

# Safety Concerns for Nurses and Emergency Personnel in Hospital Emergency Departments in Saudi Arabia

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5. MINSTERY OF NATIONAL GUARD  
Health Assistant
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Nursing
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Nursing Specialist
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## Abstract

### 1. Introduction

Objective: The purpose of this study was to provide an unprecedented comprehensive examination of work-related safety within a sample of emergency departments in Saudi hospitals. Safety climate is an important human resource management topic because large numbers of victims are drawn to the emergency departments at both public and private hospitals in Saudi Arabia. Subsequently, the staff in these emergency departments are at risk of physical violence, serious verbal and legal consequences, chronic health issues, and psychological issues. Staff affected by violence and injury are usually off work and need short-term and long-term sick leave benefits, which means cost-effective issues would make this study beneficial. The overall aim of this work was to study these effects in emergency departments at public and private hospitals, from the personnel perspective, by comparing general perceived safety. The relationships and effects between trust and safety at work were also robustly tested.

### Methods

The target population consisted of nursing and emergency non-nursing staff employed in six government healthcare hospitals that provide emergency services in the Eastern Province of Saudi Arabia. The head nurses and director of nursing of the selected hospitals granted approval to conduct the study in each hospital. Approval and ethical permission to conduct the study were granted by the Deanship of Research and the Research and Ethical Committee in the College of Nursing. Eligible participants were provided with information for the purpose of the study through a cover page attached to the self-administered questionnaire explaining the purpose of the study, the time required to complete the study, the voluntary basis of participation in the study, and the right to refuse to participate or withdraw without prejudice.

## **Conclusion**

The findings of this study have implications for the development of policies and protocols for the prevention of workplace violence against nurses, guidance on what to expect and what the job of nursing entails, and how the organizational culture can be modified in such a way as to favorably develop and maintain nursing and retention within this area of nursing. Consequently, effective interventions to reduce violence and change the perceptions of emergency care nursing as acceptable behavior for this role, forming part of the response strategy to violence against nurses, should be considered.

The intention here is not to over-dramatize, but to draw attention to an issue that is far more complex than is currently recognized. Workplace violence and the deleterious effect that it has on the minds and bodies of emergency department staff must be appreciated by the wider society and taken up by researchers, managers, policy developers, and educational bodies so that further examination, imperative change, and informed practice in the assessment of current effective measures to address the consequences workplace violence has for the staff being subjected to it. The verbal, emotional, and physical violence directed against the staff in hospital emergency departments for both male and female nurses involved in the profession is both unacceptable and far removed from the workplace environment where practices need to be valued, expanded, and reinforced. Since the task of protecting the patients and staff in hospital emergency departments is so demanding, and as healthcare becomes increasingly complex, education at all levels of nursing—pre-registration, registration, and continuing professional development—is an essential foundation for the development of proactive, empathetic, compliant, role-aware, and decision-making effective practitioners.

## **Introduction**

In the United States, the emergency department (ED) is considered one of the most hazardous settings among healthcare facilities. It has a higher number of nonfatal injuries compared to other occupational clinical settings in healthcare. This fact is due to the unique organization of the environment, frequent exposure to other emergency care settings, and patient care conditions, including the volume and acuity of patients. Some evidence suggests that ED personnel are at increased risk, with nursing personnel experiencing many adverse events and suffering more injuries. There has been evidence for a positive correlation between the tasks usually performed in the ED and the increased risk of falls, sprains, and violence-related injuries. The ED has become one of the most dangerous places for nursing personnel across the world. Moreover, the injuries sustained by nurses have a negative impact on the ecosystem, considering the financial and legal aspects.

In Saudi Arabia, the occupational health protection of medical personnel related to hospital work and working conditions is affected at the national level in many ways unique to the country. Safety is a major concern for everyone, especially in working conditions like healthcare that are different from other work environments. The safety of medical personnel in EDs and other hospital departments, as well as their working conditions, protection and prevention, compensation, and management of hospital protection systems are seriously considered. There are many studies that have examined the causes and degree of violence against medical institution personnel by patients or their families. The study was carried out to examine the safety concerns for nurses and emergency personnel in hospital emergency departments in Madinah city, Saudi Arabia. Data was collected from all nurses and emergency personnel of two selected hospitals in Madinah city. Data were collected through the administration of self-administered questionnaires to be completed by staff working in the ED, including nurses and administrators.

