Weaknesses in safety culture in Brazilian hospitals: integrative review

Fragilidades na cultura de segurança em hospitais brasileiros: revisão integrativa

Debilidades de la cultura de seguridad en los hospitales brasileños: revisión integradora

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RESUMO

Objetivo: Identificar na literatura as fragilidades da cultura de segurança em instituições hospitalares nacionais. Método: Revisão integrativa da literatura, organizada em seis etapas e conduzida no período de junho a dezembro de 2024. A busca dos dados se deu de forma on-line, na MEDLINE via PubMed, na LILACS, na BDENF e no SciELO, considerando o período de 2014 a 2024. Os estudos recuperados nas fontes de dados foram enviados ao software EndNote on-line, para detecção e exclusão das duplicidades, e, posteriormente, ao Rayyan, para manutenção da avaliação às cegas. Resultados: A amostra constituiu-se de 24 publicações, sendo 21 artigos e três trabalhos acadêmicos. A maioria das publicações ocorreu em 2018. Observa-se que 11 (46%) estudos apresentaram fragilidades em todas as dimensões das escalas. Por outro lado, a satisfação no trabalho foi pontuada como ponto forte na maioria das pesquisas, e um estudo mensurou fragilidade em somente um item do instrumento de avaliação. Considerações finais: Apesar de a cultura de segurança não ser um tema novo no cenário nacional, este estudo demonstrou que existem muitas fragilidades e que os pacientes e profissionais estão expostos a riscos, o que compromete a qualidade do cuidado e a saúde.
Descritores: Equipe de Assistência ao Paciente; Segurança do Paciente; Hospitais.

ABSTRACT

Objective: To identify weaknesses in the safety culture of national hospitals in the literature. Method: Integrative literature review, organized in six stages, conducted from June to December 2024. Data were searched online in the MEDLINE via PubMed, in the LILACS, in the BDENF and in the SciELO, considering the period from 2014 to 2024. The studies retrieved from the data sources were exported to the EndNote online software to detect and exclude duplicates, and later to Rayyan to maintain the blind evaluation. Results: The sample consisted of 24 publications, 21 articles and three academic papers. Most of the publications were published in 2018. It was observed that 11 (46%) studies presented weaknesses in all dimensions of the scales. On the other hand, job satisfaction was scored as a strong point in most of the studies and one study measured weakness in only one item of the assessment instrument. Final considerations: Although the topic of safety culture is not something new in the national scenario, this study demonstrated that there are many weaknesses and that patients and professionals are exposed to risks, compromising the quality of care and their health.
Descriptors: Patient Care Team; Patient Safety; Hospitals..

RESUMEN

Objetivo: Identificar debilidades en la cultura de seguridad de las instituciones hospitalarias nacionales en la literatura. Método: Revisión integradora de la literatura, organizada en seis etapas, realizada de junio a diciembre de 2024. La búsqueda de datos se realizó en línea en el MEDLINE vía PubMed, en la LILACS, en las BDENF y en la SciELO, considerando el período de 2014 a 2024. Los estudios recuperados de las fuentes de datos se exportaron al software en línea EndNote para detectar y excluir duplicados, y posteriormente a Rayyan para mantener la evaluación ciega. Resultados: La muestra estuvo constituida por 24 publicaciones, 21 artículos y tres trabajos académicos. La mayoría de las publicaciones ocurrieron en 2018. Se observó que 11 (46%) estudios presentaron debilidades en todas las dimensiones de las escalas. Por otra parte, la satisfacción laboral fue calificada como un punto fuerte en la mayoría de las encuestas y un estudio midió la debilidad en sólo un ítem del instrumento de evaluación. Consideraciones finales: Aunque el tema de la cultura de seguridad no es algo nuevo en el escenario nacional, este estudio demostró que existen muchas debilidades y que pacientes y profesionales están expuestos a riesgos, comprometiendo la calidad de la atención y su salud.
Descriptores: Grupo de Atención al Paciente; Seguridad del Paciente; Hospitales.

REVIEW

Introduction

The publication of the *To Err is Human* report raised an important alert in society about the issue of deaths resulting from preventable medical errors. Consequently, it mobilized a series of initiatives aimed at ensuring patient safety, which refers to minimizing the risk of unnecessary harm related to health care.[1] This movement highlights the importance of safe environments and efficient clinical practices to provide quality care to patients. Patient safety is understood as the reduction of the risk of unnecessary harm associated with health care, based on systems with a safety culture (SC).[1–2]

The most recent data indicate that this issue, raised more than 20 years ago, has not yet been resolved. According to the National Health Surveillance Agency, from January 1 to June 30, 2024, there were 27,555 reports related to medications and vaccines. Of this total, 82.4% correspond to serious adverse events and 6.7% to fatal cases.[3]

Health professionals need to be made aware of the need for changes that foster SC in institutions and in the care provided. It is built through attitudes, skills, and behaviors that determine a commitment to health management and safety. It presupposes the replacement of blame and punishment with the opportunity for educational actions arising from moments of failure, thus improving the quality of health care.[2]

Weaknesses in SC lead to adverse events, which are defined as incidents that result in unintentional harm to the patient, often associated with failures in care processes. This fact highlights the need for improvements in the SC of health institutions. It is estimated that 10% of hospitalized patients in developed countries suffer some type of adverse event, and the presumed rates are higher in low- and middle-income countries due to limited resources and inadequate infrastructure.[4]

Strategies to promote SC may include single or combined interventions, with evaluations through outcome indicators. Educational interventions and awareness strategies play a crucial role in promoting SC in health organizations. These actions help raise awareness, align behaviors, and strengthen professionals' commitment to safe practices, directly contributing to the reduction of adverse events.[5]

Thus, it becomes essential to systematically investigate SC in national hospital institutions and propose improvement strategies that address the identified weaknesses. To carry out this assessment, tools such as the Hospital Survey on Patient Safety Culture (HSOPSC), whose Portuguese version was validated in 2017, can be used.[6]

Therefore, this study aims to identify in the literature the weaknesses of SC in national hospital institutions. It seeks to provide a basis for formulating interventions that can strengthen SC and, consequently, improve the quality of care provided.

