

COMMUNICATION IN PERIOPERATIVE NURSING AND THE IMPACT ON THE QUALITY: SCOPING REVIEWComunicação em enfermagem perioperatória e o impacto na qualidade: *scoping review*

Comunicación en enfermería perioperatoria y el impacto en la calidad: revisión de alcance

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ABSTRACT

Background: communication is a fundamental area in the provision of nursing care. In the perioperative context, communication failures put the person at risk, and it is important to improve communication strategies to avoid errors and improve the quality of care provided. **Objective:** to map the best available scientific evidence regarding nursing communication and its impact on improving the quality of care provided to the person in a perioperative situation. **Methodology:** a Scoping Review was carried out based on the recommendations of the Joanna Briggs Institute and research in electronic databases: CINAHL Complete (via EBSCOhost), MEDLINE (via EBSCOhost), COCHRANE, Scielo, Lilacs and gray literature. The articles were selected in light of the defined inclusion criteria, published in full, with free access, excluded in Chinese and applied a time limit (2013-2023). **Results:** the review resulted in 19 articles that share and highlight: person- and family-centered communication (3), standardized transfer processes (3), safe verification briefings (2), continuous improvement projects (5), care bundles (1), commitment and satisfaction of professionals (4) and shared mental models (4). **Conclusion:** the study resulted in 7 concepts that relate perioperative communication to improving the quality of care. **Keywords:** communication; perioperative nursing; quality improvement

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RESUMO

Enquadramento: a comunicação é uma área basilar na prestação de cuidados de enfermagem. Em contexto perioperatório as falhas de comunicação colocam em risco a pessoa sendo importante aperfeiçoar estratégias comunicacionais para evitar erros e melhorar a qualidade dos cuidados prestados. **Objetivo:** mapear a melhor evidência científica disponível, no que concerne à comunicação de enfermagem e o seu impacto na melhoria da qualidade dos cuidados prestados à pessoa em situação perioperatória. **Metodologia:** foi realizada uma Scoping Review tendo por base as recomendações do Joanna Briggs Institute e pesquisa em bases de dados eletrónicas: CINAHL Complete (via EBSCOhost), MEDLINE (via EBSCOhost), COCHRANE, Scielo, Lilacs e literatura cinzenta. Os artigos foram selecionados à luz dos critérios de inclusão definidos, publicados na íntegra, de acesso gratuito, excluídos com idioma chinês e aplicado limite temporal (2013-2023). **Resultados:** da revisão resultaram 19 artigos que partilham e destacam: a comunicação centrada na pessoa e família (3), processos de transferência padronizados (3), briefings de verificação segura (2), projetos de melhoria contínua (5), bundles de cuidados (1), comprometimento e satisfação dos profissionais (4) e os modelos mentais compartilhados (4). **Conclusão:** do estudo emergem 7 conceitos que relacionam a comunicação perioperatória com a melhoria da qualidade nos cuidados. **Palavras-chave:** comunicação; enfermagem perioperatória; melhoria de qualidade

RESUMEN

Marco contextual: la comunicación es un área fundamental en la prestación de cuidados de enfermería. En el contexto perioperatorio las fallas de comunicación ponen en riesgo a la persona y es importante mejorar las estrategias de comunicación para evitar errores y mejorar la calidad de la atención brindada. **Objetivo:** mapear la mejor evidencia científica disponible sobre la comunicación de enfermería y su impacto en la mejora de la calidad de la atención brindada a las personas en situación perioperatoria. **Metodología:** se realizó una Scoping Review con base en las recomendaciones del Joanna Briggs Institute e investigaciones en bases de datos electrónicas: CINAHL Complete (via EBSCOhost), MEDLINE (via EBSCOhost), COCHRANE, Scielo, Lilacs y literatura gris. Los artículos fueron seleccionados a la luz de los criterios de inclusión definidos, publicados en su totalidad, de acceso gratuito, excluidos en idioma chino y límite de tiempo aplicado (2013-2023). **Resultados:** la revisión resultó en 19 artículos que comparten y destacan: comunicación centrada en la persona y la familia (3), procesos de transferencia estandarizados (3), sesiones informativas de verificación segura (2), proyectos de mejora continua (5), paquetes de atención (1), compromiso y satisfacción profesional (4) y modelos mentales compartidos (4). **Conclusión:** del estudio surgen 7 conceptos que relacionan la comunicación perioperatoria con la mejora de la calidad de la atención. **Palabras clave:** comunicación; enfermería perioperatoria; mejoramiento de la calidad



