A Literature Review of Human Resource Management in Improving Performance in Health Services

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Abstract

Patient safety is a critical concern in healthcare, and the development and maintenance of patient safety culture are influenced by various human resource factors. This literature review aims to investigate the relationship between human resource management factors and safety culture in hospital settings. The study uses a comprehensive literature search using PubMed and Science Direct, focusing on studies conducted from 2020 to 2024 with inclusion criteria based on national journals with an appropriate research scope. The review synthesizes existing research to provide valuable insights into the relationship between human resource factors and patient safety culture within the healthcare environment. The preliminary conceptual framework integrates four main factors: communication, leadership, work procedures, and human factors, providing a comprehensive guide to understanding and improving patient safety culture within the healthcare environment. The review concludes that effective communication, strong and committed leadership, clear work procedures, and the crucial role of human factors are key elements in shaping patient safety culture within the healthcare environment. The findings highlight the interconnectedness of these factors and their collective influence on the safety climate within healthcare organizations. This study contributes to the understanding of how human resource management practices can be utilized to enhance patient safety culture and patient outcomes in hospital environments.

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INTRODUCTION

Patient safety is a global concern to ensure the provision of high-quality healthcare and prevent harm to patients that can be avoided during healthcare services and to reduce the risk of unnecessary harm to an acceptable level. This acceptable minimum level of harm considers factors such as current knowledge, available resources, and the specific context in which care was delivered, and is weighed against the risks of non-treatment or alternative treatments (Demisse et al., 2018; Listiowati et al., 2023). Given the increasing importance of patient engagement (PE), World Health Organization (WHO) has prioritized the "patient for patient safety program" as a central component of its latest strategies to improve patient safety and enhance the quality of healthcare services (World Health Organization, 2013). The field of human resource management (HRM) plays a pivotal role in enhancing performance in healthcare settings (Hampel & Hajduova,

2023). This is achieved by focusing on a number of key factors, including communication, leadership, working procedures, and human factors. These factors are employed to enhance patient safety culture and overall quality of care. Research has demonstrated that HRM practices directly influence safety climate perceptions, which can impact organizational performance in healthcare settings. Strategic HRM is of paramount importance for acquiring, developing, and rewarding human capital. This is done in order to ensure that employees possess the requisite knowledge and skills to achieve the mission and vision of the organization (Huang et al., 2024; Mansour et al., 2022; Palmieri et al., 2010; Tenza et al., 2022).

Established theoretical foundations in healthcare management, organizational behavior, and patient safety research form the basis of this framework. It integrates concepts from various theoretical perspectives to comprehensively address the multifaceted nature of patient safety culture. The conceptual framework places emphasis on the ultimate objectives of enhancing quality and patient safety, with a view to leveraging patient and family engagement, as well as external, organizational, and individual factors that are likely to impact these outcomes. The conceptual framework elucidates the manner in which hospital interventions and supplementary resources and materials can prompt patients, families, healthcare professionals, and organizations to adopt specific behaviors that facilitate and reinforce patient and family engagement in safety and quality initiatives. The framework also emphasizes the individual, organizational, and environmental context for implementing a guide to support patient engagement (AHRQ, 2018).
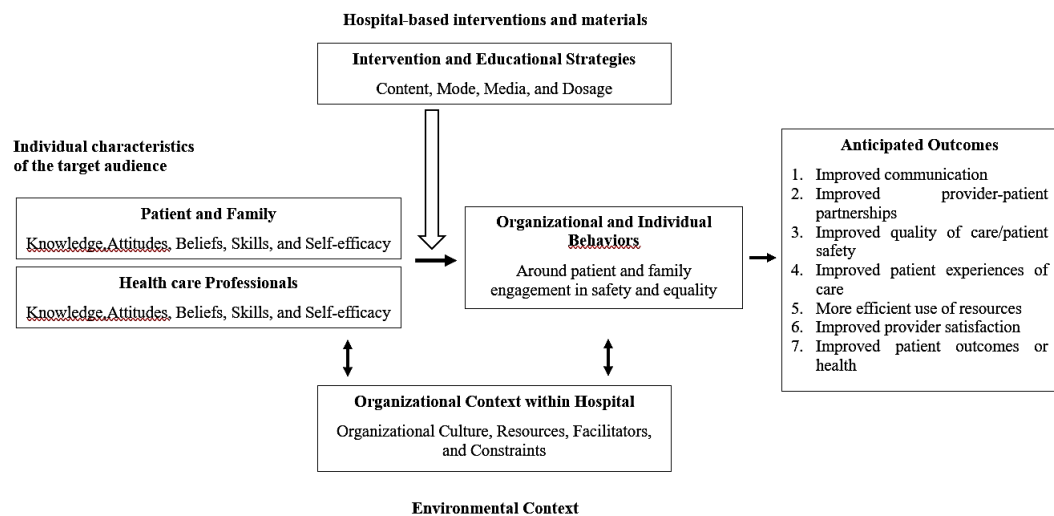
Figure 1. Preliminary Conceptual Framework Guide to Patient and Family Engagement (Source: Agency for Healthcare Research and Quality, Rockville, MD. 2018)

