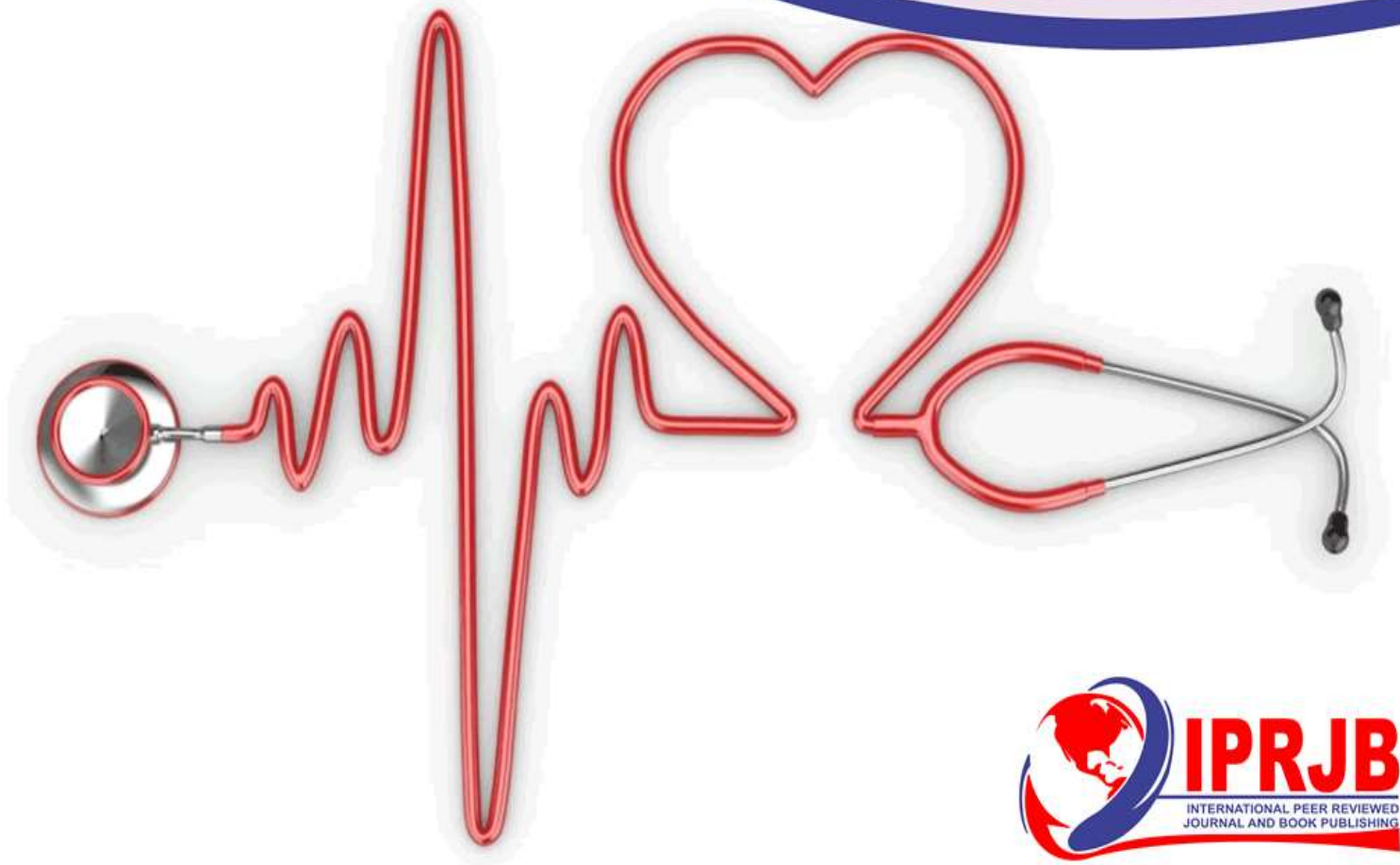


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**Nurses' Perception toward the Relationship between Just Culture and Patient Safety
Activities: A Literature Review**

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Abstract

Purpose: This review aimed to explore “Just Culture”, patient safety, and the relationship between them from nurses’ perceptions working in healthcare settings. Also, to highlight recommendations for nurse managers regarding the explored concepts and provide evidence-based resource guiding future researches and nursing practice.

Methodology: EBSCOhost, PubMed, and Clinical Key for Nursing were the databases selected for this review, accessed directly or through available online libraries.

Findings: A total of 21 studies met the screening criteria and were included. Studies recruited multiple levels of nursing positions, conducted in different countries and healthcare settings. Two themes were developed accordingly: *Nurses’ perceptions toward “Just Culture”* and *Nurses’ perceptions toward patient safety*.

