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Challenges Encountered by Nurses in Emergency Department as Basis for Improvement of Competency and Training Plan

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ABSTRACT

Early detection of clinical deterioration is essential for enhancing patient outcomes and minimizing the occurrence of preventable adverse events. This study explored the experiences of emergency department nurses in recognizing and managing clinical deterioration, with the objective of gaining deeper insight into their perspectives, practices, and the challenges they encounter. The findings are intended to inform policy and practice enhancements within the emergency care settings of three municipal hospitals in Southern Palawan. The specific objectives of the study were to: (1) describe the socio-demographic profile of nurses in the emergency departments; (2) assess the challenges they face in identifying signs of clinical deterioration; (3) analyze the relationship between their demographic characteristics and the challenges encountered; and (4) develop a context-specific competency and training plan tailored to their needs. A descriptive research design was employed, involving 45 nurses aged between 22 and over 50 years, selected through a cluster sampling technique. Both descriptive and inferential statistical analyses were utilized to interpret the data. Results indicated a notable concentration of younger professionals in emergency departments, with 66.67% of respondents aged between 20 and 29 years. Furthermore, 40.00% of participants reported having 2 to 5 years of clinical experience. In terms of educational attainment, the majority (86.67%) held a Bachelor's Degree in Nursing, reflecting a well-established foundational level of professional preparation within the nursing workforce. In response to the identified challenges, the study recommends the implementation of a comprehensive and localized training and competency development program. This proposed intervention aims to address existing gaps, support continuous professional development, and promote the well-being of emergency nurses across the three municipal hospitals in Southern Palawan. The outcomes of this study offer valuable insights for health policymakers and stakeholders seeking to strengthen the provincial healthcare system through more adaptive and sustainable nursing practices.

Keywords: clinical deterioration, emergency department nurses, emergency care settings, training and competency, municipal hospitals, nursing practice

Chapter I
INTRODUCTION

This chapter presents the background of the study, the statement of the problem, the significance of the study, the scope and delimitations, and the definition of terms.

Background of the Study

According to research, 20% to 25% of patients in emergency departments (EDs) have one or more

abnormal vital signs, which are important markers of possible deterioration (Lin, 2024). Early detection of clinical deterioration is crucial for improving patient outcomes and reducing the risk of avoidable adverse events. Furthermore, while formal methods like early warning scores (EWS) can improve the early detection of patients who are deteriorating, their application varies between healthcare settings (Connel, 2021). Because they have the expertise and abilities needed for quick assessment and intervention, emergency nurses are essential in monitoring these signs. The identification and management of clinical deterioration in emergency patients are critical aspects of nursing practice, demanding keen observational skills, timely interventions, and comprehensive knowledge. Clinical deterioration refers to the progressive decline in a patient's clinical status, which, if not recognized and managed promptly, can lead to adverse outcomes such as cardiac arrest, unplanned intensive care unit (ICU) admissions, or even death (Dresser, 2023). This quantitative study aimed to delve into the experiences of emergency nurses in recognizing and managing clinical deterioration, seeking to provide a detailed account of the challenges and strategies involved in these high-stakes situations. Despite their training and expertise, emergency nurses encounter several challenges in identifying and managing clinical deterioration. These include high patient turnover, inadequate staffing levels, and the chaotic nature of the ED environment, which can hinder comprehensive patient assessment (Connel, 2021). Furthermore, the variability and inconsistency in using EWS among nursing staff can contribute to missed or delayed interventions (Connel, 2021). This study aims to highlight these challenges and explore how emergency nurses navigate them while striving to maintain patient safety and quality care in a fast-paced setting. Triage serves as a cornerstone of emergency medicine, as it effectively stratifies patient care needs according to urgency. By enabling healthcare providers to prioritize resources where they are most needed, triage enhances medical efficacy during critical times while upholding the quality-of-care patients receive in emergency departments. As healthcare continues to face challenges related to resource management and patient influx, understanding and improving the triage system remains integral to delivering effective emergency care (StudySmart, 2024).

According to Lin (2024), among emergency patients, clinical deterioration can affect 11.7% of individuals within an 8-hour timeframe after their arrival in the ED. This finding highlights the importance of rapid recognition and management to mitigate risks. Furthermore, research suggests that 36% to 71% of adverse events in emergency settings could be preventable through timely interventions. This statistic underscores the significant challenges emergency nurses face in accurately identifying deterioration signs amid their high-stress environment, often characterized by overcrowding and resource limitations. It has been reported that failure to escalate care occurs in nearly half (47.3%) of patients who require a response, indicating the complexities and barriers involved in effective management practices (Connel, 2021). This highlights the essential role of emergency nurses in recognizing signs of deterioration and ensuring appropriate escalation of care to avert adverse outcomes.

Emergency nurses play a pivotal role in early identification of clinical deterioration through vigilant monitoring and assessment (Benjamin et al., 2024). These healthcare professionals rely heavily on their clinical judgment and experience to interpret vital signs and clinical symptoms accurately. As stated by Dresser (2023), the process involves a comprehensive assessment of the patient's condition, including understanding baseline status and subtle changes that may indicate deterioration. Recognizing clinical deterioration is often compounded by environmental and systemic challenges. High workloads, staffing shortages, and frequent interruptions can delay assessments and hinder the early identification of deterioration. Additionally, knowing the patient, which includes familiarity with their medical history and

typical physiological responses, is crucial, yet often difficult in a busy ED setting where patient turnover is high.

Nurses face multiple challenges, including securing timely medical responses, managing high workloads, dealing with institutional hierarchies, and leading shift changes efficiently (Bucknall et al., 2022). The uncertainty accompanying clinical decisions under time pressure further complicates the situation. Another significant barrier is the inherent unpredictability and rapid pace of emergency settings, requiring nurses to make quick, informed decisions often without thorough deliberation. Organizational factors such as communication breakdowns, lack of adequate training, and insufficient staffing exacerbates these challenges, making it difficult to maintain consistent and high-quality patient care (StudySmart, 2024).

Timely intervention by nurses in emergency settings can significantly improve patient outcomes. Prompt assessment and rapid initiation of appropriate treatment protocols are imperative for mitigating the adverse effects of clinical deterioration. Studies have indicated that timely nursing interventions can reduce hospital stays, enhance continuity of care, and improve overall patient prognosis. Delayed interventions, on the other hand, can lead to increased morbidity, prolonged hospital stays, and higher healthcare costs.

To enhance the identification and treatment of clinical deterioration in emergency patients, several strategies have been recommended by nursing professionals. These include implementing early warning systems, utilizing rapid response teams (RRTs), and just-in-time training programs (Peebles, 2020). Furthermore, fostering a culture that encourages open communication, continuous education, and collaborative practice among healthcare professionals can significantly bolster the effectiveness of these interventions. Establishing protocols and utilizing technological aids such as personal digital assistant (PDA) devices for real-time data access and decision support are also crucial. These tools can help reduce errors and ensure that deviations from normal patient parameters are promptly identified and addressed (Kilmia, 2024).

The management of clinical deterioration is a critical component of emergency nursing practice that requires an integrated approach involving recognition, timely response, and interprofessional collaboration. As healthcare systems evolve, understanding the challenges and successes experienced by emergency nurses is vital for enhancing care protocols and ultimately improving patient outcomes in emergency settings. Fostering a culture of vigilance and comprehensive training will empower nurses to effectively manage clinical deterioration, thereby reducing the risk of adverse outcomes for patients in EDs (StudySmart, 2024).

The primary objective of this quantitative study was to explore and understand the experiences of emergency nurses in identifying and managing clinical deterioration. By examining their perspectives, practices, and the challenges they face, the study aimed to provide insights that can inform policy and practice improvements in emergency care settings. Understanding these experiences is essential for developing targeted interventions to enhance patient safety and clinical outcomes in the high-pressure environment of EDs. Different emergency settings might yield unique challenges for nurses, which are not well represented in existing research. Exploring these differences could fill a gap by addressing setting-specific factors. There is extensive knowledge on the protocols and systemic aspects of managing clinical deterioration. However, there is a lack of detailed, quantitative exploration of emergency nurses' personal experiences and the specific barriers they face. This study aimed to address this gap by providing insights into their perspectives, practices, and challenges, which could inform policy and practice improvements.

Statement of the Problem

This study generally assessed the experiences in identifying and treating clinical deterioration in emergency patients. Specifically, it sought answers to the following questions:

1. What is the demographic profile of the participants in terms of:
a. age;
b. work experience; and
c. educational background?
2. What are the challenges encountered by the nurses when identifying signs of clinical deterioration in the emergency setting in terms of:
a. Knowledge Related;
b. Training-Related Challenges;
c. Workload and Time Constraints;
d. Environmental Challenges;
e. Communication Challenges; and
f. Psychological and Emotional Challenges
3. Is there a relationship between the demographic profile and the challenges encountered by the nurses in identifying clinical deterioration in emergency patients?
4. What can be proposed in improving the competency and training plan?

Significance of the Study

The significance of the study reflects the value of the research undertaken and its contribution to the advancement of knowledge in a certain subject. This investigation will be considered notable for the following:

Department of Health (DOH). The Department of Health can benefit from this study as it provides insights into the challenges faced by nursing professionals, especially in emergency settings. Understanding these challenges can inform policy development on regulatory issues affecting nursing practice, such as patient safety and competency standards. Additionally, research enhances the evidence base, contributing to the creation or modification of regulations that govern nursing practices. By capturing the voices and experiences of nurses, the Department can ensure that policies are more reflective of real-world situations, thereby improving health outcomes in emergency care settings.

Provincial Government Hospitals. The study focuses on specific issues that provincial government hospitals face in resource-constrained healthcare environments. The findings can help provincial health policymakers and hospital management identify crucial areas that require attention, such as infrastructure improvements, recruitment and retention tactics, and healthcare staff capacity-building initiatives. The report can be used to advocate for more funding and resource allocation to alleviate equipment shortages, improve employee training, and improve working conditions. Furthermore, the findings can assist provincial government hospitals in developing personalized treatments to meet the unique requirements of rural and disadvantaged communities, guaranteeing equal access to high-quality emergency care. By prioritizing evidence-based solutions, these hospitals can improve both patient results and the region's public healthcare reputation.

Hospital Administrators. This study can help hospital executives understand the problems that nursing staff experience when recognizing and responding to clinical deterioration. Administrators can use these insights to identify organizational deficiencies, such as gaps in training, resource allocation, and communication channels, that may impede timely and effective care delivery. The findings can help to

shape policies and programs focused at enhancing nursing support systems, such as structured training modules, more efficient staffing patterns, and streamlined workflows. Furthermore, the study can educate administrators on the necessity of cultivating a collaborative culture in which nurses' ideas and concerns are recognized and addressed, thereby improving overall hospital efficiency, patient safety, and care quality.

Nursing Administrators. Nursing administrators can utilize the findings to enhance staff training and clinical guidelines related to identifying clinical deterioration. By understanding the specific experiences and challenges faced by nurses, administrators can develop targeted educational programs that improve clinical skills and decision- making processes. Moreover, the study can facilitate the formulation of evidence-based protocols and communication strategies to expedite the identification and escalation of care, thereby improving patient safety and outcomes.

Staff Nurses. For staff nurses, the outcomes of the study can provide valuable insights that enhance their clinical practice and job satisfaction. By collaborating in this research, nurses may feel more empowered and recognized, leading to improved morale and retention rates. The findings may also contribute to the development of best practices and recommendations tailored to their unique work environment, ultimately improving their capability to recognize and respond to clinical deterioration promptly and effectively.

Future Researchers. Future researchers can build upon this study by exploring similar issues in different contexts or expanding on the findings related to clinical deterioration. The insights and frameworks developed can guide additional research into nursing practices and patient care, thereby contributing to the growing body of research in the healthcare field. This research can also serve as a foundation for quantitative studies, helping establish metrics for evaluating nursing performance related to clinical deterioration detection, thus encouraging a more comprehensive understanding of the phenomena.

Patients. The study's focus on improving communication, workload management, and environmental factors can lead to a safer working environment for nurses, which directly impacts patient safety. A well-supported and confident nursing team is better equipped to recognize deterioration signs quickly and effectively, thus improving patient safety during critical moments. By identifying the specific challenges nurses face in recognizing clinical deterioration, the study can lead to the development of more effective early detection protocols. This can help ensure that deteriorating patients are identified sooner, which allows for timely interventions, reducing the risk of adverse outcomes such as organ failure, cardiac arrest, or death.

Scope and Delimitation

The study aimed to explore how emergency nurses; at Southern Palawan Provincial Hospital, Narra Municipal Hospital and Aborlan Medicare; recognize and manage clinical deterioration in patients, providing distinct insights into their daily practices and decision- making processes. *Target Population:* The participants included both senior and junior nurses working in emergency departments of selected healthcare facilities, ensuring a diverse range of experiences. *Methodology:* Utilizing descriptive methods, the research incorporated semi-structured interviews in gathering detailed perspectives from nurses about their experiences and challenges in responding to clinical deterioration. *Geographical Context:* The research was conducted within the context of emergency departments, in various rural and urban settings, which compared the experiences across different environments. *Timeframe:* The study focused on recent experiences, gathering data from nurses in the current practice environment, which reflects contemporary healthcare challenges.

The study did not include nurses from non-emergency settings, such as general wards or outpatient clinics, as well as non-nursing staff, to maintain a concentrated focus on nursing experiences. *Time Constraints:* Data collection was limited to a specific period, ensuring that insights are relevant to current practices and challenges, which may not apply in future contexts. *Sample Size:* The research was restricted to a defined number of participants (e.g., 18 nurses), which may have limited generalizability but allowed for in-depth exploration of individual experiences. Did not evaluate triage-specific challenges, such as prioritization accuracy or resource allocation during mass casualty events, as these warrant separate investigation. *Geographical Limitation:* While multiple locations may have been considered, the study still focused primarily on certain hospitals or regions, potentially affecting the diversity of experiences shared. These scope and delimitations ensured that the study remained focused on understanding the specific experiences of emergency nurses, facilitating a detailed analysis while recognizing the constraints inherent in research.

Definition of Terms

This part of the study served as a key element, providing concise and understandable definitions of key terms and concepts used throughout the investigation. Additionally, it allows the researcher to standardize the process of acquiring data by providing operational definitions for technical terms and measurements.

