


## SYSTEMATIC REVIEW ARTICLE

## Nurses' assessment of patient safety culture in ambulatory surgery: scoping review protocol


*Avaliação da cultura de segurança do doente em cirurgia ambulatória pelos enfermeiros: protocolo de scoping review*

*Evaluación de la cultura de seguridad del paciente en la cirugía ambulatoria por parte de los enfermeros: protocolo de scoping review*


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### Abstract

**Background:** Perioperative nursing is based on a dynamic and holistic approach to the patient that extends to ambulatory surgery. With this paradigm, it is essential to consider patient safety culture in the assessment of the quality and safety of nursing care.

**Objective:** To map the evidence on nurses' assessment of patient safety culture in ambulatory surgery. **Review method:** Methodology proposed by the Joanna Briggs Institute. The search strategy will be adapted to each database/repository to identify relevant studies. Titles and abstracts will be screened, and those that do not meet the inclusion criteria will be excluded. The included articles will be subject to data extraction by two independent reviewers.

**Presentation and interpretation of results:** The results will be presented in narrative and tabular form.

**Conclusion:** This scoping review will contribute to identifying nurses' perspectives on patient safety culture in ambulatory surgery, reinforcing the potential impact on the safety of nursing care.

**Keywords:** ambulatory surgical procedures; patient safety; safety management; nursing; review

### Resumo

**Enquadramento:** A enfermagem perioperatória tem por base uma abordagem dinâmica e global do doente, transversal à cirurgia ambulatória. Associada a este paradigma e no sentido de avaliar a qualidade dos cuidados de enfermagem e a segurança dos mesmos, é pertinente considerar a cultura de segurança do doente.

**Objetivo:** Mapear a evidência disponível sobre a avaliação da cultura de segurança do doente em cirurgia de ambulatório pelos enfermeiros.

**Método de revisão:** Metodologia proposta pelo *Joanna Briggs Institute*. A estratégia de pesquisa será adequada a cada base de dados/repositório na identificação de estudos relevantes. Proceder-se-á à análise de títulos e resumos, excluindo aqueles que não apresentem os critérios delineados. Os artigos incluídos serão alvo de extração de dados. Este processo será executado por dois revisores independentes.

**Apresentação e interpretação dos resultados:** Os resultados serão apresentados de forma narrativa e de tabelas.

**Conclusão:** Esta *scoping review* contribuirá para identificar a perspetiva dos enfermeiros sobre a cultura de segurança do doente em cirurgia de ambulatório, reforçando o potencial impacto na segurança dos cuidados de enfermagem.

**Palavras-chave:** procedimentos cirúrgicos ambulatórios; segurança do paciente; gestão da segurança; enfermagem; revisão

### Resumen

**Marco contextual:** La enfermería perioperatoria se basa en un enfoque dinámico y global del paciente, transversal a la cirugía ambulatoria. Asociada a este paradigma y con el objetivo de evaluar la calidad de la atención de enfermería y la seguridad, es pertinente considerar la cultura de seguridad del paciente.

**Objetivo:** Mapear las pruebas disponibles sobre la evaluación de la cultura de seguridad del paciente en la cirugía ambulatoria por parte de los enfermeros.

**Método de revisión:** Metodología propuesta por el Instituto Joanna Briggs. La estrategia de investigación será adecuada a la identificación de los estudios relevantes en cada base de datos/repositorio. Se procederá a analizar los títulos y resúmenes, excluyendo los que no presenten los criterios indicados. Los artículos incluidos estarán sujetos a la extracción de datos. Este proceso será realizado por dos revisores independientes.

**Presentación e interpretación de los resultados:** Los resultados se presentarán en forma narrativa y en tablas.

**Conclusión:** Esta revisión exploratoria (*scoping review*) contribuirá a identificar la perspectiva de los enfermeros sobre la cultura de seguridad del paciente en la cirugía ambulatoria, lo que reforzará el potencial impacto en la seguridad de la atención de enfermería.

**Palabras clave:** procedimientos quirúrgicos ambulatorios; seguridad del paciente; gestión de la seguridad; enfermería; revisión

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## Introduction

Ambulatory surgery (AS) is an organizational model of surgical care that is primarily patient-centered and essential for improving the efficiency, effectiveness, and quality of health care and hospital organization (Despacho n.º 1380/2018; Pinto & Sarnadas, 2020).

In this surgical regimen, after the patient is admitted to the hospital, the elective surgery takes place, and he/she is discharged in less than 24 hours. AS has multiple internationally recognized advantages over elective surgery with hospitalization. At the organizational level, it allows a reorganization of the entire hospital structure, for example, through hospitalization for more complex situations, the reduction of waiting times for surgery, and the creation of patient-centered programs. On the other hand, it has both direct economic advantages through the reduction of hospital costs and indirect advantages resulting from the associated lower morbidity. AS is associated with decreased rates of postoperative complications and a lower probability of healthcare-associated infections. At the social level, AS has a very positive impact on the patient because he/she can recover in the family environment, with lower social and family disruption, and have a faster socio-professional integration (Comissão Nacional para o Desenvolvimento da Cirurgia de Ambulatório, 2008; Despacho n.º 1380/2018; Pinto & Sarnadas, 2020).