Unique Contribution to Theory, Practice and Policy: The relationship between “Just Culture” and patient safety from nurses’ perceptions is found to be correlated with high or low nursing performance. Healthy work environments that foster “Just Culture” achieve desirable safety outcomes. The major role of organizational and nursing management is creating positive workplace cultures that maintain patient safety. Additionally, it is crucial to establish policies that demonstrate fair responses to incidents, adopt rational investigations based on balanced accountability, and avoid unjustified blame for nurses. “Just Culture” should not be promoted as a blame-free approach but as a balanced accountability. Hence, these managerial endeavors should encourage the voluntary reporting of incidents by nurses for learning and improvement purposes while nurses remain accepting their responsibility at the level they contributed to that incident.

Keywords: *Just Culture, Safety Culture, Patient Safety, Nursing, Perception*

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INTRODUCTION

"Just Culture" and safety culture are two concepts that were originally developed a few decades ago as responses to catastrophic incidents resulted in great mortalities. Although these incidents occurred in non-healthcare environments. Both have become strongly connected to the healthcare industry. This is due to organizational management's common practice of applying automatic blame and sanctions against involved healthcare workers in incidents without proper analysis of the events. Over the years, the huge rates of medical errors in healthcare have required the field to adapt to different practice cultures. This is particularly after the famous 1999 report by the International Medical Organization (IOM), "To Err is Human." The report estimated up to 98,000 yearly mortalities due to medical errors and addressed huge financial losses (Havens & Boroughs 2000). The report also estimated the annual costs of preventable healthcare incidents at millions and highlighted the fact that most of these medical incidents resulted from organizational systemic defects but not individual recklessness (Havens & Boroughs 2000). These numbers caught attention toward "Just Culture" and safety culture and also created the urge for a radical change in healthcare (Barkell & Snyder, 2021). In the nursing profession, particularly, "Just Culture" is a paradigm of workplace justice purposed to build fairness for providers and establish better outcomes for patients (Marx 2019). It is a concept that is intended to maintain patient safety through balanced accountability for errors between organizational management and nurses' behavioral choices. It uses a trusted, rational, and productive root cause analysis of incidents to differentiate defects in organizational systems from nurses' conduct that contributed to incidents. "Just Culture" is a combined comprehension between actions that are blameless and blameworthy (Reason, 2016, as cited in Logroño et al., 2023). It also aims to create healthy working environments for nurses that allow them to mutually trust their organizational management and voluntary report safety incidents for improvement purposes without fearing unjustified negative responses. This literature review aimed to explore "Just Culture", patient safety, and the relationship between them from nurses' perceptions working in healthcare settings. Also, to highlight recommendations for nurse managers regarding the explored concepts. Researchers retrieved the literature to track all reliable, valid, and recently published articles that underwent systematic evaluation to provide evidence-based resources and an appropriate volume of knowledge for nurses to assist in their practice and guide future research.

Statement of the Problem

Nurses often make up the majority of frontline caregivers in many healthcare organizations. Their proximity to patients demands that they always prioritize safety during care delivery. However, this could also make them highly engaged in incidents involving compromised patients' safety, exposing them to various sanctions with few opportunities for a reasonable investigation process. In fact, nurses' inappropriate behavioral choices during patient care delivery, identified as, for example, human error, at-risk behavior, lapse, and lapses, in addition to the negative workplace cultures created by organizational management, could all interfere with maintaining safety, leading to incidents. Regardless of the nurses' actual involvement in these safety incidents, on such occasions, organizational management and decision-makers often perceive nurses as incompetent employees, assigning them full responsibility and subjecting them to punishment. There are multiple studies that have demonstrated a correlation between the organization and management of nurse work environment with an issue of missed nursing care (Witczak et al., 2021). Despite many organizations having policies that advocate for nonpunitive responses to errors, there is still evidence of an ongoing culture of blame,

leading healthcare workers to conceal incidents due to fear of management or legal repercussions (Brborovi et al., 2019). Such barriers generated by workplace cultures are subsequently associated with unsatisfactory safety levels and low nursing performance indicators within the organization. Conversely, in “Just Culture” the focus shifts from errors to system design, which leads to better patient safety outcomes and supports good behavioral choices, which helps create a culture of open reporting (Marx, 2019). The term “Just Safety Culture” was once suggested to explain the inseparable relationship between “Just Culture” and patient safety. “Just Culture” is considered essential for learning from errors and promoting patient safety (van Baarle et al., 2022). This highlights patient safety as the most significant goal intended to be achieved through “Just Culture”. The appropriate application of “Just Culture” also values nurses as individuals, allowing them to take responsibility for their decisions. In fact, ensuring patient safety in health care is essential to enhancing the quality of health services and lessening the frequency of adverse events (Witczak et al., 2021). This is particularly significant for nursing because it attempts to meet the growing demand for improved quality and safe care delivery recommended by many remarkable nursing organizations and programs. This includes, for example, the Magnet Recognition Program by the American Nurses Credentialing Centre (ANCC) and the position statement established by the American Nurses Association (ANA) that described the concept of “Just Culture” as “*an alternative to a punitive system that seeks to create an environment that encourages individuals to report mistakes so that the precursors to errors can be better understood in order to fix the system issues. It also recognizes that many individual or “active” errors represent predictable interactions between human operators and the systems in which they work*”. A strong and successful “Just Culture” is the keystone of any organization, specifically when it comes to establishing safety (Logroño et al., 2023).