The Preliminary Conceptual Framework Guide to Patient and Family Engagement provides a comprehensive guide to understanding the study investigated the factors that contribute to the development and maintenance of patient safety culture. This conceptual framework includes four main factors: communication, leadership, work procedures, human factors, patient and family engagement.

This conceptual framework encompasses four primary factors: communication, leadership, work procedures, and human factors. Effective communication between patients, families, and healthcare teams is a crucial element in patient safety culture. The utilization of readily comprehensible language, appropriate information technology, and communication training for healthcare professionals are pivotal elements related to optimal communication in the context of patient safety culture. Strong and committed leadership towards patient safety can foster a work environment that endorses safe practices. Management support, active participation of healthcare professionals, and leadership training programs are key factors related to leadership that impact patient safety culture. Clear, standardized, and easily understandable work procedures are the foundation of patient safety culture. The use of appropriate information technology, safe equipment, and the development of audit and feedback programs are important factors related to work procedures in the context of patient safety culture.

Human factors, including the knowledge, attitudes, and behaviors of healthcare professionals, play a crucial role in patient safety culture. Training of healthcare professionals, feedback programs, and the participation of patients and families in the development of training programs are key factors related to human factors in the context of patient safety culture. The involvement of patients and their families in care processes and decision-making is increasingly recognized as a critical aspect of safety culture. This component examines the impact of patient engagement, shared decision-making, and patient advocacy on safety. By delineating these key components, the preliminary theoretical framework seeks to inform future research and practical initiatives aimed at enhancing patient safety culture. It underscores the interconnectedness of these factors and their collective influence on the safety climate within healthcare organizations.

Multiple studies have demonstrated that the use of patient and family involvement initiatives results in a decrease in hospital-acquired infections, medical mistakes, significant safety incidents, and an increase in patient satisfaction (A Report of the NCIOM Task Force on Patient and Family Engagement, 2015; J. M. Kim et al., 2018). Previous research has demonstrated the pivotal role of a culture of patient safety in a healthcare environment in ensuring the quality of healthcare and preventing unnecessary damage to patients. Various human resource factors, including communication, leadership, working procedures, and human factors, have been identified as influencing a culture of patient safety. For instance, research conducted by (S. H. Kim & Moon, 2023) demonstrated that a higher level of patient safety culture was associated with a lower likelihood of workplace violence and a lower employee burnout rate. Additionally, (Sun et al., 2021) found that a culture of patient safety affects the pain and intention to resign among Chinese nurses involved in unwanted medical events.

