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HOSPITAL MANAGEMENT ON PATIENT SAFETY AND PATIENT SAFETY CULTURE DURING COVID-19 PANDEMIC: A SCOPING REVIEW

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ABSTRACT

The world is facing significant changes in care delivery, including growing complexity, resource problems, and manpower shortages. The COVID-19 pandemic exposed any organizational weaknesses, including patient safety risks. Patient safety is the avoidance and reduction of potential hazards, errors, and harm, sometimes known as adverse consequences, that may occur during the provision of healthcare or in healthcare settings. The databases Proquest, PubMed, and Scopus were used to conduct a scoping review. The scoping review was conducted employing the Arksey and O'Malley methodological framework and led by the (PRISMA-ScR) checklist and explanation. The electronic search retrieved 468 articles. Screening based on abstracts, titles and full-text only identified 6 articles focused discuss about Patient Safety. In clinical settings, nurses are likely to be the first to identify patient safety hazards. Hospital administration is a crucial element of a pleasant work environment that encourages the growth of patient safety. Management and clinical leaders should cooperate with personnel to develop a shared vision of the organization's safety culture that can be represented in its policies and procedures. In order to create matured work environment through empowerment individual workers, organization should start with the top level of hospital administration and develop well-structured communication of each individual healthcare workers.

INTRODUCTION

The health, happiness, and success of patients as well as the effectiveness and affordability of their care all depend on a system that prioritizes their safety. Patient safety refers to the absence of unintended consequences as a result of medical treatment rather than the patient's underlying medical condition (Vincent, 2010). According to the World Health Organization (WHO), patient safety is defined as the absence of medical care-related harm to patients. One-tenth of European hospitalized patients have preventable adverse events, according to a report by the World Health Organization. These incidents result in harm to the patients, their families, and the healthcare personnel themselves. Research suggests that even half of all unfavorable outcomes are preventable (Malinowska-Lipień et al., 2021).

The healthcare industry is experiencing tremendous shifts, from growing complexity to resource problems and manpower shortages. The COVID-19 pandemic exposed all the cracks in every given system, even those that could compromise patient safety (Wagner et al., 2019). Many healthcare systems have been put to the test by the unexpected spread of the COVID-19 epidemic. COVID-19 has altered behavioral patterns and psychological fortitude in addition to its physical manifestations (Boserup et al., 2020). As COVID-19 spreads, healthcare personnel struggle to treat patients while facing a PPE shortage and no cure (*The Covid-19 Crisis Too*

Few Are Talking About: Health Care Workers' Mental Health, n.d.) (Lai et al., 2020) (Santarone et al., 2020). Without proper PPE, the greatest concern of healthcare personnel is that they, too, may become infected and spread the disease to their patients and their families (Galvin, 2022). In light of this paramount worry, it is crucial for organizations to realize that taking a narrow view of worker psychological safety (only in terms of job security) without considering the broader emotional distress created by the pandemic could have the effect of severely limiting organizational resilience and adversely affecting patient safety and staff retention during and after the pandemic (Brborović et al., 2022). Medical professionals are susceptible to occupational hazards. Sharp injuries, chemical and drug exposure, back injuries, numerous occupational allergies, violence, and stress are only some of the hazards faced by healthcare workers, as described by the National Institute for Occupational Safety and Health. In addition to causing physical symptoms, the mental health complications that accompany these conditions can compromise both health and productivity (Brborović et al., 2022).

Workers in the medical field have it tough, but they all want to do the same thing: treat and care for patients in a way that doesn't compromise their safety. Systems have had to reorganize rapidly in response to the crisis, leaving little time for deliberate deliberation over the best ways to utilize its specialists in patient safety and quality improvement. Supporting wards and intensive care units often required personnel with clinical care backgrounds. Some were labeled as "non-essential," leading to their demotion to working from home while their systems went into hibernation. Patient safety refers to the elimination or minimization of any unfavorable outcomes (i.e., risks, errors, or injury) that a patient might experience as a result of receiving medical care (Staines et al., 2021). Considering that the ability of a nursing staff to reduce risks to patients depends in large part on the way their employer handles such concerns, the setting in which they work is crucial (Lake et al., 2016).