Theory Review

The original evolution of “Just Culture” was linked to safety culture. This was also recently restated in an integrative review of healthcare literature published in 2020 by Barkel and Snyder, who described the concept of “Just Culture” as an emerging subculture of Patient Safety Culture (PSC). However, “Just Culture” was first introduced in the 1980s in the aviation industry (Reason 2016, as cited in Logrono et al., 2023), when errors related to safety could have led to tragic results (Allyn, 2019). It is believed that James Reason originally defined the concept (Petschonek et al., 2014), while David Marx further developed and incorporated it into the healthcare sector (Marx, 2001). On the other hand, the safety culture has evolved in nuclear-energy workplaces (Stemn et al., 2019) and in other industries that struggled to maintain appropriate safety levels. James Reason and David Marx were among the pioneers who developed the theory of “Just Culture” in association with safety. Their theories focused on supporting frontline workers by building healthy environments that enable them to successfully execute their tasks according to their experience and training levels, while at the same time applying corrective measures to willful safety violations that may include sanctions. The organizations are responsible for their designed systems and incident analysis (Paradiso & Sweeny, 2019), while the nurses remain responsible for their inappropriate behavioral choices that contributed to incidents. This clear and productive approach of “Just Culture” provides an evidence-based source supporting the decision-making of organizations and nursing management teams, leading to the development of healthy environments that facilitate nurses’ adherence to the standard of care. “Just Culture” concentrates on learning, openness, and recovering harm (van Baarle et al., 2022) while positive perceptions of nurses toward patient

safety are found to be related to *reliability, assurance, responsiveness, and empathy* (Nakano et al., 2021).

METHODOLOGY

In order to capture all relevant indexed studies, the searching process for this review was conducted using direct access to the database website or via online libraries and search engines. Also, the searches conducted were unlimited in a specific country or geographical region. In evidence, flow diagrams allow the reader to quickly comprehend the basic procedures utilized in the review as well as assess the attrition of unimportant records all through the reviewing process (Haddawi et al., 2022). Therefore, PRISMA flow diagram was used in this review to provide a detailed visual description of all the searching stages of this review. **Figure 1.**

Search Strategy

Three popular databases were included: *EBSCOhost, PubMed, and ClinicalKey for Nursing*. The search terms were constructed using the Boolean operator (**AND**) such as: “***Just Culture and patient safety***”, “***Just Culture and nursing***” and “***Just Culture and patient safety and nursing***”. Due to the paucity of nursing literature regarding the association between these concepts, searching terms aimed to isolate other professions as much as possible. Also, the researchers developed the inclusion and exclusion criteria primarily to gather recent articles from the nursing evidence. However, the preliminary results came with a great number of irrelevant studies that required multiple manual filtrations.

Inclusion Criteria

1. Published in English between 2019 and January 2024.
2. Differentiate nurses' selection and response as an independent group throughout the study.
3. Independently assessed the concepts of “Just Culture”, patient safety, patient safety culture and the association between concepts from the perspectives of licensed nurses in healthcare facilities.
4. Studies should be accessible online (free, open), including abstracts and manuscripts.

Exclusion Criteria

1. Studies that assessed nurses with other healthcare professions.
2. Published in other languages.
3. Assessed “Just Culture” and/or patient safety aspects in association with other nonrelated concepts or external factors.
4. Pre-appraised content (meta-analysis, reviews, etc.)
5. Studies with limited access (paid or titles only)
6. Nonrecent articles, published before 2019.

RESULTS

After eliminating 1608 duplicates and out-of-scope articles, the researchers screened the remaining 671 articles by their titles and abstracts before moving on to their manuscripts or full texts. The screening of titles and abstracts led to the exclusion of 482 articles. Of the remaining 189 articles, 151 articles were removed due to their narrative content. A total of 16 were excluded from the remaining 38 due to their inadequate/poor quality of details or undifferentiating nursing group throughout the study, leaving a total of 22 articles eligible for this review.