Challenges Faced in Identification. These are the difficulties that nurses encounter when trying to identify clinical deterioration, which may include complex patient conditions, atypical symptoms, lack of comprehensive patient histories, or situational factors such as fast-paced or high-pressure environments that make it harder to detect deterioration.

Clinical Deterioration. This refers to the decline in a patient's health status, which may manifest through various physiological signs and symptoms. Recognizing clinical deterioration is crucial in emergency settings to ensure timely intervention and management.

Communication Challenges. These refer to difficulties in effectively communicating with other healthcare team members, including handoffs between shifts, conveying urgency, or sharing critical information about a patient's condition. Poor communication can delay interventions and hinder timely decision-making during clinical deterioration.

Decision-Making Processes. The cognitive and practical steps taken by nurses to make clinical judgments regarding patient care, including the recognition of deterioration and the choice of appropriate interventions.

Decision-Making When Treating Deteriorating Patients. This refers to the cognitive process by which nurses make critical decisions regarding interventions for patients who are deteriorating. It includes evaluating clinical information, prioritizing actions, and making time-sensitive decisions, all while balancing factors such as available resources, patient conditions, and communication with other team members.

Detection and Management of Clinical Deterioration. This category covers the comprehensive process of not only identifying clinical deterioration but also effectively managing it. It includes implementing appropriate interventions, monitoring the patient's response, and collaborating with other healthcare team members to ensure optimal patient outcomes in critical situations.

Emergency Patients. These are individuals who require immediate medical attention due to acute health issues. This category includes a diverse range of conditions, from trauma to life-threatening diseases, necessitating rapid assessment and intervention.

Environmental or Contextual Challenges. This category relates to how the physical environment, such

as noise, space layout, lighting, and the availability of resources or equipment, affects the nurse's ability to detect and respond to clinical deterioration. It also includes external factors like interruptions, distractions, or working conditions that hinder clinical assessments.

Impact of Training and Experience. This refers to how the level of education, past training, and hands-on experience influence a nurse's competence in managing clinical deterioration. It involves examining how exposure to real-life clinical scenarios and continuous learning impact a nurse's ability to recognize signs of deterioration and make informed decisions.

Knowledge and Training-Related Challenges. This category addresses the gaps in education, skills, and ongoing training that nurses face, which can hinder their ability to recognize and respond to clinical deterioration in patients. It includes issues like insufficient knowledge of early signs of deterioration or inadequate training on using medical equipment and decision-making protocols.

Nurses' Experiences. These encompass the perspectives, feelings, and insights gained by nurses while working in emergency departments. This includes their interactions with patients, decision-making processes, and challenges faced when managing patient care.

Protocols and Guidelines. These are standardized procedures or instructions followed by healthcare professionals to ensure consistent and evidence-based practices in clinical settings. In the context of this study, they refer to practices related to detecting and managing clinical deterioration.

Psychological and Emotional Challenges. These encompass the mental and emotional factors, such as stress, fatigue, burnout, and emotional attachment, that may influence nurses' alertness, decision-making, and response to clinical deterioration. Emotional pressures can affect confidence, the ability to assess critically, or lead to delays in intervention due to stress.

Recognizing Clinical Deterioration. This category focuses on the nurse's ability to identify early signs and symptoms of clinical deterioration in patients. It involves recognizing subtle or overt changes in the patient's condition, interpreting those changes in the context of the patient's health, and deciding when immediate action is required.

Rural Medical Center. A healthcare facility located in a rural area, often characterized by limited resources, fewer healthcare providers, and greater distances from tertiary care centers. Such settings may face unique challenges in emergency care delivery.

Trustworthiness. This refers to the credibility, transferability, dependability, and confirmability of research findings. It indicates the research's quality.

Workload and Time Constraints. This refers to the impact that high patient-to- nurse ratios, heavy workloads, and time pressure have on a nurse's ability to effectively detect and manage clinical deterioration. It encompasses challenges such as divided attention, limited time for patient observation, and prioritization of tasks that may interfere with monitoring patients.

Chapter II
REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents a multitude of readings of pieces of literature and studies conducted in both foreign and local, which are considered relevant to the present study.

It is essential to comprehend how nurses identify clinical deterioration in order to act quickly. Studies reveal that nurses working in emergency departments (EDs) mainly depend on clinical evaluations and vital signs to spot indicators of decline. Numerous factors affect recognition accuracy and speed, such as the intricacy of patient situations and the environmental stressors associated with emergency care. (Liu et

al., 2024). Also, according to their study, the first, "early recognition and response," demonstrated how crucial it is to check vital signs in order to identify and address clinical deterioration. The second section, titled "Information Transfer," demonstrated the capabilities and difficulties related to information transfer in care escalation. The third component, "abilities, education, and training," examined the competencies emergency nurses should have and their perspectives on training. The fourth, "support culture," addressed the vital function of senior nurses in collaborating with other emergency department personnel.

Emergency nurses frequently attribute their capacity to identify worsening to a blend of clinical expertise and gut feeling stemming from their personal experiences. The efficacy of this identification is critical since neglecting to identify deterioration may result in higher rates of morbidity and death. In high-performing hospitals, staff nurses work with RRTs both during and after activation, which decreased staff nurses' fear of retaliation, according to a study that contrasted these hospitals with lower-performing hospitals. (Dukes et al., 2019). According to recent reviews of the literature, RRT activation delays are common and are influenced by both organization- and person-related factors (e.g., monitoring technology, EWSS sensitivity and specificity, support from hospital leaders, and clinical expertise of nurses and physicians) (Tilley & Spencer, 2020).

According to Ruiz (2024), nurses often reported that signs of patient decline were frequently noticed during shift changes or handoffs, times considered crucial for identifying potential issues and clarifying patient baselines for incoming staff. Participants noted that these details could go unnoticed by others, particularly during the day shift when signs were more apparent. Overnight shifts presented additional challenges, as nurses were less likely to wake patients hourly, making it harder to discern between a patient simply resting or showing signs of fatigue due to an underlying issue. Nurses expressed concern that minor changes early in the shift might go unobserved, potentially delaying intervention. Additionally, a common complaint from nurses was that signs of decline were noticed at shift changes or during handoffs. The bedside handoff was considered a crucial procedure to spot possible issues and provide the next nurse a chance to inquire about the patient's baseline. When you get up in the morning, you might be thinking that they are simply sleeping. Overnight, they become fatigued. They're just now catching up after two restless days. When a patient is anticipated to experience fatigue later in the day, the decline was less evident.

Nearly all nurses expressed confidence in their abilities to identify acute anomalies, while subtle alterations were more challenging to identify. As an example of how easy it is to identify acute changes, a nurse stated, "A patient who wasn't requiring oxygen all of a sudden does require oxygen." Small changes in the patients are easier to spot because the majority of our nurses know them. "Oh, this is different from how they were yesterday," you would think, as we've all been there. Some nurses question whether these minor changes are indeed a sign of mild worsening, even though the illness process may mask them and make them seem baseline. (Ruiz et al., 2024)

Their study also showed that all nurses stressed the use of intuition while deciding whether to alert the RRT after seeing worsening. It takes time to learn to trust your intuition. "I think that your instincts have a big part in that [recognizing deterioration]." "I think it is gut...You just know if you have the time or you don't have time for somebody to come in and look, or you think, no, we need to get more people here right now." to "If you really feel like you need to call it, you probably should call it".

Additionally, a nurse's experience was essential to her capacity to identify decline. "When I was in training, a nurse told me that if a patient feels cold and clammy, they're going to die. I usually call a rapid, even if I don't have the vitals to support it," said the nurse in their study.

The nurses felt certain that they could recognize sudden changes in the patient's condition that would call

for the activation of RRTs. The ability to recognize small changes was difficult for all nurses, but it was more worrying because fewer nurses were staffed at night and there were more beginner nurses. Their results agree with those of Petersen, (2017), who discovered that lower resource availability at night resulted in lower monitoring. Additionally, their research revealed that deterioration on days linked to sleep was not immediately recognized. It can be difficult for nurses to distinguish between weariness and a change in status in patients who have trouble sleeping at night or who are returning from physical therapy because they frequently sleep during the day. The bedside report between the night and day nurses was enthusiastically endorsed by the nurses in their study as a crucial procedure to spot minute alterations. This gives the new nurse the opportunity to inquire as to whether the patient's troubling observations were typical for that patient. Although research has demonstrated that bedside reports enhance patient satisfaction and safety (such as falls) (Bressan, 2019), more study is required to determine how they affect the prompt detection of deterioration.

Above all, efficient communication is essential for treating clinical deterioration in emergency settings. According to research, patient outcomes are significantly impacted by efficient information sharing during patient transfers and care escalation. Nurses have a crucial role in keeping the other members of the healthcare team informed about their patients' conditions so that prompt interventions can be provided (Watkinson et al., 2024). Healthcare organizations' hierarchical systems can be a barrier to good communication since they can discourage nurses from escalating treatment when it is needed. Furthermore, inadequate documentation procedures might hinder communication, which can cause delays in identifying and addressing deterioration (Watkinson, 2024).

The Australian Commission on Safety and Quality in Healthcare defines acute deterioration as physiological, psychological, and cognitive changes that signify a decline in the patient's health state, perhaps occurring over hours or days.

The 2024 article from the Communicating for Safety resource page states that communication is essential for the swift detection, escalation, and management of acute deterioration. Health service organizations must have mechanisms to facilitate prompt access to necessary resources for the workforce, patients, families, and caregivers during episodes of clinical deterioration. Efficient collaboration and communication, encompassing the documentation of diagnoses and strategies for monitoring observations and ongoing management, are essential for delivering safe, high-quality care to the deteriorating patient.

Timely and effective communication on a patient's deterioration is essential for maintaining patient safety. Patients and their caregivers are frequently adept at identifying early indicators of acute deterioration, rendering these concerns significant for clinicians to contemplate and address. Individuals with a history of mental state degradation may possess insight into triggers for further episodes, and their self-awareness can facilitate early detection. Discussions concerning advance care planning, resuscitation, and treatment preferences may be undertaken by any member of the healthcare team and must be effectively conveyed and incorporated into a resuscitation plan. Employing organized communication protocols or mnemonics can markedly improve the clarity and precision of information exchange, since these instruments assist physicians in recalling vital data, mitigate the danger of omitting information, and foster clear, logical, and accurate communication.

Liu et al. (2022) assert that efficient clinical communication regarding patient deterioration constitutes a complex process. It encompasses understanding when and whom to call if a patient's condition worsens, identifying the pertinent information to communicate, and determining the most effective means of conveying this information. Key contributing factors to bad occurrences in healthcare include the absence

of handover mechanisms, ineffective communication tactics during handover, and inadequate clinical documentation. Crucial information for identifying and addressing acute deterioration may be neglected during clinical handover. Inadequate communication presents dangers to patient safety during transfers between clinical areas and during critical incidents, such as rapid response system calls. Inadequate verbal and written communication among clinicians can lead to care discontinuity, treatment delays, adverse events, and heightened morbidity and mortality rates. Neglecting to read documents may potentially lead to unrecognized adverse events and acute worsening that are not addressed. (Liu et al., 2022). Establishing standardized communication protocols (both written and verbal) and training personnel to implement these practices is crucial for enhancing team performance and ensuring accurate information is delivered promptly, to the appropriate individual, for valid purposes. Nurses voiced apprehension regarding the inadequate communication abilities of some colleagues during Rapid Response Teams. This was particularly concerning because, despite being intended as a resource, the charge nurse possesses less experience. The capacity to "paint a clinical picture"—specifically, to deliver a succinct and comprehensible summary of pertinent medical history, current treatment, nursing interventions for deterioration, and changes in vital signs and laboratory values—was more challenging for novice nurses to execute. This indicates that healthcare organizations and nursing programs must enhance the preparedness of nurses to integrate information, and organizations can fortify nursing orientation via mock Rapid Response Team exercises and mentorship initiatives. Research on RRT efficiency indicates that a communicative culture is essential (Lyons, 2018).

Should a physician be unavailable, an RRT nurse will relay information from the primary nurse to the physician by telephone, as indicated by our sample of nurses from a community-based hospital. There is a chance that this "phone game" will hinder communication and cause therapy to be delayed. An investigation into nurses' communication skills regarding a patient's health change is warranted.

According to Lourenco, (2023), for nurses to be adequately prepared to identify and address clinical deterioration, continuing education and organized training programs are essential. Studies indicate that nurses' ability to identify early indicators of decline is enhanced by simulation-based training and just-in-time educational interventions.

Additionally, it has been found that mentorship programs for new nurses are helpful in fostering the clinical abilities and self-assurance needed to manage patients who are deteriorating. Creating a culture that supports staff development and ongoing education is also essential to raising the standard of emergency treatment as a whole.

According to an article from Overcoming Barriers Impeding Nurse Activation of Rapid Response (2019), continuous education is essential for nurses to stay informed about the latest evidence-based practices, clinical guidelines, and technological advancements in a rapidly changing healthcare landscape. It promotes adaptability, enabling nursing professionals to effectively meet new challenges in patient care.

Simulation-Based Training: This technique offers realistic, controlled environments where nurses can practice clinical skills without jeopardizing patient safety. It enhances their ability to identify early signs of deterioration and boosts confidence in managing such situations.

Just-in-Time Educational Interventions: This approach provides immediate access to pertinent information and resources, allowing nurses to refresh their knowledge as needed, particularly in fast-paced settings like emergency departments. Studies show that these interventions improve nurses' recognition and response to patient deterioration.

Mentorship for Novice Nurses: Experienced nurses mentor less experienced staff, offering guidance and

support that help build confidence and essential clinical skills for assessing and managing deteriorating patients.

Culture of Continuous Learning: Cultivating an environment that prioritizes ongoing education encourages staff engagement in professional development, enhancing teamwork, communication, and collaboration among healthcare professionals—all crucial for patient safety and effective care. The combination of continuous education, structured training, mentorship, and a supportive learning culture significantly strengthens nurses' abilities to recognize and address clinical deterioration, ultimately leading to better patient outcomes in emergency care settings.

Continuous education is vital for nurses to keep up with the latest evidence-based practices, clinical guidelines, and technological innovations in the ever-evolving healthcare landscape. This ongoing education fosters adaptability, allowing nursing professionals to respond effectively to new challenges in patient care.

Simulation-based training plays a key role in this process, as it creates realistic and controlled environments where nurses can hone their clinical skills without risking patient safety. By engaging in simulations that mimic real-world scenarios, nurses can develop both their technical and critical thinking abilities, leading to heightened recognition of early signs of patient deterioration and increased confidence in managing such cases.

