

Patient Safety and Quality of Care: The Role of Nurses in Saudi Hospitals

Mona Jafnan Khashm Alruwaili ¹, Rabiah Shihan Ashioy Alruwaili ², Amal Jalal Khawatem Alruwaili ³, Maha Khalf Alfhege ⁴, Mashale Khaled Alhomidy Alrowily ⁵, Azizah Maashi Alrowily ⁶, Latifah Munayzil Hurayth Alruwaili ⁷, Mashhurah Thunayyan Awar Alruwaili ⁸, Tagreed Kharsan Ayed Alrowily ⁹, Hatim Mohammed Hamoud Alruwaili ¹⁰, Sahar Mugaim Toqan Alrowily ¹¹, Afra Damer Safag Al Rowily ¹², Maali Almahdi Alrwely ¹³

1. *Nursing Technician - Matronal and Children Hospital, Skak Aljounf, Saudi Arabia*
2. *Nursing Technician - Prince Miteb bin Abdulaziz Hospital, Skak Aljounf, Saudi Arabia*
3. *Nursing Technician - Matronal and Children Hospital Skaka Aljounf, Skak Aljounf, Saudi Arabia*
4. *Nursing Technician - King AbdulAziz Specialist Hospital, Skaka Aljounf, Saudi Arabia*
5. *Nursing Specialist - Prince Mutaib Bin Abdulaziz Hospital, Skaka Aljounf, Saudi Arabia*
6. *Nursing Specialist - Prince Muteb Bin Abdulaziz Hospital, Skaka Aljounf, Saudi Arabia*
7. *Nursing Specialist - Public Health in Al-Qurayyat Hospital, Saudi Arabia*
8. *Nursing Technician - Prince Muteb Bin Abdulaziz Hospital, Skaka Aljounf, Saudi Arabia*
9. *Nursing Technician - Prince Muteb Bin Abdulaziz Hospital, Skaka Aljounf, Saudi Arabia*
10. *Nursing Specialist - King Abdulaziz Specialist Hospital, Skaka Aljounf, Saudi Arabia*
11. *Nursing Specialist - Prince Muteb Bin Abdulaziz Hospital, Skaka Aljounf, Saudi Arabia*
12. *Nursing Technician- Swear General Hospital, Skaka Aljounf, Saudi Arabia*
13. *Nursing technician, Suwair hospital, Skaka, Aljounf, Saudi Arabia*

Abstract:

In Saudi hospitals, nurses play a crucial role in enhancing patient safety and ensuring the quality of care. As frontline providers, they are often the first point of contact for patients and significantly contribute to monitoring patient conditions, administering medications, and executing care plans. Their extensive training and education empower them to identify potential risks, implement preventive measures, and advocate for patients, which is essential in a healthcare environment where safety protocols are paramount. Furthermore, nurses are instrumental in fostering a culture of safety by engaging in continuous education and collaboration with interdisciplinary teams, thereby improving healthcare outcomes. The commitment of nurses to quality care directly influences patient satisfaction and overall healthcare efficacy. In Saudi Arabia, initiatives aimed at improving healthcare systems focus on enhancing the nursing workforce's skills and competencies. This includes the implementation of evidence-based practices and adherence to national standards of care. Additionally, nurses participate in reporting and analyzing incidents to identify trends and areas for improvement, ultimately leading to enhanced protocols and better medical practices. Their advocacy for patients' rights and well-being underscores the integral role of nursing in achieving high standards of patient safety and quality.

Keywords:

Patient Safety, Quality of Care, Nursing Role, Saudi Hospitals, Risk Management, Interdisciplinary Collaboration, Continuous Education, Evidence-Based Practices, Patient Advocacy, Healthcare Outcomes

Introduction:

In the contemporary landscape of healthcare, the emphasis on patient safety and the quality of care has gained paramount significance, especially in the context of hospital settings. The World Health Organization (WHO) defines patient safety as the prevention of errors and adverse effects to patients associated with health care, while quality of care is assessed through the effectiveness,

efficiency, accessibility, and patient-centeredness of health services. As the backbone of healthcare delivery, nursing professionals play an instrumental role in maintaining and enhancing both patient safety and quality of care. This research aims to explore the multifaceted role of nurses in Saudi hospitals and how their practices significantly influence patient outcomes and the overall quality of healthcare [1].

The healthcare sector in Saudi Arabia has undergone extensive transformation, particularly in recent years, driven by the nation's commitment to improve healthcare standards as outlined in its Vision 2030 initiative. The initiative aims to elevate the quality of healthcare services and meet the rising expectations of a growing and diverse population. As part of these efforts, there has been a concerted push towards fostering better educational frameworks for healthcare professionals, enhancing patient care systems, and implementing national safety regulations. Despite these advances, challenges remain, particularly concerning the nursing workforce, which has been exponentially strained by increasing patient loads and the rapid expansion of healthcare services. Understanding the role of nurses within this evolving framework is imperative for mitigating risks and ensuring optimal patient safety [2].

Nurses are not merely caregivers; they are critical decision-makers who ensure that medical protocols are adhered to, administer medications, monitor patient progress, and engage in patient education and advocacy. The complexity of their role in Saudi hospitals is further amplified by the cultural dynamics and language diversity present among patients, which require cultural competence and communication skills. The effectiveness with which nurses fulfill their duties directly correlates with patient safety outcomes. For instance, nurses play a crucial role in infection control practices, medication administration, and the management of care transitions, all of which are pivotal in preventing medical errors and adverse events [3].

Moreover, the nursing profession in Saudi Arabia is rapidly evolving, yet it continues to face significant barriers that can compromise the quality of care. While the World Health Organization emphasizes the importance of well-trained nursing staff to achieve quality care, there remains a pressing need for further professional development and training tailored to the local context. As nurses increasingly take on leadership roles and responsibilities in decision-making processes, the adequacy of training and structural support becomes even more vital. This underlines the necessity of understanding how Saudi healthcare facilities can better support their nursing staff in achieving the highest standards of care [4].

Furthermore, global evidence suggests that a collaborative approach to healthcare fosters improved patient outcomes. In Saudi Arabia, integrated care models that encourage collaboration among nurses, physicians, and other healthcare professionals can enhance communication and coordination. These models can significantly contribute to reducing medical errors and improving patient satisfaction. Research establishing best practices regarding interdisciplinary collaboration within Saudi hospitals will provide valuable insights into enhancing nursing roles to increase patient safety and care quality [5].