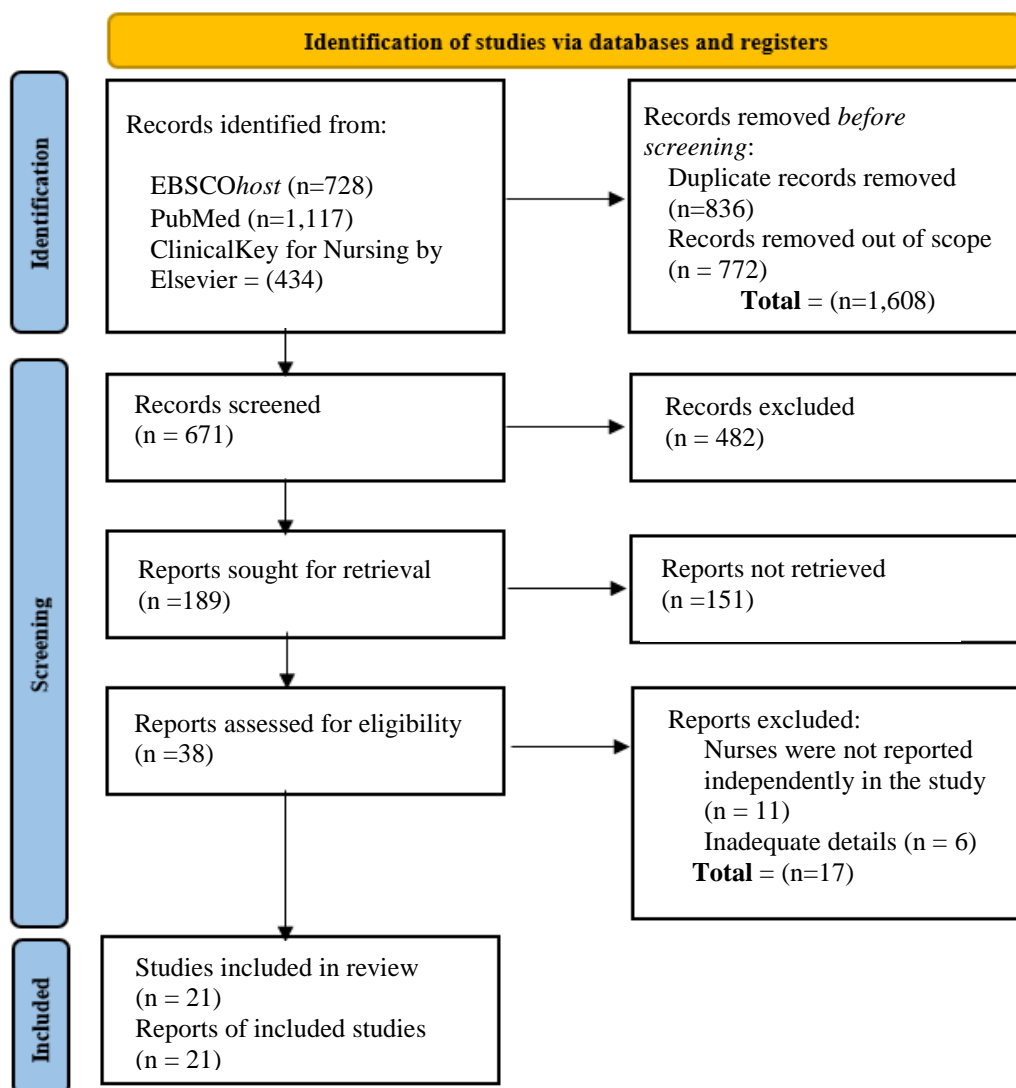


Figure 1: PRISMA 2020 Flow Diagram Adopted from (Page et al., 2021) was Used for the Reviewing Process.

Data Extraction

The eligible articles were reviewed and categorized into two major themes based on their content. After reading, notes and recommendations were then recorded for further discussion. The fact that the extracted studies took place in different countries was a positive outcome. This opened a large window to comprehend various perceptions of nurses working worldwide. This advantage should be utilized in future studies and in developing international standard guidelines for “Just Culture” that are applicable in any nursing environment.

FINDINGS

Assessment of "Just culture" among nurses is one of the least examined concepts in nursing, particularly in relation to patient safety and cultures of safety. Most retrieved articles found narrative, where the content targets any profession or is out of healthcare scope. However, the screening process spotted three studies that examined the dimensions of the Just Culture Assessment Tool from the perspective of nurses, while one assessed the concept's correlation

with empowerment and patient safety. Conversely, nurses' perceptions toward patient safety culture and aspects of patient safety were extensively assessed around the world using different methods, designs, and associations.

Themes

Despite not restricting the search strategy to a specific nursing position, the majority of the researchers employed clinical staff nurses who work in inpatient units, critical care units, and ambulatory services. However, the articles were categorized into two major themes and subthemes to enhance readability of findings.