Nevertheless, there are still some limitations in previous studies. For instance, such studies typically focus on a single aspect, such as a patient security culture or violence at work, or involve respondents from a single country. Previous studies have also demonstrated that a patient security culture is influenced by a multitude of factors, including communication, leadership, working procedures, and human

factors. However, there are still a few limitations within previous studies, such as limitations on the scope of research and limitations in research methods.

This study differs from previous studies in that it will integrate various human resource factors and involve respondents from different countries. Moreover, it will employ a more diverse array of methods, including surveys, literature analysis, and interviews, to provide a more comprehensive picture of a patient safety culture in a healthcare environment. Consequently, the study will endeavor to integrate a multitude of human resources factors and include respondents from disparate countries, thereby endeavoring to provide a more comprehensive account of the patient security culture in healthcare environments. To this end, the study will employ a variety of methodologies and involve respondents from a range of countries, thereby addressing some of the aforementioned gaps. The multifaceted nature of patient safety culture necessitates a comprehensive understanding of the human resource factors that contribute to its development and maintenance. Effective communication, strong and committed leadership, clear work procedures, and the crucial role of human factors, including the knowledge, attitudes, and behaviors of healthcare professionals, are key elements in shaping patient safety culture within the healthcare environment (AHRQ, 2018). These studies have investigated the impact of patient safety culture on various outcomes, such as workplace violence, health worker burnout, adverse events, turnover intention, and patient safety perception, providing valuable insights into the relationship between patient safety culture and different aspects of healthcare delivery.

The methodology employed in this study is a literature review. This involves a comprehensive analysis of existing research on the relationship between human resource factors and safety culture in hospital settings. The review's objective is to identify the factors that influence the development of a safety culture in hospitals. It also aims to determine how human resource management practices can be utilized to enhance patient safety. Furthermore, the review explores the impact of organizational culture on staff well-being and its implications for patient safety. By examining these factors, the review contributes to a better understanding of how human resource management can be leveraged to improve safety culture and patient outcomes in hospital environments.

METHODS

A literature review method was employed to identify and analyze pertinent articles from the PubMed and Science Direct databases. The keyword used in the search are patient safety culture, hospital, proffesionals health workers, and hospital survey on patient safety culture. These two databases were chosen because they provide articles from national journals with appropriate research scope. Then screening was carried out according to the inclusion criteria and journals that had been published in the last 5 years, 2020–2024. The journal articles used are full text, open access, and original articles. The selection of articles is based on a literature study, which involves a survey and analysis of literature relevant to the research topic with the aim of exploring, comparing, summarizing, and collecting existing literature so that research conclusions can be formulated.

