

Level of Safety Culture in Healthcare Professionals: Systematic Review Protocol

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Abstract

The assessment of the safety culture of the organization allows obtaining a clear view of the aspects and dimensions of patient safety that require more attention. The study aims to present the systematic review protocol designed to analyze the level of safety culture in a hospital setting. The reporting of this systematic review will comply with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses PRISMA Checklist. The systematic review protocol will be submitted for registration in the International Prospective Register of Systematic Reviews (PROSPERO). The systematic review will carefully follow six steps: selection of guiding question; definition of the characteristics of the primary research sample; selection of the research sample; analysis of the findings of the articles included in the review; interpretation of results; and reporting of the review, which will provide a critical examination of the findings. For analysis of the selected studies, the guiding research question, "What is the level of safety culture in the hospital environment?" will be used. A search of MEDLINE, VHL, CINAHL, Cochrane Library, and Web of Science electronic databases will be conducted. The search strategy will combine index terms and the descriptors "Safety Management," "Safety Culture," and "Patient Safety." Studies published from 2012 to 2022 will be included, with no language restriction. The following inclusion criteria will be adopted: observational and experimental studies; studies conducted in the period from 2012 to 2023; studies that measured safety culture in the hospital environment through validated instruments. Exclusion criteria are: duplicate articles; narrative or systematic review and meta-analysis; case reports; case series and experimental studies involving animals. Two reviewers will extract data from the selected studies independently. Safety culture measurement allows leaders to implement targeted strategies to improve specific dimensions of safety culture.

Keywords: Safety Management; Safety Culture; Patient Safety.

1. Introduction

Patient safety is a serious global public health issue that is defined as the prevention of harm to patients with an emphasis on a care delivery system that prevents and learns from errors and is built on a culture of safety (CS) that involves healthcare professionals, organizations, and patients. Patient safety is a critical component of health care quality. Although estimates of the size of the problem are scarce, especially in developing countries, it is likely that millions of patients worldwide suffer injury or death each year due to unsafe health

care (Kumbi et al., 2020)

In the context of the weakness of management support for patient safety, it is worth noting that the promotion of CS in the hospital requires a great deal of effort from the actors involved and requires changing the values, beliefs, and behavior of the organization's staff in line with CS values; and such a change requires the support of managers and supervisors of the healthcare teams (EL-Jardali et al., 2010; van Noord et al., 2010).

The development of a safety culture is a central element of many efforts to improve patient safety and quality of care in hospital care settings. Several studies show that safety culture and the related concept of safety climate are related to clinical behaviors such as error reporting, adverse event reduction, and mortality reduction (van Noord et al., 2010; Weaver et al., 2013). Accreditation bodies identify leadership standards for measuring and improving safety culture, and promoting a culture of safety is a National Patient Safety Foundation safe practice (Joint Commission, 2012). While much work has focused on promoting a culture of safety, understanding which approaches are most effective and the implementation factors that may influence effectiveness are critical to achieving meaningful improvements (Braithwaite et al., 2010; Singer & Vogus, 2012).

In this sense, the attention to CS in health care has gained prominence after the Institute of Medicine report: To Err is Human (Kohn, et al., 2000). Among the areas of research, studies that include the development and validation of a series of comprehensive measures of CS assessment and the identification of leadership and organizational practices that influence it stand out. Among the gains from the increasing development of this research has been the positive impact on hospital practice, where reinforced by a Joint Commission accreditation requirement, many hospitals have begun to participate in regular efforts to survey and assess their safety climate (Mardon et al., 2010; Hansen et al., 2010; Singer et al., 2010).

The prevalence of adverse events related to healthcare is still high, even despite all the efforts made by healthcare organizations. This high rate may be due to cultural factors and lack of CS in healthcare professionals (Ghasemi et al., 2015; Khater et al., 2015). The most crucial obstacle to improving the safety of patient care is the CS of healthcare organizations. Patient safety culture is a subset of organizational culture and is defined as a set of values, attitudes, perceptions, beliefs, and behaviors that support the safe conduct of individuals' activities in healthcare organizations. Critical components of patient CS include a shared belief of the great responsibility for health care, organizational commitment to detect and analyze errors and patient injury, and the need for the creation of an environment that balances the need for error reporting and the need for disciplinary action (Khater et al., 2015; Hellings et al., 2007; Abbasi et al., 2017).