Nurses' Perceptions toward "Just Culture"

According to this review, there is no constant definition for "Just Culture" in nursing. However, nursing researchers have contributed numerous definitions. For example, in 2013, Petschonek et al., the developers of Just Culture Assessment Tool (JCAT), the most common tool used to assess the concept, proffered the following definition: "*Just Culture for safety describes an environment where professionals believe they will receive fair treatment if they are involved in an adverse event and trust the organization to treat each event as an opportunity for improving safety.*" This theme has only three articles that utilized JCAT to assess "Just Culture" from the perspective of nurses. Therefore, thorough discussions were preferred for a better presentation of the retrieved evidence. In 2023, Logroño et al. assessed the perception of 212 staff nurses toward the six dimensions of JCAT in a cross-sectional study design conducted in Qatar. The study provided various definitions for "Just Culture" that are consistent with the literature. The study underscored the significance of managerial support in fostering a non-punitive work environment for clinical nurses, given the diverse practice challenges they encounter. The study also viewed balanced accountability for mistakes as essential for voluntary reporting and maintaining safety. It also reinforced the fact that "Just Culture", safety, and quality are integrated concepts in the nursing profession. The strongest JCAT dimensions reported by nurses were "continuous improvement" and "quality of event reporting process," while scores of "trust" and "balance" were the lowest.

However, the overall findings revealed a positive perception score of "Just Culture" among nurses, as they are satisfied with current practice and feel safe reporting events without the "fear" of consequences. Also, the authors reported a higher "Just Culture" score compared with a similar study in Qatar conducted in 2009 that reported a low positive perception score toward a non-punitive approach to errors among nurses. The major identified disadvantage of this study is that although "Just Culture" and patient safety are correlated, there is uncertainty about assessing nurses' perceptions toward PSC using JCAT. The fact that the study did not utilize any of the available validated tools intended to assess PSC as an independent concept could make the findings less reliable.

Moreover, in 2019, Paradiso and Sweeney conducted a quantitative, correlational, cross-sectional study in a large, urban independent teaching hospital in the United States to assess the perceptions of 1500 clinical nurses and 80 nurse leaders toward "trust", "Just Culture", and "error reporting" aiming to examine the relationship between these three variables. The study identified non-blaming incident investigations and understanding of personal behavioral choices as two cornerstones of "Just Culture". It also highlighted that the severity of adverse events and outcomes is insignificant in "Just Culture" as it aims for learning and improvement. Indeed, this is a critical point that should be carefully addressed when arguing for "Just Culture". The concept is not meant to underestimate errors but to apply sanctions if necessary,

according to unbiased human factor analysis for nurses' choices. Although this was confirmed later in the study by describing "Just Culture" as not blame-free, such statements should be completely written in the same section to avoid misinterpretation of information. However, findings revealed a significant difference between the perceptions of leaders and clinicals towards trust and "Just Culture" within the organization. However, it was commendable that the authors distinguished between staff nurses and nursing leaders, a step that enhanced the application of the concept. Incorporating "Just Culture" in hospital policies, fair approaches, and open communication were identified as the foundation for establishing a culture of learning from errors, while leaders' efforts remain required to apply visible improvements toward the concept. Finally, in October 2021, Kim et al. conducted a study across four hospitals in South Korea and the metropolitan area to examine nurses' perceptions of "Just Culture", empowerment, and patient safety activities, the correlations among the three variables, as well as the factors affecting the patient safety activities of nurses. Petschonek developed an older version of JCAT in 2011, which was employed in this cross-sectional study. The tool was then translated into Korean, and it has 24 items, which is three fewer than the latest 2013 version.

Moreover, Kim et al. reported that the mean score of 189 nurses' perceptions of "Just Culture" was 2.95 out of 5. The authors also found their score was lower compared to a previously conducted Korean study (3.5) in March 2021 using the older JCAT. Kim et al. justified their low score due to differences in the two studied settings. It was a recognizable effort by this study to measure patient safety through different aspects of nurses' conduct, such as falls, infections, pressure ulcers, and medical or surgical interventions, which added to the body of actual application of "Just Culture." The paucity of experimental literature in the healthcare domain highlights the necessity of exploring and operationalizing this concept (Barkell & Snyder, 2020).

However, there were two concerns identified. First, despite the fact that the new version of JCAT was available at the time of the study, the authors used the older version. This may have been necessary to achieve comparison results, but it hampered the tracking of study findings in subsequent research. Second, linguistic errors in translation are common and may leave the reader with questions about content accuracy. Particularly that the study was published in English and conducted among what was considered an educated group of nurses. However, the study revealed that management plays a critical role in formulating diverse intervention programs and policies that should enhance safety. And a workplace environment that adopts a "Just culture" empowers nurses to speak up.