Research conducted in the United States demonstrated a correlation between high-quality nursing care and successful outcomes for both patients and nurses (Chen & Johantgen, 2010). Nursing care is one of the health services that greatly influences patient safety since nurses have the most direct contact with the hospitalized patient due to their 24 h responsibility for patient care, patient surveillance, and care management (SE, 2021). Workplace assessments are advised as a method to reduce nurse burnout and enhance working conditions. They also conduct frequent surveys of nurses to learn what they think of the workplace and to reveal any concerns to patient safety that the nurses have noticed (Twigg & McCullough, 2014). Staff productivity, awareness, and engagement in enhancing care quality and safety may all benefit from a culture where patient safety concerns are regularly discussed at the highest levels of management (Asif et al., 2019) (Wagner et al., 2019) (S. Clarke, 2013). Hospital administration should take into account psychosocial working conditions and leadership in order to boost patient safety. Nurses and doctors' opinions should be considered. It is equally crucial to evaluate the thoughts and feelings of the highly interdependent frontline health care personnel in order to create all-encompassing strategies for patient improvement. When it comes to making a significant impact on patient care, the leadership of hospital administrators is crucial (Wagner et al., 2019). Good health systems on patient safety identified during the Covid-19 waves can inform attempts to manage the next period or comparable crises (Fournier et al., 2021).

METHODS

A The Arksey and O'Malley methodological framework was followed, which entails the following five steps when reporting a scoping review: "(1) identifying the research questions, (2) identifying the relevant studies, (3) study selection, (4) charting the data, and (5) collating, summarizing and reporting the results". We used the PCC-based Joanna Briggs technique to perform a scoping evaluation of observational research (Population-Concept-Context). This scoping review was developed and conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Guidelines (Gutierrez-Bucheli et al., 2022).

Table 1. PCC Framework

Population	Patient Safety
Concept	Hospital management Hospital administration Hospital system
Context	Covid-19 Sars-cov2

The level of specificity or breadth of this scoping review is established by the criteria used to include and exclude studies. It helps to select what to include and what to leave out of the review. The criteria must be clearly stated and supported, leaving the reader with no possibility for misunderstanding.

Table 2. Inclusion and exclusion criteria used in the example scoping review article

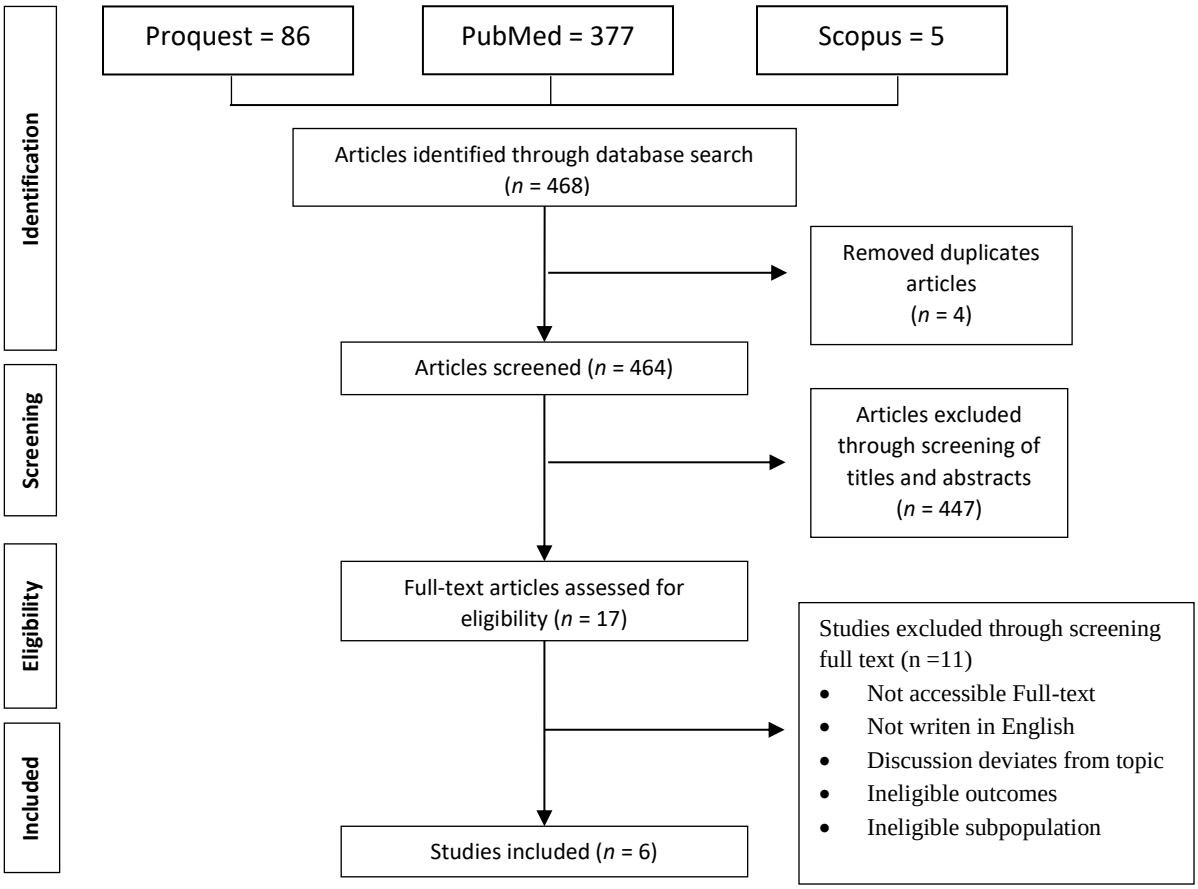
Inclusion criteria	Exclusion criteria
Published Full-text Articles	Articles published in languages other than English or not available in English
Articles published in English	
Publication date 2020-2022	Exclude books, letters, or commentaries.
Articles that identified Patient Safety	