Method

This integrative literature review was organized into six stages: formulation of the research question, literature search, data extraction, critical evaluation, analysis and summarization of the studies, and synthesis of

knowledge.[7] The work was conducted between June and December 2024, and its writing followed the recommendations of the PRISMA checklist.[8]

To formulate the guiding question, the PICo strategy was used—a conceptual model that considers three items: P – population, patient or addressed problem; I – phenomenon of interest; and Co – context. In our analysis, the triad consisted of health professionals (P), weaknesses in the safety culture (I), and national hospitals (Co). Thus, the following guiding question was defined: What are the weaknesses identified in the safety culture among health professionals in national hospitals?

The data search was conducted in June 2024, online, using the following databases: Medical Literature Analysis and Retrieval System Online (MEDLINE) via Public Medicine (PubMed), Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS), Base de Dados em Enfermagem (BDENF), and Scientific Electronic Library Online (SciELO).

Aiming for a broad inspection of the literature, the strategies combined descriptors, alternative terms, and keywords: "Equipe de Assistência ao Paciente", "Equipe de Saúde", "Equipe Multiprofissional", "Patient Care Team", "Pessoal de Saúde", "Profissionais da Saúde", "Profissionais de Saúde", "Segurança do Paciente", "Patient Safety", "Gestão da Segurança", "Safety Management", "Cultura Organizacional", "Organizational Culture", "Hospital", "Hospitais", "Hospitals" and "Clima de Segurança", extracted from the Descriptors in Health Sciences (DeCS) and Medical Subject Headings (MeSH), and combined using the Boolean operators OR and AND (Table 1).

Chart 1 – Search expressions used in the search

Databases	Search Expression
LILACS, BDENF e SciELO	("Equipe de Assistência ao Paciente" OR "Equipe de Saúde" OR "Equipe Multiprofissional" OR "Patient Care Team" OR "Pessoal de Saúde" OR "Profissionais da Saúde" OR "Profissionais de Saúde") AND ("Segurança do Paciente" OR "Patient Safety" OR "Gestão da Segurança" OR "Safety Management" OR "Cultura Organizacional" OR "Organizational Culture") AND (hospital OR hospitais OR hospitals)
MEDLINE	("Patient Safety"[Mesh terms] OR "Safety Culture"[tw]) AND (Hospital[Mesh terms] OR hospitals[Tw])

Original and review articles, theses, and systematic review dissertations in English, Spanish, and Portuguese, published between 2014 and 2024, were included. The materials comprise research conducted in Brazil using validated instruments to measure or assess safety culture (SC), considering the hospital institution as a whole and addressing the guiding question.

Publications presented as editorials, manuals, protocols, book chapters, reflections, expert opinions or commentaries, as well as preprints, media-format files, and publications related to non-hospital institutions or specific hospital sectors, were excluded. Duplicate publications were counted only once.

The studies retrieved from the data sources were exported to EndNote Online software for duplicate detection and removal, and subsequently to Rayyan (developed by the Qatar Computing Research Institute) to maintain

blinded assessment. Regarding data extraction, an initial reading of the title, abstract, and keywords of the selected articles was carried out; this was followed by a full-text analysis. These steps were performed by two researchers. In the case of disagreement, a third researcher was involved.

For study characterization, a form developed by the authors was used, containing article data such as title, journal, year, language, and country of publication, as well as the weaknesses identified by the authors. To answer the research question, parameters with the lowest scores in the application of the instruments were identified.

Ethical aspects were respected, with faithful citation of sources and authors' definitions.

Results

The database search resulted in 434 records from LILACS, 384 from BDENF, 175 from SciELO, and 200 from MEDLINE, totaling 1,193 records. The selection steps are presented in Figure 1.