AS rates have increased significantly at the beginning of this century in Portugal and worldwide. Portugal is a role model example of the expansion of AS. In 2000, only 10% of all potential ambulatory surgeries were performed in outpatient settings, and, in 2006, a little more than a quarter of the surgeries in Portugal were ambulatory. Today, more than 83% of all elective surgeries in Portugal are performed in outpatient settings (Administração Central do Sistema de Saúde, 2017; Despacho n.º 1380/2018; Serviço Nacional de Saúde, 2020).

In Portugal, the increase in AS rates in recent decades is mainly due to institutional and governmental incentives and guidelines (Pinto & Sarnadas, 2020). Considering the innovative nature of AS when compared to elective surgery with hospitalization, “a diagnosis of the situation, identifying areas that, despite the growth, still need to be developed” (Despacho n.º 1380/2018, p. 4511) is necessary to maximize its advantages. Thus, in Order no. 1380/2018, of 8 February, the Portuguese government set up a working group to monitor and assess the development of AS in the last 10 years in Portugal and identify possible constraints to its growth (in terms of structure, human resources, training, among others).

Some international studies found possible constraints to the development of AS. For example, although more than two-thirds of the surgeries in the United States, which corresponds to more than 25 million surgeries worldwide, are performed in outpatient settings, little is known about patient safety and quality of care in this context (Aston, 2014; Molina et al., 2017; Nelson, 2018).

According to Pinto and Sarnadas (2020), patient safety is a key indicator of the quality of care, and the promotion of a safety culture in care settings currently contributes

to achieving and improving patient safety.

The safety culture of a health care organization is a cross-cutting concept present from the administrative leadership to the caregivers, and it can be defined as the set of individual and group values, attitudes, perceptions, competencies, and behaviors that determine their commitment to the organization's prosperity and safety management (Smith, Sorra, Franklin, Rockville, & Behm, 2015). It is based on the premise that non-technical skills such as teamwork, communication, and reporting of adverse events are essential for patient care quality and safety, knowing that these errors can harm patients just as much as technical errors. Thus, organizations with a positive safety culture are characterized by a communication style based on mutual trust, shared perceptions of the importance of safety, and confidence in the efficacy of preventive measures (Attree & Newhold, 2009; Fan et al., 2016; Smith, Sorra, Franklin, Rockville, & Behm, 2015).

Given the phenomenon of expansion of AS worldwide, in 2014, the Agency for Healthcare Research and Quality (AHRQ) developed the *Ambulatory Surgery Center Survey on Patient Safety Culture* (Smith et al., 2015) for Ambulatory Surgery Centers (ASC). The survey assesses several dimensions of Patient Safety Culture (PSC), such as communication about patient information, communication openness, staffing, work pressure, and pace, teamwork, staff training, organizational learning – continuous improvement, response to mistakes, and management support for patient safety. Pinto and Sarnadas (2020) translated and validated this survey for the Portuguese population.

PSC assessment allows organizations to identify the characteristics of their safety culture, identify their strengths and areas for improvement, raise staff awareness, create intervention plans, and benchmark the results (Pinto & Sarnadas, 2020; Smith et al., 2015).

Perioperative nursing in AS is a new area with a strong influence on how surgical patients are cared for (Davidson, 2014). The increase in AS both worldwide and in Portugal confirms that more and better nursing care will be needed in this context (Davidson, 2014).

The nurses' role is undoubtedly important because they are present in every moment of AS. Nurses face unique challenges and their role goes beyond management and care delivery: they have to make sure that all procedures and activities are carried out safely while accompanying the patient from admission to discharge (Davidson, 2014; Nelson, 2018).

The knowledge of how nurses assess PSC in the ASCs where they work may have a profound impact on both direct leadership and top leadership, contributing to a better perioperative practice environment.

A preliminary search of the JBI Database of Systematic Reviews and Implementation Reports, the Cochrane Central Register of Controlled Trials, CINAHL, MEDLINE, and PROSPERO was conducted and no literature reviews on the topic were identified. Thus, the authors decided to conduct a scoping review based on the methodological guidelines proposed by the Joanna Briggs Institute (Peters et al., 2020).

The objective of this scoping review is to map the evidence on nurses' assessment of patient safety culture in AS. More specifically, this review aims to answer the following research question: How do nurses assess patient safety culture in ambulatory surgery?

## Systematic review method

A scoping review was selected because its main objective is to map the key concepts that underpin a field of research. Thus, a scoping review aims to identify the types of available evidence in a given area of knowledge, provide an overview of what has already been studied, identify and analyze research gaps, and justify more specific scientific work in the area under study, such as through systematic reviews (Peters et al., 2020).

### Search strategy and identification of studies

The scoping review proposal will follow the methodology proposed by the Joanna Briggs Institute to identify inclusion and exclusion criteria using the Population, Concept, and Context (PCC) framework, taking into account the components of the research question. Therefore, this review will consider studies that include nurses working in ASCs of public or private institutions regardless of their employment contract, age, and length of service. Regarding the concept, this review will consider studies that assess PSC and its dimensions in ASCs, with a view to identifying problem areas and their potential implications on patient safety.