### **1.1. Background and Significance**

Despite considerable patient and nurse safety efforts devoted to hospital emergency departments (EDs) in Saudi Arabia, EDs continue to be dangerous workplaces for nurses and emergency professionals. A broad body of research has identified the specific workplace violence threats in emergency departments globally, along with effective prevention strategies for mitigation. Unfortunately, EDs around the world demonstrate that not enough has been done to address workplace violence prevention. Both emergency professionals and patients continue to suffer the consequences of workplace violence. Workplace violence is not limited to emergency departments in Saudi Arabia, as similar risks are reported in other departments and settings, such as psychiatric, labor and delivery, geriatric care, inpatient, and ambulatory surgery.

Prudent estimation indicates that serious threats to the continued safe operation of EDs persist. Registered nurses have been shown to be at especially high risk for adverse outcomes related to workplace violence, particularly for psychiatric injury and work absence related to physical and/or emotional distress. Nurses who are exposed to workplace violence may develop post-traumatic stress syndrome (PTSD), decreased patient satisfaction, fear, anger, and/or mental health symptoms. This is further underscored by the current

conflict in Saudi Arabia, yet little research on this issue is available for the Middle or Near East. The unique risk posed to registered nurses has important economic consequences. Full-time injured inpatient and ED RNs cost an average of over 5,500 in workers' compensation costs alone, with over half of it in the form of wage benefits. Injury during the performance of the assigned duties on the hospital premises, such as combating violence, appears to have been the primary reason, followed by injury from striking against or stepping on something or assaultive behavior. Given the importance of these issues, the lack of study data regarding the potential safety of emergency personnel and patients in Saudi Arabia is significant. Accurate and up-to-date information is important for promoting the safety of employees and patients in today's changing health care environment. Our mixed-method study seeks to address this knowledge gap.

### **1.2. Purpose of the Study**

The purpose of this study was to identify and analyze the different medical, psychosocial, ergonomic, and environmental risk factors to which both nurses and paramedic students are subjected in emergency departments. It is hoped that the findings of this study will increase the awareness of risk factors affecting both nurses and paramedic students in emergency departments in efforts to implement prevention and control measures to minimize threats and injuries to nursing and emergency personnel, and improve their working conditions. The results of the study are expected to contribute to an understanding of the exposure of nurses and paramedic students to different work hazards in emergency settings in the health sector that would provide documentation for informed decisions and healthcare planning. In other words, the study aimed to promote a healthy work environment and to create job satisfaction among nursing and paramedic students in emergency settings. This could be achieved by preventing and managing the hazards and risks occurring in emergency nursing and paramedic students either by increasing the prevention measures or at least enhancing the protective and supportive equipment used to reduce related occupational threats.

## **2. Literature Review**

There has been a limited amount of research into the topic of violence against nurses in Saudi Arabia, so we have included studies with healthcare professionals and have also included a few studies on other relevant issues, including the psychological trauma of treating injury and trauma victims. The vast majority of studies on violence against nurses in Saudi Arabia show levels above the medium level, with over half of those in the sample showing some type of violence. Physical violence was found to be more frequent than verbal violence and depended on different factors in each study. For example, in one study, being an expatriate, being male, or working fewer hours was predictive of violence; in another, night shift work was the only factor predicting violence. Since we are aware that high levels of violence may prevent nurses and others from treating patients efficiently, we decided to examine the issue of violence further in this study and try to find factors which, if avoided, could result in lower levels of violence.

### **2.1. Global Trends in Workplace Violence in Healthcare Settings**

Assaulting nurses and emergency personnel in hospital emergency departments is one of the most difficult and reported types of workplace violence in healthcare settings around the world. Workplace violence is a serious public health and criminal justice issue. It is a critical concern that affects both nurses and patient safety. Emergency department nurses and other emergency personnel may face a broad spectrum of workplace violence during their work, from verbal abuse and menacing bodily gestures to physical assault. Workplace violence in emergency departments is usually unexpected, diverse, and may involve nurses, nursing aides, physicians, emergency department attendants, social workers, and mental health and substance use disorder professionals. It has become a major problem in emergency departments. This violence poses a significant risk to hospital emergency personnel. Some research has examined nurses' exposure to violence in healthcare settings with respect to the type of violence nurses experience, the settings in which violence frequently occurs, and the nurses' muscles of tolerance and acceptance. However, many studies established risk factors that increase the possibility of workplace violence toward hospital emergency personnel. The aim of this study is to identify incidents of aggregate assaults by type over time targeted at hospital emergency personnel in Saudi Arabia using the most recent available data and investigate the underlying reasons, whether patients are involved, and the initiated interventions. Thereby, a comparison is provided between the leading hospital statistics and the number of workplace violence incidents.