Database were used to identify this scoping review studies published from 2020 to 2022. Articles pertinent to this scoping review were acquired from Proquest, PubMed, and Scopus literature databases using the inclusion and exclusion criteria established for the study. The next step is to exclude the unimportant articles by analyzing the text words in the titles and abstracts. The last round of testing involved reading the entire document.

RESULT AND DISCUSSION

The electronic search retrieved 468 articles which were screened from inclusion criteria. Four duplicates were removed, and 447 articles were excluded through screening of titles and abstracts, leaving 17 articles relevanced to the topic based on screening titles and abstract. The remaining 11 articles excluded due to unsuitable topic based on screening of full-text. Therefore, 6 articles met the inclusion criteria and focused discuss about Patient Safety.

Figure 1. The PRISMA-ScR Flow Diagram



Tabel 3. Characteristic of Included Studies

Author	Title	Year	Country	Conclusion
(Malinowska-Lipień et al., 2021)	"Impact of the Work Environment on Patients' Safety as Perceived by Nurses in Poland—A Cross-Sectional Study"	2021	Poland	"Nurses rated patient safety higher when responsible for a smaller number of patients. Work environment factors such as proper staffing, good cooperation with doctors, support from the management, as well as professional independence are significantly related to nurses assessment of patients' safety"
(Rangachari & L. Woods, 2020)	"Preserving Organizational Resilience, Patient Safety, and Staff Retention during COVID-19 Requires a Holistic Consideration of the Psychological Safety of	2020	America	"This paper applies the organizational resilience framework to discuss how a stoic approach to healthcare worker support during the COVID-19 pandemic has the potential to restrict organizational resilience, and adversely impact patient safety and staff retention during and

	Healthcare Workers"			beyond the pandemic period. To overcome these challenges, HCO leaders need to adopt a holistic consideration of worker psychological safety—one that recognizes the broader impact of emotional distress created by COVID-19."
(Brborović et al., 2022)	"The COVID-19 Pandemic Crisis and Patient Safety Culture: A Mixed-Method Study"	2022	Croatia	"Our research revealed that, during the COVID-19 pandemic, a number of patient safety issues have been identified: low communication openness and current punitive response to errors, which might have incapacitated HCWs in the reporting of adverse events. Although participants expressed high supervisor/management expectations, actual support from the supervisor/management tier was low. Poor teamwork across units was identified as another issue, as well as low staffing. The infrastructure was identified as a potential new PSC (Patient Safety Culture) dimension."
(Staines et al., 2021)	"COVID-19: patient safety and quality improvement skills to deploy during the surge"	2020	France	"The COVID-19 pandemic has suddenly challenged many healthcare systems. To respond to the crisis, these systems have had to reorganize instantly, with little time to reflect on the roles to assign to their patient safety (PS) and quality improvement (QI) experts. They can help assess and develop preparedness, gather evidence and experience, advise and support leadership, remind everyone that there is no patient safety without staff safety, leverage organizational learning and connect with experts and patient partners."
(Lee & Dahinten, 2021)	"Using Dominance Analysis to Identify the Most Important	2021	Korea	"This study provides empirical evidence that organizational safety culture is significantly associated with nurse-assessed