As for the context, this review will consider studies conducted in ASCs, whether or not integrated into public or private hospitals.

This scoping review will include quantitative, qualitative, and mixed-method studies. This review will consider primary studies, systematic reviews, dissertations, opinion papers, and gray literature, following the three-step method defined by the Joanna Briggs Institute for scoping reviews (Peters et al., 2020). No temporal, geographic or cultural limitations will be considered because this review aims to understand how PSC is researched and perceived in various cultural contexts.

The first step is an initial limited search of CINAHL Complete, MEDLINE Complete, Nursing & Allied Health Collection: Comprehensive; Cochrane Central Register of Controlled Trials, and MedicLatina via PUBMED and EBSCO to identify articles on the topic.

The following MESH descriptors were used: 'safety culture; organizational culture; safety management' 'patient safety'; 'ambulatory surgery'; 'outpatient surgery' 'ambulatory surgical procedures'; 'nursing'. The titles, abstracts, and index terms of retrieved articles will be analyzed to identify alternative and specific keywords and terms. A second search using all identified keywords and index terms will then be undertaken across all included search engines and databases., in combination with natural language processing.

Thirdly, the reference list of all identified sources of evidence will be searched for additional sources of information.

If further information is required, the reviewers will contact the authors of the sources under analysis for clarification.

Following the search, titles and abstracts will be screened by two independent reviewers against the inclusion criteria for the review. The full text of selected studies will be assessed in detail against the inclusion criteria. Reasons for exclusion of studies at full text that do not meet the inclusion criteria will be recorded and reported in the scoping review. Any disagreements that arise between the reviewers will be resolved through discussion and consensus or with a third reviewer. The methodological quality of the included studies will not be assessed because it is a scoping review (Peters et al., 2020).

The search process will be presented in full in a narrative form using a PRISMA flow diagram, detailing the search process, the selection of results, the elimination of duplicates, and what was added with the third step of the search (Liberati et al., 2009; Peters et al., 2020).

All identified references will be grouped and managed using Mendeley Desktop 1.19.4 (Mendeley Ltd., Elsevier, The Netherlands).

### Data extraction

After confirmation of the relevance of the selected studies, two independent reviewers will extract the data using a tool developed by the researchers, aligned with the objective and question of the review (Figure 1). This draft data extraction tool may be modified as necessary resulting from the reading and analysis of eligible sources.

A pilot test will be conducted with the necessary number of sources for the researchers to become familiar with the data extraction tool.

If further clarification is necessary during this process, the authors of the sources under analysis may be contacted.

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|--|--|---|
| <b>Review Title</b><br>Nurses' assessment of patient safety culture in ambulatory surgery: scoping review protocol |  | <b>Responsible for extraction:</b><br>_____ |
| <b>Review question:</b><br>How do nurses assess patient safety culture in ambulatory surgery?                      |  |   |
| <b><u>Details and characteristics</u></b>  |  |   |
| <b>Bibliographic data</b><br>Author(s); year of publication; title; journal; country                               |  |   |
| <b>Type of study; Objectives; Population and sample</b>  |  |   |
| <b>Data collection method</b>  |  |   |
| <b>Results extracted</b><br>PSC dimensions assessed<br>Concepts to respond to the review question<br>References    |  |   |
| <b>References</b>  |  |   |

*Figure 1. Data extraction instrument.*

### Data synthesis

The findings from the publications included in this review will be presented in a narrative form, and tables and/or figures may be used. This synthesis will be aligned with the scope and objective of the scoping review. This process will be based on the consensus of two independent reviewers and the support of a third reviewer to solve any disagreement.

### Presentation and interpretation of the results

Data will be presented in a narrative form and tables or figures may be used to map the evidence on nurses' assessment of PSC in AS settings. Summary tables of the articles included in the review will also be presented. The identification, characterization, and synthesis of knowledge in this area will be aligned with the objective and question of this review.

This scoping review will contribute to the dissemination of knowledge in an emerging topic related to perioperative nursing, with a major impact worldwide. Furthermore, it will provide nurses working in ASC leadership and/or management, as well as those in middle and top management of these units with key contributions that will help them make better decisions regarding the improvement of patient safety in their units and the creation of an organizational PSC for promoting better and safer nursing care.

### Conclusion

Considering the advantages of AS, its strong growth in Portugal and internationally, and the need to provide safe and quality nursing care in these surgical settings,

the assessment of PSC in AS is critical and urgent for understanding the advantages and factors that can improve the safety culture in this complex nursing care environment. This scoping review is expected to have significant implications for clinical practice by contributing to the development of organizational improvement interventions in ASCs.

This scoping review is expected to be a starting point for the development of more specific questions that can be used in a systematic review of the literature.

### Author contributions

Conceptualization: Pinto, J. R., Matias, A. C., & Sarnadas, L. L.

Methodology: Pinto, J. R., Matias, A. C.

Supervision: Pinto, J. R., Sarnadas, L. L.

Writing - original draft: Pinto, J. R., Matias, A. C.

Writing - review & editing: Pinto, J. R.

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