Just-in-time educational interventions offer immediate access to crucial information, enabling nurses to refresh their knowledge precisely when they need it. This approach is especially beneficial in high-pressure environments, such as emergency departments, where quick decision-making is essential. Research supports that these educational interventions significantly enhance nurses' ability to recognize and respond to changes in patient conditions.

Additionally, mentorship is a critical component for novice nurses, as experienced practitioners provide guidance, resources, and encouragement, fostering a supportive learning environment. This mentorship helps less experienced nurses build confidence and acquire the clinical skills necessary for effectively assessing and managing deteriorating patients.

Creating a culture that values continuous learning is fundamental for improving the overall quality of emergency care. When healthcare facilities prioritize ongoing education, staff become more engaged in professional development. This culture not only enhances individual competencies but also promotes teamwork, communication, and collaboration among healthcare professionals, which are vital for patient safety and effective care delivery.

The synergy of continuous education, structured training programs, mentorship, and a supportive learning environment significantly enhances nurses' capacity to identify and address clinical deterioration, ultimately improving patient outcomes in emergency healthcare settings (Overcoming Barriers Impeding Nurse Activation of Rapid Response, July 19, 201).

Research shows that specific training programs have proven highly effective in helping nurses recognize and manage clinical deterioration.

One prominent approach is Just-in-Time Training (JITT), which delivers focused, timely education to nurses at critical moments. Studies indicate that JITT significantly enhances nurses' skills and knowledge by equipping them with the necessary information to recognize early warning signs of patient deterioration in real-time (Peebles et al., 2020). Another impactful method is simulation-based training, which has gained recognition as an invaluable educational strategy. Both web-based and high-fidelity simulations have demonstrated improvements in nurses' confidence and decision-making skills. By simulating real-

life scenarios in a controlled environment, nurses are better prepared to handle deteriorating patients effectively. For example, recent research highlights that simulation training improved pediatric nurses' ability to recognize signs of clinical deterioration (Liaw et al., 2016).

Mentorship programs also play a critical role, particularly in supporting novice nurses. These programs pair new nurses with experienced mentors, fostering confidence and enhancing clinical judgment. Evidence shows that mentorship, often combined with simulation and hands-on learning, greatly improves nurses' competence and preparedness to respond to patient deterioration (Gayrama-Borines & Coffman, 2021).

Lastly, interprofessional education (IPE) programs focus on collaborative training among healthcare professionals, including nurses, physicians, and allied health staff. These programs emphasize effective communication and shared responsibility for patient care, ultimately improving clinical outcomes by strengthening team members' abilities to escalate care when needed (Newman-Deb, 2024).

Collectively, these training programs—continuing education, simulation, mentorship, and interprofessional collaboration—are essential in equipping nurses to recognize and manag clinical deterioration across healthcare settings. Their implementation enhances patient outcomes and reinforces safety in clinical practice.

The research exploring the experiences of nurses in recognizing and managing clinical deterioration sheds light on the challenges they face in emergency settings. This study emphasizes the critical need for improved education and structured protocols to better support nurses in their vital roles during such crucial situations. (Liu et al., 2024).

Another significant investigation focused on whether facilitation could enhance nurses' capabilities in monitoring vital signs, interpreting data, and escalating care for deteriorating patients. The findings indicate that a multi-level facilitation intervention has shown initial improvements in adherence to clinical practice guidelines, highlighting the potential benefits of systematic support for nursing practices (Bucknall et al., 2022).

Moreover, a study highlighting the experiences of frontline nurses with deteriorating ward patients revealed a pressing necessity to enhance their skills in recognizing and responding to clinical deterioration. The study advocates for better nursing education and stronger support systems to empower nurses in their vital responsibilities. (Lim et al., 2023).

In the context of emergency care, a distinct study examined the prevalence of undetected clinical deterioration among patients in Australian emergency departments. The findings indicated that this issue affects up to one in seven patients, contributing significantly to high mortality rates. The study underscores the importance of enhancing education and awareness among nursing staff to mitigate these risks (Butler et al., 2018).

Another noteworthy study explored the attitudes and perceptions of general ward nurses toward their ability to recognize and respond to clinical deterioration while utilizing an automated rapid response system. The research emphasizes the challenges nurses encounter in these situations and the necessity for systematic support to facilitate their effectiveness.

Lastly, a qualitative study that examined the experiences of enrolled and registered nurses in recognizing clinically deteriorating patients in general wards provided critical insights into their perceptions and the barriers they face in achieving effective recognition and response. This work emphasizes the complexities involved in nursing roles concerning patient deterioration.

In recent years, numerous local studies have addressed the experiences, challenges, and effective practices

of nurses regarding the recognition and management of clinical deterioration in patients. This synthesis highlights the key findings across various research efforts.

Numerous studies have repeatedly highlighted how important it is for nurses to have more formal education and training. The results show that continuous education greatly improves nurses' capacity to identify and appropriately address early indicators of clinical deterioration. Emergency and general ward nurses' recognition and response skills have been demonstrated to be enhanced by simulation-based training and just-in-time educational interventions. Furthermore, mentorship programs are emphasized as helpful in enhancing the confidence and critical clinical abilities of new nurses.

Because clinical deterioration can present with many confusing warning signs and complex patient presentations, nurses often struggle to identify it. According to a qualitative study, frontline nurses frequently have trouble spotting minute changes in patients' health, which can cause them to respond slowly. These difficulties highlight how urgently we need better educational frameworks that focus on these particular topics.

Studies reveal a worrisome incidence of clinical deterioration that goes unnoticed in patients, especially in ERs, where about 12.9% of patients have severe decline without prompt diagnosis. This highlights the necessity of appropriate training and suggests that current technologies might not be able to sufficiently assist nurses in recognizing significant changes in patient circumstances.

The effectiveness of nurses can only be increased by having clear policies in place for handling clinical deterioration. Research has indicated that the implementation of standardized methods might lessen practice variability and enhance overall response times. Research has also been done on the use of automated rapid response systems, and the results indicate that these systems can help nurses identify and treat patients who are failing more quickly, albeit there are still issues with their proper application.

Nurses' involvement in managing clinical deterioration can be improved by effective interprofessional teamwork. Working together with other medical professionals promotes a more comprehensive approach to patient care by enabling shared accountability and knowledge in identifying warning signals and carrying out care measures.

By concentrating on these areas, healthcare institutions can empower nurses, improve patient outcomes, and lower the incidence of undetected clinical deterioration in a variety of clinical settings. Taken together, these studies highlight the significance of ongoing education, clear protocols, systematic support, and interprofessional collaboration in enhancing nurses' recognition and management of clinical deterioration. Strengthening patient safety standards and improving nursing abilities will depend on the practical application of study findings.

Together, these studies provide valuable perspectives on the education, attitudes, and experiences of nurses related to clinical deterioration. They collectively advocate for ongoing training and the cultivation of supportive environments to enhance patient safety and care quality.

Synthesis

Recognizing and managing clinical deterioration is a critical skill for nurses, particularly those working in high-stress environments such as emergency departments (EDs). Studies have shown that nurses primarily rely on clinical assessments and vital signs to detect early signs of patient decline. However, their ability to recognize deterioration effectively can be significantly influenced by various factors, including the complexity of patient cases and the environmental stressors present in emergency care settings.

Research by Liu (2024) emphasizes the importance of early recognition of vital signs to identify clinical

deterioration, highlights the challenges nurses face in transferring information during care escalations, and discusses the necessary skills and training required for emergency nurses. A supportive culture within EDs, particularly involving senior nursing staff collaboration, is seen as vital for fostering an environment conducive to quick and effective responses to patient deterioration.

Similarly, anecdotal evidence from nurses indicates a reliance on both clinical experience and intuition in identifying signs of decline. Nurses have articulated that the capacity to make rapid assessments is built on their clinical expertise and a gut feeling developed through experience. Intuition plays a crucial role in decision-making when determining whether to activate Rapid Response Teams (RRTs), with many nurses acknowledging that their instincts help them make timely calls even in the absence of concrete vital sign abnormalities.

The urgency of these observations is underscored by findings from various studies indicating delays in recognizing clinical deterioration, particularly at night when staffing is reduced and less experienced nurses may be more prevalent. For instance, the transition between shifts can be a pivotal moment for recognizing subtle changes in patient conditions that might otherwise go unnoticed. Many nurses have identified shift changes and handover processes as crucial for spotting potential issues and affirming patient baselines, as oversight during these times could lead to delays in care.

Effective communication is paramount in these scenarios, as it significantly impacts patient outcomes during transfers and escalation of care. When communication channels are obstructed by hierarchical structures within healthcare organizations, nurses may hesitate to escalate patient care in critical situations. Poor documentation can also hamper timely responses and result in adverse events, emphasizing the need for standardized communication protocols that ensure timely information transfer between healthcare professionals.

In addressing these gaps, many studies have proposed several strategies to enhance nurses' detection of clinical deterioration. Continuous education and structured training programs are essential. For instance, just-in-time training (JITT) and simulation-based training have shown promise in improving nurses' abilities to swiftly recognize and respond to changes in patient conditions. Simulation training, when combined with effective mentorship programs, helps novice nurses build confidence and develop crucial clinical judgment skills.

The literature strongly supports the importance of fostering a culture of continuous learning within healthcare settings as a means to improve emergency care outcomes. Encouraging teamwork, enhancing communication skills, and embracing an interdisciplinary approach help ensure comprehensive awareness and identification of patient deterioration, ultimately leading to improved patient safety and care quality.

In summary, enhancing nurses' skills in recognizing clinical deterioration is multi- faceted and requires an integrated approach involving ongoing education, structured training opportunities, effective communication practices, and supportive mentorship. By fostering these elements, healthcare institutions can improve nurses' capabilities and, therefore, patient outcomes across various clinical settings.

Theoretical Framework

For a study focusing on "Challenges Encountered by Nurses in the Emergency Department as Basis for Improvement of Competency and Training Plan," an appropriate nursing theory would be Patricia Benner's "From Novice to Expert" Theory. This theory is highly relevant because it focuses on the development of nursing expertise through experience and learning, aligning well with the goal of improving competency and developing training plans.

Focus on Competency Development: Benner's model outlines five levels of nursing proficiency—novice, advanced beginner, competent, proficient, and expert. It emphasizes the importance of experience and structured learning in progressing through these levels.

Application to Emergency Settings: The theory acknowledges the challenges nurses face in high-pressure environments like the emergency department and highlights the importance of context-specific skills and intuitive decision-making, which are critical in managing emergency situations.

Basis for Training Plans: Benner's theory can guide the design of training programs tailored to the current competency level of nurses, addressing gaps in knowledge and skills while promoting growth toward advanced levels of expertise.

Adaptation to Challenges: The theory recognizes the dynamic and unpredictable nature of nursing practice, making it well-suited for the emergency department, where nurses must quickly adapt to rapidly changing patient conditions.

Using Benner's theory as a framework, the study can explore how nurses navigate challenges in the emergency department and how targeted training plans can help them advance their skills, improve decision-making, and enhance patient care outcomes.

The framework serves to guide the research process, structure the exploration of quantitative data, and facilitate a comprehensive understanding of the clinical environment. The theoretical framework is rooted in several key concepts that are critical to understanding nurses' roles in emergency settings:

Clinical Deterioration: Refers to the progressive decline in a patient's health status, necessitating immediate attention from nursing staff to prevent adverse outcomes. The framework should address how nurses recognize early signs of deterioration and their processes for intervention.

Relational Care: Emphasizes the nurse-patient relationship, focusing on trust, communication, and emotional support. This aspect examines how relational dynamics impact nurses' experiences and their ability to provide holistic care, particularly in high- stress environments like emergency departments.

Rapid Response Teams (RRTs): The integration of RRTs into the healthcare system provides a structured method for addressing clinical deterioration. The framework should explore nurses' perceptions of when and how to activate these teams, as well as their training and preparedness for such situations.

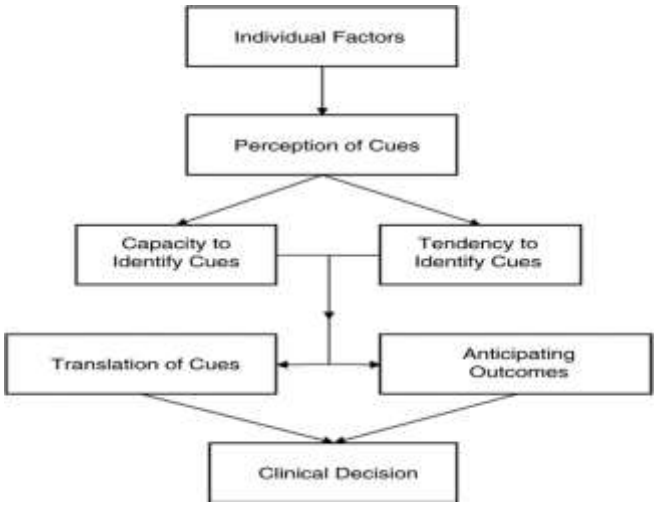

Figure 1. Theoretical framework adapted from Signal Detection Theory (Macmillan & Creelman, 2005) and the Situation Awareness Model (Endsley, 1995)

Signal Detection Theory (SDT): Combining Signal Detection Theory (SDT) and the Situation Awareness (SA) Model provides a solid theoretical framework for understanding nurses' experiences in identifying and treating clinical deterioration in emergency patients. SDT is concerned with decision-making under uncertainty, which is particularly relevant in emergency settings where nurses frequently face ambiguous or incomplete information.

The theory posits that decision-making involves distinguishing between signals (indications of clinical deterioration) and noise (non-critical symptoms or misleading signs). Applying SDT helps to understand how nurses detect subtle signs of patient deterioration amid distractions, time pressures, and competing information. It allows exploration of factors that influence their "hit" (correct identification) and "false alarm" (incorrect identification) rates, providing insights into decision thresholds and biases.

SDT and SA Integration in the Study; Through the lens of SDT, nurses' decision- making process for identifying clinical deterioration can be examined, with a focus on how they strike a compromise between specificity (avoidance of needless interventions) and sensitivity (detecting actual deterioration).

SA highlights how nurses perceive, interpret, and project changes in patients' states, providing context for understanding the cognitive processes that support detection. The use of a quantitative method enables a more thorough investigation of the ways in which the interaction between detection (SDT) and awareness (SA) is influenced by individual experiences, skills, and the situational environment (e.g., patient load, staffing).