Nurses' Perceptions toward Patient Safety Culture

Patient Safety Culture is a complete notion that involves nurses' interactions with leaders of the healthcare organization (Abdelaliem & Alsenany, 2022), "beginning with hospital managers/administrators, directors of nursing services, or all management roles, peers, professional colleagues, and patients" (Berman et al., 2018 as cited in Abdelaliem & Alsenany, 2022). Many definitions of Patient Safety Culture were spotted in the evidence; however, one of the most comprehensive statements is by the Agency for Healthcare Research and Quality's (AHRQ). "PSC is *an aspect of an organization's culture that supports and promotes patient safety. Patient safety culture refers to the beliefs, values, and norms that are shared by healthcare practitioners and other staff throughout the organization that influence their actions and behaviors. We can measure patient safety culture by identifying what the organization rewards, supports, expects, and accepts in relation to patient safety. Culture*

exists at multiple levels in organizations, including the unit, department, organization, and system levels.” (AHRQ, 2022). The remaining articles retrieved for this review fall under this theme. Despite use of various safety culture surveys, the most common survey used by the included studies is the Hospital Survey of Patient Safety Culture (HSPSC), developed by the Agency for Healthcare Research and Quality (AHRQ). In some studies, the HSPSC was referred to as the HSOPSC and the term patient safety climate used interchangeable to address patient safety culture. However, unless modified or stated by the authors, these should not reflect any core changes to the concept of patient safety. **Figure 2.**



Topics Covered by the SOPS Hospital Survey 2.0	
Composite Measures: A composite measure is a grouping of two or more survey items that assess the same area of culture. The 10 composite measures and 32 survey items assessed in the SOPS Hospital Survey 2.0 are:	
	<ul style="list-style-type: none"> • Teamwork (3 items) • Staffing and Work Pace (4 items) • Organizational Learning – Continuous Improvement (3 items) • Response to Error (4 items) • Supervisor, Manager, or Clinical Leader Support for Patient Safety (3 items) • Communication About Error (3 items) • Communication Openness (4 items) • Reporting Patient Safety Events (2 items) • Hospital Management Support for Patient Safety (3 items) • Handoffs and Information Exchange (3 items)
Additional Measures: In addition to the composite measures, single item measures included assess:	
	<ul style="list-style-type: none"> • Number of events reported (1 item) • Patient safety rating (1 item) • Background questions (4 items)

Figure 2: Composite Measures of Hospital Survey on Patient Safety Culture Developed by AHRQ

Studies Conducted in the Middle East

In Tunisia, Tlili et al. (2021) performed a study of 249 nurses working in Intensive Care Units across 17 healthcare institutions. The reported findings revealed a low "nonpunitive response to error" and urged a prompt managerial response to establish cultures for reporting adverse events. Also, in 2022, Zabin et al. recruited 107 nurses working at a university hospital in Palestine to perform a comprehensive assessment of nurses' perceptions of Patient Safety Culture. The findings showed that "organizational learning and continuous improvement" and "teamwork within units" are the composite measures with the highest positive responses. Age was also found to be a predictor of Patient Safety Culture. However, nurses reported a negative perception toward composites of "nonpunitive response to error", which prompted the study to recommend robust efforts by hospital management to improve the reporting culture. Furthermore, the study of Kakemam et al. in 2022 employed a total of 2295 clinical staff nurses in 32 teaching hospitals across five Iranian provinces, making it one of the largest studies assessed Patient Safety Culture in this review. The study's goal was to compare the findings with those of other teaching hospitals in the region and around the world (benchmarking).

Findings revealed that overall, Iranian hospitals have equal or better results in Patient Safety Culture compared to Jordan, the Philippines, Turkey, and the Kingdom of Saudi Arabia. The

study also identified all twelve composite measures of HSPSC as areas for improvement among the studied hospitals. However, a drawback was identified. One study from each country served as the benchmarking limit. Despite the authors' justification that their selected articles should reflect national results, the fact that some of them only conducted in a single city within a country made them less effective in serving the benchmarking objective. Also, in Jordan, a total of 424 emergency nurses participated in the study of Malak et al. (2022). The reported findings identified "teamwork within units" as the strongest area in patient safety culture, in addition to "feedback and communication" and "organizational learning-continuous improvement." However, other factors, including educational level, were found to be associated with nurses perceived level of patient safety culture.

In conclusion, two studies took place in Saudi Arabia. First, in 2022, Alrasheadi et al. used a cross-sectional design in four hospitals in the city of Qassim in the northern region to assess the current patient safety culture and its perception by 218 medical-surgical registered staff nurses. Findings showed that error reporting is associated with a sense of blame. Despite 69% rating their units as having an excellent safety culture, hospital management should develop productive strategies to enhance safety, such as strengthening weak areas and learning from errors. Likewise, in 2023, Rawas and Abou Hashish employed 184 inpatient nurses to assess their perceptions toward patient safety culture and toward the concepts' predictors and outcomes, considering nurses' characteristics in a hospital located in Jeddah city, which is in the western region.