	Dimensions of Safety Culture for Predicting Patient Safety"			patient safety. All structural aspects of safety culture, with the exception of nonpunitive response to error were uniquely predictive of patient safety. Nurses perceived higher levels of management support for patient safety, staffing adequacy, and continuous organizational improvement in patient safety. This suggests that improvements to patients need to start with the top levels of hospital administration, notwithstanding the importance of unit-level influences."
(Kwan et al., 2021)	"Using the Systems Engineering Initiative for Patient Safety (SEIPS) model to describe the planning and management of the COVID-19 pandemic in Hong Kong"	2021	Hongkong	"The SEIPS model was used to describe the work taken by the NTWC (New Territories West Cluster) in combatting the COVID-19 pandemic. It highlights the importance of systems thinking in different aspects from the staff to the organization to ensure that a comprehensive management framework is planned, implemented and monitored in a pandemic."

Relationship Between Patient Safety and Nurse

Universally, healthcare systems place a premium on providing a risk-free experience for their patients. Patient safety issues in clinical settings are more likely to be noticed by nurses, so it is important to hear their thoughts on the topic.[14] Multiple correlations were found between nurses' perceptions of their own workplace safety and the safety of their patients on the ward. According to the findings of the Lee SE article, nurses rate firms with more positive cultures higher on patient safety. However, nurses who reported working in hostile conditions were less likely to give positive ratings for patient safety. According to reports, nurses who make mistakes face harsh penalties and are rarely forgiven. The investigation also revealed that nurses' perceptions of patient safety improved the more they reported being able to criticize the decisions or actions of their supervisors. Furthermore, the data revealed that nurses rated patient safety lower the more they stated they were unable to question the decisions or acts of their superiors. Compared to nurses who worked just within their allotted hours, those whose most recent shift ran over estimated the level of safety in the workplace to be lower. It's because research has linked shifts of 12 hours or longer worked by nurses in a hospital to negative outcomes including worse patient safety and lower quality of care. When a nurse works past their shift end time, they get tired and less vigilant, which can lead to an increase in adverse

events, decreased productivity, a propensity to neglect some duties, or even interferences with decision making (Malinowska-Lipień et al., 2021).

In a study of nurses' working conditions, it was found that nurses' perceptions of patient safety improved when there were more opportunities for them to participate in hospital management, more adequate human and material resources, more mutual respect and cooperation between nurses and doctors, and more encouragement from higher-ups. Rules for cooperation between doctors and nurses in a therapy team based on trust, respect, excellent communication, and knowledge with skills targeted at patient safety and care quality are crucial and necessary. Clarke demonstrated the correlation between nurse-physician relationships, open lines of communication, and adequate staffing of nurses with a decrease in the frequency of adverse occurrences (S. P. Clarke, 2007). Ajeigbe et al. found that nurses who actively practice as part of a team reported higher levels of job satisfaction, improved care quality, and more efficiency (Ajeigbe et al., 2014). Nurses need not only strong interpersonal relationships, but also the freedom to make decisions in the workplace and the backing of higher-ups. In many cases, these factors predict whether or not an employee will quit their employment (Heinen et al., 2013). Nurses' perceptions of patient safety on the ward correlated positively with their optimism about their own career prospects and their level of professional autonomy, as evidenced by the findings of this paper. Patients' perceptions of safety were strongly influenced by the hospital administration's actions and attitudes. Nurses were more likely to rate patient safety as "excellent" if they believed that hospital leadership placed a high priority on patient safety and if they believed that their unit supervisors actively sought and evaluated staff suggestions for improving patient safety (El-Jardali et al., 2011) (Saleh et al., 2015). To ensure the best possible care for their patients, nurses need the backing of upper management, as stated by (Duffield et al., 2011).