Emergency department (ED) nurses operate in a high-stakes environment where rapid decision-making, clinical expertise, and emotional resilience are constantly tested. To comprehensively examine the challenges they face and design effective competency-based training, this study draws upon multiple nursing and non-nursing theories, each offering unique insights into different dimensions of ED practice.

Patricia Benner’s "From Novice to Expert" and the Journey of Competency

At the core of this study is Benner’s theory, which posits that nursing expertise evolves through experiential learning and reflective practice. In the ED, nurses progress from rule-based novices to intuitive experts who anticipate patient deterioration and prioritize actions amid chaos. However, this progression is often hindered by systemic pressures—understaffing, burnout, and inadequate training—preventing nurses from reaching proficiency. By mapping ED nurses’ self-reported challenges onto Benner’s five stages, the study can identify critical gaps in their developmental trajectory and tailor training to bridge them.

Signal Detection and Situation Awareness: The Cognitive Battlefield

The integration of Signal Detection Theory (SDT) and the Situation Awareness (SA) Model sheds light on how nurses distinguish critical "signals" (e.g., subtle vital sign changes) from "noise" (e.g., non-urgent symptoms) in a chaotic ED. Nurses with heightened SA—those who perceive, comprehend, and project patient trajectories effectively—make fewer missed detections ("misses") and unnecessary interventions ("false alarms"). Yet, cognitive overload, fatigue, and poor ergonomic design (e.g., cluttered workspaces) degrade SA. Quantitative analysis of nurses’ detection rates, paired with environmental assessments, can reveal how workplace stressors impair clinical judgment, informing ergonomic and cognitive training interventions.

Jean Watson’s Human Caring: The Emotional Toll of ED Nursing

While technical skills are prioritized in emergencies, Watson’s Theory of Human Caring reminds us that relational care is equally vital. ED nurses often grapple with moral distress when they cannot provide

holistic care due to time constraints or institutional barriers. This theory frames compassion fatigue and emotional detachment as byproducts of an unsupportive system, not individual failings. Training programs must, therefore, integrate resilience-building and self-care strategies alongside clinical upskilling to sustain nurses' emotional capacity for caring.

The Swiss Cheese Model: When Systems Fail Nurses

James Reason's Swiss Cheese Model shifts the lens from individual blame to systemic vulnerabilities. In the ED, latent failures—such as inefficient triage protocols, lack of backup staff, or poor EHR design—align like "holes in Swiss cheese," allowing errors to slip through. For instance, a nurse may miss early sepsis signs not due to incompetence but because alarm fatigue desensitized them to monitor alerts. By analyzing near-misses and adverse events through this model, the study can advocate for structural reforms (e.g., streamlined workflows, better decision-support tools) that reduce reliance on heroic individual efforts.

Dual-Process Theory: Balancing Intuition and Analysis

Kahneman's Dual-Process Theory explains how ED nurses toggle between fast, intuitive thinking (e.g., recognizing a "crashing" patient) and slow, analytical reasoning (e.g., interpreting ambiguous lab results). Under stress, nurses may over-rely on intuition, leading to cognitive biases (e.g., anchoring on initial diagnoses). Conversely, analysis paralysis can delay life-saving actions. Training programs informed by this theory could use high-fidelity simulations to hone both systems of thinking, teaching nurses to "meta-cognize" when to trust their gut and when to pause for deliberation.

Lewin's Change Theory: Making Training Stick

Finally, Lewin's Change Theory provides a roadmap for implementing and sustaining training improvements. Resistance to new protocols is common in the ED, where routines are deeply ingrained. The "unfreeze-change-refreeze" sequence justifies pilot testing small, evidence-based interventions (e.g., daily 10-minute SA drills), demonstrating their efficacy, and institutionalizing them through policy shifts—ensuring lasting competency growth.

The resulting training plan would be hierarchical (aligned with Benner's stages), adaptive (using simulations to refine intuition and analysis), and system-aware (advocating for structural supports like better nurse-to-patient ratios). This theoretical pluralism ensures that solutions are as complex and nuanced as the challenges ED nurses face.

Conceptual Framework

A conceptual framework for examining nurses' experiences in recognizing and managing clinical deterioration in emergency patients can be established by synthesizing essential components from Signal Detection Theory (SDT) and the Situation Awareness (SA) Model. This framework will concentrate on comprehending how nurses identify and react to indicators of patient deterioration in a high-pressure, dynamic setting.

Endsley's Situation Awareness (SA) Model offers a valuable framework for understanding how nurses recognize and respond to clinical deterioration, highlighting three progressive levels of awareness essential for patient safety.

The first level, perception of elements in the environment, involves the nurse's ability to notice changes in a patient's condition, such as shifts in vital signs or behaviors that may signal a decline. At this stage, keen observation is fundamental, as nurses gather initial data about the patient's current state.

The second level, comprehension of the current situation, requires nurses to interpret these observed

changes, integrating information from multiple sources to assess the clinical significance. Here, the nurse synthesizes data to form a clear picture of the patient's overall health status and the immediate implications of the changes observed.

The final level, projection of future status, involves anticipating the likely progression of the patient's condition. This forward-thinking allows nurses to predict potential complications and take proactive steps to intervene before the situation worsens.

Applying this SA model illuminates the processes through which nurses develop and sustain awareness in the clinical environment, emphasizing the importance of each stage in detecting early signs of deterioration and responding appropriately.

Application of the Framework; Using this framework, research can explore nurses' lived experiences and perspectives on identifying and treating clinical deterioration. It can help identify themes related to decision-making processes, cognitive challenges, and coping strategies.

Data Collection Methods: Methods such as interviews, focus groups, and observational studies can be used to collect data. The framework guides the development of interview questions and observational criteria, ensuring they address all relevant aspects.

Research Paradigm

The Input-Process-Output (IPO) mode is a conceptual framewrok used in research design to investigate and understand the relationships between numerous varibales and aspects inside a system or ptoblem. It is a graphical representation of the flow of information, activities; and outcome inside a workflow or process.

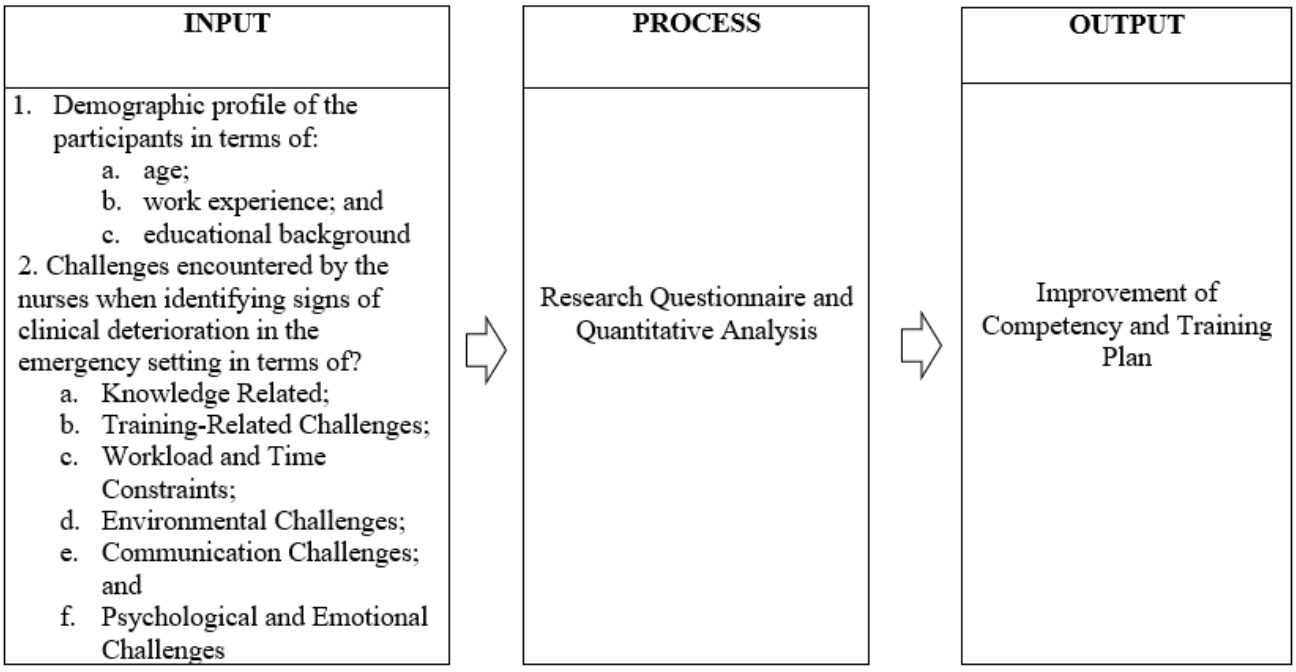

Figure 2: Research Paradigm of the Study

The diagram in the previous page shows the relationships of the variables studied using the Input-Process-Output (IPO) model. The Input-Throughput-Output Diagram represents the structured flow of the research

process to explore nurses' experiences in detecting and managing clinical deterioration. It begins with Inputs, which involve the demographic profiles, the challenges encountered by the nurses when identifying signs of clinical deterioration in the emergency setting in terms of knowledge and training-related challenges, workload and time constraints, environmental or contextual challenges, communication challenges, and psychological and emotional challenges. The process transitions to Throughput, involving data collection and analysis methods to extract meaningful insights. Finally, it culminates in the Output, delivering research findings, practical recommendations, and expected impacts on patient safety and nursing practices.

Chapter III
RESEARCH METHODOLOGY

This chapter explains the research design, research setting, research population, instrumentation, data gathering procedure, and statistical tools used in the study.

Research Design

The goal of the research design for a quantitative study—examining nurses' experiences in recognizing and managing clinical deterioration in emergency patients— should be to thoroughly examine the experiences, viewpoints, and difficulties that nurses encounter. The research design is a quantitative descriptive research design. A quantitative descriptive approach is suitable for capturing the depth and complexity of nurses' experiences. It allows for understanding the meaning behind their decision-making processes, situation awareness, and the factors influencing their responses.

Research Population

The respondents of this study were the emergency nurses working in three hospital emergency departments (EDs) who have had experiences with identifying and managing clinical deterioration in patients, specifically at the Aborlan Medicare, Narra Municipal Hospital, and Southern Palawan Provincial Hospital.

Research Locale/Setting

The study was done at Aborlan Medicare Hospital, located in Aborlan, Palawan, Philippines. It serves as an essential healthcare facility for the local community. Situated along the national highway, it is easily accessible to residents in the area and neighboring municipalities, offering basic healthcare services to address the medical needs of the population.

Another hospital is at southern Palawan's healthcare system, Aborlan Medicare Hospital. This hospital operates alongside other key facilities such as the Southern Palawan Provincial Hospital and the Narra Municipal Hospital. The Southern Palawan Provincial Hospital, located in Brooke’s Point, serves as a primary referral center for more advanced medical care in the region. Similarly, the Narra Municipal Hospital in the municipality of Narra provides intermediate healthcare services, catering to the surrounding areas. Together, these institutions form a network of healthcare support, ensuring that the residents of southern Palawan have access to a range of medical services to meet their diverse needs.

Research Instrument

The adapted research questionnaire is a comprehensive tool designed to gather data from nurses about their experiences, perceptions, and challenges in identifying and managing clinical deterioration in

emergency department (ED) settings. It is structured into six distinct sections, each targeting a specific domain relevant to the study.

Part 1: Demographic Information

This section collected essential background information about the participants, including their age, years of experience as a nurse, years of service in the ED, and educational attainment. This demographic data ensured the study's ability to analyze trends and insights based on participants' professional backgrounds.

Part 2: Nurses' Experiences and Perceptions

This section delved into various challenges faced by nurses in recognizing and responding to clinical deterioration. Subsections explored issues related to knowledge gaps, training adequacy, workload, time constraints, environmental and contextual factors, communication challenges, and psychological or emotional pressures. The questions used a 4-point Likert scale to measure the degree of agreement or disagreement with statements, ensuring nuanced data collection.

Part 3: Perceptions of Clinical Deterioration

This section focused on how nurses perceive their ability to recognize and respond to clinical deterioration. It examined factors such as confidence levels, familiarity with warning signs, and the impact of fast-paced ED environments. It also explored the role of experience and repeated exposure in enhancing nurses' skills in detecting deterioration.

Part 4: Decision-Making Process

Here, the questionnaire assessed nurses' confidence and preparedness to make decisions during time-critical situations. The questions explored how factors like time constraints, patient conditions, available resources, and team collaboration influenced decision-making in managing clinical deterioration.

Part 5: Facilitators and Barriers

This section identified the factors that either supported or hindered the nurses' abilities to detect and manage clinical deterioration. The questions addressed the organizational factors, access to advanced monitoring equipment, teamwork, communication, and institutional policies that may act as barriers.

Part 6: Recommendations for Improvement

The final section sought input on potential strategies for improving ED practices. It examined the perceived need for protocol enhancements, tools and resources, standardized early warning systems, and improved communication systems to better support nurses in managing deteriorating patients.

Scale for Responses

The questionnaire employed a 4-point Likert scale, ranging from "Strongly Disagree" (1) to "Strongly Agree" (4), to allow respondents to express the intensity of their agreement or disagreement with each statement. This scale ensured a balanced and structured approach to understanding nurses' perspectives.

Demographics (Part 1): Captured variables known to influence competency (age, experience, education).

Challenges Framework (Parts 2–5): Organized by themes from literature—knowledge, environment, psychology, decision-making.

Recommendations (Section 6): Open-ended prompts (not shown here) complemented scaled items to gather actionable insights.

The questionnaire was adapted from validated tools (NWI-R, NASC-CDM) and grounded in theories of clinical judgment (Benner, SDT), with modifications informed by recent ED nursing literature (Cooper et al., 2020; Jones et al., 2021)."

Sampling Procedure

This study employed a carefully designed sampling strategy to ensure the selection of qualified participants who could provide meaningful insights into the challenges faced by emergency department nurses. The sampling approach combined stratified and purposive techniques to achieve both representativeness and relevance to the study objectives.

First, the target population of emergency nurses was organized into distinct strata based on their hospital affiliation. Three hospitals were included in the study: Aborlan Medicare Hospital, Narra Municipal Hospital, and Southern Palawan Provincial Hospital. This stratification ensured that the sample would reflect potential variations in work environments, patient populations, and institutional protocols across different healthcare facilities.

