

# The preoperative nursing consultation: constraints and suggestions for operationalization - a qualitative study

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## Abstract

### Introduction

The preoperative nursing consultation can be seen as a privileged moment for transmitting information to the person in a perioperative situation, to better prepare them for surgery and promote their collaboration in perioperative care. As this procedure is not carried out regularly, it is therefore important to carry out research into the reasons why it is not done.

### Objective

To learn about the constraints to the operationalization of the preoperative nursing consultation, through the perception of operating theatre nurses, as well as to identify their suggestions for overcoming the constraints, and to analyse the strategies pointed out by the nurses to prioritize this consultation.

### Method

An exploratory, descriptive study of a qualitative nature. Data collection: focus group interview using a semi-structured interview script, supplemented at the end with an individual questionnaire containing socio-professional data and two open questions. Participants: purposive sample - three groups of nurses from three operating theatres in a central hospital in central Portugal. Content analysis was carried out according to Bardin's framework. The study considered ethical principles and scientific integrity.

### Results

It was possible to identify the constraints pointed out by the nurses: methodology for operationalization, still undefined; shortage of available time; late bed allocation; compromised privacy when carrying out the consultation; lack of recognition by hierarchical structures; difficulties in adequate physical space; unpredictable prolongation of intraoperative activities; distant residence of the person in a perioperative situation, and deficient human resources. The following suggestions/strategies were identified to overcome the constraints: allocation of more human resources; appropriate physical space; the need for greater interdisciplinary coordination and to create visibility.

### Conclusion

The preoperative nursing consultation is an autonomous procedure that nurses are motivated to make operational, overcoming the constraints they point out and prioritizing their suggestions.

### Keywords

Qualitative Research; Preoperative Period; Nursing Consultation; Preoperative Care.

## Introduction

Nursing is undergoing a growing metamorphosis, bringing about changes in clinical practice, a particularity that directly influences the quality of health care provided to people with illnesses.<sup>1</sup>

Because perioperative nursing (PN) is a central concept in the study, it is critical that it be clarified in light of the available literature. Thus, there are numerous concepts that converge in the definition of PN as a specialized, diverse, and increasingly complex area of expertise that encompasses several subspecialties (authors). As Hicks<sup>2</sup> points out, PN is science and art that is constantly evolving.

The concept of PN has developed, with a greater emphasis on the person in a perioperative situation (PPS) and family/significant person experiencing health/disease situations requiring anaesthetic-surgical interventions in a perioperative context.<sup>3</sup> Nursing care in this area of specialization is also concerned with health promotion, the prevention of complications, and the implementation of disease-management strategies.<sup>3</sup>

During the surgical process, nurses evaluate the PPS, collect, organize, prioritize data, develop nursing diagnoses, identify expected results, evaluate the results obtained and the person's responses.<sup>4</sup>

Based on this premise, PN aims to: foster the development of skills that provide quality care, as well as provide subsidies for the optimization of the behaviours and attitudes of perioperative nurses.<sup>4</sup>

The preoperative nursing consultation (PNC) is framed within the scope of PN, incorporating a set of interventions performed during the nursing process in various hospital contexts to ensure the best and most favourable care for the PPS.<sup>4</sup> Promotes the humanization of care, self-care and a healthy transition of the PPS/family/significant person, towards a better and faster recovery.<sup>4</sup>

The operating room (OR) is currently understood as a unit with an autonomous organic and functional structure, which integrates human resources, material resources and differentiated technologies to provide specialized surgical care and anaesthesiology to the PPS.<sup>3,5</sup>

The guidelines of the Association of Perioperative Registered Nurses (AORN)<sup>5</sup> constitute important evidence-based recommendations for the provision of safe perioperative care to PPS, with the goal of achieving workplace safety; they guide a perioperative care model focused on the person and based on three dimensions: safety of the person; their physiological response to surgery and the behavioural response of the binomial person/family to surgery;<sup>6,7</sup> focus on surgical outcomes and advocate for nurses to be legally qualified professionals, with a body of knowledge and unique and recognized skills to implement a PPS-centred model of care.<sup>7,8</sup>

The AORN Nursing Research Committee (NRC) has been involved in developing scientific evidence considering the AORN Research Priorities in PN 2023-2028.<sup>2,6</sup> In this

regard, it purposefully emphasized two priorities; The first priority is to build the science of PN practice by discovering and translating evidence-based strategies in the clinical setting; the second priority is to analyse and link perioperative quality indicators in order to promote positive outcomes for PPS through evidence-based practises.<sup>2,6</sup> Perioperative nurses must be aware of these priorities in order to conduct research that promotes safe perioperative care and fosters the development of PN.<sup>2,6</sup>