Table 1. Inclusion and Exclusion Criteria

Inclusion Criteria	Based on the online database from 2020 to 2024 Studies conducted on healthcare professionals, including nurses, doctors, clinical managers, and other staff working in various healthcare settings Research articles, cross-sectional studies, and surveys that investigate human resource factors influencing patient safety culture The articles examined the influence of patient safety culture on a number of outcomes, including health worker burnout, adverse events, turnover intention, and patient safety perception Research conducted in hospitals, long-term care facilities, public and private healthcare providers, and other healthcare settings
Exclusion Criteria	Studies not related to patient safety culture within the healthcare environment Articles that do not provide insights into the impact of patient safety culture on healthcare outcomes Studies conducted on non-healthcare populations or in non-healthcare settings Research with a narrow focus that does not contribute to the understanding of patient safety culture within the broader healthcare context
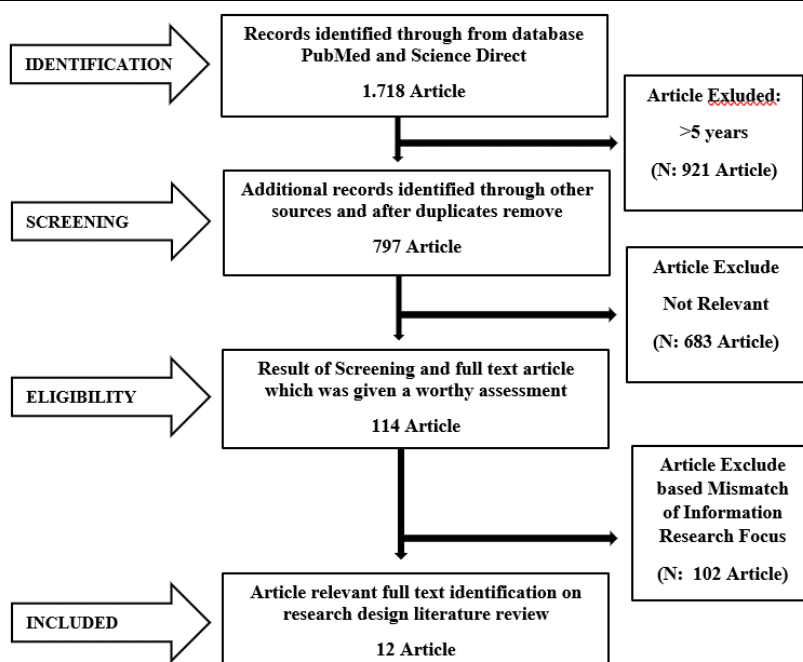
Figure 2. Article Research Step PRISMA Flow Diagram on Literature Review Strategy

The PICOC (Population, Intervention, Comparison, Outcome, and Context) framework for the title "A Literature Review of Human Resource Management in Improving Performance in Health Services" can be summarized as follows:

Table 2. Summary of PICOC

Population	Healthcare professionals, including nurses, doctors, clinical managers, and other staff working in various healthcare settings
Intervention	The paper presents a conceptual framework that integrates four main factors: communication, leadership, work procedures, and human

	factors, aiming to understand and improve patient safety culture within the healthcare environment
Comparison	The paper reviews and synthesizes existing literature on patient safety culture and its impact on various outcomes, such as workplace violence, health worker burnout, adverse events, turnover intention, and patient safety perception
Outcome	The framework aims to inform future research and practical initiatives by highlighting the interconnectedness of the factors influencing patient safety culture and their collective influence on the safety climate within healthcare organizations
Context	The studies included in the paper are cross-sectional studies conducted in various healthcare settings, such as hospitals, long-term care facilities, and public and private healthcare providers, in different countries, including the United States, China, Ethiopia, Jordan, and Vietnam

RESULTS & DISCUSSION

As illustrated in the accompanying flow diagram, 12 research articles met the requisite criteria. An overview of flipped classroom research pertaining to safety culture in the hospital environment can be found in Table 3 below.

Table 3. Literature Review Table

Researcher	Title	Research Design	Respondents	Research Step	Result
Sinhye Kim, Rebecca Kitzmiller, et al (2023)	Patient Safety Culture the Impact on Workplace Violance and Health Worker Burnout	Cross-sectional study	The hospital received responses from approximately 51% of its staff, with 3,601 individuals from 120 different units participating in the survey	Hospital Survey on Patient Safety Culture (HSOPSC)	A stronger patient safety culture, as reported by hospital staff, was linked to reduced instances of workplace violence (WPV) and lower levels of burnout among those workers
Lefei Sun, Qi Lu, Wei Gao, et al (2021)	Study on the Influence of Patient Safety Culture on the Pain and Turnover Intention of Chinese Nurses in Adverse Nursing Events	Cross-sectional study	3665 nurses	Second Victim Experience and Support Tool (SVEST) and HSOPSC	The patient safety culture within a hospital has a significant impact on the emotional distress and likelihood of leaving the job experienced by healthcare workers who have been involved in a