The Nursing Profession in Saudi Arabia: Structure and Impact:

The nursing profession in Saudi Arabia occupies a critical role in the healthcare system. As one of the key components of healthcare delivery, nursing influences patient outcomes, enhances quality of care, and significantly contributes to the strategic goals of public health in the Kingdom.

The evolution of nursing in Saudi Arabia is rooted in the country's broader health system development. Prior to the 20th century, healthcare in the region was primarily provided by

traditional healers and limited to a small number of hospitals established in the early 1900s. It was not until the establishment of the Ministry of Health in 1950 that formal healthcare initiatives, including nursing education and practice, began to take shape. The drive for modernization and the founding of healthcare institutions coincided with an increased awareness of the importance of nursing as a professional discipline. Education is a fundamental pillar of the nursing profession and plays a significant role in shaping competent nursing practitioners. In Saudi Arabia, nursing education is provided through various academic institutions, ranging from technical colleges to universities. The nursing program typically includes a Bachelor of Science in Nursing (BSN) degree, which integrates both theoretical knowledge and clinical practice [6].

The Kingdom has invested heavily in nursing education through the establishment of nursing schools under the auspices of governmental and private sectors. The curriculum is designed to meet the standards set forth by the Saudi Commission for Health Specialties (SCFHS) and is aligned with international best practices. In addition to basic nursing education, ongoing professional development opportunities, such as specialized training and master's programs, are increasingly available, contributing to the growing sophistication of the nursing workforce [7].

The nursing profession in Saudi Arabia is regulated by the SCFHS, which is responsible for overseeing the licensure and certification of healthcare professionals. This regulatory authority ensures that nurses meet safety, competency, and ethical standards as mandated by national and international protocols. To practice as a registered nurse, candidates must pass the Saudi Nursing Licensure Exam (SNLE), thereby ensuring a robust mechanism for maintaining the quality and integrity of nursing practice [8].

Regulatory frameworks also promote professional accountability. This is of utmost importance as it impacts the professionalism and public perception of nursing as a respected career choice. With an increasing focus on evidence-based practice and adhering to ethical guidelines, the government has taken significant strides to elevate the status of nursing positions within health organizations [9].

The nursing workforce in Saudi Arabia is characterized by a blend of local and expatriate nurses. The healthcare system has relied heavily on foreign nurses, especially from countries such as the Philippines, India, and Sudan, to fill existing gaps. In recent years, however, the Saudi government has emphasized the restructuring of the nursing workforce to include a higher percentage of Saudi nationals. This effort aligns with the objectives of the Vision 2030 initiative, which aims to diversify the economy and reduce dependency on foreign labor [10].

Despite these initiatives, challenges still persist regarding workforce retention, job satisfaction, and the establishment of a robust career ladder for nurses. Many local nurses express concerns about remuneration, workload, and professional growth opportunities, which influence their decisions to either stay in the profession or pursue alternative careers. The government recognizes these challenges and is keen on improving working conditions to support the recruitment and retention of qualified nursing staff [11].

The impact of the nursing profession on healthcare delivery in Saudi Arabia cannot be understated. Nurses play multifaceted roles lending their expertise not only in direct patient care but also in advocacy, education, leadership, and research. As the frontline of healthcare delivery, nurses are often the first point of contact for patients, which places them in a pivotal position for assessing, planning, implementing, and evaluating patient care.

Moreover, nurses have been instrumental in managing health crises, such as the COVID-19 pandemic. Their contributions encompassed everything from administering vaccines to providing critical care and mental health support to patients and families affected by the virus. Through

effective communication and compassionate care, nurses have showcased their adaptability and resilience in the face of unprecedented challenges [12].

Nurses in Saudi Arabia also play a crucial role in promoting public health initiatives. Their involvement in community health education, preventive care programs, and health screenings contributes to the overall well-being of the population. Opportunities for nurses to engage in public health initiatives, such as campaigns against non-communicable diseases or maternal and child health promotion, have increased in recent years, reflecting a growing recognition of their expertise in health education and community outreach [13].

The integration of nurses in healthcare policymaking also proves beneficial, as their frontline experiences provide invaluable insights into patient needs and healthcare system challenges. By participating in health policy discussions, nurses can advocate for evidence-based practices and policies that significantly improve patient care and health outcomes across the Kingdom [14].

Key Responsibilities of Nurses in Enhancing Patient Safety:

Nursing is a profession that embodies the essence of care, compassion, and responsibility. At the forefront of healthcare, nurses play a pivotal role in ensuring the safety of patients, which is a crucial aspect in promoting positive health outcomes. The responsibility of enhancing patient safety is multifaceted, encompassing clinical knowledge, interpersonal skills, and adherence to established protocols and best practices [15].

One of the fundamental responsibilities of nurses in enhancing patient safety is effective communication. Clear, open lines of communication among healthcare team members, as well as between healthcare providers and patients, are crucial for maintaining safety. Nurses serve as the primary point of contact for patients; thus, their ability to convey information accurately is vital. Nurses must ensure that they provide thorough explanations regarding treatment plans, medications, and procedures. This not only helps patients understand their care but also empowers them to engage in their health decisions actively. Effective communication also involves active listening, where nurses must be attentive to patients' concerns, feedback, or changes in their conditions. Miscommunication can lead to errors, misunderstandings, and adverse events, thereby underscoring the need for nursing professionals to foster an environment of trust and transparency [15].

Another critical responsibility of nurses is conducting comprehensive patient assessments and continuous monitoring. Nurses are trained to perform detailed evaluations of patients' physical and emotional states, which form the basis of effective care plans. Regular monitoring helps identify any changes in a patient's condition, enabling timely interventions that could prevent complications.

Utilizing systematic assessment tools and techniques, nurses can gather essential data such as vital signs, pain levels, and overall health status. In acute care settings, timely recognition of deteriorating conditions is especially paramount. By adhering to established protocols for patient assessment, nurses contribute significantly to early identification of risks, which is crucial for preventing negative health outcomes [16].

The management and administration of medications is another vital area of responsibility for nurses that directly impacts patient safety. Nurses are often involved in prescribing, dispensing, and administering medications, making them a line of defense against medication errors. They must ensure that the "five rights" of medication administration are followed: the right patient, the right drug, the right dose, the right route, and the right time.