The perioperative nurse has the important mission of ensuring and providing the PPS with a quality clinical praxis, guided by strategies that identify and assess their needs and promote their satisfaction, always bearing in mind the three dimensions of PN: the preoperative, the intraoperative and the postoperative.<sup>8</sup> At the same time, it is the perioperative nurse's responsibility to prepare nursing records in accordance with the PPS, to implement personalized interventions, to evaluate the results obtained, and to implement nursing care organization methodologies that promote surgical quality and safety.<sup>8,9</sup>

The legislation, which refers to the specific competencies of the specialist nurse in medical-surgical nursing, recommends perioperative consultation as one of the five areas of intervention, which also include preoperative and postoperative consultations.<sup>3</sup> The Association of Portuguese Operating Room Nurses (AESOP)<sup>8</sup> also supports key PNC objectives, namely: the contribution to the minimization of anxiety of the PPS; to evaluate the surgery's expectations and knowledge; to allow knowledge of the clinical history and the compromised needs, facilitating the elaboration of diagnoses and the planning of personalized care; to recall and clarify information already provided, aimed at preoperative preparation and to provide continuity of care.<sup>10,11,12</sup> In light of the foregoing, it can be stated that the preoperative evaluation serves as a foundation for PNC support, providing subsidies for the clarification of doubts regarding the surgical act and, in particular, for greater reassurance of the PPS.

Each person's uniqueness will cause a nonlinear reaction to surgery, which can be conditioned by psychosocial and emotional factors, in which stress, to a greater or lesser extent, conditions behaviours and expectations in the face of a near future that is completely unpredictable and unknown.<sup>10,11,12,13</sup> The BO, on the other hand, can be associated with the symbolic idea of a place of hope.<sup>11</sup> During this time, different forms of communication become important, so the perioperative nurse must use his or her soft communication skills to foster a relationship of help, proximity, and empathy, while also completing the first stages of the Nursing Process.<sup>10,11,12,13</sup>

Regarding its operationalization, it is recommended, ideally, that the PNC be performed by the nurse who will be supporting the anaesthesia and in the 24 hours prior to the surgery and should be scheduled with the inpatient nurse and with the PPS.<sup>13</sup>

Despite the fact that the best and most recent scientific evidence available emphasizes the importance of implementing the PNC, which results in health benefits for the person/family,<sup>4</sup> it is found that its practice is not a standardized procedure.<sup>14</sup> The observation of this disparity between theory and practice prompted the need to learn more about the PNC's applicability and, more specifically, the constraints to its operationalization from the perspective of OR nurses. With this knowledge, findings may emerge that help to operationalize this consultation as a regular practice, considering that PNC is one of the most important autonomous interventions of the PN that should be highlighted, with a view to providing an excellent level of care.<sup>3</sup> As a result, it is critical to comprehend and respond to the need to implement the PNC, capable of making a better and more significant contribution to the PPS and the family.

There are gaps in knowledge about the PNC, which has received little scientific attention.<sup>14</sup> The few studies in this area suggest the importance of conducting future research on the subject. Quantitative studies elucidate the importance and benefits of PNC,<sup>4,9,10,11,12</sup> however, no qualitative studies specifically alluding to the theme under study have been identified, which led to the need to develop a study with this methodology, for a better understanding of the phenomenon that was intended to be explored.

For the present study, the focus was on the synthesis of the available evidence, taking into account the theoretical framework of Meleis<sup>15</sup>, which advocates that the need to promote a healthy transition is emerging, adapting the strategies that facilitate improvement to the responses to the processes of life, health and disease, with the nurse being a facilitating agent of the process.<sup>15</sup> This line of thought is thought to underpin the phenomenon under investigation, insofar as nursing interventions aim to enable the PPS/family/significant person for a healthy and safe transition, and, in this sense, should have the goal of helping people manage transitions throughout their life cycle, in order to prevent or minimize periods of crisis.<sup>15</sup>

In light of the foregoing, the following research questions were developed: What, in the opinion of the OR nurses, are the constraints to the PNC's operationalization? What are their recommendations for dealing with the constraints? What are the strategies that point to the PNC being prioritized?