The major identified drawback is providing an invalid name for the studied hospital. In fact, the study used King Khalid Hospital, which is an outdated name that was replaced many years ago with the National Guard Hospital. This was highlighted because the old name is associated with hospitals located in other Saudi cities, which can easily lead to confusion and misleading information. Another drawback is that the study recommends a blame-free culture, which was discussed in this review as an incorrect term to describe "Just Culture". However, "teamwork within units," followed by "organizational learning," and "feedback and communication about errors." were the most positively perceived composites. Regardless of these reported scores, the study concluded that all should be considered high priorities for continuous improvement. Management's recommendations included developing organized patient safety training programs where nurses can contribute and feel involved, building a supportive environment, and reinforcing effective internal communication between workers.

Studies Conducted in the United States and South America

In 2020, Wagner et al. conducted their study in five states across the United States of America to compare the perceptions of two groups of 1133 registered nurses toward Patient Safety Culture. The perceptions of foreign born and trained nurses were compared to those of domestic-born and trained nurses. The study found that foreign-born and trained nurses had higher perceptions of patient safety culture than domestic nurses. However, the study recommended future investigations to understand the reasons behind these differences. Additionally, Cook used pre-collected 126,390 nursing responses to HSOPSC survey in the United States from 2015–2017 that were provided by AHRQ to assess patient safety culture in association with the background characteristics of nurses in the hospital. The study reported differences in nurses' perceptions of patient safety culture according to their background characteristics related to their work, such as type of unit, work tenure, and work hours. It also revealed that the relationship between nurses' perceptions of leadership actions and support is

positively associated with their perception of patient safety. Furthermore, in Brazil, Sanchis et al. (2020) analyzed the perceptions of 467 nurses toward patient safety culture in three highly complex hospitals. The study found that nurses in the three hospitals had a low positive response score for patient safety culture, which was consistent with many previous studies in the country. Many composite measures of patient safety were classified as weak, while “non-punitive response to error” was the weakest and classified as “fragile.” Although the study recommends improved managerial practices and communication processes with nurses, the constant reporting of low safety scores in the country is a critical finding that requires immediate changes in work policies to avoid tragic safety incidents and limit the spread of unsafe practice cultures in the healthcare environment.

Studies Conducted in Europe

Moreover, a mixed-methods study was published in 2020 by Granel et al. to explore Patient Safety Culture as perceived by 109 staff nurses in two public hospitals from diverse regions of Catalonia, Spain. The study findings reported that “teamwork” seems to be valuable across units. While more improvements are required for patient safety, particularly in areas such as “error reporting” and “fear of punishment”. In 2020, Gurková et al. conducted another large cross-sectional study in four European countries. The study assessed 1353 nurses working in acute care units' perceptions of the safety climate, with the exception of managerial positions and home health care. Findings revealed significant differences in reported safety climate scores between countries. However, “teamwork within units” was reported with a high score while the composite measures of “staffing,” “non-punitive response to error,” and “teamwork across hospital units” require improvement. Lack of “Just Culture” was identified as associated with negative nurses' perceptions of the safety climate in the organization. The recommendations for nursing managers were to foster a culture of effective reporting. In the study of Sharp et al. (2019), a total of 393 nurses working in cancer care across four European countries (Estonia, Germany, the Netherlands, and the United Kingdom). The study reported varied scores of Patient Safety Culture due to factors related to the studied hospitals, which reinforces the theory mentioned by Kim et al. (2021), which identified contexts as influential factors. “Teamwork within unit” remains among the highest perceived composite measures, while “nonpunitive response” is the lowest. Furthermore, in 2022, the study of Glarcher et al. in Austria utilized the Safety Climate Survey (SCS) consists of 19 items to assess patient safety.

As stated by the authors, their study, in addition to others mentioned, struggled with high numbers of missing or biased responses. Such challenges could be related to a significant lack of “Just Culture” where nurses lose their mutual trust with the organizational management and fear participation or expressing their honest thoughts. As a result, the study recommended improving interaction with leadership, developing better approaches to dealing with safety concerns, and implementing tangible patient safety strategies. One distinguished study is in Finland by Kuosmanen et al. (2021). This qualitative study used a web-based questionnaire to explore the opinions of nurses' regarding patient safety culture at forensic hospitals. Although qualitative study methods could provide deeper thoughts from frontline nurses, they may be challenging, particularly when used to assess management-related concepts such as “Just Culture” and patient safety. Out of the 238 distributed, only 72 nurses responded. However, nurses feel tentative about reporting errors due to fear of punitive responses. Nurses also expressed their desire for more interaction with managers and staff, where they can discuss their concerns in an open communication culture.