Furthermore, nurses are responsible for educating patients about their medications, including potential side effects, interactions, and the importance of adherence to prescribed regimens. This education helps to empower patients, fostering a collaborative approach to medication management and enhancing their participation in safety measures. By promoting a culture of safety and vigilance regarding medication practices, nurses substantially contribute to reducing the risk of adverse reactions and errors [17].

Infection control is a critical aspect of patient safety, particularly in healthcare settings where the potential for hospital-acquired infections (HAIs) is high. Nurses play a key role in implementing infection control protocols and ensuring the adherence to hygiene standards. This includes hand hygiene practices, the proper use of personal protective equipment (PPE), and the safe handling of biomedical waste [18].

Nurses are also responsible for educating patients and their families about infection prevention strategies, emphasizing the importance of maintaining a clean and safe environment. By proactively engaging in infection control practices, nurses can reduce the incidence of HAIs, thereby enhancing overall patient safety. Their role extends to identifying potential sources of infection, reporting outbreaks, and participating in quality improvement initiatives aimed at optimizing infection control measures [19].

Lastly, nurses play a crucial role as patient advocates, ensuring that the rights, dignity, and preferences of patients are honored and respected. Advocacy involves not only representing the needs of patients but also standing up against practices that may compromise their safety. This ethical responsibility requires nurses to act as a bridge between patients and the healthcare system, ensuring that patients receive the highest standard of care.

Effective advocacy also involves being knowledgeable about patient rights, ethical considerations, and applicable laws and regulations. Nurses must navigate complex situations, often addressing issues related to informed consent, autonomy, and cultural sensitivity. By advocating for patients' needs and preferences, nurses contribute to an environment that promotes safety and well-being [20].

Evidence-Based Practices: Improving Quality of Care Through Nursing Protocols:

In the dynamic landscape of healthcare, the pursuit of improved patient outcomes and quality of care has become a focal point for nursing professionals and healthcare organizations alike. Evidence-based practices (EBPs) have emerged as an essential framework for achieving these goals. By incorporating the best available scientific evidence into clinical decision-making, along with clinical expertise and patient preferences, nursing protocols grounded in evidence-based practices can significantly enhance the quality of care delivered to patients [21].

At its core, evidence-based practice refers to the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The process involves integrating clinical expertise with the most relevant scientific research and considering patients' unique values and circumstances. The goal is to improve patient outcomes and ensure that the care provided is safe, effective, and efficient [22].

EBP encompasses several components: the best available evidence, clinical expertise, and patient values. The evidence comprises rigorous research studies, clinical guidelines, and expert consensus. Clinical expertise refers to the skills and knowledge acquired through years of practice, enabling nurses to make informed decisions. Patient values include personal preferences, beliefs, and cultural considerations that influence healthcare choices. The combination of these components is integral to providing holistic and patient-centered care.

Nursing protocols are systematic guidelines designed to assist nurses in making clinical decisions and delivering consistent, high-quality care. These protocols can cover a wide range of topics, including medication administration, wound care, infection control, and patient education. By following standardized nursing protocols based on evidence-based practices, nurses can ensure that they are using the most effective interventions and procedures.

The development and implementation of nursing protocols rooted in evidence is a multifaceted process. First, evidence is gathered from various sources, including randomized controlled trials, systematic reviews, and clinical practice guidelines. The evidence is then appraised for its validity, relevance, and applicability to the specific clinical context. Afterward, the findings are synthesized into actionable protocols that guide nursing practice [23].

Moreover, nursing protocols can serve various purposes, such as improving clinical outcomes, enhancing patient safety, ensuring compliance with regulatory standards, and fostering interprofessional collaboration. By providing a clear framework for care delivery, nursing protocols minimize variability in practice, thereby reducing the risk of errors and adverse events [24].

Impact on Quality of Care

The adoption of evidence-based nursing protocols has a significant impact on the quality of care provided to patients. Research indicates that implementing EBPs can lead to improved patient outcomes, increased patient satisfaction, and reduced healthcare costs. Here are several ways in which evidence-based nursing protocols enhance quality of care:

1. **Improved Patient Outcomes:** Evidence-based protocols are designed to incorporate the most effective interventions proven through rigorous research. These interventions can lead to better health outcomes, including reduced hospital readmission rates, lower rates of complications, and improved recovery times [25].
2. **Enhanced Patient Safety:** The use of standardized nursing protocols can reduce variations in care, which minimizes the risk of errors. For instance, protocols for medication administration can help prevent adverse drug reactions and ensure accurate dosages, contributing to patient safety.
3. **Increased Patient Satisfaction:** Patients are more likely to experience positive outcomes when they receive care based on the latest evidence. Additionally, patient-centered protocols that consider individual preferences can lead to a greater sense of autonomy and satisfaction with care [26].
4. **Greater Efficiency:** Evidence-based protocols can streamline nursing workflows by providing clear and concise guidelines for care delivery. This efficiency can reduce unnecessary duplication of tests and procedures, resulting in cost savings for healthcare organizations.
5. **Interprofessional Collaboration:** Nursing protocols grounded in evidence promote collaboration among healthcare professionals. By working together with a common understanding of best practices, teams can provide more coherent and coordinated care, ultimately benefiting patients [26].

Challenges in Implementing Evidence-Based Practices

Despite the clear benefits of evidence-based practices and nursing protocols, there are several challenges in their implementation. One significant barrier is the resistance to change among nursing staff and other healthcare professionals. Some practitioners may prefer traditional methods

or may be skeptical of the new protocols due to a lack of familiarity with the research or perceived relevance to their practice [27].

Another challenge is the accessibility of current evidence. While many databases and journals provide valuable information, not all healthcare settings have equal access to these resources. Additionally, there may be a lack of time and training for nurses to critically appraise and apply evidence in their practice.

Furthermore, the fast-paced nature of healthcare can sometimes preclude the thorough evaluation and integration of evidence-based protocols into care delivery. Compounding this issue, bureaucratic processes within healthcare institutions can slow the development and adoption of new protocols, preventing timely updates reflecting the latest evidence [27].

Interdisciplinary Collaboration and Its Significance in Patient Safety:

In the rapidly evolving landscape of healthcare, the need for effective multidisciplinary cooperation has never been more critical. As healthcare systems become increasingly complex, the delivery of safe, efficient, and high-quality patient care relies heavily on the collaboration of diverse healthcare professionals. At the heart of this cooperative effort lies the nursing profession, which plays a pivotal role in advocating for patient safety, facilitating communication among team members, and ensuring comprehensive care delivery [28].

