systematization of preoperative evaluation and preparation is an advanced method that reduces the likelihood of surgery suspension. Thus, the nurses who work in the SB should know the causes for surgery cancellation and propose solutions for managing its indicator.

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