In this context, a positive CS directs the behaviors of health care workers so that patient safety becomes one of their highest priorities. It encourages organizational learning, teamwork, open communication, feedback and non-punitive responses to errors, and shared cultural perceptions based on the importance of safety (Hellings et al., 2007; El-Jardali et al., 2011). A positive safety culture can encourage healthcare professionals to report and analyze their errors, which is an effective tool for improving safety, because the first step in creating a positive safety culture is to assess the current safety culture. On the other hand, hospitals should create a patient CS among their staff before implementing structural interventions, so the importance of knowing the existing patient safety culture should be emphasized (Hellings et al., 2007; Abbasi et al., 2017;

El-Jardali et al., 2011 Basson et al., 2018).

In this sense, the assessment of the organization's safety culture allows obtaining a clear vision of the aspects and dimensions of patient safety that require greater attention. It also allows hospitals to identify their level and the strengths and weaknesses of their SC, which enables comparison of their results with other institutions. Thus, this present study is justified by the relevance of analyzing the level of safety culture in hospital settings. The present study aimed to present the systematic review protocol designed to analyze the level of safety culture in hospital settings, as well as to identify the validated instruments used to measure the level of safety culture and the strategies for improving the level of safety culture in hospitals, as well as their effectiveness.

2. Methods

The study will be conducted through a systematic literature review, which consists of a research method frequently used in evidence-based practice, whose objective is to gather and synthesize previous results in order to elaborate a comprehensive explanation of a specific phenomenon. It emphasizes the organization and interpretation in meeting the research objective (Souza et al., 2010).

Reporting of this systematic review will comply with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses PRISMA Checklist (Page et al., 2021). The protocol of the systematic review will be submitted for registration in the International Prospective Register of Systematic Reviews (PROSPERO).

The systematic review will carefully fulfill six steps: selection of guiding question; defining the characteristics of the primary research in the sample; selecting the research that made up the review sample; analyzing the findings of the articles included in the review; interpreting the results; and reporting on the review, which will provide a critical examination of the findings.

For analysis of the selected studies, the guiding research question, "What is the level of safety culture in the hospital environment?" will be used.

2.1 Electronic search

A search will be conducted in the electronic databases MEDLINE, VHL, CINAHL, Cochrane Library, and Web of Science. The search strategy will combine index terms and the descriptors "Safety Management", "Safety Culture" and "Patient Safety". Studies published from 2012 to 2022 will be included, with no language restriction.

The following inclusion criteria will be adopted: observational and experimental studies; studies conducted in the period from 2012 to 2022; studies that measured safety culture in the hospital environment through validated instruments. The exclusion criteria are: duplicate articles; narrative or systematic review and meta-analysis; case reports; case series and experimental studies involving animals.

2.2 Research in other sources

The bibliographic references of the selected studies will be checked to find additional studies not identified in the electronic search and that meet the inclusion criteria. In addition, a gray literature search will be conducted to locate eligible articles not retrieved from the databases used.

2.3 Study Selection

The studies will be selected in two stages following the eligibility criteria. First, the studies will be selected by reading the titles and abstracts. The second or textual analysis step will be performed last, according to the eligibility criteria. All steps will be performed independently by two reviewers. After the results are compared, any case of discrepancy will be resolved by the analysis of a third reviewer.

2.4 Data Extraction and Management

Two reviewers will extract data from the selected studies independently. Discrepancies will be resolved by review by a third reviewer. The data specified below will be extracted by both reviewers and documented.

- 1) Characteristics of the publication: title, journal, author, year, country, type of publication, and conflict of interest.
- 2) Study participants: number of study participants and their sociodemographic characteristics.
- 3) Instrument used to measure the variable of interest.
- 4) Quality of studies: the methodological quality of cohort and case-control studies will be analyzed using the Newcastle-Ottawa Scale (Wea, 2020).

2.5 Data Overview

Meta-analysis will be initially planned, but was deemed inappropriate because of the heterogeneity of the previously identified studies. Therefore, the results will be presented in tabular form along with a narrative synthesis according to the variables collected.

3. Considerations

It is hoped that by conducting this research, the level of safety culture in hospital settings will be analyzed, as well as the main strategies used to increase levels of healthcare safety. Measuring safety culture allows leaders to implement targeted strategies to improve specific dimensions of safety culture. These strategies ultimately can improve staff working conditions and the care patients receive.

The results generated will be submitted for publication in an indexed scientific journal, allowing the population and health professionals to have knowledge of the level of safety culture according to the national and international literature. It will help in the identification of strategies and their use by the managers of hospital services to guarantee a better safety to the patient.

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