The complexity of modern healthcare arises from a variety of factors, including the diversity of medical conditions, advancements in treatment methodologies, and the range of healthcare settings. As patients often present with multifaceted health issues requiring integrated management, the siloed approach to healthcare delivery has become increasingly inadequate. Instead, effective patient care necessitates a unified approach involving various healthcare providers, including physicians, nurses, pharmacists, social workers, and allied health professionals [29].

Multidisciplinary cooperation enhances patient safety in several ways. Firstly, it fosters communication, which is vital for identifying potential risks, troubleshooting issues, and ensuring that all team members are aligned regarding patient care objectives. For instance, a patient might be on multiple medications that could have dangerous interactions. A pharmacist's input on medication management, along with the nurse's continuous monitoring and assessment, will help in mitigating these risks [30].

Moreover, multidisciplinary teams can draw upon the diverse expertise and perspectives of their members, leading to improved clinical decision-making. This collaborative approach empowers healthcare providers to address not only the physical but also the psychological and social needs of patients, thereby delivering holistic care. Research has consistently shown that a collaborative practice framework can lead to reduced incidence of medical errors, improved patient satisfaction, and better health outcomes [31].

The Role of Nurses in Multidisciplinary Cooperation

Nurses serve as the backbone of healthcare delivery, and their role is particularly significant in promoting patient safety through multidisciplinary cooperation. With their extensive training, clinical expertise, and direct patient contact, nurses are uniquely positioned to identify issues related to patient safety and advocate for necessary changes within the healthcare team. Their contributions can be categorized into several key roles:

1. **Advocacy and Patient-Centered Care:** Nurses are often the profession that spends the most time with patients and understands their needs, preferences, and concerns. By advocating for their patients, nurses ensure that the treatment plans incorporate the patient's

voice, leading to better adherence and outcomes. Their advocacy extends to interdisciplinary discussions, where they highlight the importance of patient perspectives in clinical decisions [32].

2. **Facilitators of Communication:** Effective communication among team members is essential for patient safety. Nurses serve as liaisons between patients and other healthcare providers, ensuring that critical information is relayed accurately and in a timely manner. For example, during shift changes or multidisciplinary rounds, nurses ensure that pertinent patient information is communicated effectively, minimizing the risk of oversight.
3. **Monitoring and Assessment:** Continuous monitoring of patients is a core responsibility of nurses. By regularly assessing patients' conditions, they can quickly identify changes that may require immediate intervention. For instance, if a nurse notices a sudden change in a patient's vital signs, they can promptly notify the physician and facilitate a timely response, potentially averting serious complications [33].
4. **Education and Training:** Nurses are also pivotal in educating both patients and other healthcare professionals about safety practices and protocols, thereby fostering a culture of safety within the healthcare setting. Their active role in training and mentoring new staff ensures that patient safety principles are integrated into everyday practice.
5. **Quality Improvement Initiatives:** Many nurses engage in quality improvement projects that aim to reduce errors and enhance care delivery. By collecting and analyzing data related to patient safety incidents, nurses can contribute to the development of strategies that cultivate a culture of safety within healthcare organizations [34].

Challenges to Multidisciplinary Cooperation

Despite its clear benefits, multidisciplinary cooperation does face several challenges. Time constraints, professional hierarchies, and communication barriers can hinder effective collaboration. Additionally, role ambiguity and lack of mutual respect among team members may lead to conflicts and ineffective teamwork, ultimately compromising patient safety.

To overcome these challenges, healthcare organizations must prioritize strategies that foster an inclusive culture and support interdisciplinary collaboration. This might include establishing regular team meetings, developing clear communication protocols, providing interprofessional education, and creating an environment where all voices are valued [35].

Training and Continuing Education of Nurses: Addressing Safety Challenges:

In the ever-evolving landscape of healthcare, the role of nurses remains pivotal. They are at the frontline of patient care, often the first point of contact between patients and the healthcare system. Given their integral role, the training and continuing education of nurses are crucial, particularly in addressing the safety challenges that pervade the healthcare environment [36].

Nurses provide a wide array of services, from administering medication and monitoring patients' health to educating individuals about disease prevention and managing chronic illnesses. Their responsibilities are broad and complex, requiring a deep understanding of medical knowledge, as well as clinical skills and interpersonal communication. Furthermore, nurses are uniquely positioned to recognize changes in patient conditions, making them essential advocates for patient safety. The increasing complexity of healthcare practices, driven by advances in medical technology and evolving patient needs, underscores the necessity for nurses to engage in lifelong learning and professional development [37].

The Landscape of Safety Challenges in Nursing

Despite their critical role, nurses face numerous safety challenges in their day-to-day practice. These challenges can be categorized into several areas:

1. **Medical Errors:** Medication errors are among the most serious challenges impacting patient safety. According to the National Coordinating Council for Medication Error Reporting and Prevention, medication errors can occur at any stage of treatment, and nurses must remain vigilant at every step, from administration to monitoring [38].
2. **Infection Control:** Healthcare-associated infections (HAIs) are a significant cause of morbidity and mortality. Nurses are responsible for implementing infection control protocols, necessitating a thorough understanding of best practices in hygiene and patient care to prevent the spread of infections.
3. **Patient Assessment and Monitoring:** The early recognition of deteriorating patient conditions is crucial for timely intervention. Nurses must possess the skills to conduct thorough patient assessments and recognize the warning signs of complications, which can sometimes be subtle [38].
4. **Communication Failures:** Ineffective communication among healthcare teams can lead to misunderstandings, errors in treatment, and compromised patient safety. Nurses must develop strong communication skills to collaborate effectively with other healthcare professionals and ensure that critical information is shared accurately.
5. **Workplace Violence:** The healthcare setting is not immune to violence, and nurses often face verbal and physical abuse. This presents safety risks not only to nurses but also to patients and other staff members [39].