The objectives were: to know the constraints to the operationalization of the PNC, through the perception of the nurses of the OR; identify suggestions aimed at overcoming the constraints to the implementation of the PNC; to analyse strategies pointed out by nurses that allow prioritizing the PNC. In this sense, the primary goal of the current study aligns with the objectives in that it aims to obtain consistent findings that can provide support for the regular practice of PNC.

## Methods

It was decided to conduct an exploratory, descriptive, qualitative study for this research, based on the constructivist paradigm, whose analytical scope seeks the understanding of the phenomenon, the involvement of the meaning of several participants, the historical and social construction, and the generation of theories regarding the phenomenon.<sup>16</sup>

In order to report the investigation, the translated and validated guide Consolidated Criteria for Reporting Qualitative Research (COREQ), according to Souza et al.<sup>17</sup> COREQ is recommended for research reports in which data are collected through interviews or focus groups.<sup>14</sup> Its 32 items distributed in three domains, namely: characterization and qualification of the research team, study design and analysis of the results are part of its checklist, and all the consolidated criteria for reporting qualitative research have been addressed.<sup>17</sup>

The study involved participants invited from three operating rooms (ORs) of a hospital in central Portugal. The ORs were purposefully chosen with the following inclusion criteria in mind: knowledge of the operating realities of the three ORs in relation to the implementation of the PNC, the OR where the principal researcher worked, being a part of the study, and the development of the standard/recurrent practice of the PNC in at least one of the ORs involved in the study. In order to protect the identity of the ORs involved, under Law No. 58/2019, of 8 August, which concerns the General Data Protection Regulation, it was decided to characterize the ORs in a succinct and concise manner, through the following descriptive items: in OR1, which was larger, the PNC was not usual practice; in OR2, which was smaller, it was usual practice to have a PNC, and in OR3, which was similarly small, the PNC was not implemented at the time of the investigation. The sampling method chosen was intentional because it allows the selection of informants to participate based on the specific knowledge of a given phenomenon.<sup>16</sup> The nurse manager of each OR played a significant role in the selection of participants, acting as a liaison with the principal researcher and disseminating information to potential participants via e-mail. It should be noted that there is no relationship between the principal researcher and the participants of two of the ORs involved; however, regarding the participants and the context in which the principal researcher worked, the criteria of scientific rigor, described below, were considered to prevent any type of bias in the ongoing research.

Participants in the sample were those who worked in the selected operating rooms and were divided into three groups of 4 to 11 members based on the inclusion criteria: more than two years of service in the current OR; greater professional experience in the OR; preferential academic training: postgraduate, specialization or master's degree.

Exclusion criteria were nurses who were on prolonged sick leave and nurses with less than two years of experience in the OR. The sample was as follows: OR1, with 11 participants, coded from OR1 P1 to OR1 P11; OR2, with 8 participants, coded from OR2 P1 to OR2 P8 and OR3 with 4 participants, coded from OR3 P1 to OR3 P4. Two members of OR3 declined to participate in the study, due to unavailability on the date scheduled for data collection. The nurses in the sample were those who worked in the hospital institution's ORs between February 11 and March 4, 2022, and met the inclusion criteria, totalling 23 nurses.

The data collection instrument was the semi-structured focus group interview, this being "a type of group interview designed to investigate the dynamics of the group".<sup>16(p.491)</sup> Each focus group interview was moderated by the principal researcher, who followed a script that had been previously tested. For greater reliability and ease of transcription, the focus group interviews were audio-recorded on a computer platform and later validated by their participants. It was decided to supplement the data collection with a Google Forms questionnaire, which was made available to the group participants at the end of each interview, to collect socio-professional data and individual responses to two open questions, allowing for greater data richness.<sup>16</sup> The interviews lasted between 45 and 70 minutes. A total of 3 focus group interviews were conducted, without repetition, which culminated in the discussion of data saturation. The transcripts were returned to the participants for clarification and/or corrections.