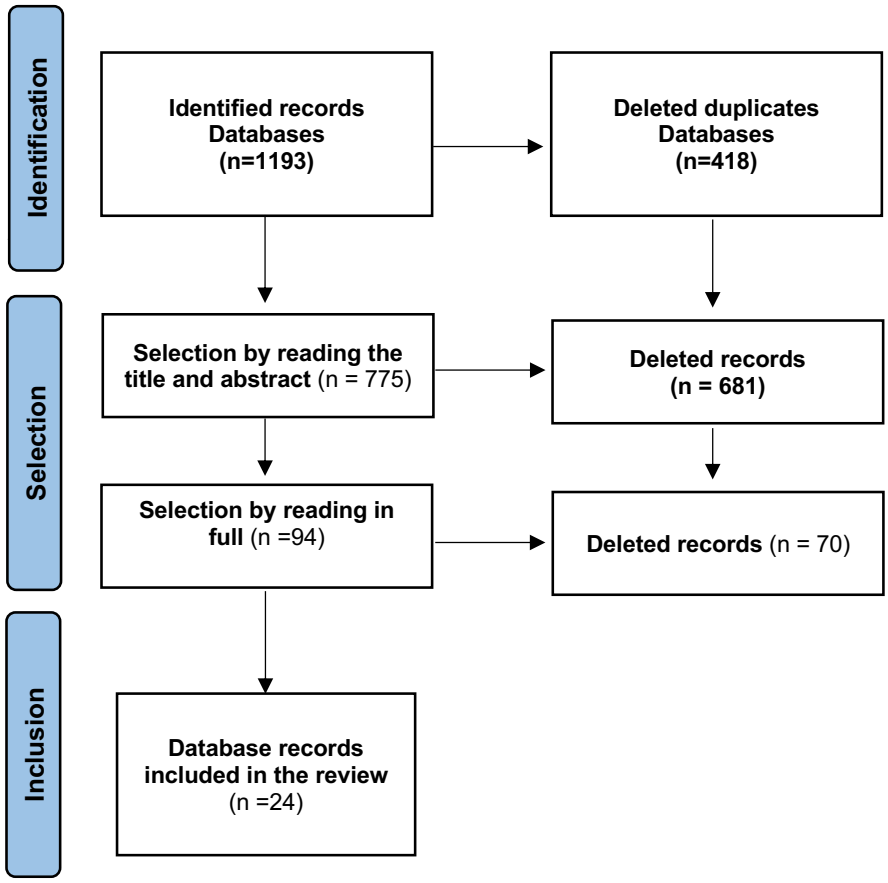

Figure 1 – Flowchart of the sample selection steps.

The sample consisted of 24 publications, including 21 articles and three academic papers. Most of them were published in 2018. Regarding language, three publications were in English, three in English, Portuguese, and Spanish, one in English only, and 17 in both Portuguese and English. Most of the studies (20) were conducted using a cross-sectional design. Table 2 presents the characteristics of these studies.

Table 2- Characteristics of the studies included in the integrative review

ID	Authorship	Journal/Language	Title	Design
1	Rotta et al.[9]	Revista Brasileira de Enfermagem/Portuguese and English	Analysis of the convergence between the Safety Attitudes Questionnaire and the Hospital Survey on Patient Safety Culture	Cross-sectional
2	Massaroli et al.[10]	Ciencia y Enfermería/Portuguese	Evaluation of patient safety culture in a hospital in southern Brazil	Cross-sectional
3	Baratto et al.[11]	Acta Paulista de Enfermagem/Portuguese and English	Patient safety culture: perspective of health workers and support	Cross-sectional
4	Zanon et al.[12]	Revista Brasileira de Enfermagem/Portuguese and English	Presenteeism and safety culture: evaluation of health workers at a university hospital	Cross-sectional
5	Carvalho et al.[13]	Revista de Saúde Pública/Portuguese and English	Safety culture from the perspective of health professionals in public hospitals	Cross-sectional
6	Melo et al.[14]	Revista Gaúcha de Enfermagem/Portuguese and English	Patient safety culture according to nursing professionals in an accredited hospital	Cross-sectional
7	Kolankiewicz et al.[15]	Revista Gaúcha de Enfermagem/Portuguese and English	Patient safety culture from the perspective of all workers in a general hospital	Cross-sectional
8	Sanchis et al.[16]	Revista Brasileira de Enfermagem/Portuguese and English	Patient safety culture: perception of nursing professionals in high-complexity institutions	Cross-sectional
9	Carvalho et al.[17]	Revista Brasileira de Enfermagem/Portuguese and English	Evaluation of the safety culture in a public hospital in the	Cross-sectional

			Federal District, Brazil	
10	Magalhães et al.[18]	Revista Gaúcha de Enfermagem/Portuguese and English	Patient safety climate in a teaching hospital	Cross-sectional
11	Fassarella et al.[19]	Revista Brasileira de Enfermagem/Portuguese and English	Nurse safety culture in the services of a university hospital	Cross-sectional
12	Andrade et al.[20]	Ciência e Saúde Coletiva/Portuguese and English	Patient safety culture in three Brazilian hospitals with different types of management	Cross-sectional
13	Mota[21]	USP Dissertation/Portuguese	Health professionals' perception of patient safety culture in a university hospital	Cross-sectional
14	Del Corona[22]	USP Thesis/Portuguese	Evaluation of patient safety culture in a public teaching hospital in Mato Grosso do Sul	Cross-sectional
15	Prates[23]	UFRGS Dissertation/Portuguese	Patient safety culture: elements that influence the perception of health professionals	Mixed methods
16	Cruz et al.[24]	Cogitare Enfermagem/Portuguese and English	Safety culture among health professionals in a teaching hospital	Cross-sectional

ID	Authorship	Journal/Language	Title	Design
17	Silva et al.[25]	Revista Brasileira de Enfermagem/Portuguese and English	Analysis of the convergence between the Safety Attitudes Questionnaire and the Hospital Survey on Patient Safety Culture	Cross-sectional
18	Galvão et al.[26]	Ciencia y Enfermería/Portuguese	Evaluation of patient safety culture in a hospital in southern Brazil	Cross-sectional
19	Beck et al.[27]	Acta Paulista de Enfermagem/Portuguese and English	Patient safety culture: perspective of health workers and support	Cross-sectional
20	Carvalho et al.[28]	Revista Brasileira de Enfermagem/Portuguese and English	Presenteeism and safety culture: evaluation of health	Cross-sectional

			workers at a university hospital	
21	Tondo e Guirardello[29]	Revista de Saúde Pública/Portuguese and English	Safety culture from the perspective of health professionals in public hospitals	Cross-sectional
22	Toso et al.[30]	Revista Gaúcha de Enfermagem/Portuguese and English	Patient safety culture according to nursing professionals in an accredited hospital	Cross-sectional
23	Barbosa et al.[31]	Revista Gaúcha de Enfermagem/Portuguese and English	Patient safety culture from the perspective of all workers in a general hospital	Cross-sectional
24	Luiz et al.[32]	Revista Brasileira de Enfermagem/Portuguese and English	Patient safety culture: perception of nursing professionals in high-complexity institutions	Cross-sectional

Legend: ID = Item ID; USP = University of São Paulo; UFRGS = Federal University of Rio Grande do Sul.