INTRODUCTION

Communication and the evaluation of care provided are undeniably important elements in perioperative nursing practice, enabling the planning and implementation of corrective measures for the improvement and safety of care (Gomes et al., 2020). The perioperative period is filled with moments of care transitions, making it fundamental that the transfer of information is rigorous and adequate, thereby ensuring patient safety (Nedelcu et al., 2022).

The research question that this study sought to answer was: What is the importance of nursing communication in improving the quality of care provided to the person in the perioperative situation?

The general objective of this study was to map the best available scientific evidence regarding nursing communication and its impact on improving the quality of care provided to the person in the perioperative situation. Thus, the specific objectives of the study were:

- To map the best available scientific evidence concerning nursing communication in the perioperative setting.
- To improve the understanding of the concept of communication in the perioperative setting.
- To analyze the relationship between the concept of communication and the improvement of the quality of nursing care.
- And to identify possible knowledge gaps regarding the problem under study.

Communication is the third pillar of the National Plan for Patient Safety 2021-2026 (Despacho n.º 9390/2021) and is considered essential in care provision, particularly in care transitions, transfer of responsibilities, and information handover among all

professionals involved, reasons for which it deserves special reflection and care by Nurses. Being a dynamic, complex, and permanent process, communication aims at the mutual understanding of those involved (Sequeira, 2021). The Quality Standards of the Order of Nurses recommend: "The use of communication strategies that ensure accurate and timely information and documentation within the interdisciplinary team and in the continuity of perioperative care for the person" (Ordem dos Enfermeiros [OE]., 2017, p. 29). In 2017, the General Directorate of Health (DGS) issued the Guideline N.º 001/2017 for the transition of information in care transitions to be carried out based on the ISBAR technique. The perioperative environment presents high complexity and frequent care transfers that foster the opportunity for errors (OE, 2017). Communication failures in the perioperative setting jeopardize patient safety, and thus, professionals must improve their communication skills to prevent them (Işık et al., 2020). Many errors that occur intraoperatively are due to communication failures within the team, and most of them occur during the anesthetic phase (Kirschbaum & McAuliffe, 2018). Some research considers that external and environmental factors impair and influence communication, namely the noise emitted by equipment in the operating room, thus making it important to consider their positioning (Grant et al., 2021). Surgical checklists, safety briefings, teamwork, and communication skills training should be implemented to improve communication in the perioperative setting (Etherington et al., 2019). Perioperative nurses must possess non-technical skills such as communication, leadership and management, planning, decision-making, teamwork, and surgical conscience for safe care provision (Marshall &

Finlayson, 2018). Quality assessment is also important and essential in perioperative nursing, as it allows for the planning and implementation of corrections for the improvement and safety of care (Gomes et al., 2020). The quality of perioperative care should result from the interaction between the humanization of care and its technical excellence (Associação dos Enfermeiros de Sala de Operações Portugueses, 2012). The concept of quality in health thus aims at improving care through efficient and effective resource management to meet the needs of users and professionals (Chora & Correia, 2022). Communication and team collaboration prove to be excellent tools for solving problems in a complex environment such as the perioperative setting.