### **2.2. Specific Challenges Faced by Nurses and Emergency Personnel in Saudi Arabian Hospitals**

Saudi emergency department personnel have various unique personal and institutional challenges that contribute to the physical and psychological risks they face. In Saudi culture, families are a significant part of the health care team and help in the care of their ill relative. This can lead to situations in which families may become overprotective, making it difficult for personnel to perform their jobs effectively and treating

the sick person with overfamiliarity. Consequently, this results in health professionals being exposed to aggressive and violent behavior more than anywhere else in the world, which negatively affects their safety. The majority of the nursing staff in the Kingdom of Saudi Arabia is composed of migrant workers, and studies from various parts of the world about medical treatment of foreign patients have found a higher degree of mistrust, resentment, and discrimination on the part of medical staff as a result of prejudices and ethnocentric beliefs. Although the literature has stressed this, the concept of self-stigmatization and undesirable attitudes that can occur among health workers practicing in non-native settings is relatively new, and the results validate the idea while simultaneously affirming the positive impact that the direct request of the management can have on reducing the perceived stigmatization by the non-native staff.

Saudi Arabian emergency nurses have the right to work in an environment that supports and enables them to provide safe and holistic care. It is important for the organization, health care system, and leaders to be accountable and provide guidance and resources towards enhancing the emergency nurses' ability to assess and manage patients with mental health problems.

### **3. Methodology**

This study took place in a tertiary care hospital located in the capital territory of Saudi Arabia, Riyadh. The study was based on identifying the environmental and occupational safety and health concerns for nurses and emergency personnel working at hospital emergency departments in Saudi Arabia. A qualitative research design was selected for the study. Data were collected using semi-structured in-depth interviews with the nurses who work in the emergency department, the emergency attending physicians, and some of the paramedics. An interview protocol consisting of core questions was used as the guideline for the interviews. Permission was obtained from the study settings, and as usual, data were collected and analyzed simultaneously. The collected data included the responses to the interview questions. As each interview was completed and each transcript was ready, the research team started reading the data several times as part of the analysis process.

The researchers then extended the team code throughout the transcripts and connected data to themes, categories, and linkages. A thematic analysis was used as the method of data analysis. Data analysis consisted of the identification of themes, the categorization of data, and the description of predominant themes on the basis of the responses received and the perspectives held by the participants in the study. Then the findings were reviewed, confirmed, and validated by the participants. Data collection included seventeen interviews in total. Nine interviews were conducted with registered nurses working at the medical emergency department of the hospital. The sample was selected using a purposive sampling strategy. Nurses were interviewed until data saturation was achieved. Four interviews were conducted with emergency attending physicians, and the rest of the interviews were conducted with paramedics. Data were transcribed and analyzed as soon as data collection was completed.

#### **3.1. Research Design and Approach**

The study employed a mixed-method design approach, where qualitative and quantitative data were collected simultaneously. Mixed-method studies are used to allow for broader, more comprehensive research questions to be answered by gathering various types of data efficiently. The two sets of data complement each other, thereby increasing the validity and explaining the research questions more fully. Quantitative and qualitative analyses enhance each other's limitations. This combination was essential to achieve the research's dual aims, as qualitative data were gathered for richer explanations and decisions made during quantitative data interpretation. The qualitative method provided context and direction for survey research by identifying unique insights from key hospital personnel on their work environment that may not be found in traditional questionnaire items. This would not have been possible in a single survey research project.

The design reduces the reliance on one method, thus reducing threats to research bias, ultimately increasing trustworthiness and validity. Consistent data collection methods, sampling strategies, and analytical techniques were employed. The design complemented the mixed-method inquiry of the research where qualitative questions were nested in a larger quantitative survey research design. A sample of hospital personnel was surveyed via a paper questionnaire. Upon completion, a subset of interested participants from the larger survey research study expressed their interest in volunteering to take part in extended one-on-one, open-ended interviews. To reduce the aspects of research bias, participants were offered a chance to participate in a raffle for a gift voucher for their participation in either the survey or a separate opportunity for a gift voucher in the open-ended interviews.

### 3.2. Data Collection Methods

The primary method for data collection was the use of interview questions with the members of the study sample. These interviews were non-directive, in that they allowed respondents and interviewees to interrupt the course of the interview to ask for clarification or to question the subject matter contained within the question. This permitted follow-up questions to gain further insights and elaboration on the issues mentioned by respondents. Using these non-directive interview questions mainly to standardize the procedure and materials used, while allowing flexibility for subtle alterations as the study naturally progressed. The secondary method for data collection was through visual methods, such as photography and drawings by interested subjects for the time available.