For data treatment, the methodology of content analysis based on Bardin was used.<sup>18</sup> The focus group interviews were transcribed in full, manually, including hesitations, silences, and stimuli from the researcher, as well as the ORs' and the participants' codifications. Initially, a superficial reading was carried out, to obtain a perception of the whole; afterward, through the NVivo software - used as an aid in the analysis process - the material was imported - interviews and excel tables of the questionnaires. Subsequently, and with a more attentive reading, coexisting units of meaning were identified in the three focus group interviews, through lexicographic textual analysis and similarity analysis. To reflect the homogeneity of the corpus of the analysis, the most frequently uttered words were used as a criterion for the inclusion of words, which facilitated the processes of filtering, coding, and categorizing, first in subcategories, and only then, aggregating into categories; it also allowed for the interpretation of the data and the highlight of the analysis's conclusions.<sup>18</sup>

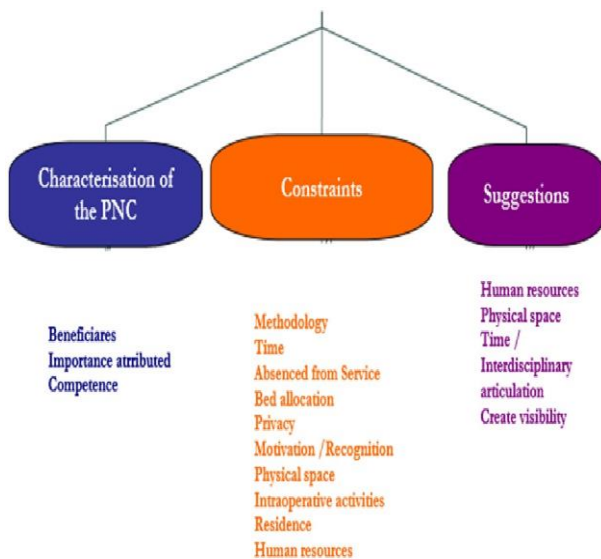
The ethical procedures for carrying out the investigation were considered, according to Nunes.<sup>19</sup> Authorization was obtained from the Board of Directors of the hospital institution for the development of the study, which included the favourable opinion of the Ethics Committee (Official Letter No. 017/CES, of 28/01/2022, alluding to Proc. No. OBS. SF.163-2021). When they signed the informed consent form, the participants were informed about the

purpose of the study, the voluntariness of their participation, and the guarantee of data confidentiality.<sup>19</sup> With regard to the criteria and strategies of quality and rigor of the research, the criteria proposed by Lincon and Guba, as mentioned by Velloso et al., were taken into account.<sup>20</sup>, namely: credibility – through the triangulation of methods, review anchored by faculty advisors and validation of interviews; transferability – by the use of intentional sampling, schematic presentation of results and provision of the existence of a plan on the context and participants; dependability – through the route's chronological and systematic description, including interview notes and observations, among others; Confirmability – by adopting an inductive, neutral perspective, devoid of opinions, value judgments and personal conclusions.<sup>20</sup>

## Results

The total number of participants in the three ORs was 23 nurses, of which 22 were female and 1 was male. Regarding age, 9 nurses were over 50 years of age, 10 were in the [40-49] age group and 4 were in the [36-39] age group. Regarding academic training, they were masters [n=3], specialists [n=9] and graduates [n=11]. Regarding length of service, 4 nurses had been working for more than 36 years; 8 were part of the [26-35] year period, 9 were part of the [16-25] year period and 2 were part of the [6-15] year period. Regarding the length of service in the current service, 1 nurse had been working in the current OR for more than 36 years, 6 nurses were allocated in the [26-35] year period, 9 in the [16-25] year period, 5 in the [6-15] year period and 2 in the [2-5] year period. Regarding the type of working hours: shift working hours [n=8]; fixed working hours with extensions [n=2]; fixed working hours (morning) [n=12], and other [n=1].

To have a better perception of the categorization process, achieved by the analysis of the data obtained, it was decided to present it in a schematic way. The identified units of meaning, which emerged from the participants' discourse and coexisted in the three groups, allowed us to guide the codification into subcategories, which were then aggregated into the categories listed below (Figure 1):



**Figure 1:** Categorization. Source: NVivo

Thus, seventeen subcategories were named based on the content's representativeness and the most evoked words, and were organised as follows:

Beneficiaries, Importance attributed and Competence, generated the category "Characterisation of the PNC". This category reflects nurses' perceptions of the PNC, namely its relevance, who has the competence to implement it, the benefits arising from its practice and the beneficiaries involved.