From each hospital stratum, participants were then purposively selected based on specific eligibility criteria designed to identify nurses with substantial emergency department experience. The research team identified and recruited registered nurses who met the following key qualifications: they must be currently practicing in the emergency department, have a minimum of two years of direct ED nursing experience, and be actively involved in recognizing and managing clinically deteriorating patients. These criteria were established to ensure that all participants possessed the necessary expertise to provide informed perspectives on the study's focus areas.

The selection process deliberately excluded certain groups to maintain the study's focus. Nurses working exclusively in administrative or non-clinical roles were not included, as their experiences might not directly reflect the challenges of bedside emergency care. Similarly, nurses with less than two years of ED experience were excluded to ensure that all participants had sufficient exposure to the complex and dynamic nature of emergency nursing.

A total of 45 nurses participated in the study, with 15 selected from each hospital stratum. This balanced distribution across facilities allowed for comparative analysis while maintaining sufficient sample size for meaningful data collection. The combination of stratification by hospital and purposive selection based on experience created a robust sampling framework that supported the study's goals of examining ED nursing challenges and informing competency development initiatives.

This sampling methodology was particularly appropriate for the study as it ensured that participants could speak authoritatively about emergency nursing practice while accounting for potential institutional differences that might influence their experiences and perspectives. The approach balanced the need for representative sampling with the practical requirements of qualitative research seeking depth of understanding from knowledgeable informants.

Data Analysis Procedure

To extract meaningful information and conclusions from data, data analysis entails using statistical and analytical tools. To determine the relationship between the roles of the nurse administrators and upholding patient safety and reducing medical errors, statistical analysis was performed on the quantitative data from the questionnaire.

The following statistical techniques were used in the study: (1) Descriptive and inferential analysis (measurements of central tendency, dispersion, and frequency). Data was arranged using a frequency table and percentage, starting with the lowest value and working up to the highest; the overall average of the combined groups was evaluated and compiled using a weighted mean

Ethical Considerations

Informed Consent: Secured informed consent from all participants, guaranteeing their comprehension of the study's objectives, methodologies, and their entitlement to withdraw at any moment. *Confidentiality:* Anonymized participant data to safeguard identities and securely store data to avert illegal access. *Ethical Approval:* Secured authorization from an appropriate ethics review board prior to initiating the study. The study protocol required approval from the hospital's ethics committee. Informed agreement was secured from the parents or guardians of the newborns before participation, guaranteeing their complete understanding of the study's objectives and methodologies. Protocols were established to safeguard the confidentiality and anonymity of participant information.

The researcher implemented the principle of informed consent through three primary components: 1) Consent must be provided voluntarily; 2) Consent must be granted by a client or individual possessing the capacity and competence to comprehend; 3) The client or individual must have sufficient information to serve as the ultimate decision-maker. The researcher also ensured the confidentiality of the responders and the information provided. This study prioritized ethical conduct using stringent procedures. The researcher secured the informed consent, guaranteeing clarity regarding the study's objectives, participants, and affiliated institutions. Data confidentiality is crucial, with anonymous and confidential questionnaires restricted solely to the study team. The need of preventing injury and utilizing information only for the study's objectives is underscored. Principles of justice and honesty, encompassing prohibitions against discrimination and exploitation, are rigorously maintained in accordance with Institutional Review Board (IRB) ethical standards.

Chapter IV
PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter provides a comprehensive analysis of the statistical data gathered to answer the research questions outlined in the study. Nursing implications and training programs were anchored to the lowest mean scores in challenge categories is both strategic and patient-centered. By targeting the lowest means, we create a floor of competency, ensuring no nurse falls below the threshold needed for safe care.

Respondents' Demographic Profile

The following tables depict a detailed distribution of the demographic profile of the nurse respondents from the emergency departments from the three selected hospitals, namely: (a) Aborlan Medicare Hospital, (b) Narra Municipal Hospital, and (c) Southern Palawan Provincial Hospital. The data include key variables such as age, work experience, and educational background. Descriptive statistics, including frequency distributions, percentages, and rankings, have been utilized to clearly communicate the collected statistical information.

Table 4.1.a
Respondents' Demographic Profiles in terms of Age

Respondents' Age	Frequency (f)	Percentage (%)	Rank
20 – 29 years old	30	66.67	1st
30 – 39 years old	11	24.44	2nd
40 – 49 years old	1	2.22	4th
50 – 59 years old	3	6.67	3rd
TOTAL	**45**	**100.00**	

Table 4.1.a presents the age distribution of nurses from emergency departments who participated in this study. Notably, the data shows a significant concentration of younger nurses, with the majority (66.67%) falling within the 20–29 age range, followed by 24.44% in the 30–39 age group. Conversely, there is a stark decline in representation among older age groups, with only 2.22% of nurses aged 40–49 and 6.67% aged 50–59.

The statistic showing the predominance of nurses aged 20–29 suggests that the emergency department workforce is largely comprised of younger professionals. Likewise, the dominance of younger nurses may reflect current trends in nursing education, where new graduates are entering the workforce in significant numbers. While this influx can bring fresh perspectives and up-to-date knowledge of contemporary practices, it also raises concerns about the lack of experiences. Research has shown that experienced nurses are crucial in high-stress environments like emergency departments, as they often demonstrate better clinical decision-making and crisis management skills (Ogliari et al., 2022). Meanwhile, the minimal representation of nurses aged 40 and above could signal challenges related to retention or career progression for older professionals, which may hinder the transfer of critical knowledge and skills necessary for effective patient care.

The results of this study align with the study of Muench et al. (2016), who noted that younger nurses often face different challenges and stressors compared to their older counterparts, which can affect their job satisfaction and performance. This was also highlighted in the study of Cummings et al. (2018), who underscored the importance of a balanced age distribution within nursing teams, suggesting that diverse age groups can lead to improved teamwork and patient care outcomes.

The age distribution of nurses indicates a notable presence of younger professionals in emergency departments. Notably, 66.67% of these nurses are between 20 and 29 years old. This trend suggests that the emergency department workforce predominantly consists of recent graduates, which can introduce innovative perspectives but may also raise concerns about their limited experience.

Table 4.1.b
Respondents' Demographic Profiles in terms of Work Experience

Respondents' Work Experience	Frequency (f)	Percentage (%)	Rank
Less than 2 years	13	28.89	2nd
2 – 5 years	18	40.00	1st
6 – 10 years	6	13.33	4th
More than 10 years	8	17.78	3rd
TOTAL	**45**	**100.00**	

The analysis of the distribution of work experience among nurses in emergency departments, as presented in Table 4.1.b, reveals significant insights into the professional landscape of the respondents. The data indicates that the largest group of nurses (40.00%) has between 2 to 5 years of experience, making this the most represented category. This is followed by those with less than 2 years of experience, who account for 28.89% of the respondents. In contrast, the representation of nurses with 6 to 10 years of experience is relatively low at 13.33%, while those with more than 10 years of experience comprise 17.78% of the

sample.

The predominance of nurses with 2 to 5 years of experience suggests a workforce that is relatively new but has begun to establish a foundation of clinical skills and knowledge. This level of experience is crucial in emergency settings, where nurses must quickly adapt to high-pressure situations and make critical decisions. This supports the study of Daba et al. (2024) who argued that nurses with moderate experience often exhibit a balance of enthusiasm and practical skills, which can enhance patient care outcomes.

However, the significant percentage of nurses with less than 2 years of experience raises concerns about the potential challenges they may face in such a demanding environment. Newer nurses may struggle with the complexities of emergency care, which can lead to increased stress and burnout. Muench et al. (2016) highlight that early-career nurses often require robust support systems and mentorship to navigate the challenges of their roles effectively. This was validated by the study of Alruwaili et al. (2022), who emphasized that those nurses with less than 2 years of experience benefit significantly from guidance provided by more experienced colleagues.

An analysis of nurses' work experience reveals that the largest segment, accounting for 40.00%, possesses between two and five years of clinical practice. This indicates a workforce that, while relatively early in their careers, has begun to establish a solid foundation of clinical skills. However, the notable proportion of nurses with less than two years of experience raises concerns about their preparedness for the demanding environment of emergency care. Newly graduated nurses often face challenges such as high workloads, exposure to traumatic incidents, and the need to quickly develop clinical judgment skills. These factors can lead to stress, burnout, and a higher turnover rate among novice nurses.

Table 4.1.c
Respondents' Demographic Profiles in terms of Educational Attainment

Respondents' Educational Attainment	Frequency (f)	Percentage (%)	Rank
Bachelor's Degree in Nursing	39	86.67	1st
Master's Degree in Nursing	6	13.33	2nd
TOTAL	**45**	**100.00**	

Table 4.1.c depicts the analysis of the educational attainment of nurses in emergency departments. The data reveals that a substantial majority, specifically 39 nurses or 86.67%, hold a Bachelor's Degree in Nursing. This significant proportion highlights the Bachelor's Degree as the most common educational qualification among the respondents, indicating a strong foundational level of nursing education in the workforce. In contrast, a smaller group of 6 nurses, accounting for 13.33%, have attained a Master's Degree in Nursing. This disparity suggests that while many nurses have completed the necessary education to enter the profession, there is a notable gap in advanced qualifications within the emergency department. The results of the analysis implies that although a bachelor's degree provides a solid foundation in nursing knowledge and clinical skills, it may limit the depth of specialized expertise necessary for handling complex cases often encountered in emergency settings. Conversely, nurses with advanced education typically possess deeper clinical insights and advanced competencies that are crucial for effectively managing complex cases, thereby contributing to better patient outcomes. The results of the analysis coincide with Kahsay and Pitkäjärvi (2019), who underscored that higher levels of nursing education are

correlated with improved patient outcomes, including lower mortality rates and higher patient satisfaction. This reflects the importance of advanced education in enhancing the quality of care delivered in emergency settings.

An assessment of nurses' educational backgrounds reveals that a significant majority, 86.67%, have earned a Bachelor of Science in Nursing (BSN), highlighting a strong foundational level of nursing education within the workforce. Despite this solid basis, there is a significant underrepresentation of nurses with advanced degrees, such as master's or doctoral degrees, especially in emergency departments. This mismatch indicates that, while many nurses have finished the required schooling to start in the field, there is a significant gap in advanced qualifications in the emergency department.

Challenges Encountered by the Nurses in Identifying Signs of Clinical Deterioration in the Emergency Setting

The following tables explore the various challenges nurses face in recognizing signs of clinical deterioration in patients within an emergency setting, focusing on six key areas: (a) knowledge-related challenges, (b) training-related challenges, (c) workload and time constraints, (d) environmental challenges, (e) communication challenges, and (f) psychological challenges. To quantify and gain a clearer understanding of the specific difficulties encountered by the respondents, descriptive statistics, such as the mean, were utilized. This statistical method offers valuable insights into the magnitude of these challenges, enabling a more thorough analysis of the factors that impact patient safety in healthcare environments.

Table 4.2.a
Knowledge-Related Challenges Faced by the Respondents

Statement	Mean	Descriptor
1. I feel that there are gaps in knowledge or training that make it more difficult to recognize clinical deterioration in patients.	2.84	Agree
2. I believe additional training or resources would improve my ability to identify early signs of patient deterioration.	3.51	Strongly Agree
3. I feel confident in applying my training to assess and respond to subtle changes in a patient's condition.	3.27	Strongly Agree
4. I believe that standardized protocols or checklists could enhance my ability to detect clinical deterioration effectively.	3.42	Strongly Agree
5. I feel that ongoing education or simulation-based training would help reinforce my skills in managing patients at risk of deterioration.	3.41	Strongly Agree

Legend for the Mean Rating: *Strongly Disagree: 1.00 – 1.74; Disagree: 1.75 – 2.49; Agree: 2.50 – 3.24; Strongly Agree: 3.25 – 4.00*

Table 4.2.a presents an analysis of the challenges faced by nurses in recognizing clinical deterioration in patients according to knowledge-related issues. Based on the analysis, the findings show the highest mean

rating of 3.51 was obtained by the statement “I believe additional training or resources would improve my ability to identify early signs of patient deterioration,”. This statistic reflects a strong consensus among nurses regarding the need for enhanced training and resources. This finding implies that the current training availed by the nurse respondents assigned at the emergency departments may be insufficient for the complexities of emergency care. This is consistent with the study of Natan et al. (2018), who highlighted that continuous professional development is crucial for improving nurses' competency in recognizing deterioration.

Additionally, the statement “I feel that ongoing education or simulation-based training would help reinforce my skills in managing patients at risk of deterioration” received a mean score of 3.41, also indicating a strong agreement among nurses. This suggests that nurses recognize the value of practical, hands-on training in enhancing their skills. This coincides with a study by McCoy et al. (2016) who found that simulation-based training significantly improves nurses' confidence and competence in critical care settings, aligning with the respondents' sentiments.

Following closely, the statement “I believe that standardized protocols or checklists could enhance my ability to detect clinical deterioration effectively” yielded a mean of 3.42. This highlights the perceived importance of structured approaches in clinical practice. The analysis further suggests that nurses may feel overwhelmed by the complexity of situations in the emergency department and believe that standardized tools could provide necessary clarity and support. This corroborates with Weinger et al. (2018), who recognized the effectiveness of checklists in improving patient safety and reducing errors in emergency settings.

Likewise, the statement “I feel confident in applying my training to assess and respond to subtle changes in a patient’s condition” received a mean score of 3.27, indicating strong agreement but also suggesting some reservations about their confidence levels. This finding points to a potential gap between theoretical knowledge and practical application, which could impact patient outcomes. A study by Tzeng and Yin (2019) found that confidence in clinical judgment is critical for timely interventions in deteriorating patients, suggesting that fostering confidence through targeted training could be beneficial.

Meanwhile, the statement “I feel that there are gaps in knowledge or training that make it more difficult to recognize clinical deterioration in patients” had the lowest mean of 2.84. While still indicating strong agreement, this score suggests that nurses are somewhat aware of their limitations but may not see it as the most pressing issue compared to the need for additional training. This finding aligns with research by Shapiro et al. (2020), which noted that nurses often identify knowledge gaps but may lack the resources to address them effectively.