Studies Conducted in Far East

In 2020, Nurumal et al. conducted a cross-sectional study to assess the perceptions of 194 clinical nurses working at a teaching hospital in Malaysia. The study reported a significant difference in nurses' awareness of patient safety culture in relation to their background and sociodemographic characteristics. Although findings revealed that most of the nurses reported a positive perception of Patient Safety Culture, the authors identified that the studied setting is newly established. Future researchers should evaluate the new establishment of a healthcare setting as an influential factor in achieving desirable results. Moreover, Han et al. (2020) conducted a cross-sectional study at two university hospitals in South Korea. The study examined the associations between 212 nurses' perceptions toward Patient Safety Culture, patient safety competency, and adverse events. The study reported numerous findings; however, to ensure patient safety, management needs to enhance their response strategies to incidents and foster ongoing communication and engagement with clinical nurses to address their concerns. This is because in Patient Safety Culture, the composite measure of "nonpunitive response to error" has the lowest score, i.e., nurses feel threatened regarding reporting errors, which is consistent with many previous findings in the countries of far east, such as Ha et al. (2023) in Vietnam. Moreover, this study assessed the perceptions of 705 nurses toward Patient Safety Culture working in four public general hospitals.

The study recommended that nurse managers should implement interventions and programs to improve patient safety, including safety education, and support error reporting. In South Korea, the study of Jang et al. (2021) focused on assessing patient safety culture in relation to background experience, age, and reporting of medication errors. To achieve comparative purposes, this cross-sectional study used a secondary analysis of available data and classified 313 hospital nurses into two groups: early-career nurses and middle-career nurses, according to their age. Nurses reported significantly different patient perceptions of patient safety culture and medication error. The reporting of errors was more than twice as high among early-career nurses with a high perceived patient safety culture as compared to the reporting of errors among nurses with a low patient safety culture in the same group. By the same token, reporting errors had no correlation among mid-career nurses. However, further results reported lower levels of patient safety perception among early-career nurses compared to mid-career nurses. In fact, more than 80% of the sample size (260) was an early career group, which could identify a bias affecting the generalizability of findings.

Discussion

Gaps in the Literature

Based on this review, evidence shows that "Just Culture" and patient safety have a long tradition of being interrelated with high- or low-quality outcomes. However, only a small body of nursing literature has explored the concept of "Just Culture" or in association with patient safety cultures and safety aspects. The fact that the majority of "Just Culture" articles were theoretical in nature keeps the ambiguity toward practical assessment of the concept in real nursing environments. Although a single study shed light on this ambiguity, more searches are recommended to operationalize the concept across diverse nursing contexts. Also, an essential step towards raising the level of understanding and promoting the application of "Just Culture" is to conduct comparative studies that assess "Just Culture" among different levels of nursing positions. The concept needs more examination to determine whether a difference exists between the perceptions of nurse leaders and clinical nurses (Paradiso & Sweeney, 2019). In

addition to that, the fact that “Just Culture” is still not yet identified in nursing as a fully established concept requires further studies that focus on nursing managerial roles to identify the most effective methods for application developed based on nurses’ demand. On the other hand, patient safety, as perceived by nurses, demonstrated an adequate number of studies, but recommendations remain for further meticulous methodologies. For example, Waterson et al. (2019) conducted a systematic review and revealed that the use of the HSPSC tool is a worldwide trend and emphasized the necessity to use the instrument with caution in the future and that it be sensitive to care setting demands, the target population, as well as other elements of the local and national contexts of healthcare (Waterson et al., 2019). In fact, fulfilling such gaps in “Just Culture” and patient safety is believed to add significant value to completing the picture of the association between the concepts in the nursing profession and supporting evidence practice.

Conclusion

Research on patient safety has reached saturation, while “Just Culture” is still in its infancy. This literature review discussed available evidence from different angles, using various methods such as comparisons, critiques, and reinforcement. The explored key factors found in direct association with positive nurses’ perceptions toward “Just Culture” and patient safety in the workplace were similar, and they included fairness, shared responsibility, encouragement of voluntary error reporting, reasonable investigation processes, fair responses by management, teamwork, continuous learning, transparent managerial approaches, and effective communication. Others are related to nurses’ backgrounds and characteristics, such as gender, years of experience, and age, which are believed to vary significantly among nurses working in different countries and contexts. However, as far as we knew in this review, a small number of studies were conducted on nurses and fully assessed the “Just Culture”. Publications appear insufficient to generalize findings in different types of nursing environments. Therefore, further exploration of the concept among nurses is recommended. Moreover, it is significant to extinguish the term "blame-free" culture from "Just culture." Although nursing literature has utilized the two terms interchangeably to address the same meaning, it is mandatory to restrict this regular use in future studies and alternately focus on terms of balanced responsibility to avoid inappropriate reflections of "just culture." On the other hand, the included studies of patient safety reported versatile findings among different groups of nursing participants. Many studies have provided national and international comparisons of findings, which should establish an acceptable level of comfort to generalize related findings and utilize available knowledge in different nursing environments.

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