Recommendations for Leadership on Patient Safety

Psychological safety, in the absence of COVID-19, may be seen as the irrational fear of retaliation, such as the loss of one's job or professional license, should one risk public disapproval by raising an important question or disclosing an error. When workers know they have the backing of their superiors, they are more likely to report any potential dangers to patients to their supervisors, which ultimately leads to better patient safety in routine care (Tucker, 2009) (Sujan et al., 2019).

To better understand the concerns of healthcare workers and the messages and behaviors they required from their leaders at the outset of the COVID-19 pandemic, Stanford Medicine (California, US) held multiple listening sessions with groups of healthcare professionals (69 in total), including physicians, nurses, and advanced practice providers. Staff in the healthcare industry need unmistakable assurances that their employers would prioritize their safety and well-being throughout the COVID-19 outbreak. The most important thing for healthcare personnel during the COVID-19 pandemic was confidence in their organizations and leaders (Schein & Schein, 2018).

Chronic emotional and interpersonal stress, exhaustion, and cynicism are hallmark indicators of nursing burnout, and they may result from being compelled to watch risky procedures, preventable errors, and huge numbers of deaths on the front lines (Santarone et al., 2020) (Pearce, 2020) (Galvin, 2020). Health care professionals can feel psychologically

comfortable and empowered to speak up about safety concerns and workarounds implemented on the front lines if they are provided with meaningful support for emotional suffering during the pandemic. As a result, there was readily accessible psychological assistance in the form of stress management and resilience courses and care packages for employees who had to be isolated or who had contracted the disease. Leaders in the healthcare industry should prioritize cultivating an atmosphere of trust, psychological safety, and empowerment for their staff so that employees feel comfortable raising concerns about workplace safety. Only then can resilience rise from the individual to the organizational level (Kwan et al., 2021).

We can infer that a crucial strategy for building trust during the pandemic would be for leaders to listen to the specific concerns of healthcare workers, understand the sources of emotional distress, reassure healthcare workers that they have been heard, and provide targeted support to mitigate concerns as much as possible. Improvements in patient safety can be made in routine clinical practice when staff members believe their company genuinely cares about them on a personal level and encourage them to raise concerns about potential dangers. The leadership of a hospital plays a crucial role in creating the environment and level of dedication necessary to address the underlying causes of patient safety problems. Management and clinical leaders should work together with employees to develop a common understanding of the organization's safety culture (Rangachari & L. Woods, 2020). To keep and improve a safe environment, it is necessary to have policies and standards in place for regular patient safety training for all employees and managers.[41] Nurses' opinions on the commitment to patient safety shown by their hospital's administration were gauged using a three-item survey (e.g., "Hospital management fosters a work climate that supports patient safety"). The adequacy of nursing personnel (4 items) was used to gauge how well patients were cared for. The nurses' reported level of comfort in communicating their thoughts and questions regarding patient safety to those in positions of authority was measured using three items that measured communication openness. Nurses' perceptions of punishment for reporting errors were measured using the nonpunitive response to error scale, which consisted of three items (e.g., "When an occurrence is reported, it feels like the person is being written up, not the problem") (Lee & Dahinten, 2021).

Evaluating Management on Patient Safety

This result is consistent with the Agency for Quality and Accreditation in Health Care and the Social Welfare report from the past few years, which revealed that healthcare personnel do not disclose events because they feel guilty and are frightened of legal ramifications if they report their own mistakes. Although staff safety incidents are typically documented, patient safety incidents are rarely reported (Brborović et al., 2019). Under-reporting has been a problem before and throughout the pandemic due to the fear of "punishment" and embarrassment (Denning et al., 2020). Information sharing mechanisms should be readily accessible within a secure and reliable setting (Hooper et al., 2015). The hospital system should improve event reporting to ensure patient safety. Both in everyday situations and in emergencies like the recent COVID-19 outbreak, it is crucial to have a secure space in which employees may report incidents without fear of retaliation. Nurses' perceptions of patient safety in their units were found to improve when there was more openness in discussing mistakes and feedback. Nurses rated patient safety as exceptional or good when they were provided with