					medical error or adverse event
Tezeta Ayanaw, Eshetu Abera Worede, et al (2023)	Patient Safety Culture and Associated Factors among Health Care Providers in Government and Private Hospitals, Bahir Dar City Northwest, Ethiopia, 2022: a Comparative Cross-sectional Study	Cross-sectional study	448 study participants	HSOPSC	The prevalence of a strong patient safety culture was found to be relatively low. Furthermore, significant differences in patient safety culture were observed between government-run healthcare facilities and private healthcare providers
Huda Jalal Jaber, Ghada Mohammad Abu Shosha, et al (2023)	Perceived Relationship Between Horizontal Violence and Patient Safety Culture Among Nurses	Cross-sectional study	330 nurses	HSOPSC and the Negative Behaviours in Healthcare (NBHC) Survey	Although patient safety culture incidents are relatively rare, the perspectives of nurses in Jordan suggest that it has a significant impact on the occurrence of horizontal violence within healthcare settings
Mónica Susana Chirinos Muñoz, Carola Orrego, et al (2023)	Relationship between Adverse Events Prevalence, Patient Safety Culture and Patient Safety Perception in a Single Sample of Patients: a Cross-sectional and Correlation Study	Cross-sectional study	A total of 556 medical records and patient cases were analyzed to determine the prevalence of patient safety issues, and 397 healthcare providers were included in the study	The main objective of this study was to investigate the relationship between adverse event prevention (AEP), patient safety culture (PSC), and patient safety practices (PSP), with a focus on the	Examining the relationships between adverse event prevention (AEP), patient safety culture (PSC), and patient safety practices (PSP) within the same sample provides a valuable and insightful perspective

					differences between private and public hospitals
Haiyan He, Xi Chen, Lingyun Tian, et al (2023)	Perceived Patient Safety Culture and Its Associated Factors Among Clinical Managers of Tertiary Hospitals: a Cross-sectional Survey	Cross-sectional study	The study involved 539 clinical managers from four major hospitals in Changsha City, located in Hunan Province	The Hospital Survey on Patient Safety Culture Evaluation Scale (HSOPSC) was employed to assess the patient safety culture	The study's findings indicated that patient safety culture was generally perceived as low by clinical managers, and specific areas were identified as needing immediate improvement. Additionally, the study identified factors associated with these low levels of patient safety culture
Takashi Watari, Masaru Kurihara, et al (2023)	Safety Culture Survey among Medical Residents in Japan: a Nationwide Cross-sectional Study	Cross-sectional study	5968 residents were considered eligible for analysis	Safety Awareness Questionnaire (SAQ)	Residents at university hospitals reported a significantly lower level of safety culture compared to those at community hospitals
Collins Atta Poku, Priscilla Yeye Adumoah Attafuah, et al (2023)	Response to Patient Safety Incidents in Healthcare Settings in Ghana: the Role of Teamwork, Communication Openness, and Handoffs	Cross-sectional study	The study involved 1651 health workers across 3 regions in Ghana	HSOPSC	Healthcare settings experience a high number of patient safety incidents, but healthcare professionals' scores for teamwork, handoffs, information exchange, and communication openness are generally positive.

Nguyen Thi Hoai Thu, Bui Thi My Anh, et al (2023)	Health Staff Perceptions of Patient Safety and Associated Factors in Hospitals in Vietnam	Cross-sectional study	763 participants	HSOPSC	In two hospitals, eight out of twelve patient safety dimensions received high scores (60% or higher), indicating a predominantly positive response. Similarly, in a third hospital, ten out of twelve dimensions scored high, also indicating a predominantly positive response.
See Hee Kim and Kyoung Ja Moon	Exploring Influential Factors on Patient Safety Culture in Delirium Nursing Care within longterm Care Facilities: a Cross-sectional Survey	Cross-sectional study	214 nurses employed at 12 long-term care facilities	HSOPSC	The study identified a number of significant factors that are associated with patient safety culture
Syed Sajid Ahmed, Samantha Poblete van Rijswijk, and Abdulaziz Farooq	Work Climate, Improved Communication, and Cohesive Work Linked with Patient Safety Culture: Findings from a Sports Medicine Hospital	Cross-sectional study	Of the 898 staff members who received an email invitation, 504 responded	HSOPSC	The study revealed that 48.0% of the staff rated the patient safety grade as excellent, while 37.5% rated it as very good, resulting in a total of 85.5% positive ratings
Abdul Qahir Jabarkhil, Seyed Saeed Tabatabaee, Jamshid Jamali, et al (2021)	Assessment of Patient Safety Culture Among Doctors, Nurses, and Midwives in a Public Hospital in Afghanistan	Cross-sectional study	267 employees invited to participate	HSOPSC	The findings of the study indicate that organizational learning and non-punitive response to errors were the dimensions