Methodology, Time, Absence from Service, Bed allocation, Privacy, Recognition, Physical space, Intraoperative activities, Residence and Human Resources, generated the "Constraints" category. This category reflects the most significant constraints expressed by nurses in achieving the PNC, which include: the preference for scheduling over face-to-face the day before; the limited time available; the lack of recognition of its importance by higher hierarchical structures; the lack of an appropriate physical space with the necessary privacy; and the extensive intraoperative programmes that retain nurses in the fulfilment of other

**Discussion**

Considering the focus of the study (constraints and suggestions of nurses in the operationalization of the PNC), we cross-referenced it with the most recent evidence, focusing on the words with the most relevance within each subcategory.

**"Characterization of the PNC" category – emerging subcategories**

Through the analysis, three subcategories alluding to the category Characterization of the PNC were determined:

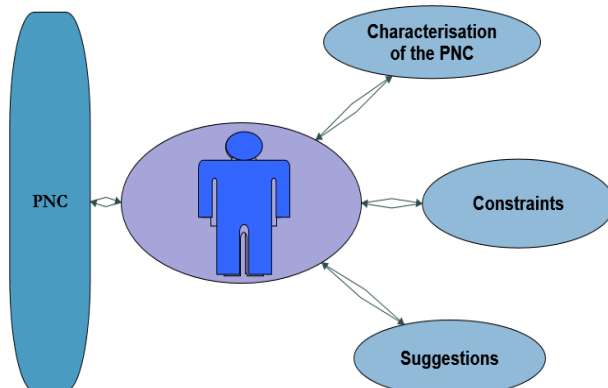
**1 - Beneficiaries**

duties; If, on the other hand, the residence is nearby, the PNC may only be able to travel to the hospital on the day of the surgery, making the PNC impossible to perform, according to the nurses. Finally, a lack of human resources to carry out all nursing procedures, as well as an excessive workload, are mentioned as major constraints by participants.

Human resources; Physical space; Time/interdisciplinary articulation and Create visibility generated the "Suggestions" category. The suggestion of more human resources with PNC practise competence is highlighted as an effective strategy. The nurses, on the other hand, suggest that the time set aside for the PNC be managed carefully, requiring coordination with the interdisciplinary team to avoid scheduling conflicts.

Finally, nurses believe that increasing visibility through the PNC is a critical strategy for increasing the value of nursing care and contributing to quality improvement.

The aggregation enabled the schematization of these three categories in a conceptual structure that places the person at the centre of nursing care (Figure 2).



**Figure 2:** Conceptual structure – The person at the centre of nursing care. Source: NVivo

Regardless of personal experiences, all participants described the PNC as an important autonomous procedure for providing personalized care, resulting in health gains for the PPS, family, and significant contributions to nurses and nursing.

"... Because we perceive that it is an added value for the patient, for the professional (...), and for the safety in the maintenance of the surgical process" (OR3 P4, February 2022).

According to the participants' statements, the practice of PNC has an underlying bilaterality of benefits for both the PPS and family, as well as the nurse. Filho et al.<sup>21</sup> support this viewpoint, claiming that it benefits the nurse-PPS relationship, promotes PPS comfort, and allows it to

"undergo the anaesthetic-surgical act in a safe, humanized and risk-minimizing manner".<sup>(21 p5)</sup>

**2 - Importance attributed** "...It conveys significance (...) It enables us to get to know the patient (...) the security we provide him, the reduction of anxiety, for the surgery itself (...) to bring our autonomous activities to light..." (OR3 P1, February 2022).

The PNC is important, according to the participants, because of the benefits to the PPS, the family, the nurse, and the interaction established in a climate of person-centred care humanization. Mendes et al.<sup>9</sup> in their study, corroborate the same opinion; they also concluded that a higher level of information contributed to a more active attitude on the part of the PPS in its recovery. Other studies, such as those by Gonçalves et al.<sup>10</sup> Breda et al.<sup>11</sup> and Ruiz et al.<sup>12</sup> concluded that the satisfaction of the psychological and informational needs of PPS has impactful effects on minimizing anxiety levels.

### 3 - Competence

"... the consultation does not have to be made by the anaesthesia nurse (...) a nurse in the surgical area, yes, because we must know how to answer the questions that are posed to us (...) we must master the specificities of the area..." (OR1 P5, January 2022).

Furthermore, the participants emphasized the importance of competence in conducting the PNC, emphasizing the need for expertise to answer people's specific questions during the consultation. This concern is consistent with previous research, such as that of Pedro et al.<sup>14</sup>, who suggest that the anaesthesia support nurse is the best professional to perform the PNC due to their frequent interaction with the PPS during the intraoperative period.