Importance of Training and Continuing Education

Training and continuing education for nurses are essential strategies to address these safety challenges effectively. Nursing education encompasses both initial training in accredited nursing programs and ongoing professional development throughout a nurse's career. The primary objectives of this training include:

1. **Updating Knowledge and Skills:** The field of nursing is perpetually evolving. New research findings, treatment protocols, and technological advancements necessitate that nurses continually update their knowledge and skills. Continuing education provides nurses with opportunities to learn about the latest in patient care, ensuring that their practices reflect current standards [40].
2. **Promoting Evidence-Based Practice:** Training empowers nurses to implement evidence-based practice (EBP) in their day-to-day activities. EBP refers to clinical decision-making that incorporates the best available evidence, clinical expertise, and patient preferences. By fostering an understanding of research and its implications, ongoing education helps nurses make informed decisions that enhance patient safety.
3. **Enhancing Critical Thinking and Clinical Judgment:** The complexities of patient care necessitate sharp critical thinking and clinical judgment skills. Continuing education fosters the development of these competencies, allowing nurses to assess situations more effectively, analyze information critically, and make sound decisions in dynamic healthcare environments [40].
4. **Strengthening Interdisciplinary Collaboration:** Today's healthcare practices emphasize teamwork and collaboration across disciplines. Continuing education programs often include training in communication, team dynamics, and conflict resolution, equipping nurses with the interpersonal skills necessary to work effectively in interdisciplinary teams.

5. **Addressing Mental Health and Self-care:** The demanding nature of nursing can lead to high levels of stress and burnout. Continuous training programs often incorporate mental health awareness and self-care practices, equipping nurses to manage their well-being and maintain their capacity to provide safe and compassionate care to patients [41].

Innovative Approaches to Nursing Education

As the healthcare industry continues to advance, innovative approaches to nursing education are emerging. Incorporating simulation-based training, for instance, allows nurses to practice scenarios in a controlled environment, enhancing their readiness for real-life clinical situations without compromising patient safety. Furthermore, the utilization of online platforms for continuing education offers flexibility, enabling nurses to access training resources whenever and wherever they need [42].

Mentorship programs serve as another vital component of nursing education. Pairing less experienced nurses with seasoned professionals can foster knowledge transfer, reinforce best practices, and build a culture of safety within healthcare settings. These relationships also provide support for new graduates facing the challenges of entering the workforce.

To sustain and advance the training and continuing education of nurses, healthcare institutions and policymakers have essential roles to play. Providing access to continuing education programs, supporting attendance at workshops and conferences, and instituting policies that promote a culture of lifelong learning all contribute to a safer healthcare environment [42].

Additionally, legislations such as the Nurse Licensure Compact (NLC) facilitate interstate nursing practice, allowing for easier access to continuing education resources across state lines. Such initiatives foster a standardized approach to licensing and education, ensuring nurses can meet safety standards irrespective of their practice location [43].

Patient Advocacy: The Nurse's Role in Promoting Quality Care:

In the ever-evolving landscape of healthcare, the role of nurses has grown significantly, transcending traditional clinical duties to embrace a vital function: patient advocacy. As vital components of the healthcare system, nurses serve as the primary interface between patients and the healthcare environment, ensuring that patient needs are communicated, understood, and met [44].

Patient advocacy refers to the actions taken by healthcare professionals, particularly nurses, to support and safeguard the rights, needs, and wishes of patients. It encompasses a range of activities—from ensuring that patients receive appropriate medical care and guidance to empowering them to make informed decisions about their health. The essence of patient advocacy lies in a commitment to uphold the dignity of each patient, to respect their values and preferences, and to facilitate their access to high-quality healthcare services [44].

Nurses, by virtue of their training and their proximity to patients, play a pivotal role in advocacy. They possess a unique understanding of patient conditions and the healthcare system's intricacies, enabling them to navigate potential barriers to care and address disparities. Whether working in hospitals, clinics, or community health settings, nurses act as liaisons, educators, and supporters for their patients [45].

The Core Responsibilities of Nurse Advocates

The responsibilities of nurse advocates can be categorized into several key domains, each critical in fostering an environment conducive to quality care.

1. **Education and Information Dissemination:** One of the primary roles of a nurse advocate is to educate patients about their health conditions and treatment options. Nurses must ensure that patients understand their diagnosis, the rationale behind proposed interventions, potential side effects, and alternatives. By providing clear and comprehensible information, nurses empower patients to make informed decisions, thus promoting autonomy and enhancing satisfaction with care [46].
2. **Communication Liaison:** Effective communication is fundamental in healthcare. Nurses are often tasked with conveying patient concerns, preferences, and goals to interdisciplinary teams. They facilitate discussions among healthcare providers, ensuring that all voices, especially those of patients, are heard. This communication barrier reduction fosters collaboration and enhances the continuity of care, leading to better patient outcomes [47].
3. **Cultural Competence:** With an increasingly diverse patient population, nurses must be attuned to the cultural, social, and economic backgrounds of the individuals they serve. Cultural competence—understanding and respecting varied traditions, beliefs, and needs—is a cornerstone of advocacy. By recognizing the unique factors that influence patient health, nurses can tailor care strategies and ensure that interventions are respectful and relevant [48].
4. **Ethical Considerations:** Nurses frequently encounter ethical dilemmas in their practice. They advocate for ethical decision-making by promoting patient autonomy, especially in instances where patients may have difficulty expressing their wishes due to medical conditions. Upholding ethical principles, such as beneficence and non-maleficence, is paramount in nurse advocacy, ensuring that patient welfare remains the central focus [49].
5. **Navigating the Healthcare System:** The complexity of the healthcare system can often be overwhelming for patients. Nurses act as navigators, guiding patients through insurance processes, complex billing systems, and diverse treatment options. By assisting patients in understanding available resources, including financial aid and social services, nurses facilitate access to necessary services and reduce barriers to care [50].

The Impact of Nurse Advocacy on Patient Outcomes

The impact of patient advocacy by nurses on patient outcomes is profound. When patients feel supported, informed, and respected, they are more likely to engage fully in their care processes. This increased engagement often results in better adherence to treatment plans, improved health literacy, and higher satisfaction with their overall healthcare experience.

Numerous studies have demonstrated that effective patient advocacy correlates with reduced readmission rates, better management of chronic illnesses, and enhanced recovery from surgeries. For example, patients who are actively involved in their care through informed choices tend to experience shorter hospital stays, as they are more adept at managing their health post-discharge. Additionally, patient advocates play a vital role in identifying and addressing issues related to health disparities, ensuring equitable access to care and promoting social justice within healthcare [51].

Despite its importance, patient advocacy is not without challenges. Nurses often face systemic obstacles, including high patient-to-nurse ratios, bureaucratic challenges, and time constraints that can inhibit their ability to advocate effectively. Additionally, the complexity of healthcare policies and regulations may complicate nurses' efforts to navigate the system on behalf of their patients [52].