Regarding the instruments used, 12 studies applied the HSOPSC and 13 used the Safety Attitude Questionnaire (SAQ). In one of them, both scales were considered. It was observed that 11 studies (46%) showed weaknesses in all dimensions of both tools (Table 3).

Table 3 – Description of the publications in terms of objective and main results.

ID	Objectives	Sample	Instrument Used	Dimensions with Negative or Fragile Cultures
1	Analyze patient safety culture (PSC) based on the perceptions of nursing professionals in a university hospital, through the assessment of convergence between HSOPSC and SAQ.	Group of 434 nursing professionals from a university hospital in Porto Alegre, RS.	HSOPSC and SAQ	In this study, all dimensions of HSOPSC and SAQ showed fragility.
2	Evaluate the level of PSC from the perspective of health professionals in a large hospital in the Southern Region of Brazil.	Group of 291 staff members from a large hospital in the Southern Region of Brazil.	HSOPSC	In this study, all dimensions of HSOPSC showed fragility.
3	Analyze PSC from the perspective of workers who act directly or indirectly in caring for hospitalized patients.	Group of 2,634 hospital workers from seven institutions in RS, Brazil.	SAQ	In this study, all dimensions of SAQ showed fragility.
4	Verify associations between presenteeism and PSC among healthcare workers.	Group of 758 healthcare workers from a	SAQ	Four domains showed fragility: DOM2 – Safety climate; DOM5 – Perception of unit management;

		university hospital in RS.		DOM6 – Perception of hospital management; DOM7 – Working conditions.
5	Evaluate PSC perceptions among professionals working in SUS public hospitals in the Federal District, Brazil, three years after the implementation of the National Patient Safety Program.	Group of 909 professionals working in SUS public hospitals in the Federal District, Brazil.	SAQ	Four domains showed fragility: DOM2 – Safety climate; DOM5 – Perception of unit management; DOM6 – Perception of hospital management; DOM7 – Working conditions.
6	Assess nursing team perceptions regarding patient PSC in an accredited hospital and identify differences between shifts, professional categories, and units.	Group of 497 nursing professionals from a private and accredited hospital in São Paulo, Brazil.	HSOPSC	Eleven domains with fragility: DIM1 – Teamwork within units; DIM2 – Expectations and actions to promote safety by supervisors and managers; DIM4 – Feedback and communication about errors; DIM5 – Openness in communication; DIM6 – Staffing; DIM7 – Non-punitive responses to errors; DIM8 – Hospital management support for patient safety; DIM9 – Teamwork across hospital units; DIM10 – Internal transfers and handovers; DIM11 – General safety perceptions; DIM12 – Frequency of reported events.
7	Evaluate patient PSC among all workers in a hospital in Southern Brazil.	Group of 630 workers from a hospital in Santa Rosa, RS.	SAQ	DOM4 – Perception of stress.
8	Analyze nursing professionals' perceptions of patient PSC in three high-complexity hospitals.	Group of 467 nursing professionals from three high-complexity hospitals in a large municipality in Paraná.	HSOPSC	In this study, all dimensions of HSOPSC showed fragility.
9	Assess health professionals' perceptions of patient PSC in a high-complexity public hospital in the Federal District, Brazil.	Group of 358 health professionals from a high-complexity public hospital in the Federal District, Brazil.	SAQ	Six domains with fragility: DOM1 – Teamwork climate; DOM2 – Safety climate; DOM4 – Perception of stress; DOM5 – Perception of unit management; DOM6 – Perception of hospital management; DOM7 – Working conditions.
10	Evaluate patients' safety culture (PSC) perceptions among health professionals and investigate the association between scores and	Group of 198 health professionals from a philanthropic	SAQ	Six domains with fragility: DOM1 – Teamwork climate; DOM2 – Safety climate; DOM4 – Perception of stress; DOM5 – Perception of unit management; DOM6 – Perception

	sociodemographic and professional variables.	hospital in Minas Gerais.		of hospital management; DOM7 – Working conditions.
11	Assess the PSC of nurses in a teaching hospital and verify differences in culture dimensions across services.	Group of 195 nurses from four services at a teaching hospital in Rio de Janeiro.	HSOPSC	In this study, all dimensions of HSOPSC showed fragility.
12	Evaluate patient safety culture and associated factors in Brazilian hospitals with different management types: federal, state, and private.	Group of 1,576 professionals from three hospitals in RN, with different management types.	HSOPSC	Seven fragile dimensions: DIM4 – Feedback and communication about errors; DIM6 – Staffing; DIM7 – Non-punitive responses to errors; DIM9 – Teamwork across hospital units; DIM10 – Internal transfers and handovers; DIM11 – General safety perceptions; DIM12 – Frequency of reported events.
13	Assess the patient safety situation in a university hospital based on staff perceptions.	Group of 368 professionals from a medium-complexity university hospital in São Paulo.	HSOPSC	All dimensions of HSOPSC showed fragility.
14	Evaluate the perceived patient safety culture in a public teaching hospital based on health professionals' subjective perceptions.	Group of 397 health professionals from a public hospital in Mato Grosso do Sul.	HSOPSC	All dimensions of HSOPSC showed fragility.
15	Analyze the perceived patient safety culture in a Porto Alegre hospital and elements influencing this perception.	Group of 618 health professionals from a hospital in Porto Alegre, RS.	HSOPSC	All dimensions of HSOPSC showed fragility.
16	Assess organizational safety culture among professionals in a teaching hospital.	Group of 645 professionals from a teaching hospital in Paraná.	HSOPSC	All dimensions of HSOPSC showed fragility.
17	Analyze patient safety culture from the perspective of health professionals at the Hospital de Referência do Alto Rio Juruá, in Western Amazon.	Group of 280 health professionals from the Hospital de Referência do Alto Rio Juruá, in Amazonia.	HSOPSC	All dimensions of HSOPSC showed fragility.
18	Evaluate patient safety culture in a university hospital.	Group of 381 staff members from a university hospital in Amazonas.	HSOPSC	All dimensions of HSOPSC showed fragility.
19	Measure patient safety culture from the perspective of a multiprofessional team in a	Group of 86 professionals from a small	SAQ	Six domains with fragility: DOM1 – Teamwork climate; DOM2 – Safety climate; DOM4 – Perception of