Interestingly, the findings of this study highlight the urgent need for ongoing education, standardized protocols, and practical training to enhance nurses' skills and confidence in emergency care settings. As patient complexities grow and high-stakes situations become more common, continuous professional development is essential as it helps them stay updated on evidence-based practices and clinical guidelines vital for informed decision-making. Moreover, implementing standardized protocols can streamline processes and reduce variability in patient care. These protocols guide nurses in recognizing and responding to clinical deterioration, fostering a systematic approach to patient assessment. Meanwhile, practical training reinforces theoretical knowledge and builds clinical skills, boosting nurses' confidence in managing complex cases.

The above findings support the study of Elhabashy et al. (2024), who indicated that checklists and structured approaches can significantly enhance nurses' ability to detect clinical deterioration effectively,

thereby fostering a more systematic approach to patient assessment and intervention. They further echoed that simulation-based training is an effective method for enhancing nurses' confidence and competence in critical care environments since it improves nurses' skills in managing patients at risk of deterioration.

Table 4.2.b
Training-Related Challenges Faced by the Respondents

Statement	Mean	Descriptor
1. I feel that my current knowledge is sufficient to effectively identify clinical deterioration in patients.	2.51	Agree
2. The training I have received adequately prepares me to manage emergency situations involving clinical deterioration.	2.94	Agree
3. I have access to regular workshops or training sessions that enhance my skills in identifying and managing clinical deterioration.	2.89	Agree
4. Simulation-based training would improve my ability to recognize and respond to clinical deterioration.	3.11	Agree
5. The use of standardized protocols in training enhances my ability to detect early signs of clinical deterioration.	3.31	Strongly Agree

Legend for the Mean Rating: *Strongly Disagree: 1.00 – 1.74; Disagree: 1.75 – 2.49; Agree: 2.50 – 3.24; Strongly Agree: 3.25 – 4.00*

Table 4.2.b illustrates the challenges faced by respondents regarding training-related issues in recognizing clinical deterioration. It can be gleaned in the analysis that the statement “The use of standardized protocols in training enhances my ability to detect early signs of clinical deterioration” received the highest mean score of 3.31, indicating strong agreement. This finding suggests that nurses believe that structured approaches significantly improve their ability to identify clinical deterioration. This statistic implies that standardizing training protocols can enhance nurses' competencies and confidence in emergency situations. Research by Weinger et al. (2018) supports this notion, showing that standardized checklists improve patient safety and reduce errors in clinical practice.

On the same vein, the statement “Simulation-based training would improve my ability to recognize and respond to clinical deterioration” scored 3.11. This rating reflects agreement among respondents that practical training methods, particularly simulations, are beneficial. This result implies that incorporating simulation into training programs can effectively prepare nurses for real-world scenarios. This coincides with McCoy et al. (2016), who have shown that simulation-based training enhances nurses’ confidence and competence, reinforcing the value of experiential learning in nursing education.

Likewise, the statement “The training I have received adequately prepares me to manage emergency situations involving clinical deterioration” received a mean score of 2.94, indicating agreement but suggesting room for improvement. While nurses feel somewhat prepared, this speaks to a potential gap in

the training they attended. This finding aligns with research by Tzeng and Yin (2019), which emphasizes the need for comprehensive training to ensure nurses can respond effectively to deteriorating patients.

Furthermore, the statement "I have access to regular workshops or training sessions that enhance my skills in identifying and managing clinical deterioration" garnered a mean score of 2.89, indicating agreement but also revealing limitations in access to training opportunities. The results of the analysis imply that although some training is available, it may not be frequent or comprehensive enough to meet the evolving demands of emergency care. This finding reflects similar concerns noted in studies that highlight barriers to ongoing education for nurses, such as time constraints and resource limitations.

Notably, the statement "I feel that my current knowledge is sufficient to effectively identify clinical deterioration in patients" received the lowest mean score of 2.51, still within the agreement range. This suggests that while nurses have a basic level of confidence in their knowledge, many may recognize gaps that need to be address. This aligns with findings from Shapiro et al. (2020), which noted that nurses often identify knowledge gaps but may lack the resources to address them effectively.

Further analysis reveals that while nurses generally recognize the importance of standardized protocols and simulation training, significant areas for improvement remain in training adequacy, access to resources, and foundational knowledge. These findings align with Tzeng and Yin (2019), who noted that many nurses expressed concerns about the comprehensiveness of their training and emphasized the need for more robust programs that cover a wider range of emergency situations. Additionally, limited access to ongoing training opportunities, often due to time constraints and insufficient institutional support, impedes continuous education. Shapiro et al. (2020) further underscore that many nurses feel their foundational knowledge is inadequate for effectively recognizing clinical deterioration, highlighting the urgent need for healthcare institutions to invest in educational resources.

Table 4.2.c
Workload and Time Constraints Challenges Faced by the Respondents

Statement	Mean	Descriptor
1. The patient-to-nurse ratio in my unit impacts my ability to detect clinical deterioration promptly.	3.25	Strongly Agree
2. Time pressures or high workload levels affect my focus or thoroughness in assessing patients for signs of deterioration.	3.26	Strongly Agree
3. I find it challenging to prioritize patient assessments for deterioration when managing multiple responsibilities simultaneously.	2.98	Agree
4. I believe that increased staffing or support could improve my ability to monitor patients effectively for early signs of deterioration.	3.42	Strongly Agree
5. I feel that administrative tasks or documentation requirements reduce the time available for direct patient observation and assessment.	3.07	Agree

Legend for the Mean Rating: *Strongly Disagree: 1.00 – 1.74; Disagree: 1.75 – 2.49; Agree: 2.50 – 3.24;*

Strongly Agree: 3.25 – 4.00

Table 4.2.c analyzes the challenges faced by respondents with regard to workload and time constraints. The analysis revealed that the statement "I believe that increased staffing or support could improve my ability to monitor patients effectively for early signs of deterioration" received the highest mean score of 3.42, indicating strong agreement among nurses. This finding implies that enhancing staffing levels could be a critical solution to improve patient monitoring, aligning with research by McHugh and Ma (2023), which suggests that adequate nurse staffing is directly linked to better patient outcomes. Conversely, insufficient staffing can lead to increased workloads, which negatively impacts nurses' capacity to detect clinical deterioration.

Following closely, the statement "Time pressures or high workload levels affect my focus or thoroughness in assessing patients for signs of deterioration" scored 3.26, also indicating strong agreement. This suggests that high workloads significantly compromise nurses' ability to perform thorough assessments. A study by Lasater et al. (2020) supports this, highlighting that increased time pressures can lead to rushed assessments, which may result in missed signs of patient deterioration. This implies that addressing workload levels is essential for ensuring nurses can provide safe and effective care.

It is also worth noting that the statement "The patient-to-nurse ratio in my unit impacts my ability to detect clinical deterioration promptly" received a mean score of 3.25, indicating strong agreement among respondents. This reinforces the idea that a high patient-to-nurse ratio directly affects the quality of patient monitoring. Research conducted by Aiken et al. (2019) found that higher patient-to-nurse ratios correlate with increased patient mortality and adverse events, further emphasizing the need for manageable workloads to enhance patient safety.

Similarly, the statement "I feel that administrative tasks or documentation requirements reduce the time available for direct patient observation and assessment" received a mean score of 3.07, indicating agreement. This suggests that administrative burdens detract from the time nurses can spend on patient care. Research by Kuo et al. (2018) corroborates this, indicating that excessive documentation can lead to burnout and decreased job satisfaction among nurses. This finding implies that reducing administrative tasks could free up valuable time for direct patient care, ultimately improving patient monitoring and outcomes.

However, the statement "I find it challenging to prioritize patient assessments for deterioration when managing multiple responsibilities simultaneously" scored 2.98. This statistic suggests that the complexity of nursing roles, with multiple simultaneous responsibilities, complicates the prioritization of patient assessments. A study by Ben Natan et al. (2018) demonstrates that multitasking in nursing can lead to cognitive overload, which may hinder effective clinical judgment. This highlights the need for streamlined processes that allow nurses to focus on critical assessments.

Further, the results of the analysis highlight significant challenges related to workload and time constraints faced by nurses. The strong agreement on the need for increased staffing, the impact of time pressures, and the effects of administrative tasks underscores the importance of addressing these issues to enhance nurses' ability to monitor patients effectively for clinical deterioration.

The results of this study highlight that insufficient staffing not only affects the quality of patient care but also places additional pressure on nurses, making it difficult for them to monitor patients effectively for signs of clinical deterioration. Moreover, the impact of time pressures is profound since nurses often find themselves racing against the clock, which can compromise the thoroughness of their assessments. This

urgency can lead to missed opportunities in recognizing early warning signs of patient decline, ultimately jeopardizing patient safety. Additionally, the excessive documentation requirements detract from the time available for direct patient observation and care. This administrative overload not only increases stress levels among nurses but also diminishes their capacity to provide the high-quality care that patients deserve.

Table 4.2.d
Environment-Related Challenges Faced by the Respondents

Statement	Mean	Descriptor
1. Environmental factors (e.g., noise, layout, lighting) in the emergency department affect my ability to detect clinical deterioration.	2.67	Agree
2. I encounter specific environmental challenges when monitoring multiple patients.	3.26	Strongly Agree
3. I feel that the design or layout of the emergency department affects my line of sight and ability to observe patients effectively.	2.49	Agree
4. I believe that the availability and functionality of medical equipment impact my ability to monitor patients for clinical deterioration.	3.25	Strongly Agree
5. I find that interruptions or distractions in the clinical environment make it harder to focus on identifying early signs of patient deterioration.	2.89	Agree

Legend for the Mean Rating: *Strongly Disagree: 1.00 – 1.74; Disagree: 1.75 – 2.49; Agree: 2.50 – 3.24; Strongly Agree: 3.25 – 4.00*

Table 4.2.d outlines the challenges faced by respondents regarding environment-related factors that impact their ability to monitor clinical deterioration. The analysis presented in the table depicts that the statement "I encounter specific environmental challenges when monitoring multiple patients" received the highest mean score of 3.26, indicating strong agreement among nurses. This finding highlights the complexity of managing multiple patients in an often-chaotic environment. This is parallel with the study of O'Brien et al. (2019), who demonstrated that high patient volumes combined with environmental factors can overwhelm healthcare providers, leading to potential oversights in patient monitoring.

Subsequently, the statement "I believe that the availability and functionality of medical equipment impact my ability to monitor patients for clinical deterioration" scored 3.25, also indicating strong agreement among nurses. This underscores the critical role that functional medical equipment plays in patient care. A study by Zhang et al. (2020) found that lack of access to well-maintained equipment can significantly impair clinical decision-making and patient outcomes. This highlights that ensuring that medical equipment is readily available and functioning properly is essential for effective patient monitoring.

Nevertheless, the statement "I find that interruptions or distractions in the clinical environment make it harder to focus on identifying early signs of patient deterioration" received a mean score of 2.89, reflecting agreement. This suggests that environmental distractions, such as noise and interruptions, negatively

impact nurses' concentration. Research by West et al. (2017) emphasizes that a noisy environment can lead to increased stress and reduced attention, which can compromise patient safety. Thus, addressing these distractions is vital for creating a conducive atmosphere for patient assessment.

In the same vein, the statement "Environmental factors (e.g., noise, layout, lighting) in the emergency department affect my ability to detect clinical deterioration" scored 2.67, indicating agreement. This statistic still reflects a notable concern among nurses regarding how environmental conditions hinder their monitoring abilities. This is in consonance with the study by Kearney et al. (2018), who argued that poor lighting and excessive noise can significantly affect clinical judgment.

Finally, the statement "I feel that the design or layout of the emergency department affects my line of sight and ability to observe patients effectively" received the lowest mean score of 2.49, indicating agreement but less concern compared to other statements. This suggests that while layout is a factor, it may not be perceived as critical as equipment availability or patient monitoring challenges. However, research by Henneman et al. (2016) indicates that effective layout design can facilitate better visibility and access to patients, reinforcing the need for thoughtful design in emergency departments.

In a nutshell, the analyses pinpoint significant environmental challenges that affect nurses' abilities to monitor patients for clinical deterioration. The strong agreement on the need for better equipment, reduced distractions, and improved environmental conditions underscores the importance of addressing these issues to enhance patient safety and care outcomes. This aligns with Luque-Alcaraz et al. (2024), who emphasized that the availability and proper functioning of medical equipment are critical for effective patient monitoring. They further stressed that when nurses lack access to well-maintained equipment, it can impair clinical decision-making and negatively affect patient outcomes. The results of this study also congruent with Phillips et al. (2024) who underscored that the interruptions and distractions in the clinical setting, such as noise and frequent interruptions, can hinder nurses' ability to focus on identifying early signs of patient deterioration.

Table 4.2.e
Communication Challenges Faced by the Respondents

Statement	Mean	Descriptor
1. Communication issues have impacted my ability to recognize or act on signs of clinical deterioration.	2.93	Agree
2. Improved communication with team members would support the early identification and response to clinical deterioration	3.38	Strongly Agree
3. I feel that unclear or incomplete handoffs between shifts affect my ability to monitor patients for signs of clinical deterioration.	3.18	Agree
4. I believe that delays in communication with physicians or other team members impact timely interventions for deteriorating patients.	3.42	Strongly Agree

5. I find it difficult to express urgency or concern about a patient's condition when communicating with more senior staff or colleagues.	2.31	Disagree

Legend for the Mean Rating: *Strongly Disagree: 1.00 – 1.74; Disagree: 1.75 – 2.49; Agree: 2.50 – 3.24; Strongly Agree: 3.25 – 4.00*

Table 4.2.e examines the communication challenges faced by nurse respondents assigned to the emergency department, offering valuable insights into the dynamics of healthcare communication. The analysis reveals that the statement "Delays in communication with physicians or other team members impact timely interventions for deteriorating patients" garnered the highest mean rating of 3.42. This strong agreement underscores the critical importance of efficient communication channels within healthcare teams, as delays can significantly hinder timely interventions. Research supports this assertion, indicating that timely communication is essential for effective patient management and can directly influence clinical outcomes (Zajac et al., 2021).

Following closely, the statement "Improved communication with team members would support the early identification and response to clinical deterioration" received a mean score of 3.38. This result highlights the necessity of collaborative practice, with studies demonstrating that interdisciplinary communication is linked to enhanced patient safety and better overall outcomes (Zhang et al., 2020). These findings suggest that healthcare organizations should prioritize training programs aimed at improving communication skills among team members, fostering a culture of collaboration that is crucial for patient care.