Moreover, advocacy can lead to potential conflicts, particularly when the desires of the patient may diverge from the perceptions or recommendations of the healthcare team. In such cases, nurses must strike a delicate balance between advocating for the patient's interests and ensuring collaborative care [53].

Outcomes and Future Directions: Strengthening Patient Safety Initiatives:

Patient safety is a critical aspect of healthcare, encompassing a broad range of measures that aim to prevent harm to patients during the course of medical care. In recent years, healthcare systems across the globe have increasingly recognized the importance of strengthening patient safety initiatives, which are essential for enhancing healthcare quality and outcomes. Nurses, as frontline healthcare providers, play a pivotal role in this endeavor [54].

Since the establishment of the Institute of Medicine report "To Err is Human" in 1999, which highlighted the critical issues of medical errors and patient safety, healthcare organizations have made significant strides in improving patient safety. Initiatives such as the World Health Organization's "Surgery Saves Lives" program, the "Safe Surgery Checklist," and various state and national safety organizations have emerged to promote safer practices within hospitals and clinics [55].

Research has shown that these initiatives have led to measurable improvements in patient outcomes. For example, the implementation of the surgical checklist has been demonstrated to reduce surgical complications and mortality rates. Similarly, the introduction of hand hygiene protocols has significantly diminished healthcare-associated infections (HAIs). The adoption of electronic health records (EHRs) has also played a role in enhancing communication among interdisciplinary teams, thereby reducing medication errors and improving overall patient care.

The Role of Nurses in Patient Safety Initiatives

Nurses are integral to the successful implementation of patient safety initiatives. They are often the first points of contact for patients and form the backbone of patient care within healthcare settings. Their unique position allows them to identify potential safety risks, monitor patient conditions, and ensure adherence to safety protocols. Several key areas illustrate the vital role nurses play in strengthening patient safety:

1. **Advocacy for Patients:** Nurses advocate for the best interests of their patients, often serving as their voice in clinical settings. This advocacy is crucial when it comes to minimizing risks and ensuring that patients receive safe, high-quality care [56].
2. **Education and Training:** Nurses are often responsible for educating patients about their conditions and the care they will receive. This education empowers patients and fosters a culture of safety, as informed patients are more likely to participate actively in their care and report safety concerns.
3. **Monitoring and Reporting:** Nurses routinely assess and monitor patients, which is instrumental in early detection of complications or adverse events. Their role as vigilant observers makes them capable of identifying lapses in safety protocols and reporting them for corrective action [56].
4. **Collaboration and Communication:** Nursing practice is inherently collaborative, involving interaction with various healthcare professionals. Effective communication among team members is critical to prevent errors in care. Nurses serve as liaisons,

conveying vital information that can affect patient safety, such as changes in patient status, medication allergies, or other relevant concerns [57].

Challenges Facing Patient Safety Initiatives

While considerable advancements have been made in patient safety, numerous challenges persist. High patient-to-nurse ratios, inadequate staffing, and time constraints often hinder nurses' ability to perform safety-critical tasks effectively. Additionally, the complexity of patient cases, particularly in acute and critical care settings, further complicates the landscape of patient safety. Moreover, some healthcare facilities still operate in environments where a punitive culture prevails, discouraging staff from reporting errors or near-misses. This lack of a blame-free environment can inhibit transparency and learning, ultimately compromising patient safety. As a result, fostering a culture of safety that encourages open communication and continuous improvement is necessary to address these challenges [58].

Future Directions for Patient Safety Initiatives

To enhance patient safety further, several future directions should be considered:

1. **Emphasis on a Culture of Safety:** Promoting a culture of safety within healthcare organizations is imperative. Training programs that emphasize transparency, accountability, and learning from mistakes can foster an atmosphere where all staff feel empowered to speak up about safety concerns without fear of retribution [59].
2. **Increased Involvement of Nurses in Safety Leadership:** Nurses should be included in decision-making processes related to patient safety initiatives. Their firsthand experience and insights can contribute meaningfully to the development of effective safety measures. Leadership training and mentorship programs can help equip nurses with the skills to take on these roles [60].
3. **Leveraging Technology:** The integration of technology, such as telehealth and wearable health devices, can further enhance patient safety. Utilizing data analytics to monitor patient conditions and predict potential safety risks can enable proactive measures to be taken [61].
4. **Interprofessional Collaboration:** Building strong interprofessional relationships is crucial for improving patient safety. Collaborative practice models that facilitate teamwork and communication among healthcare professionals can lead to better patient outcomes [62].
5. **Focus on Education and Continuous Professional Development:** Ongoing education and training for nurses in patient safety practices should be prioritized. Developing curricula that address the latest safety protocols, risk management strategies, and evidence-based practices ensures that nurses remain informed and prepared to provide safe care [63].

Conclusion:

In conclusion, the role of nurses in Saudi hospitals is paramount to ensuring patient safety and delivering quality care. As frontline caregivers, nurses not only provide essential clinical services but also act as advocates for patients, implementing evidence-based practices and fostering a culture of safety within healthcare settings. Their involvement in interdisciplinary collaboration enhances communication and teamwork, which are critical for addressing potential risks and improving patient outcomes.

Moreover, ongoing education and professional development are vital for equipping nurses with the necessary skills to tackle the evolving challenges of patient care. By prioritizing training and supporting nurses in their roles, Saudi healthcare institutions can strengthen their commitment to

patient safety and quality of care. As the healthcare landscape continues to change, recognizing and empowering nurses will be essential for achieving the highest standards of care and ensuring that patients receive safe, effective, and compassionate treatment. Moving forward, investing in nursing resources and integrating their insights into healthcare policies will be crucial for advancing the overall health of the population.