	with the highest and lowest ratings, respectively. Furthermore, the study found that patient safety culture dimensions were generally low and poor, with 44% of the scores falling into this category

The field of human resource management (HRM) plays a pivotal role in enhancing the quality of patient care in healthcare services. Effective HRM practices ensure the recruitment and retention of competent and motivated healthcare professionals, which in turn leads to better patient outcomes (Hampel & Hajduova, 2023). Additionally, HRM strategies that focus on continuous professional development and training enhance the skills and knowledge of healthcare workers, enabling them to provide high-quality patient care. A supportive work environment and strong managerial backing also significantly enhance motivation and performance among healthcare workers, fostering a positive healthcare culture that prioritizes patient care and satisfaction (Aranha & Venkateswaran, 2020; Hampel & Hajduova, 2023; Olakunle James Oladapo et al., 2023). Furthermore, HRM practices that prioritize patient-centered care, knowledge management, and employee engagement can improve the overall quality of patient care by ensuring that patient needs and preferences are addressed and that the latest medical knowledge and best practices are applied. By addressing these aspects, HRM plays a vital role in improving the quality of patient care in healthcare services. It ensures that healthcare organizations deliver high-quality services that meet patient needs and expectations.

A positive relationship between patient safety culture and staff well-being found a correlation between higher patient safety culture scores and lower rates of workplace violence, burnout, and turnover intention among healthcare professionals (S. H. Kim & Moon, 2023; Sun et al., 2021). The impact on patient safety perception suggests that a positive patient safety culture can influence patients' perspectives on their safety and care quality (Chirinos Muñoz et al., 2023). Many factors influencing patient safety culture appear to influence patient safety culture, including communication (Jabarkhil et al., 2021; Poku et al., 2023), leadership (Ahmed et al., 2023), work procedures (S. Kim et al., 2023), and human factors (Watari et al., 2023). The need for improvement is a generally low to moderate level of perceived patient safety culture across various healthcare settings (Jabarkhil et al., 2021; S. H. Kim & Moon, 2023).

This highlights the need for interventions to improve patient safety culture and underscores the prevalent issue of suboptimal patient safety culture in healthcare settings, as evidenced by multiple studies. The observation is supported

by recent research, emphasising the ongoing nature of the concern. The identified low to moderate levels of perceived patient safety culture across diverse healthcare settings signal the necessity for targeted interventions to enhance patient safety culture. This need for improvement is crucial for fostering a healthcare environment that prioritises patient safety and quality care. The implication of this observation is that healthcare organisations should proactively address the deficiencies in patient safety culture through tailored interventions and initiatives (Jabarkhil et al., 2021; S. H. Kim & Moon, 2023).

The identified potential variations in patient safety culture across different healthcare settings suggest that interventions aimed at improving patient safety culture should be tailored to the specific context indicates that the observation is supported by recent research, emphasizing the ongoing nature of the concern. Factors such as hospital type, department, and country may influence the development and maintenance of patient safety culture, and interventions should take these factors into account. For example, interventions that are effective in a private hospital setting may not be as effective in a public hospital setting due to differences in organisational culture and resources (Ayanaw et al., 2023; Watari et al., 2023).