	small hospital in northwest RS, Brazil.	hospital in northwest RS.		stress; DOM5 – Perception of unit management; DOM6 – Perception of hospital management; DOM7 – Working conditions.
20	Evaluate safety culture across three public hospitals.	Group of 573 health professionals from three public hospitals in Ceará, Brazil.	SAQ	Six domains with fragility: DOM1 – Teamwork climate; DOM2 –
21	To assess the perception of nursing professionals regarding the safety climate.[129]	Group of 259 nursing professionals from a teaching hospital accredited by ONA and Accreditation Canada, located in the countryside of São Paulo.	SAQ	Six domains with weaknesses: DOM1 – Teamwork climate; DOM2 – Safety climate; DOM4 – Stress recognition; DOM5 – Perceptions of unit management; DOM6 – Perceptions of hospital management; DOM7 – Working conditions.
22	To assess the patient safety climate from the perspective of nursing professionals working in hospitals in the countryside of Rio Grande do Sul.[130]	Group of 637 nursing professionals from hospitals in northwestern Rio Grande do Sul.	SAQ	Four domains with weaknesses: DOM2 – Safety climate; DOM4 – Stress recognition; DOM5 – Perceptions of unit management; DOM6 – Perceptions of hospital management.
23	To assess the patient safety climate from the perspective of healthcare professionals in a medium-sized private hospital in a municipality in Minas Gerais and to verify whether there is a relationship between sociodemographic variables and safety climate scores.[131]	Group of 123 healthcare professionals from a medium-sized private hospital in a municipality in Minas Gerais.	SAQ	Six domains with weaknesses: DOM1 – Teamwork climate; DOM2 – Safety climate; DOM4 – Stress recognition; DOM5 – Perceptions of unit management; DOM6 – Perceptions of hospital management; DOM7 – Working conditions.
24	To verify the association between patient safety climate scores and sociodemographic and professional variables.[132]	Group of 556 professionals from a large, high-complexity public hospital in Triângulo Mineiro, Minas Gerais, Brazil.	SAQ	Six domains with weaknesses: DOM1 – Teamwork climate; DOM2 – Safety climate; DOM4 – Stress recognition; DOM5 – Perceptions of unit management; DOM6 – Perceptions of hospital management; DOM7 – Working conditions.

Legend: ID = Item ID; CS = Safety Culture; HSOPSC = Hospital Survey on Patient Safety Culture; SAQ = Safety Attitude Questionnaire; DOM = Domains 1 to 7; RN = Rio Grande do Norte; DIM = Dimensions 1 to 12; RS = Rio Grande do Sul; SUS = Unified Health System; ONA = National Accreditation Organization; SP = São Paulo.

Chart 4 and Chart 5 summarize the weaknesses found in each instrument. In the HSOPSC, the domains that appeared most in the publications were "Feedback and communication about errors", "Non-punitive responses to errors", "Teamwork between hospital units", "Internal transfers and shift change", "General perceptions

about safety" and "Frequency of reported events". In the SAQ, they were "Safety climate", "Perception of the unit's management" and "Perception of the hospital management".

Chart 4 – Summary of the weaknesses found in the HSOPSC Dimensions

HSOPSC Dimensions (used in 12 studies)	Study IDs with Fragility	n
DIM1 – Teamwork Within Units	1; 2; 6; 8; 11; 13; 14; 15; 16; 17; 18.	11
DIM2 – Supervisor/Manager Expectations and Actions Promoting Safety	1; 2; 6; 8; 11; 13; 14; 15; 16; 17; 18.	11
DIM3 – Organizational Learning	1; 2; 8; 11; 13; 14; 15; 16; 17; 18.	10
DIM4 – Feedback and Communication About Error	1; 2; 6; 8; 11; 12; 13; 14; 15; 16; 17; 18.	12
DIM5 – Communication Openness	1; 2; 6; 8; 11; 13; 14; 15; 16; 17; 18.	11
DIM6 – Staffing	1; 2; 8; 11; 12; 13; 14; 15; 16; 17; 18.	11
DIM7 – Nonpunitive Response to Error	1; 2; 6; 8; 11; 12; 13; 14; 15; 16; 17; 18.	12
DIM8 – Hospital Management Support for Patient Safety	1; 2; 6; 8; 11; 13; 14; 15; 16; 17; 18.	11
DIM9 – Teamwork Across Hospital Units	1; 2; 6; 8; 11; 12; 13; 14; 15; 16; 17; 18.	12
DIM10 – Handoffs and Transitions	1; 2; 6; 8; 11; 12; 13; 14; 15; 16; 17; 18.	12
DIM11 – Overall Perceptions of Safety	1; 2; 6; 8; 11; 12; 13; 14; 15; 16; 17; 18.	12
DIM12 – Frequency of Events Reported	1; 2; 6; 8; 11; 12; 13; 14; 15; 16; 17; 18.	12

Legenda: n = quantidade total de artigos.