References:

1. Zaitoun RA, Said NB, de Tantillo L. Clinical nurse competence and its effect on patient safety culture: a systematic review. *BMC Nurs.* 2023;22:173. doi: 10.1186/s12912-023-01305-w.
2. Ghaffar UB, Ahmed SM, Faraz A. A review of the frequency of medical error in Saudi Arabia: an emerging concern. *J Evid Based Med Healthc.* 2015;2:8692–5. doi: 10.18410/jebmh/2015/1205.
3. Chegini Z, Kakemam E, Asghari Jafarabadi M, Janati A. The impact of patient safety culture and the leader coaching behaviour of nurses on the intention to report errors: a cross-sectional survey. *BMC Nurs.* 2020;19:1–9. doi: 10.1186/s12912-020-00472-4.
4. Wong SY, Fu ACL, Han J, Lin J, Lau MC. Effectiveness of customised safety intervention programmes to increase the safety culture of hospital staff. *BMJ Open Qual.* 2021;10:e000962. doi: 10.1136/bmjopen-2020-000962.
5. Alrabae YM, Aboshaiqah AE, Tumala RB. The association between self-reported workload and perceptions of patient safety culture: a study of intensive care unit nurses. *J Clin Nurs.* 2021;30(7–8):1003–17. doi: 10.1111/jocn.15646.
6. Yesilyaprak T, Demir Korkmaz F. The relationship between surgical intensive care unit nurses' patient safety culture and adverse events. *Nurs Crit Care.* 2023;28:63–71. doi: 10.1111/nicc.12611.
7. Agency for Healthcare Research and Quality. What is patient safety culture? AHRQ. 2014.
8. Mansour H, Abu Sharour LA. Results of survey on perception of patient safety culture among emergency nurses in Jordan: influence of burnout, job satisfaction, turnover intention, and workload. *J Healthc Qual Res.* 2021;36:370–7. doi: 10.1016/j.jhqr.2021.05.001.
9. Al Ma'mari Q, Sharour LA, Al Omari O. Fatigue, burnout, work environment, workload and perceived patient safety culture among critical care nurses. *Br J Nurs.* 2020;29(1):28–34. doi: 10.12968/bjon.2020.29.1.28.
10. Abuosi AA, Akologo A, Anaba EA. Determinants of patient safety culture among healthcare providers in the Upper East Region of Ghana. *J Patient Saf Risk Manag.* 2020;25:35–43. doi: 10.1177/2516043519876756.
11. Han Y, Kim JS, Seo Y. Cross-sectional study on patient safety culture, patient safety competency, and adverse events. *West J Nurs Res.* 2020;42(1):32–40. doi: 10.1177/0193945919838990.
12. Berry JC, Davis JT, Bartman T, Hafer CC, Lieb LM, Khan N, et al. Improved safety culture and teamwork climate are associated with decreases in patient harm and hospital mortality across a hospital system. *J Patient Saf.* 2020;16:130–6. doi: 10.1097/PTS.0000000000000251.
13. Azyabi A, Karwowski W, Davahli MR. Assessing patient safety culture in hospital settings. *Int J Environ Res Public Health.* 2021;18:2466. doi: 10.3390/ijerph18052466.

14. Al Muharraq EH, Alallah SM, Alkhayrat SA, Jahlan AG. An overview of missed nursing care and its predictors in Saudi Arabia: a cross-sectional study. *Nurs Res Pract*. 2022.
15. Sarfo JO, Ocloo JEY, Ansah EW, Amoadu M. Safety culture and patient safety outcomes in developing countries: a narrative review. *Integr Health Res J*. 2023;1:43–53. doi: 10.47963/ihrj.v1i2.1373.
16. World Health Organization. Patient Safety. 2023.
17. Institute of Medicine. To err is human: building a safer health system. 1999.
18. World Health Organization. Global patient safety action plan 2021–2030: towards eliminating avoidable harm in health care. Geneva: World Health Organization; 2021.
19. Jafarpanah M, Rezaei B. Association between organizational citizenship behavior and patient safety culture from nurses' perspectives: a descriptive correlational study. *BMC Nurs*. 2020:1–8.
20. Almannie R, Almuhaideb M, Alyami F, Alkhayyal A, Binsaleh S. The status of medical malpractice litigations in Saudi Arabia: analysis of the annual report. *Saudi J Anaesth*. 2021;15:97–100. doi: 10.4103/sja.SJA_908_20.
21. Kim K, Yoo M, Seo E. Exploring the influence of nursing work environment and patient safety culture on missed nursing care in Korea. *Asian Nurs Res*. (2018) 12:121–6. 10.1016/j.anr.2018.04.003.
22. Chen YM, Johantgen ME. Magnet hospital attributes in European hospitals: a multilevel model of job satisfaction. *Int J Nurs Stud*. (2010) 47:1001–2. 10.1016/j.ijnurstu.2009.12.016.
23. Jha AK, Larizgoitia I, Audera-Lopez C, Prasopa-Plaizier N, Waters H, Bates DW. The global burden of unsafe medical care: analytic modelling of observational studies. *BMJ Qual Saf*. (2013) 22:809–15. 10.1136/bmjqs-2012-001748.
24. Mihdawi M, Al-Amer R, Darwish R, Randall S, Afaneh T. The Influence of Nursing Work Environment on Patient Safety. *Workplace Health Saf*. (2020) 68:384–90. 10.1177/2165079920901533.
25. Lee SE, Scott LD. Hospital nurses' work environment characteristics and patient safety outcomes: a literature review. *West J Nurs Res*. (2018) 40:121–45. 10.1177/0193945916666071.
26. Malinowska-Lipień I, Micek A, Gabrys T, Kózka M, Gajda K, Gniadek A, et al. Impact of the work environment on patients' safety as perceived by nurses in Poland—a cross-sectional study. *Int J Environ Res Public Health*. (2021) 18:12057. 10.3390/ijerph182212057.
27. Olds DM, Aiken LH, Cimiotti JP, Lake ET. Association of nurse work environment and safety climate on patient mortality: a cross-sectional study. *Int J Nurs Stud*. (2017) 74:155–61. 10.1016/j.ijnurstu.2017.06.004.
28. Vincent C. Patient Safety. 2nd ed. Oxford: Wiley Blackwell; (2010).
29. Siman AG, Brito MJM. Changes in nursing practice to improve patient safety. *Rev Gaúcha Enferm*. (2016) 37:1–9. 10.1590/1983-1447.2016.esp.68271.
30. Kieft R, de Brouwer B, Francke A, Delnoij D. How nurses and their work environment affect patient experiences of the quality of care: a qualitative study. *BMC Health Serv Res*. (2014) 14:249. 10.1186/1472-6963-14-249.