Additionally, respondents agreed with the statement "Unclear or incomplete handoffs between shifts affect my ability to monitor patients for signs of clinical deterioration," which achieved a mean rating of 3.18. This finding aligns with the work of Saunders et al. (2018), who emphasized the significance of thorough handoff communication in preventing errors and ensuring continuity of care. Given this, standardizing handoff procedures and providing comprehensive training for nurses on effective communication during transitions of care is essential to mitigate risks and enhance patient safety.

Moreover, the statement "Communication issues have impacted my ability to recognize or act on signs of clinical deterioration" received a mean score of 2.93, indicating agreement that poor communication can lead to missed opportunities for timely interventions (Kearney et al., 2018). This highlights the urgent need for nursing leadership to prioritize the identification and resolution of communication barriers to improve patient monitoring and care.

Interestingly, respondents disagreed with the statement "I find it difficult to express urgency or concern about a patient's condition when communicating with more senior staff or colleagues," which had a mean of 2.31. This suggests that, despite existing challenges, nurses feel somewhat empowered to voice their concerns. However, it also indicates an area for improvement; fostering an environment where nurses feel comfortable expressing urgency is vital for ensuring patient safety. This result supports the study of Amoah et al. (2020), who indicated that hierarchical structures can inhibit open communication, which can be detrimental to patient care. Therefore, creating a culture that encourages open dialogue and diminishes hierarchical barriers is essential for optimizing patient safety and clinical outcomes.

Table 4.2.f
Psychological and Emotional Challenges Faced by the Respondents

Statement	Mean	Descriptor
1. Stress or fatigue impacts my ability to stay alert to signs of deterioration in patients.	3.29	Strongly Agree
2. Emotional or psychological pressure influence my decision-making when I suspect a patient is deteriorating.	2.80	Agree
3. I feel that high-pressure situations affect my confidence in recognizing and responding to patient deterioration.	2.87	Agree
4. I believe that emotional attachment to patients can sometimes impact my objectivity in assessing their condition.	2.60	Agree
5. I find it challenging to manage feelings of guilt or self-doubt after encountering a situation where I missed early signs of deterioration.	2.67	Agree

Legend for the Mean Rating: *Strongly Disagree: 1.00 – 1.74; Disagree: 1.75 – 2.49; Agree: 2.50 – 3.24; Strongly Agree: 3.25 – 4.00*

Table 4.2.f shows an analysis of the psychological and emotional challenges faced by respondents, focusing on their ability to recognize and respond to patient deterioration. The statement with the highest mean rating of 3.29, "Stress or fatigue impacts my ability to stay alert to signs of deterioration in patients," reveals a strong consensus among respondents that these factors significantly hinder their vigilance. This finding emphasizes the critical need for healthcare organizations to prioritize staff well-being, as research indicates that high levels of stress and fatigue can lead to decreased alertness and increased risk of errors in clinical settings (Zhang et al., 2020). Hence, implementing strategies such as regular breaks, mental health support, and workload management could mitigate these issues and enhance patient safety.

In addition, the statement "Emotional or psychological pressure influences my decision-making when I suspect a patient is deteriorating" received a mean score of 2.80, indicating agreement among respondents. This suggests that the emotional burden of high-stakes situations can cloud judgment, potentially leading to delayed or inadequate responses to patient needs. Research corroborates this idea, highlighting that psychological pressure can impair clinical decision-making and increase the likelihood of adverse outcomes (Kearney et al., 2018). As a result, training programs focusing on resilience and decision-making under pressure could be beneficial in equipping healthcare professionals to handle such challenges more effectively.

Moreover, the statement "I feel that high-pressure situations affect my confidence in recognizing and responding to patient deterioration" garnered a mean of 2.87, further emphasizing the impact of stress on clinical confidence. This data reflects that the nurse respondents agreed that the pressure of emergency situations can undermine their self-assurance, which is crucial for effective patient care. Studies have shown that a lack of confidence can lead to hesitancy in clinical judgment, ultimately affecting patient outcomes (Amoah et al., 2020). To tackle this, healthcare institutions should consider implementing simulation training that allows nurses to practice high-pressure scenarios in a controlled environment, thereby boosting their confidence and competence.

Additionally, the statement "I believe that emotional attachment to patients can sometimes impact my objectivity in assessing their condition" received a mean rating of 2.60, indicating agreement. This finding suggests that while emotional connections can enhance empathy, they may also cloud clinical judgment. Research indicates that emotional attachment can lead to biased assessments, which may compromise patient safety (Zajac et al., 2021). Therefore, training that emphasizes the importance of maintaining professional boundaries while fostering empathy could help mitigate this challenge.

Finally, the statement "I find it challenging to manage feelings of guilt or self-doubt after encountering a situation where I missed early signs of deterioration" achieved a mean of 2.67. This reflects a common emotional struggle among healthcare professionals, as feelings of guilt can lead to burnout and decreased job satisfaction (Saunders et al., 2018). Addressing these feelings through supportive supervision and peer support programs could help nurses process these emotions constructively, ultimately improving their mental health and job performance.

Overall, the findings from Table 2.f underscore the substantial psychological and emotional challenges that healthcare professionals encounter, especially in high-pressure environments such as emergency departments. These challenges include stress, fatigue, emotional pressure, and feelings of guilt, all of which can significantly impact their ability to recognize and respond to patient deterioration effectively. The data reveals a clear consensus among respondents that these factors compromise their vigilance and decision-making capabilities, ultimately affecting patient care.

Relationship between the Nurses' Profiles and the Challenges they Encountered

The following table offers an in-depth analysis of the relationship between the nurse respondents' demographic profiles and the challenges they encountered in identifying clinical deterioration among emergency patients. To explore these relationships, a Chi-square test of independence was utilized. This statistical method assesses whether a significant association exists between two categorical variables. The analysis is conducted using a significance level of 0.05, indicating that any p-value below this threshold reflects a statistically significant relationship.

Table 4.3
Relationship Between Profiles and Challenges Encountered

Challenges	Demographic Profiles		
	Age	Work Experience	Educational Attainment
Knowledge Related	0.0034**	0.0029**	0.0013**
Training Related	0.0021**	0.0003**	0.0048**
Workload and Time Constraints	0.0629	0.0582	0.063**
Environmental	0.1207	0.0835	0.1083
Communication	0.6082	0.1307	0.0237**
Psychological and Emotional	0.0238**	0.0031**	0.0365**

Legend for p-value: ***Significant at 0.05 level of significance*

Table 4.3 examines the relationship between nurse respondents' demographic profiles—specifically age, work experience, and educational attainment—and the challenges they face in identifying clinical deterioration among emergency patients. Based on the analysis, the findings indicate significant relationships between all three demographic profiles (age, work experience, and educational attainment)

and knowledge-related challenges, with p-values of 0.0034, 0.0029, and 0.0013, respectively. This suggests that nurses with longer work experience and higher educational attainment are better equipped with the knowledge necessary to identify clinical deterioration. This implies that healthcare organizations should prioritize continuing education and mentorship programs tailored to less experienced nurses. This aligns with Biroudian et al. (2025), who argued that nurses with longer work experience and with advanced degrees or specialized training tend to have a better understanding of clinical signs and are more adept at recognizing deterioration in patients.

Similarly, training-related challenges also showed significant correlations with demographic profiles, with p-values of 0.0021 for age, 0.0003 for work experience, and 0.0048 for educational attainment. These findings imply that nurses who have more training are likely to feel more prepared to identify clinical deterioration. The emphasis on ongoing training programs is crucial, particularly for younger or less experienced nurses who may not have had exposure to comprehensive training. This pinpoints that organizations should invest in simulation-based training and regular refresher courses to enhance the skill sets of nursing staff, thereby fostering a more competent workforce capable of responding effectively to emergencies. This corroborates with Zakir et al. (2024), who noted that nurses with greater work experience are generally more familiar with clinical protocols and emergency procedures. They further echoed that nurses with advanced degrees or specialized training programs are more likely to have received extensive training in recognizing clinical signs of deterioration, leading to improved preparedness in emergency situations.

In contrast, the relationships between demographic factors and workload and time constraints were not statistically significant, with p-values of 0.0629, 0.0582, and 0.063. This indicates that these challenges are pervasive across the demographic spectrum, affecting nurses regardless of age, experience, or education. This result implies that systemic changes are needed to address workload issues, such as optimizing staffing ratios and implementing efficient workflow processes. Without addressing these constraints, nurses may remain unable to effectively monitor patients, leading to missed signs of deterioration. The result of this finding contradicts the findings of Holm et al. (2021), who revealed that nurses with higher educational attainment may have better coping strategies for managing workload and time pressures. They further suggested that while workload issues are pervasive, the degree to which they impact nurses can differ based on education and training.

Subsequently, the environmental challenges demonstrated even weaker correlations across the identified demographic profiles, with p-values of 0.1207, 0.0835, and 0.1083. This suggests that environmental factors—such as noise levels, space limitations, and resource availability—are less influenced by demographic factors. This suggests that enhancements such as better lighting, reduced noise, and adequate space can create a more conducive working environment that facilitates the identification of clinical deterioration. This is parallel with the findings of Sordello et al. (2020), who have shown that environmental factors often affect all nurses similarly, regardless of their demographic characteristics. They further underscored that the improvements in the work environment—such as better lighting, reduced noise, and adequate space—can significantly enhance nurses' ability to identify clinical deterioration.

Interestingly, communication challenges showed a significant relationship only with educational attainment ($p = 0.0237$). This indicates that nurses with higher education levels may possess better communication skills, which are vital for effective teamwork and patient monitoring. This implies that educational programs should not only focus on clinical skills but also emphasize communication training.

This validates the study of Love (2024), who noted that nurses with higher levels of education tend to possess better communication skills. He further stressed that effective communication is a cornerstone of successful teamwork in healthcare. Thus, nurses who are better educated are more likely to engage in collaborative practices, which can lead to improved patient outcomes and reduced errors.

Meanwhile, psychological and emotional challenges demonstrated significant correlations with age ($p = 0.0238$), work experience ($p = 0.0031$), and educational attainment ($p = 0.0365$). This suggests that younger or less experienced nurses may experience higher levels of psychological stress, affecting their ability to recognize clinical signs of deterioration. This indicates that support systems, such as mental health resources and peer support programs, should be established to help nurses manage stress and emotional challenges. This conforms with the results of Babapour et al. (2022), who indicated that nurses with less work experience tend to experience more psychological and emotional challenges. Also, this coincides with Xu, Zhang et al. (2023), who noted that higher educational attainment is associated with better coping mechanisms and resilience in the face of stress. They further underlined that nurses with advanced education may have received training that equips them with skills to manage psychological challenges more effectively, resulting in lower stress levels compared to those with less education.

PROPOSED TRAINING PLAN

Program Title: Challenges Encountered by Nurses in Emergency Department as Basis for Improvement of Competency and Training Plan

Program Objective: This study aims to address gap by providing insights into the nurses' perspectives, practices, and challenges, which could inform policy and practice improvements in all three provincial government hospitals in the southern part of Palawan, Philippines**.** Hence, understanding of this impact can greatly improve patient care and raise the standard of care given.

Core Area	Objectives	Indicators	Activities	Material Resources	Budget (Estimation)	Timeline	Person Involved	Evaluation
On Board Training Program	Enhance nurses' capability to recognize early indicators of patient decline by implementing focused educational programs and simulation-driven training	1. Higher competency assessment results following training 2. Faster response times to signs of clinical deterioration 3. Improved feedback and satisfaction scores from mentorship evaluations	1. Conduct simulation training sessions on clinical scenarios. 2. Provide refresher courses on protocols and early warning signs. 3. Develop and implement standardized protocols disaster triage nursing.	Training modules (online and in-person) Simulation equipment and mannequins Updated clinical protocols and checklists. Assessment tools pre-test and post-test	10, 000 (Facilitator fees) 20, 000 (Venue and equipment) 3,000 (Materials, plaques and certificate gifts)	Seminars and trainings at least every 6 months Seminars and trainings at least every 6 months Seminars and trainings at least every 6 months	Nurses Nurse educators and hospital training officers Department heads	Compare results from pre- and post-training evaluations. Observe nurse performance during simulation exercises. Collect participant feedback through surveys. Track and analyze clinical incident data.

Core Area	Objectives	Indicators	Activities	Material Resources	Budget (Estimation)	Timeline	Person Involved	Evaluation
Workload and External Challenges	Strengthen patient monitoring by optimizing nurse staffing levels, improving workload distribution, upgrading physical workspaces, and enhancing interdisciplinary communication.	1. Decrease in nurse overtime hours. 2. Improved nurse-to-patient staffing ratios. 3. Redesigned nurse stations to promote visibility and accessibility.	1. Recruit additional nursing personnel. 2. Conduct workshops on effective, structured communication methods. 3. Facilitate interdisciplinary simulation-based training.	Shift scheduling software Communication self-assessment tools Printed training materials	50, 000 (Environmental improvements) 3,000 (Materials) 3,000 (Materials)	Evaluate every 6 months Evaluate every 6 months Evaluate every 6 months	Nurse supervisors Hospital admin Facility management	Conduct staff feedback surveys. Perform audits of communication practices. Review patient safety incident reports.

Core Area	Objectives	Indicators	Activities	Material Resources	Budget (Estimation)	Timeline	Person Involved	Evaluation
Psychological Challenges	Promote emotional well-being, decrease stress levels, and strengthen psychological resilience among nurses to support better concentration and decision-making in high-stress clinical environments.	1. Decrease in self-reported stress and burnout 2. Increased job satisfaction scores 3. Improved ratings on mental health and wellness assessments	1. Set up dedicated mental health support and counseling services. 2. Ensure accessible counseling options for all nursing staff. 3. Initiate peer support groups and structured mentorship programs.	Wellness program materials Trained mental health professionals Confidential support access portals	10,000 (Venue and materials) 30, 000 (PF for counseling services) 30, 000 (PF for counseling services)	Every 6 months evaluation Every 6 months evaluation Every 6 months evaluation	Nurse managers Psychologists or mental health professionals Hospital admin HR Department	Conduct pre- and post-intervention psychological assessments. Analyze results from mental health screening tools. Gather insights through staff feedback and evaluation forms.

Chapter V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents the summary of findings, conclusions drawn from the study, recommendations for future research and discussion plan for dissemination.