Chart 5 – Summary of the weaknesses found in the SAQ Domains

SAQ Domain (used in 14 studies)	Study IDs with Reported Weaknesses	n
DOM1 – Teamwork Climate	1; 3; 9; 10; 19; 20; 21; 23; 24.	9
DOM2 – Safety Climate	1; 3; 4; 5; 9; 10; 19; 20; 21; 22; 23; 24.	12
DOM3 – Job Satisfaction	1; 3.	2
DOM4 – Stress Recognition	1; 3; 7; 9; 10; 19; 20; 21; 22; 23; 24.	11
DOM5 – Perceptions of Unit Management	1; 3; 4; 5; 9; 10; 19; 20; 21; 22; 23; 24.	12
DOM6 – Perceptions of Hospital Management	1; 3; 4; 5; 9; 10; 19; 20; 21; 22; 23; 24.	12
DOM7 – Working Conditions	1; 3; 4; 5; 9; 10; 19; 20; 21; 23; 24.	11

Legenda: SAQ = *Safety Attitude Questionnaire*; DOM = Domínios de 1 a 7; n = Quantidade total de artigos.

Discussion

Patient safety is one of the most urgent challenges in hospitals worldwide. The identification of weaknesses in patient safety culture (PSC) reveals a concerning scenario with potential direct impacts on the quality of care. Despite efforts to improve policies and risk monitoring practices, there are still gaps that directly affect service quality. PSC, which should be a cornerstone in healthcare institutions, still faces barriers that hinder its strengthening.[4]

The results of the reviewed studies show that many institutions struggle with various aspects of PSC. In particular, the assessment tools HSOPSC[6] and

SAQ[10] highlight critical factors such as lack of feedback on errors, punitive responses to failures, difficulties in teamwork across hospital sectors, issues with patient handoffs, lack of awareness regarding safety, absence of a safety climate, lack of unit management engagement, and lack of hospital management perception. These issues make it clear that change must be structural and based on collective learning rather than on the punishment of individuals.

Error communication, for instance, is one of the most problematic and essential aspects for improving services. Many professionals avoid reporting failures due to fear of being held responsible, creating an unsafe environment and hindering the continuous improvement of processes.[11] The lack of structured feedback hinders the dissemination of information about errors, reduces professionals' awareness of risks, and impedes the adoption of corrective practices.[4]

Furthermore, the tendency to punish individual errors instead of treating them as learning opportunities creates a climate of fear. The absence of an open and free communication channel may lead to the repetition of mistakes and the persistence of unsafe practices. To transform this reality, it is essential that hospitals adopt anonymous reporting channels, use dashboards to facilitate the monitoring of adverse events, and promote continuous training to raise awareness among managers and staff regarding the importance of PSC.[4,33,34]

Another crucial point is teamwork among different hospital departments. Fragmented care can result in failures that compromise patient well-being and safety, as it hinders continuity of care and increases the risk of communication errors.[12] The lack of interdepartmental integration tends to obstruct the exchange of essential patient information, impairing care coordination, delaying diagnoses, increasing diagnostic testing costs, and leading to medication errors. Interdisciplinary training, standardization of care protocols, and electronic health record systems are fundamental strategies to enhance team integration.[2,13,35]

Shift changes and patient transfers are critical moments in hospital care. During these phases, disorganization can result in medication errors, failures in clinical monitoring, and delays in care. The adoption of standardized checklists and the use of electronic records have shown good results in minimizing risks. Additionally, training professionals in good communication practices facilitates information sharing.[5,36]

The involvement of hospital management in PSC also deserves attention. When leaders are not engaged in the implementation of effective measures, healthcare professionals tend to follow inconsistent standards, which affects adherence to best practices and increases exposure to care risks. To change this reality, managers must be directly involved in safety programs and foster a work environment that prioritizes quality of care.[2,5]

The safety climate refers to the collective perception of healthcare professionals regarding the priority given to patient safety within the institution. A weak safety climate is associated not only with lower adherence to safe practices but also with a work environment more vulnerable to adverse events. When professionals believe that safety is not valued by the institution, there is a tendency to neglect safety protocols and risk communication. To improve this climate, active management participation is essential. Leaders should promote learning and effective teamwork by offering regular training and encouraging

professional involvement in the development of safety guidelines, as well as maintaining open communication channels for discussing care improvements.[5,37]

Institutions that do not view patient safety as a strategic pillar invest less in training and adverse event monitoring. Consequently, they fail to improve internal processes, making it difficult to perceive enhancements in PSC. To reverse this scenario, senior management must establish safety as an institutional commitment, integrating it into organizational goals and encouraging and recognizing good safety practices in internal management.[4,5]

Despite the challenges, a positive aspect identified in the studies was the professionals' satisfaction with their work environment. Even facing structural difficulties, many remain motivated to work with dedication. However, this satisfaction must be accompanied by better working conditions and training opportunities so that it translates into concrete improvements in patient safety.

It is worth noting that one of the analyzed institutions presented weakness in only one PSC aspect. This result may be related to more efficient management, regular training, and a consolidated learning culture. Hospitals that invest in structured patient safety programs tend to reduce the occurrence of adverse events.[13,38]

International experiences demonstrate that well-planned interventions can make a significant difference. Simulation-based training, detailed analysis of adverse events, and the creation of safety committees are some of the strategies that have proven effective in different countries.[5] The adoption of these practices in Brazilian hospitals may contribute to a safer and more efficient environment.