The study revealed a correlation between a robust patient safety culture and a reduction in the incidence of workplace violence and burnout among healthcare professionals at a prominent academic medical center in the United States. In particular, the findings indicated that a higher level of patient safety culture was associated with a lower likelihood of experiencing violence in the workplace and lower burnout scores among healthcare workers. Specifically, the study found that positive perceptions of staffing and teamwork across units, as well as a higher frequency of handoffs and transitions, were dimensions of patient safety culture that influenced workplace violence and burnout among healthcare workers (S. H. Kim & Moon, 2023). The study revealed that the prevalence of a positive patient safety culture was relatively low, and notable differences were observed between government-run and private healthcare providers. This suggests that there may be disparities in patient safety culture between these two types of healthcare providers. The identification of these variations underscores the need for targeted interventions to improve patient safety culture, particularly in settings where the prevalence of a good patient safety culture is low. The importance of understanding and addressing variations in patient safety culture across different types of healthcare providers (Ayanaw et al., 2023).

The study examined the relationships between adverse event prevalence, patient safety culture, and patient safety perception, with a particular focus on how these relationships differed based on the type of hospital funding. The results demonstrated that the associations between these variables varied depending on whether the hospital was publicly or privately funded (Chirinos Muñoz et al., 2023). This suggests that the financial structure of a hospital may influence the prevalence of adverse events, patient safety culture, and patient safety perception and the identification of these variations underscores the need for targeted interventions to improve patient safety culture and reduce adverse events, particularly in settings where the prevalence of adverse events and suboptimal patient safety culture is high (Chirinos Muñoz et al., 2023).

The study revealed that clinical managers generally perceived patient safety culture to be low. This low perception underscores the necessity for interventions to enhance patient safety culture in healthcare organizations, with a particular focus on clinical managers, who play a pivotal role in promoting and maintaining patient safety (S. H. Kim & Moon, 2023). Similarly, (Watari et al., 2023) found that medical residents from university hospitals perceived a significantly lower level of safety culture compared to those from community hospitals and this highlights the need for interventions to improve patient safety culture in university hospitals, particularly among medical residents who are in the early stages of their medical careers. The study demonstrated that patient safety dimensions were perceived positively, indicating a generally positive patient safety culture. This suggests that efforts to enhance patient safety culture in healthcare organizations have been effective in certain settings (Thu et al., 2023).

(Ahmed et al., 2023) stated demonstrated The study revealed a correlation between a positive work climate, enhanced communication, and a cohesive work environment and a stronger patient safety culture. This highlights the significance of addressing organizational factors that can influence patient safety culture. By focusing on creating a positive and supportive work environment, enhancing communication, and fostering a cohesive organizational culture, healthcare institutions can effectively improve patient safety culture, ultimately leading to better patient outcomes and a safer care environment. On the other stated, the findings from (Jabarkhil et al., 2021) the study revealed that organizational learning and a non-punitive response to errors were the most highly rated and least highly rated aspects of patient safety culture, respectively, suggesting areas for improvement. The findings underscore the importance of prioritizing organizational learning and adopting a non-punitive approach to errors in healthcare organizations as a means of enhancing patient safety culture. By promoting a culture of continuous learning and improvement and by fostering an environment where errors are viewed as opportunities for growth rather than blame, healthcare institutions can effectively elevate their patient safety culture, leading to better care quality and outcomes.

CONCLUSION

In conclusion, the extant literature indicates that human resource management plays a significant role in enhancing performance in health services. Effective human resource management practices, such as fostering a positive work environment, promoting employee engagement, and providing adequate training and support, are crucial in improving patient safety culture and overall healthcare performance. By adopting these strategies, healthcare organizations can create a culture of continuous learning and improvement, leading to better patient outcomes and increased efficiency. This study contributes to the understanding of the potential for human resource management to enhance safety culture and patient outcomes in hospital environments. It offers insights that are of value to healthcare managers and policymakers.

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