This study aimed to assess the challenges encountered by nurses in identifying and treating clinical deterioration in emergency patients while exploring the relationships between various demographic factors—such as age, work experience, and educational attainment—and the challenges faced by nurses in this critical setting. The analysis was based on responses from 45 purposely selected nurses working in the emergency departments of three hospitals: Aborlan Medicare Hospital, Narra Municipal Hospital, and Southern Palawan Provincial Hospital.

Data collection involved researcher-designed questionnaires divided into two sections. The first section focused on capturing essential demographic information, including age, work experience, and educational attainment, providing a foundation for analyzing how these factors might influence the challenges that nurses encounter. The second section utilized a 30-item Likert scale to assess the various challenges encountered by nurses when identifying and treating clinical deterioration among emergency patients. This section covered a range of parameters, including knowledge-related challenges, training-related challenges, workload and time constraints, environmental factors, communication barriers, and psychological and emotional challenges.

To address the research questions, descriptive statistics, including frequency, percentage, and ranking, were employed to outline the socio-demographic profiles of the respondents. Means were calculated to evaluate both the challenges faced by the nurses and the extent of their impact on fostering patient safety. Furthermore, inferential statistics, specifically the Chi-square test of independence, were utilized to explore the relationships between the respondents' demographic profiles and the challenges they encountered, aiming to determine how these factors influenced their overall ability to identify and respond to clinical deterioration effectively. By examining the interplay between demographic factors and the challenges faced by nurses in emergency settings, this study seeks to provide valuable insights that could inform targeted interventions and support systems, ultimately enhancing nursing practice and improving patient outcomes in emergency care.

Summary of Findings

Respondents' Demographics Profiles

The age distribution of nurses reveals a significant concentration of younger professionals in emergency departments. Specifically, 66.67% of the nurses fall within the 20–29 age range, while 24.44% are in the 30–39 age group. In contrast, representation among older age groups is minimal, with only 2.22% of nurses aged 40–49 and 6.67% aged 50–59. This predominance of younger nurses suggests that the emergency department workforce is largely comprised of new graduates, which may bring fresh perspectives but also raises concerns regarding the lack of experience.

Meanwhile, the analysis of work experience among nurses indicates that the largest group, comprising 40.00%, has between 2 to 5 years of experience, making this the most represented category. Following this, 28.89% of the respondents have less than 2 years of experience. In contrast, those with 6 to 10 years of experience account for 13.33%, while nurses with more than 10 years of experience comprise 17.78% of the sample. However, the significant percentage of nurses with less than 2 years of experience raises concerns about the potential challenges they may face in such a demanding environment, as newer nurses

may struggle with the complexities of emergency care.

Furthermore, the distribution of the educational attainment of nurses shows that a substantial majority, specifically 86.67%, hold a Bachelor's Degree in Nursing, indicating a strong foundational level of nursing education in the workforce. In contrast, only 13.33% of the nurses have attained a Master's Degree in Nursing. This disparity suggests that while many nurses have completed the necessary education to enter the profession, there is a notable gap in advanced qualifications within the emergency department. Although a Bachelor's degree provides essential knowledge and clinical skills, it may limit the depth of specialized expertise necessary for handling complex cases often encountered in emergency settings.

Challenges Encountered by the Nurses in Identifying Deterioration among Patients

A. Knowledge-Related Challenges

The analysis reveals that nurses strongly agree on the need for additional training and resources to improve their ability to identify early signs of patient deterioration, with the highest mean rating of 3.51 for the statement regarding enhanced training. Furthermore, there is significant support for ongoing education and simulation-based training, as indicated by a mean score of 3.41. Additionally, the importance of standardized protocols or checklists is recognized, reflected in a mean of 3.42. While nurses' express confidence in applying their training, as shown by a mean score of 3.27, there are indications of some reservations about their practical application. Notably, the lowest mean score of 2.84 relates to perceived gaps in knowledge or training, suggesting that while nurses recognize some limitations, they prioritize the need for additional training over addressing these gaps.

B. Training-Related Challenges

In light of these findings, the results indicate that nurses believe standardized protocols in training significantly enhance their ability to detect clinical deterioration, with the highest mean score of 3.31. Similarly, simulation-based training is viewed positively, scoring 3.11, which underscores its perceived effectiveness in preparing nurses for real-world scenarios. However, there is a notable gap in the adequacy of current training, as reflected in a mean score of 2.94, suggesting room for improvement. Moreover, access to regular workshops or training sessions is limited, with a mean score of 2.89 indicating that available training may not meet the evolving demands of emergency care. Importantly, the lowest mean score of 2.51 relates to nurses feeling their knowledge is sufficient, indicating a recognition of the need for further development.

C. Workload and Time Constraints

The analysis shows that nurses strongly agree that increased staffing could improve their ability to monitor patients for early signs of deterioration, with a mean score of 3.42. In addition, high workloads negatively impact thorough assessments, as indicated by a mean score of 3.26 for time pressures affecting focus. The patient-to-nurse ratio is also a concern, scoring 3.25, reinforcing the idea that higher ratios compromise monitoring quality. Furthermore, administrative tasks detract from patient care time, with a mean score of 3.07 reflecting this issue. The complexity of managing multiple responsibilities complicates prioritization, though this received a lower mean score of 2.98, reflecting a recognition of the challenges involved.

D. Environmental Challenges

The findings highlight significant factors impacting nurses' abilities to monitor clinical deterioration. The statement regarding specific environmental challenges when monitoring multiple patients received the highest mean score of 3.26. Furthermore, the availability and functionality of medical equipment are also critical, scoring 3.25. Conversely, environmental distractions, such as noise and interruptions, negatively

affect concentration, with a mean score of 2.89. Additionally, poor environmental conditions, including lighting and layout, are recognized as barriers, with the lowest mean score of 2.49 indicating that layout concerns are less critical than other factors.

E. Communication Challenges

The analysis reveals that delays in communication with physicians and team members significantly impact timely interventions, reflected in the highest mean rating of 3.42. Moreover, improved communication among team members is essential, with a mean score of 3.38 highlighting its role in early identification of clinical deterioration. Unclear handoffs between shifts affect monitoring abilities, scoring 3.18. While poor communication is acknowledged as a barrier to recognizing deterioration, nurses feel somewhat empowered to express urgency, receiving a lower mean score of 2.31, indicating a need for a more open communication culture.

F. Psychological and Emotional Challenges

The findings underscore substantial psychological and emotional challenges faced by nurses, with stress or fatigue significantly impacting their vigilance, as indicated by the highest mean rating of 3.29. Additionally, emotional pressure influences decision-making when patient deterioration is suspected, scoring 2.80. High-pressure situations also affect confidence levels, with a mean score of 2.87. Furthermore, emotional attachment to patients can cloud objectivity, reflected in a mean rating of 2.60, while feelings of guilt after missing signs of deterioration received a mean of 2.67. Overall, these challenges highlight the need for support systems to enhance nurses' well-being and effectiveness in patient care.

Conclusion

To shed light from the foregoing findings in this investigation, the following conclusion was inferred:

A. There is a significant relationship between nurses' demographic profiles—age, work experience, and educational attainment—and their knowledge-related challenges in identifying clinical deterioration. Specifically, nurses with longer work experience and higher educational attainment tend to possess better knowledge, suggesting that healthcare organizations should prioritize continuing education and mentorship programs for less experienced nurses. This highlights the importance of equipping nursing staff with the necessary skills to recognize clinical signs effectively, thereby improving patient care in emergency settings.

B. Training-related challenges are significantly correlated with demographic factors, with more experienced and better-educated nurses feeling more prepared to identify clinical deterioration. This underscores the necessity for ongoing training programs, particularly simulation-based training and refresher courses, aimed at younger or less experienced nurses. By investing in comprehensive training, organizations can enhance the competencies of their nursing workforce, ensuring they are well-prepared to respond effectively in emergencies.

C. The relationships between demographic factors and workload and time constraints are not statistically significant, indicating that these challenges affect nurses uniformly across different demographics. This suggests a need for systemic changes to address workload issues, such as optimizing staffing ratios and improving workflow processes.

D. The analysis reveals weaker correlations between demographic profiles and environmental challenges, suggesting that environmental factors like noise levels and space limitations are less influenced by age, experience, or education. This implies that improvements in the work environment, such as better

lighting and reduced noise, can benefit all nurses, making it easier for them to identify clinical deterioration.

E. Communication challenges show a significant relationship only with educational attainment, indicating that nurses with higher education levels may have better communication skills, which are crucial for effective teamwork. This highlights the need for educational programs to encompass not only clinical skills but also communication training, thereby enhancing collaborative practices and ultimately improving patient outcomes.

F. Psychological and emotional challenges demonstrate significant correlations with age, work experience, and educational attainment. Younger or less experienced nurses are likely to experience higher levels of stress, affecting their ability to recognize clinical signs. This underscores the necessity of establishing support systems, such as mental health resources and peer support programs, to help nurses manage these challenges effectively. By addressing psychological well-being, healthcare organizations can foster a more resilient nursing workforce capable of delivering high-quality patient care.

Recommendations

After examination of the findings and conclusion of the study, the following are strongly recommended for the utilization of the results of this study.

A. Nurses should actively engage in ongoing education and professional development to enhance their skills in recognizing clinical deterioration. Participating in simulation-based training can significantly improve their confidence and competence in emergency situations. Additionally, utilizing standardized protocols and checklists will help guide patient assessments, ensuring a systematic approach to monitoring clinical signs.

B. Nurses should prioritize self-care and stress management as vital components of their professional practice to maintain their physical, emotional, and mental well-being. Engaging in activities such as mindfulness, regular exercise, and adequate sleep can significantly reduce stress levels and enhance resilience in the demanding healthcare environment.

C. Nurse administrators should implement mentorship programs that pair experienced nurses with less experienced staff to facilitate knowledge transfer and skill development. Regular training sessions and workshops focused on clinical skills and effective communication should be encouraged to keep nursing staff updated. Furthermore, establishing support systems is essential for helping nurses manage stress and emotional challenges, which can impact their performance.

D. Hospital administrators need to optimize staffing ratios to reduce workload and enhance nurses' ability to monitor patients effectively. Investing in improvements to the work environment, such as better lighting and noise reduction, can create a more conducive atmosphere for patient care. Additionally, ensuring access to mental health resources and peer support programs will help nursing staff cope with the psychological demands of their roles.

E. Healthcare organizations should facilitate self-care initiatives by providing access to mental health resources, wellness programs, and flexible scheduling, enabling nurses to recharge effectively. By prioritizing self-care, nurses not only enhance their own well-being but also improve their ability to deliver high-quality patient care, leading to better patient outcomes and a more compassionate healthcare environment.

F. Future researchers are encouraged to investigate the long-term impacts of mentorship and training programs on nurse performance and patient outcomes. Exploring the effectiveness of different communication training methods in nursing education can provide insights into enhancing teamwork. Additionally, examining the relationship between nurse well-being and quality of patient care in emergency settings can inform future practices.

G. Policy makers should develop initiatives that support ongoing education and training for nurses, particularly in emergency care. Advocating for systemic changes that address staffing and workload issues in healthcare settings is crucial for improving patient outcomes. Moreover, promoting funding for research aimed at enhancing nurse training programs and work environments will contribute to better healthcare delivery.

H. Enhanced Clinical Training and Competency Development. Simulation-Based Learning: Hospitals should integrate high-fidelity simulation training into nursing professional development programs. These sessions should replicate high-stress ED scenarios (e.g., sepsis, trauma) to refine nurses' ability to recognize and respond to clinical deterioration under pressure. Standardized Early Warning Systems (EWS): Implement validated tools (e.g., NEWS, MEWS) and pair them with mandatory training to ensure consistent application. Regular audits should assess adherence and accuracy in documentation. Just-in-Time Training: Offer microlearning modules (e.g., 15-minute refreshers on subtle signs of deterioration) accessible via hospital platforms to accommodate nurses' busy schedules.

I. On-Board Programs for New and Experienced Nurses. Structured Mentorship: Develop a 6-month mentorship program pairing novice ED nurses with expert preceptors. Focus on: Clinical judgment (e.g., interpreting vital trends). Stress management (e.g., debriefing after critical incidents). Competency Checklists: Require quarterly skill validations for all ED nurses, covering: Rapid assessment techniques. Use of decision-support tools (e.g., AI-driven alerts). Peer Support Networks: Create monthly peer-led forums where nurses discuss challenging cases and share strategies for managing workload and emotional fatigue.

J. Establishing standardized rapid assessment protocols that provide clear guidance for identifying and escalating care for deteriorating patients. This includes implementing color-coded alert systems that use visual cues to flag at-risk patients and creating step-by-step pathways for nurses to follow when early warning signs appear. Such systems reduce ambiguity and help ensure consistent responses across all staff members. For patient monitoring, we advocate for dynamic vital sign tracking that goes beyond routine checks. By integrating automated Early Warning Score calculations into electronic health records, we can create real-time alerts for abnormal trends. Complementing this with mandatory, time-bound reassessments for high-risk patients - with documented nurse verification - creates a robust safety net for catching deterioration. Communication improvements form another critical pillar of these protocol enhancements. We propose making SBAR (Situation-Background-Assessment-Recommendation) formatting mandatory for all handoffs and provider communications regarding concerning patient changes. Additionally, implementing closed-loop communication practices, where nurses verbally confirm critical orders, can significantly reduce medical errors during high-stress situations.

To accelerate life-saving interventions, we recommend developing time-sensitive response bundles. This includes creating pre-arrest checklists that ensure immediate access to essential equipment during emergencies, as well as maintaining pre-assembled medication kits for conditions like sepsis and shock.

Having these resources strategically placed throughout the ED can shave precious minutes off response times.

Workflow optimizations can further enhance protocol effectiveness. Zone-based nursing assignments allow staff to develop deeper familiarity with specific patient populations and reduce unnecessary movement. Implementing visual management systems through centralized whiteboards or digital displays helps keep the entire care team aligned on patient statuses and pending tasks. Finally, emphasize the importance of continuous protocol improvement through structured debriefing processes. Brief post-event huddles allow teams to reflect on what worked well and identify areas for refinement, while regular case reviews of near-misses and adverse events provide valuable learning opportunities for the entire department.

It is further recommend that hospitals align these protocol changes with relevant accreditation standards and quality benchmarks, ensuring they contribute not only to improved patient care but also to organizational compliance and excellence. Regular staff training and competency assessments will be essential to maintain the effectiveness of these protocols over time.

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