Merlino (2019) tells us that

The willingness of all members of the perioperative team to speak up, share ideas, and collaborate is important, not only for patient safety but also because it fosters a good work environment and will continue to lead perioperative care in the future. (p. 670)

METHODOLOGICAL REVIEW PROCEDURES

Type of study

The Scoping Review (ScR) process followed the Joanna Briggs Institute (JBI) eligibility criteria (Aromataris & Munn, 2020). Regarding the population (P), this is a study involving perioperative nurses, i.e., providers of nursing care in the pre, intra and postoperative periods. The central concept (C) is nursing communication in the perioperative setting, and the context of analysis of the studies is the perioperative setting, i.e., nursing communication from the surgical decision until the patient's discharge home. The designations and descriptions of the key concepts

under study were researched in the NIH (National Library of Medicine) MeSH to understand if they were suitable for the study's objectives, thus:

- Communication describes the "exchange or transmission of ideas, attitudes, or beliefs between individuals or groups."
- Perioperative nursing refers to "nursing care provided to the person before, during, and after surgery."
- Quality improvement consists of the "process of achieving a new level of performance or quality."

Types of sources

This review considered primary and secondary research, with quantitative, qualitative, and mixed methodology. All types of literature reviews were included, namely systematic reviews, opinion articles, and grey literature.

Search strategy: The adopted search strategy was based on the criteria defined by JBI (Aromataris & Munn, 2020) to gather the best evidence for the posed question: "What is the importance of nursing communication in improving the quality of care provided to the person in a perioperative situation?". With the aim of creating a guiding, sensitive, and rigorous line for the research, the PCC framework was used to define the population (perioperative nursing), the concept (communication), and the context (perioperative). The Health Sciences descriptors used in the study were: communication, perioperative nursing, and quality improvement. The Boolean operator "AND" was used to aggregate and allow the inclusion of all terms selected for the study. The Boolean phrase was: communication AND perioperative nursing AND quality improvement.

Through keywords and descriptors, searches were initiated in April 2023 in: CINAHL Complete (via EBSCOhost), MEDLINE (via EBSCOhost), COCHRANE, Scielo, Lilacs. In the searches conducted in grey literature, RCAAP, DART-Europe, and Open Grey, relevant websites in the study area, no works were identified using the study's Boolean phrase.

Inclusion/exclusion criteria

Regarding the study limitations, only publications were included: referring to the perioperative context, with full-text articles of free access. Two studies written in Chinese were excluded. Although initially no time limit was defined for the research to be as comprehensive and reliable as possible on the topic under study, during the selection of studies (Figure 1) it was observed the presence of a considerable percentage of studies (13 studies) from 2006 to 2012 that repeated the themes addressed in the remaining studies. The researchers opted to include the most recent

evidence.

Study selection

Zotero was used, a software that allows managing, storing, organizing, citing, and sharing the identified bibliographic references. The selection was carried out based on the inclusion criteria, by two reviewers, in order to supervise the content of the studies to be included in the review. Disagreements were resolved by consensus of the parties to confirm the eligibility of the publications, and the decision to apply the aforementioned time limit was unanimous. To organize the data extraction and analysis of the articles to be included in the review, tables were used with the following indicators: author/year/country, objectives, sample, type of study, results, and main findings related to the ScR. A flowchart was prepared where duplicate articles were excluded, by inclusion/exclusion criteria in the study, and by title and abstract, in order to find the full-text articles