### "Constraints" category – emerging subcategories

The analysis revealed ten subcategories related to the Constraints category:

#### 1 - Methodology

"... We have already done this walk with the Pre-Operative Visit many years ago, and we have not been able to get a favourable opinion with the Boards..." (OR1 P3, January 2022).

Some participants claim that they have encountered obstacles in their various attempts to operationalize the PNC, which have always been rejected by the various Boards of Directors, who have always claimed "unavailable resources." The study by Pedro et al.<sup>14</sup> supports these considerations.

#### 2 – Time

"... We have elements that are still being integrated (...) integration in the Operating Room requires a lot of time and availability (...). We do a lot of other functions right now that take time away from us..." (OR3 P2, February 2022).

Time was cited as the most significant constraint, along with work overload for the established schedule, late surgical plans, and procedures that could be performed by other professionals. According to Filho et al.<sup>21</sup> nurses should take

a more active role in the development of norms and objectives that conquer space in their areas of expertise.

#### 3 – Absence from Service

"... Patients are often absent to undergo tests: ECG, scintigraphy, etc. (...) there is a high turnover of patients in the wards, (...) the patient is absent, as he will only come on the day of the surgery..." (OR2 P2, January 2022).

Some participants alleged high turnover/limitation of available beds – The PPS's assigned bed is still assigned to another PPS who has already been discharged. They considered the need for articulation with the multidisciplinary team to be urgent, which is consistent with Lopes et al.<sup>5</sup> claims, which uphold the importance of organization and effective scheduling.

#### 4 – Bed allocation

"... The patient not having a bed assigned at the time and us walking around the ward looking for him (...) greatly complicates the conditions under which the Visit is made." (OR2 P3/OR2 P5, January 2022).

This constraint is expressed as likely to make the implementation of the PNC unfeasible. Studies on management models, which may include bed management to improve efficiency, suggest subsidies to overcome this difficulty; This is the case of the study by Silva et al.<sup>22</sup>

#### 5 - Privacy

"... If there are other people in the space who have nothing to do with the Visit, it will cause embarrassment and difficulties for the patients to express themselves..." (OR2 P6, January 2022).

Most of the participants allude that the lack of privacy compromises PNC. There are ethical and legal issues that must be addressed, in order to guarantee the anonymity, confidentiality and security of the information transmitted/received.<sup>10,21</sup>

#### 6 – Motivation / Recognition

"... PNC is undeniably important, but are nurses truly motivated to do it? (...) There will be constraints, and there will be a lot of opposition..." (OR1 P6, January 2022).

In the analysis of constraints, the subcategory "Motivation/Recognition" highlights a concern with the possible lack of motivation of nurses to perform the PNC without adequate recognition. Fauricio<sup>23</sup>, who emphasizes the influence of professional recognition on the motivation of health professionals, backs up this concern about investment without subsequent recognition.

#### 7 – Physical space

"... There is no proper space and space-time. (...) Then there's the constraint of where we are, which is [sensitive data] ..." (OR3 P4, February 2022).

The absence of physical space is referred to as something indispensable; a constraint to be overcome. In the opinion of the participants, their absence interferes with the performance and quality of the consultation; Interference and interruptions in communication have also been reported to be problematic. According to the study by Lopes et al.<sup>5</sup>, the nurses' expectations include the creation of

a comfortable environment for the performance of the PNC.

### 8 – Intraoperative activities

"... the lack of time, often due to the prolongation of surgeries (...) elements still in integration (...). We take on functions in the Sterilization Service that could be performed by other professionals, with our supervision..." (OR3 P1, January 2022).

All participants alleged excessive workload in the performance of functions, and, for this very reason, argued the need to prioritize interventions/procedures, "some of which ended up not materializing" (sic).

The NAS - Nursing Activities Score - is an important resource; however, as mentioned by Lorenzo et al.,<sup>24</sup> there are already studies that advocate the applicability of this instrument in different scenarios, so its applicability in the OR is something to consider, in the opinion of some nurses, in order to justify the need to strengthen teams with more human resources.

### 9 - Residence

"... Often patients come on the day of the surgery, in the morning (...) it can happen if they are local and can easily commute. We end up not contacting these patients before the surgery... ". (OR2 P2, January 2022).