Given all these findings, it is evident that strengthening PSC requires a collective effort. Healthcare professionals and managers must work together to create an environment that values learning, communication, and continuous improvement. Investing in training, technology, and more participatory management models is not just a necessity, but a commitment to the life and well-being of patients.

It is important to emphasize that this study investigated only national data, reflecting the reality of a single country. However, it has implications for practice by highlighting the need for nationwide improvements.

Final Considerations

This study identified that many institutions show weaknesses in all PSC domains, which increases the risk of adverse events in hospital settings, compromising the quality of care and the health of patients and professionals. This finding is extremely concerning, especially considering that this is not a new topic in the national scenario.

It is concluded that leadership must develop strategies to help teams understand the importance of patient safety, and foster actions that gradually implement safety improvements into the organizational culture and care processes.

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References

1. Kohn L, Corrigan J, Donaldson M. To Err is Human. Washington, D.C.: National Academies Press; 2000.

2. Alves DFB, Lorenzini E, Schmidt CR, Dal Pai S, Cavalheiro KA, Kolankiewicz ACB. Patient Safety Culture from the Perspective of the Multiprofessional Team: An Integrative Review. Rev Pesqui. 2021;13:836-42. doi: 10.9789/2175-5361.rpcfo.v13.9235.

3. Agência Nacional de Vigilância Sanitária. Monitoramento Pós-Mercado: Boletim Informativo. Brasília: Ministério da Saúde; 2014.

4. World Health Organization. Patient Safety [Internet]. Geneva: WHO; 2023 [cited 2025 Mar 3]. Available from: https://www.who.int/news-room/fact-sheets/detail/patient-safety.

5. Finn M, Walsh A, Rafter N, Mellon L, Chong HY, Naji A, et al. Effect of Interventions to Improve Safety Culture on Healthcare Workers in Hospital Settings: A Systematic Review of the International Literature. BMJ Open Qual. 2024;13(2):e002506. doi: 10.1136/bmjoq-2023-002506.

6. Andrade LEL, Melo LOM, Silva IG, Souza RM, Lima ALB, Freitas MR, et al. Adaptação e Validação do Hospital Survey on Patient Safety Culture em Versão Brasileira Eletrônica. Epidemiol Serv Saúde. 2017;26(3):455-68. doi: 10.5123/S1679-49742017000300004.

7. Paula CC, Padoin SMM, Galvão CM. Revisão Integrativa como Ferramenta para Tomada de Decisão na Prática em Saúde. Porto Alegre: Moriá; 2018.

8. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. Syst Rev. 2021;10(1):89. doi: 10.1186/s13643-021-01626-4.

9. Rotta ALO, Souza LP, Carvalho MSGV, Silva AP, Bandeira AG, Urbanetto JS. Analysis of the Convergence of the Safety Attitudes Questionnaire and the Hospital Survey on Patient Safety Culture. Rev Bras Enferm. 2023;76(1):e20210379. doi: 10.1590/0034-7167-2021-0379.

10. Massaroli A, Rodrigues MEC, Kooke K, Pitilin ÉB, Haag FB, Araújo JS, et al. Evaluación de la Cultura de Seguridad del Paciente en un Hospital del Sur de Brasil. Cienc Enferm. 2021;27:1-12. doi: 10.29393/ce27-10acam60010.

11. Baratto MAM, Seidel EJ, Morais BX, Munhoz OL, Silva SC, Zottele C, et al. Cultura de Segurança do Paciente: Perspectiva de Trabalhadores da Saúde e Apoio. Acta Paul Enferm. 2021;34:eAPE001595. doi: 10.37689/acta-ape/2021AO001595.

12. Zanon REB, Dalmolin GL, Magnago TSBS, Andolhe R, Carvalho REFL. Presenteeism and Safety Culture: Evaluation of Health Workers in a Teaching Hospital. Rev Bras Enferm. 2021;74:e20190463. doi: 10.1590/0034-7167-2019-0463.

13. Carvalho PA, Amorim FF, Casulari LA, Gottems LBD. Safety Culture in the Perception of Public-hospital Health Professionals. Rev Saúde Pública. 2021;55:56. doi: 10.11606/s1518-8787.2021055002838.

14. Melo E, Balsanelli AP, Neves VR, Bohomol E. Patient Safety Culture According to Nursing Professionals of an Accredited Hospital. Rev Gaúcha Enferm. 2020;41:e20190288. doi: 10.1590/1983-1447.2020.20190288.

15. Kolankiewicz ACB, Schmidt CR, Carvalho REFL, Spies J, Dal Pai S, Lorenzini E. Cultura de Segurança do Paciente na Perspectiva de Todos os Trabalhadores de um Hospital Geral. Rev Gaúcha Enferm. 2020;41:e20190177. doi: 10.1590/1983-1447.2020.20190177.

16. Sanchis DZ, Haddad MCFL, Girotto E, Silva AMR. Patient Safety Culture: Perception of Nursing Professionals in High Complexity Institutions. Rev Bras Enferm. 2020;73(5):e20190174. doi: 10.1590/0034-7167-2019-0174.

17. Carvalho PA, Laundos CAS, Juliano JVS, Casulari LA, Gottems LBD. Assessment of Safety Culture in a Public Hospital in the Federal District, Brazil. Rev Bras Enferm. 2019;72(Suppl 1):252-8. doi: 10.1590/0034-7167-2017-0716.

18. Magalhães FHL, Pereira ICA, Luiz RB, Barbosa MH, Ferreira MBG. Clima de Segurança do Paciente em um Hospital de Ensino. Rev Gaúcha Enferm. 2019;40:e20180272. doi: 10.1590/1983-1447.2019.20180272.