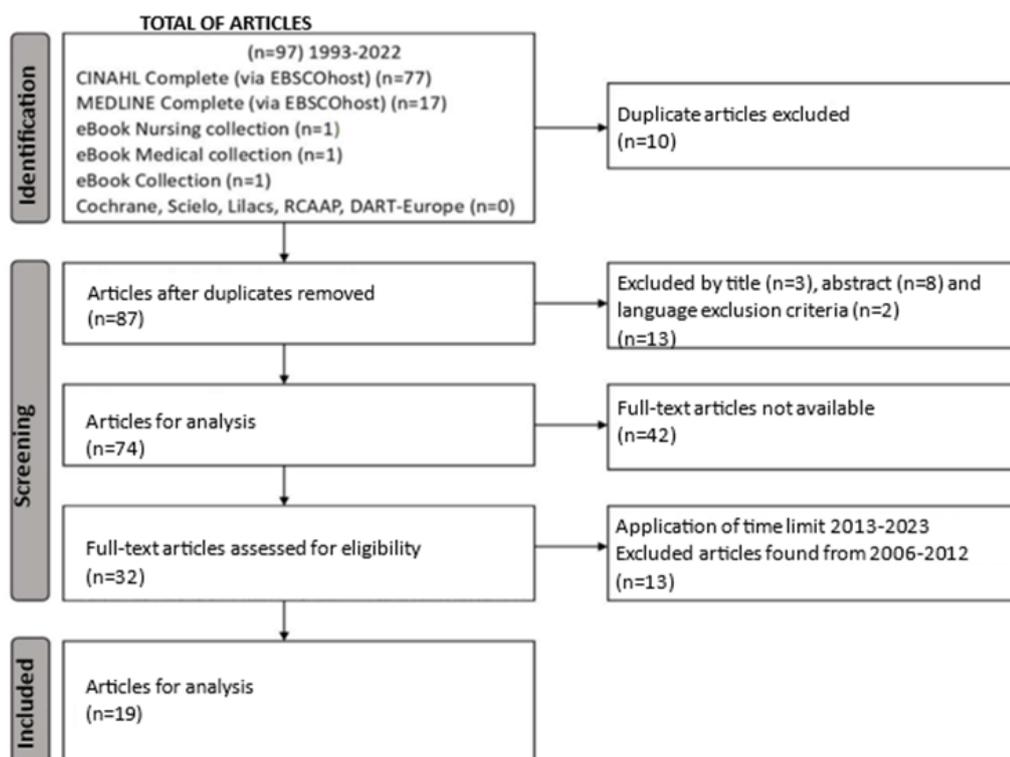


Figure 1

Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA-ScR)

RESULTS

The nineteen selected studies highlight themes related to communication and teamwork in the perioperative setting. Communication and teamwork are vital for good perioperative functioning as they form the basis for identifying areas that need improvement (Fowler, 2016).

Job satisfaction and professional commitment in their workplace are presented in 4 studies as essential for achieving better performance in the quality of care provided (Brunges & Foley-Brinza, 2014). Other authors reaffirm this idea, stating that when professionals feel happy and fulfilled, they continuously improve the care provided (Morath et al., 2014). This study also emphasizes the issue of trust among members, recognizing it as fundamental for the existence of quality practices.

To improve communication in teams and achieve the best results, it is necessary for them to have a shared mental model, which generates superior communication quality, favors situational awareness, and maximizes task management within the interdisciplinary team (Wilson, 2020). The importance of the existence of this shared mental model is reinforced by 4 authors included in the ScR: Kitney et al., 2020; Sussman, 2022; Plonien and Williams, 2015; Wilson, 2020.

The hospital demands imposed by the COVID-19 pandemic required strategies to improve team communication (Sussman, 2022); it was found that the creation of a shared mental model promoted improved communication, understanding, and adaptation to unknown situations such as those of the pandemic. The use of a shared mental model constitutes an added value in teams and is enhanced by perioperative

nurses: "The creation of a shared mental model requires cognitive skills, including decision-making and situational awareness, interpersonal skills such as communication and leadership, which are non-technical skills used by intraoperative nurses" (Wilson, 2020, p. 34).

Within the evidence found, the importance of correct care transition and the use of a structured handover process, namely ISBAR, is emphasized in 3 studies to reduce the risk of communication incidents in the perioperative context (Kitney et al., 2020). The authors reinforce this idea, mentioning that "the use of structured ISBAR principles improves the quality of handovers and provides a common framework for team behavior in that it allows for the creation of a shared mental model" (Kitney et al., 2020, p. 43).