Some participants suggest that the distance from the residence can cause constraints in the Residence subcategory. In the case of a distant displacement, the family accompaniment of the PPS can cause economic imbalances, frequently affecting the family and affective structure.<sup>5,7</sup>

### 10 – Human resources

"... The argument of scarcity of human resources is one of the most relevant in the discourse of [Hospital] Administrations (...) it is one of the Service's most serious shortcomings (...) Also, there's no telling who will accompany the PPS on the day of surgery, as it might not be the nurse who made the consultation... that familiar face." (OR1 P6, January 2022).

In terms of the Human Resources subcategory, the absence of these is pervasive in the discourse of all participants. They refer to the issue of teams with low levels of secure numbers. Filho et al.<sup>21</sup> support the idea that a lack of human resources negatively impacts the work of nurses, causing physical and mental overload, with negative consequences in the participants' level of satisfaction.

### "Suggestions" category – emerging subcategories

Through the analysis, four subcategories alluding to the category Suggestions were determined:

#### 1 – Human resources

"... If there was a preoperative nursing consultation with a schedule and with the availability of an element to perform it (...) it would be ideal..." (OR2 P5, January 2022).

Within the scope of the Human Resources subcategory, some participants propose the creation of a working group containing experts from the various surgical areas, to outline

intervention strategies to be proposed to the higher bodies to operationalize the PNC: who performs it? when is it performed? where is it performed? The ADKAR (Awareness; Desire; Knowledge; Ability; Reinforcement), concomitantly used in the diagnosis of change management in organizations, values team spirit for each stage of the process<sup>25</sup>; In this sense, it is suitable for innovative changes that imply teamwork.<sup>25</sup> Lopes et al.<sup>5</sup> argue that having a nurse in an exclusive regime for nursing consultations, with no other cumulative functions, is important.

#### 2 – Physical space

"... We need a space, and it's not easy to get it; but it also didn't necessarily have to be here, inside the Operating Room (...) an outpatient or inpatient office (...) it would have to be a space that we could occupy without constraints ..." (OR1 P1, January 2022).

Regarding the Physical Space subcategory, the opinion of the participants is consensual, and it is imperative to determine a space that they can occupy during a certain period, without interruptions. Breda et al.<sup>11</sup> consider that this measure provides the satisfaction of the information needs of the PPS and the family, and the minimization of anxiety levels.

#### 3 – Time / Interdisciplinary articulation

"... That long-term consultation could be completed in a timely manner if we had access to the Surgical Plan. (...), if there was this coordination between the medical and nursing teams, we could reduce the time to a week or 15 days before the operation..." (OR3 P4, February 2022).

The suggestion of "Time/Interdisciplinary Articulation" highlights the importance of efficient collaboration between the medical and nursing teams. This suggestion is in line with the findings of Breda et al.<sup>11</sup> and Pires et al.,<sup>13</sup> who also emphasize the need for solid coordination with surgeons and anaesthesiologists to ensure consistent and safe information during PNC.

#### 4 – Create visibility

"... Our managers must understand the significance of being involved as well (...) nurse managers with management functions, nurse directors, the Board of Directors itself (...) it is also important to create studies and obtain indicators". (OR3 P4, February 2022).

The "Create Visibility" suggestion suggests involving managers and conducting studies to support the importance of PNC. This call for the creation of studies is supported by Mendes et al.<sup>4,5,9,10,11,14</sup> who stress the importance of nurses developing studies that demonstrate the cost-benefit and efficacy of nursing consultations, providing tangible data to persuade hierarchies and hospital administration.

According to the data analysis of the participants, most nurses have innovative ideas, suggestions, and proactive strategies planned and supported by evidence to achieve their goals, which include: the implementation of awareness and training programs for nurses to operationalize the PNC, and the creation and implementation of quality

improvement projects with the same purpose. It is also perceived that their prior experience with the PNC interferes with the results obtained, to the extent that nurses who work in the OR where the preoperative visit is performed consider strategies to optimize it, such as scheduling. Nurses who work in ORs where PNC is not used, on the other hand, are more concerned with its prioritization by hierarchical structures, adequate planning, and operationalization. The study by Pedro et al.<sup>14</sup> backs up these findings.