19. Fassarella CS, Silva LD, Camerini FG, Figueiredo MDCAB. Cultura de Segurança dos Enfermeiros entre os Serviços de um Hospital Universitário. Rev Bras Enferm. 2019;72(3):767-73. doi: 10.1590/0034-7167-2018-0376.

20. Andrade LEL, Lopes JM, Souza Filho MCM, Vieira RF Jr, Farias LPC, Santos CCM, et al. Cultura de Segurança do Paciente em Três Hospitais Brasileiros com Diferentes Tipos de Gestão. Cien Saúde Colet. 2018;23(1):161-72. doi: 10.1590/1413-81232018231.24392015.

21. Mota GCHF. A Percepção de Profissionais de Saúde sobre Cultura de Segurança do Paciente em Hospital Universitário [dissertation]. São Paulo: Universidade de São Paulo; 2018.

22. Del Corona ARP. Avaliação da Cultura de Segurança do Paciente em Hospital Público de Ensino de Mato Grosso do Sul [dissertation]. São Paulo: Universidade de São Paulo; 2018.

23. Prates CG. Cultura de Segurança do Paciente: Elementos que Influenciam a Percepção dos Profissionais de Saúde [dissertation]. Porto Alegre: Universidade Federal do Rio Grande do Sul; 2018.

24. Cruz EDA, Rocha DJM, Mauricio AB, Ulbrich FDS, Batista J, Maziero EC. Cultura de Segurança entre Profissionais de Saúde em Hospital de Ensino. Cogit Enferm. 2018;23(1):1-9. doi: 10.5380/ce.v23i1.50717.

25. Silva GM, Lima MVM, Araripe MC, Vasconcelos SP, Perufo S, Opitz GZ. Avaliação da Cultura de Segurança do Paciente na Amazônia Ocidental. J Hum Growth Dev. 2018;28(3):285-94. doi: 10.7322/jhgd.152192.

26. Galvão TF, Lopes MCC, Oliva CCC, Araújo MEA, Silva MT. Patient Safety Culture in a University Hospital. Rev Lat Am Enfermagem. 2018;26:e3014. doi: 10.1590/1518-8345.2257.3014.

27. Beck MK, Loro MM, Bandeira VAC, Schmidt CR, Dal Pai S, Bandeira LR, et al. Weaknesses in Patient Safety Culture from the Perspective of Workers in a General Hospital. Mundo Saúde. 2018;42(4):1062-81. doi: 10.15343/0104-7809.2018420410621081.

28. Carvalho REFL, Arruda LP, Nascimento NKP, Sampaio RL, Cavalcante MLSN, Costa ACP. Avaliação da Cultura de Segurança em Hospitais Públicos no Brasil. Rev Lat Am Enfermagem. 2017;25:e2849. doi: 10.1590/1518-8345.1600.2849.

29. Tondo JCA, Guirardello EB. Perception of Nursing Professionals on Patient Safety Culture. Rev Bras Enferm. 2017;70(6):1284-90. doi: 10.1590/0034-7167-2016-0010.

30. Toso GL, Golle L, Magnago TSBS, Herr GEG, Loro MM, Aozane F, et al. Cultura de Segurança do Paciente em Instituições Hospitalares na Perspectiva da Enfermagem. Rev Gaúcha Enferm. 2016;37(4):e58662. doi: 10.1590/1983-1447.2016.04.58662.

31. Barbosa MH, Floriano DR, Oliveira KF, Nascimento KG, Ferreira LA. Patient Safety Climate at a Private Hospital. Texto Contexto – Enferm. 2016;25(3):e1460015. doi: 10.1590/0104-07072016001460015.

32. Luiz RB, Simões ALA, Barichello E, Barbosa MH. Fatores Associados ao Clima de Segurança do Paciente em um Hospital de Ensino. Rev Lat Am Enfermagem. 2015;23(5):880-7. doi: 10.1590/0104-1169.0059.2627.

33. Carvalho REFL, Cassiani SHDB. Cross-cultural Adaptation of the Safety Attitudes Questionnaire – Short Form 2006 for Brazil. Rev Lat Am Enfermagem. 2012;20(3):575-82. doi: 10.1590/S0104-11692012000300020.

34. Macedo TR, Rocha PK, Silva MF, Julca CSM, Carneiro ES, Anders JC. Comunicação e Cultura de Segurança na Perspectiva da Equipe de Enfermagem de Emergências Pediátricas. Rev Soc Bras Enferm Ped. 2020;20(2):73-9. doi: 10.31508/1676-3793202000011.

35. Abreu IM, Rocha RC, Avelino FVSD, Guimarães DBO, Nogueira LT, Madeira MZA. Cultura de Segurança do Paciente em Centro Cirúrgico: Visão da Enfermagem. Rev Gaúcha Enferm. 2019;40:e20180198. doi: 10.1590/1983-1447.2019.20180198.

36. Lassoued L, Gharssallah I, Tlili MA, Sahli J, Kouira M, Abid S, et al. Impact of an Educational Intervention on Patient Safety Culture Among Gynecology-

obstetrics' Healthcare Professionals. BMC Health Serv Res. 2024;24(1):704. doi: 10.1186/s12913-024-11152-3.

37. Mistri IU, Badge A, Shahu S. Enhancing Patient Safety Culture in Hospitals. Cureus. 2023;15(12):e51159. doi: 10.7759/cureus.51159.

38. Ginsburg L, Norton PG, Casebeer A, Lewis S. An Educational Intervention to Enhance Nurse Leaders' Perceptions of Patient Safety Culture. Health Serv Res. 2005;40(4):997-1020. doi: 10.1111/j.1475-6773.2005.00401.x.

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