In the articles under study, many (5) highlight the importance of implementing quality improvement projects, an example of which is TeamSTEPS, focused on team performance, which "integrate common language and evidence-based protocols that result in better patient safety outcomes" (Plonien & Williams, 2015, p. 466).

The evidence found also highlights the importance of multidisciplinary team training in a simulation context (Jowsey et al., 2019). An uncommon practice, but one that has been increasingly verified in health institutions because it demonstrably increases and improves patient safety, communication, and teamwork.

The Surgical Safety Checklist (SSC) briefings, which appear in 2 articles, can "promote behavioral changes in surgical team members, specifically in communication, which is considered the core of patient safety performance" (McDowell & McComb, 2014, p. 126). The study conducted by these authors

showed that SSC briefings contribute to the prevention of undesirable events during procedures and the reduction of postoperative complications.

An appropriate environment for providing quality care is one where individuals feel comfortable reporting near misses, adverse events, or errors, and it is very important to notify them to improve care practices and make them safer in the perioperative setting (Hemingway et al., 2015). "Communication failures are the main cause of errors in healthcare, which can result in serious harm to the patient" (Gleadall et al., 2018, p. 27). In the perioperative environment, deviation from standardized practice usually leads to serious adverse events. Thus, patient safety is the responsibility of all professionals involved, which requires correct teamwork (Duff, 2021).

The importance of communication as a promoter of quality care is emphasized in the studies found, not only the accurate communication of information handover between professionals but also the patient-professional relationship and involvement (Hayes & Gordon, 2015). It is fundamental to increase the accuracy of surgical consents to prevent communication failures that can lead to serious events such as wrong person, wrong site, or wrong procedure (Mercurio et al., 2014).

Patient- and family-centered perioperative

communication is a fundamental aspect highlighted in 3 studies for the provision of quality care. Improving communication with families intraoperatively and postoperatively implies regular and frequent communication, which proves to reduce anxiety and generate greater satisfaction with the care provided (Hanson-Heath et al., 2016).

The use of intervention bundles, namely in the prevention of surgical site infection, fosters teamwork and communication through evidence-based practice (Proops, 2019). Care bundles promote continuous professional development and inspire the team for continuous improvement in care provision.

Quality in health, from the nurses' perception, is closely related to the outcomes obtained (Gomes et al., 2020). Measuring quality cannot focus solely on outcomes, but rather on the permanent interaction between structure, process, and outcome. Nurses have a central role in planning corrective and improvement actions for the quality and safety of care provided to the person in the perioperative situation.

In order to summarize and highlight the key concepts underlying this exploratory research, a diagram was developed for a better understanding of the data found and how they relate to communication in perioperative nursing and the improvement of care provided, as presented in Figure 2.



Figure 2
Concepts identified in the study

DISCUSSION

The perioperative period is filled with moments of interaction with the patient/family that allow for the collection and certification of essential data so that the entire care pathway, from surgical decision, admission, surgery, discharge, and the postoperative period, proceeds as smoothly as possible. Communication between health professionals must also be "timely, accurate, complete, unambiguous, and understood by the receiver" (DGS, 2017, p. 4). The ISBAR technique is a standardized communication tool in healthcare, recognized and recommended for promoting patient safety in care transitions. Evidence indicates that when communication is not successful, the chances of critical events, length of stay, and even professional dissatisfaction increase (Wilson, 2020). The analyzed studies reflect that communication in the perioperative setting must be precise in information handover and is essential for obtaining a quality

experience for the patient (Hayes & Gordon, 2015). Several authors reaffirm the need for using structured handover processes to reduce the risk of communication incidents (Kitney et al., 2020). It is important to highlight that the use of safety checklists as well as read-backs can also "minimize the risk of surgical errors, improve communication, and the quality of care" (Tibbs & Moss, 2014, p. 480).