Some participants argue that it is necessary to foster a spirit of co-responsibility and collaboration among the hierarchies at the top and middle of the organizational pyramid. In this regard, some nurses propose: developing PNC training based on the most recent evidence; developing indicators sensitive to nursing care within the scope of the PNC; developing studies and sharing the results to persuade the hierarchies, and at the top, the Board of Directors, of the impact of the PNC subsidies.<sup>14</sup>

Other studies, though not qualitative, report the following main difficulties identified by nurses in the implementation of the PNC: the time available for the procedure, the lack of human resources, the overlapping of routines in the inpatient units, the lack of planning, the lack of an institutional protocol for performing the PNC, the routines of the OR that decline the possibility of travel to the inpatient within the working hours, unforeseen changes in the operative plan, due to the need to adjust operative times, the secondary priority assigned to the PNC, are some examples.<sup>14</sup> The more visible and recognized the nursing consultation is in the organizational structure into which it is inserted, the more successful it will be. To make the implementation of this consultation easier, several factors must be considered, including the potential number of people to be tended, the procedures to be followed, the human and material resources made available for its implementation, and the expected time for the PNC to achieve its goals. These points are supported by Lopes et al.<sup>5</sup> and Farrelly<sup>26</sup>, who state that it is possible to know the production costs, obtain and provide data to the institution, evaluate qualitative growth, know the costs of treatments and procedures used, and allocate resources efficiently by studying these issues. The perception that it is urgent for nurses to develop studies that demonstrate the cost-benefit and efficacy of nursing consultations is also supported by evidence.<sup>4,5,9,10,11,14</sup> Regardless of the obstacles that the operationalization of nursing consultations may face, the importance of this service justifies the effort required to implement it, so nurses must make the commitment to work in this direction.<sup>5,14,21</sup>

Because it is presented as an inaugural qualitative study in terms of constraints and nurses' suggestions to the operationalization of the PNC, the current study adds scientific knowledge to the evidence. As a result, it is believed that the findings obtained can be used as quality improvement indicators.<sup>14,22,23</sup>

## Conclusion

The PNC is a complex process that is influenced by a variety of factors and has as its basic structure the provision of nursing care. The findings allow for reflection on nurses' professional interventions and the identification of potential areas for change in order to improve clinical nursing practice and health quality. It is critical to emphasize the role of the nurse in the PNC in the context of elective surgery. This professional must have PPS skills in a dimension that allows them to provide excellent care, supported by evidence-based practice. It is possible to find contributions that favour the improvement of care quality and the optimization of health outcomes in this dynamic between professional experience and research.

In terms of constraints, participants in this study identify a number of factors, including a lack of available time, insufficient human resources, and a lack of appropriate space, followed by: a lack of agreement on the methodology to be used – whether in person, the day before, or by appointment; PPS absent from the service, for the performance of auxiliary diagnostic tests; delays in the allocation of beds; privacy compromised at the time of the PNC; lack of recognition of the PNC by the hierarchical structures; unpredictable prolongation of intraoperative activities; distant residence of the PPS.

Regarding the suggestions made by the participants to circumvent the constraints they identify, the need for interdisciplinary articulation with both the medical team and the hierarchies of the organizational pyramid is emphasized; the allocation of more human resources in the OR to address needs that require immediate responses; the need for an appropriate and reserved physical space for the PNC, which may be external to the OR; and the need to create visibilities are also highlighted.

In terms of practice recommendations, it is believed that the findings obtained in this research are consistent for the development of strategic plans appropriate to the contexts of practice, inspired by change management theories - transformational management -, capable of operationalizing an innovative change that generates gains in health; As an example, it is suggested that transformational leaders implement the process management methodology, based on Kotter's eight-step model, which allows the detail of the change process to be implemented sequentially until the intended innovative change is rooted, thus giving rise to a new culture, so this may be the first measure to prioritize in the PNC's operationalization.

This study is not an end in itself; it can serve as a guiding thread for additional research, such as a study of nurses' perceptions of the strategies to be implemented to operationalize the nursing operative consultation (pre and postoperative) and, in this sense, focus on nurses' interventions, contributing to the improvement of care quality.

This study is thought to have implications for the practice of care in an inpatient elective surgery setting because of the potential to increase the value of nursing care, with replication possibilities in other operating rooms that prioritize operationalizing the PNC.

Despite the limitations inherent in the research work, namely the slowness and adequacy of the processes in the methodological phase, this study can contribute to a greater investment of the teams and management of the services, enhancing the continuous improvement of the nursing teams' performance, quality of care, and visibility of PN.

### Authors' Contributions

Pedro, PR: Conception and design of the study; data collection; data analysis and interpretation; statistical analysis; drafting the manuscript; critical revision of the manuscript.

Coelho, AN: Analysis and interpretation of data; critical revision of the manuscript.

Cerejo, MN: Critical revision of the manuscript.

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