feedback on event reports, engaged in open dialogue with hospital administration about improving patient safety, and were encouraged to voice their concerns and ask questions. These results highlight the need for regulations that make it easy for nurses to voice their concerns and make ideas about patient safety (Saleh et al., 2015) (Verbeek-Van Noord et al., 2014). Hospital administrators and department heads can foster a learning environment by instituting policies that encourage open communication about both successes and failures. Such regulations would pave the way for healthcare institutions to bolster safety-related systems by methodical investigation of their origins. Improvements in patient safety should be viewed as a cultural shift, so education on the topic is essential (SE, 2021). For everyone's sake, it's crucial that staff members remain well-informed about the latest management and infection control practices (Kwan et al., 2021). Patient safety could be enhanced by fostering a more cooperative and supportive work environment, flattening organizational structures, encouraging senior leadership and mentoring, and giving voice to entry-level employees (Saleh et al., 2015) (Denning et al., 2020).

Strengthen The System and Environment

Rapid spread of COVID-19 has put strain on medical facilities across the globe. These systems have had to reorganize rapidly in response to the crisis, leaving them little time to deliberate about the best ways to use their patient safety (PS) and quality improvement (QI) specialists to bring about the necessary reforms. We propose a five-step plan and methods by which PS and QI staff might make important contributions during a pandemic by utilizing their core skills to support patients, staff, and organizations: "1. Strengthen the system by assessing readiness, gathering evidence, setting up training, promoting staff safety and bolstering peer support. 2. Engage with citizens, patients and their families so that the solutions are jointly achieved and owned by both the healthcare providers and the people who receive care and in particular the citizens who are required to undertake preventive interventions. 3. Work to improve care, through actions such as the separation of flows, flash workshops on teamwork and the development of clinical decision support. 4. Reduce harm by proactively managing risk to both COVID-19 and non-COVID-19 patients. 5. Boost and expand the learning system, to capture improvement opportunities, adjust very rapidly and develop resilience. This is crucial as little is known about COVID-19 and its impacts on patients, staff and institutions."

Establish just-in-time training and simulation on seldom-used skills, such as creating instructions and simulations on donning and doffing personal protective equipment (PPE) or on disinfecting the area for cleaners. Using patient partnerships to your advantage Find survivors of previous pandemics or people with similar experience to consult with and mentor other patients and teams. Help coordinate the segregation of patient traffic. Assist with the layout of special emergency rooms, operating rooms, and intensive care units for use in the event of a pandemic. Encouragement to try out remote advice-seeking instead. Revise policies for preventing the spread of illness Assist the infection control team in communicating and disseminating updated guidelines by liaising with experts in human factors, ergonomics, and communications. Disseminate guidelines and organize training to keep employees from getting skin lesions from wearing PPE meant to avoid pandemic-related pressure injuries (PIs). Plan on-the-spot inspections of critical processes; for instance, do a hand hygiene compliance inspection and provide feedback to the teams. Plan for group brainstorming sessions to discuss

risks and possible failure modes, and then implement those sessions' suggested solutions for minimizing or eliminating those risks (Staines et al., 2021).

In order to minimize the spread of infection, the hospital implemented strict precautionary procedures at the hospital's entrances, including screening for persons with fevers. The hospital's administration anticipated a surge in COVID-19 admissions and took preventative measures by converting several ordinary medical wards into isolation facilities. The Facilities Management Unit ensured the air quality, including air movement and exchange, was enough to fulfill the necessary infection control criteria. Triage and Test Centres were also established in A&E departments, successfully isolating patients with suspected COVID-19 symptoms in separate waiting areas prior to consultation (Kwan et al., 2021).

CONCLUSION

Nurses' assessments of patients' safety are strongly influenced by aspects such as the staffing and administration of their workplaces, as well as their professional autonomy. When healthcare professionals receive meaningful help for emotional distress during the pandemic, they gain confidence in their employer's commitment to their well-being, which in turn gives them the psychological security to raise concerns about patient safety and propose solutions to management. Organizations can learn from the unique approaches individuals take to issue solving, which can then be applied to reduce practice variance, improve patient safety, and sustain gains in quality. Patient care enhancements should begin at the hospital's executive level.

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