Many of the studies found emphasized the importance of a shared mental model, which is fundamental because, in its absence: "failure of a shared understanding can contribute to preventable adverse events, ineffective communication, and decreased teamwork; poor perioperative communication can result in teamwork failures and lead to adverse effects" (Sussman, 2022, p. 301). The National Health Plan, in the document "Health communication guides: good practices," reaffirms this idea, stating that successful communication processes depend on several factors, noting that the "alignment of all stakeholders with a



common purpose, sharing principles, objectives, motivation, and resources in an integrated manner is crucial for effective communication" (DGS, 2023, p. 14).

The existence of evidence-based care improvement projects shared within the team, according to the studies found, also favors and promotes communication and the quality of care provided to the person in the perioperative situation. Several studies have demonstrated that team training and simulation-based training also improve communication and teamwork, thus favoring patient safety. In Perioperative Nursing, "Our work environment and the way we interact with each other are very relevant because people depend on it" (Merlino, 2019, p. 671). In terms of study limitations, being an exploratory, descriptive, and mapping study, it constitutes a starting point for further research in the area. Most of the selected studies originate from the United States (11 studies), refer to communication in transitions and intraoperatively, and reinforce the importance of effective team communication for the provision of quality care. We understand and acknowledge that the development of more studies in this area will be important, as communicating effectively is a necessity in the perioperative context: among peers, among different professionals, and with the person and family in the perioperative situation.

We consider that for future developments, more studies and research are needed to prove the link between communication in perioperative nursing and the quality of care provided, namely: on the importance of shared mental models in communication and their relationship with the quality of care; the importance of nursing communication in

the preoperative and postoperative periods; research on environmental conditions in which care is provided and that may affect/hinder communication between professionals, patients, and families receiving care.

CONCLUSION

The objective of this study was to map the best available evidence regarding nursing communication in the perioperative setting and to analyze its relationship with the improvement of care quality. Several studies were identified considering our PCC (Population, Concept, Context), and it proved pertinent to use a time filter to include the most recent evidence. It should be noted that this filter was applied because the mapping of concepts was not compromised, as the most recent studies repeated the themes identified in the studies without a time filter.

Improving the understanding of the concept of communication in the perioperative setting and analyzing its relationship with the improvement of care quality was another of the ScR's objectives. The concept of communication in the perioperative setting is very broad and present in this context as it focuses on team communication and the resulting care provided to the patient and family. The communication conveyed by nurses in their care provision in the perioperative setting is essential for achieving quality health outcomes. From the first contact with the patient in the preoperative period, to the relationship established during information gathering and patient empowerment, making them knowledgeable about the entire process and the decisions inherent to their health situation so that the care provided is effectively personalized and of high quality.

This study highlighted 7 concepts related to communication that promote the quality of care in the perioperative context, namely: team commitment and job satisfaction, the existence of a shared mental model, and family-centered care provision. And the presence and adequacy of various tools such as: standardized care handover processes, SSC briefings, care bundles, and continuous improvement projects that elevate care provision towards continuous improvement.

As implications for practice, the knowledge translated from the evidence of the analyzed studies, mostly from the United States, demonstrates the central role of perioperative nursing communication in the provision of safe and quality care. Nurses in their daily intervention must recognize that communication is fundamental with the patient/family; with colleagues and with other professionals. They should, using the best evidence, utilize appropriate tools for team communication, care transitions, use care bundles, and standardize care practices for the commitment and satisfaction of all professionals involved, creating a shared mental model. It is important that Nurses and other team professionals feel happy, committed, and involved in their work, that they communicate in the best way with each other and with the patient, who is the central focus of care and should participate in decision-making processes that concern them to ensure personalized, quality, and excellent care.

Ethical considerations

The literature review aimed to present the "state of the art" regarding the topic under study, making the evocation of the principle of academic integrity in respecting the fidelity and referencing of the

respective authors inevitable. The work carried out presents reliable information, with data extracted from appropriate databases, correctly referencing all authors used and their respective bibliographic references.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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