31. Kelly LA, McHugh MD, Aiken LH. Nurse outcomes in magnet and non-magnet hospitals. *J Nurs Adm.* (2011) 41:428–33. 10.1097/NNA.0b013e31822eddbc.
32. Slawomirski L, Auraen A, Klazinga N. *The Economics of Patient Safety: Strengthening a Value-Based Approach to Reducing Patient Harm at National Level.* Paris: OECD; (2017).
33. Lee M, Kang S, Hyun H. Relationship among nursing professionalism, nursing work environment, and patient safety nursing activities in general hospital nurses. *J Korean Acad Nurs Adm.* (2019) 25:317. 10.1111/jkana.2019.25.4.317.
34. World Health Organization. *Patient Safety.* Geneva: World Health Organization; (2022).
35. Moisoglou L, Yfantis A, Galanis P, Plspirgou A, Chatzimargaritis E, Theoxari A, et al. Nurses work environment and patients' quality of care. *Int J Caring Sci.* (2020) 13:108–16.
36. World Health Organization. *European Programme of Work United Action for Better Health.* (2022).
37. Alves D, Guirardello E. Ambiente de trabalho da enfermagem, segurança do paciente e qualidade do cuidado em hospital pediátrico. *Rev Gaucha Enferm.* (2016) 37:e58817. 10.1590/1983-1447.2016.02.58817.
38. National Academies of Sciences Engineering, and Medicine. *Crossing the Global Quality Chasm: Improving Health Care Worldwide.* Washington, DC: The National Academies Press; (2018).
39. Al Omar M, Salam M, Al-Surimi K. Workplace bullying and its impact on the quality of healthcare and patient safety. *Hum Resour Health.* (2019) 17:89. 10.1186/s12960-019-0433-x.
40. Kirwan M, Matthews A, Scott P. The impact of the work environment of nurses on patient safety outcomes: a multi-level modelling approach. *Int J Nurs Stud.* (2013) 50:253–63. 10.1016/j.ijnurstu.2012.08.020.
41. Webster K LW, Keebler JR, Lazzara EH, Chaparro A, Greilich P, Fagerlund A. Handoffs and teamwork: a framework for care transition communication. *Joint Comm J Qual Patient Saf.* 2022;48:343–53.
42. Albalawi A, Kidd L, Cowey E. Factors contributing to the patient safety culture in Saudi Arabia: a systematic review. *BMJ Open.* 2020;10:e037875.
43. Aljaffary A, Al Yaqoub F, Al Madani R, Aldossary H, Alumran A. Patient safety culture in a teaching hospital in Eastern Province of Saudi Arabia: assessment and opportunities for improvement. *Risk Manag Healthc Policy.* 2021;14:3783–95.
44. Rawas H, Abou Hashish EA. Predictors and outcomes of patient safety culture at King Abdulaziz Medical City, Jeddah, Saudi Arabia. A nursing perspective. *BMC Nurs.* 2023;22:229.
45. Saleh AM, Darawad MW, Al-Hussami M. The perception of hospital safety culture and selected outcomes among nurses: an exploratory study. *Nurs Health Sci.* 2015;17:339–46.
46. Mihdawi M, Al-Amer R, Darwish R, Randall S, Afaneh T. The influence of nursing work environment on patient safety. *Workplace Health Saf.* 2020;68:384–90.

47. Alahmadi HA. Assessment of patient safety culture in Saudi Arabian hospitals. *Qual Saf Health Care*. 2010;19(5):e17.
48. Azyabi A, Karwowski W, Davahli MR. Assessing patient safety culture in hospital settings. *Int J Environ Res Public Health*. 2021;18(5):2466.
49. Kaud Y, O'Connor P, O'Malley R, Dunne R, Lydon S. A scoping review of patient safety research carried out in Saudi Arabian hospitals. *IJQHC Commun*. 2022;2(2):lyac014.
50. Schot E, Tummers L, Noordegraaf M. Working on working together. A systematic review on how healthcare professionals contribute to interprofessional collaboration. *J Interprof Care*. 2020;34:332–42.
51. Blignaut AJ, Coetzee SK, Klopper HC. Nurse qualifications and perceptions of patient safety and quality of care in South Africa. *Nurs Health Sci*. 2014;16(2):224–31.
52. Binkheder S, Alaska YA, Albaharnah A, AlSultan RK, Alqahtani NM, Amr AA, Algerian N, Alkutbe R. The relationships between patient safety culture and sentinel events among hospitals in Saudi Arabia: a national descriptive study. *BMC Health Serv Res*. 2023;23(1):270.
53. Andel SA, Tedone AM, Shen W, Arvan ML. Safety implications of different forms of understaffing among nurses during the COVID-19 pandemic. *J Adv Nurs*. 2022;78:121–30.
54. Alquwez N, Cruz JP, Almoghairi AM, Al-otaibi RS, Almutairi KO, Alicante JG, Colet PC. Nurses' perceptions of patient safety culture in three hospitals in Saudi Arabia. *J Nurs Scholarsh*. 2018;50(4):422–31.
55. Levine KJ, Carmody M, Silk KJ. The influence of organizational culture, climate and commitment on speaking up about medical errors. *J Nurs Manag*. 2020;28:130–8.
56. Upadhyay S, Weech-Maldonado R, Lemak CH, Stephenson AL, Smith DG. Hospital staffing patterns and safety culture perceptions: the mediating role of perceived teamwork and perceived handoffs. *Health Care Manage Rev*. 2021;46:227–36.
57. Murray JS, Clifford J, Larson S, Lee JK, Sculli GL. Implementing just culture to improve patient safety. *Mil Med*. 2022;188:1596–9.
58. Alquwez N, Cruz JP, Almoghairi AM, Al-otaibi RS, Almutairi KO, Alicante JG, Colet PC. Nurses' perceptions of patient safety culture in three hospitals in Saudi Arabia. *J Nurs Scholarsh*. 2018;50(4):422–31.
59. Falcone ML, Van Stee SK, Tokac U, Fish AF. Adverse event reporting priorities: an integrative review. *J Patient Saf*. 2022;18:e727–40.
60. Ghezeljeh TN, Farahani MA, Ladani FK. Factors affecting nursing error communication in intensive care units: a qualitative study. *Nurs Ethics*. 2021;28:131–44.
61. Alsaadi M, Alzahrani E, Alshahrani AM, Rahman FN, Lastama S. Perceptions of nursing administrators about patient safety culture in pediatric emergency departments: a qualitative study. *Health Serv Res Manag Epidemiol*. 2022;9:23333928221119253.
62. Bhatia N, Fuzzy-set qualitative comparative analysis of patient safety culture and burnout among nurses: a cross-sectional study. *Health Pol*. 2022;126:101–06.
63. Al-Surimi K, Rukn M, Al-Shamsi R. Two decades of patient safety culture research in the Middle East: a systematic review. *Patient Saf*. 2022;18:24–34.