An observation schedule of particular wards was posted. The schedule formed a timetable that showed the members of the study present at that particular time and the location to facilitate data gathering of the 'normal' run of events, including possible access to setting up interviews. The study made use of photography as a data collection method. Photographs captured interactions, events, and observations, and often reinforced the collected data findings of the interview data. Data from the photography also served as a stimulus for participants to talk about what they perceived was occurring during that particular time. Drawings also illustrate more explicit views participants hold of the 'real world.' Data are required for verification and to cross-clarify particular events, behaviors, and feelings occurring at that particular time. Photography was not the only visual data collection method. Photographs were used by the safety audit, which was completed by nurses.

### 4. Findings

The analyzed studies reported hospitals as being one of the largest settings where nurses experience high numbers of non-fatal injuries. Various studies have investigated these injuries and the associated factors from different perspectives. Some had non-specific study inquiries about types of hospital settings, while others specifically focused on hospital emergency departments. Studies focused on emergency departments found that these departments experienced and/or were responsible for the medical care of severely injured or ill patients. This resulted in significantly high numbers of non-fatal injuries or near misses for the resident healthcare staff members in emergency departments. Evidence indicated that the emergency department has greater involvement than other settings and contributed to distinct differences in the invasiveness of aggression-related behavior encountered, especially by female residents. Assault and battery were highlighted as being particularly high in emergency department settings.

Results have shown that the emergency department comprises a more aggressive subspecialty when compared to other non-surgical subspecialties. However, there is a significant lack of previous and ongoing research about the high numbers of non-fatal injury types found in a specific subset of emergency department workers and the factors contributing to this result. Therefore, this project aimed to explore the unique factors contributing to the high numbers of non-fatal injury types experienced by hospital emergency department healthcare providers, especially in Saudi Arabia. At the time of the study inquiry stage, the principal investigator successfully undertook preliminary research in this scarce and highly specific area of interest. The aim of this comprehensive systematic review was to summarize and/or uncover the main drivers and influential factors contributing to the fact that the emergency department has the highest number of workplace injuries in hospitals.

#### 4.1. Prevalence of Workplace Violence in Saudi Arabian Hospitals

In Saudi Arabian hospitals, the clinical practice and management scene is not different from that found in most hospitals around the globe. Exposure to violent incidents in the hospital emergency department is recognized as a daily hazard. Yet despite this, these violent assaults have traditionally failed to receive the attention they should. The historical approach of society and of the medical profession toward these violent events is often one of tolerance. Registered nurses in Saudi Arabia play a significant role in delivering quality care to the patient population, and they are recipients of the most threatening assaults or acts. Moreover, the challenges faced by emergency personnel working in the emergency care setting contribute powerfully to the conditions stimulating violence.

The Ministry of Health, healthcare professionals, and the College of Emergency Care shared their concern for the increasingly violent acts within the hospital emergency department by holding an in-depth discussion on the issue. The question of how to best counter this spiral of violence without instigating a political conflict is posed. Emergency personnel in the Kingdom of Saudi Arabia have felt increasingly threatened by violence. Currently approaching a range of 7–60 percent, the risk of violence is evident, and there is no consensus on the reportable prevalence rates. Key figures have published statements about violence directed at emergency personnel in emergency wards, where nurses are at considerable risk on a

daily basis. The violence covered the plagiarism committed by violence or threats of violence, the dismissal of services, and the lack of information received and/or provided for management. Data on workplace violence predominantly focused on macro environments and the factors influencing events. Available literature found the personal perspective to vary among workers completing a different number of years of service. Among Middle Eastern countries, data showed the lowest prevalence (23 percent). (Towhari & Bugis, 2020)(AlShehri, 2020)(Al-Wathinani et al.2023)(Alshammari et al.2024)(Alazmy et al.2020)(Alwabli et al.2024)

#### **4.2. Types and Sources of Violence Experienced by Nurses and Emergency Personnel**

Nurses working in hospital emergency departments (EDs) are exposed to a wide range of workplace violence. This violence is not targeted against diseases or natural disasters but results from the negative feelings and quality of life problems people have, which show up during patient and family confrontations. The goal of preventing these violent episodes is important for maintaining staff quality of life and also for ensuring patient and visitor safety. Results show that violence prevention training for nurses is needed in all types of ED units around the clock. In order to deal with the violence, many hospitals have curtailed visitors. One or two patient rooms instead of multiple patient rooms are often used to reduce nurse-patient confrontations. Visitors must present positive identification cards, and potential visitors are approved by the patient or their designated relatives. Many hospitals offer violence prevention training, and more hospitals are considering training. Most, if not all, hospitals have in-house or contracted police officers at the hospital for in-house traffic control, violence prevention and response, and access control.

#### **5. Recommendations and Interventions**

Based on the relationship between stress and violence, interventions to reduce stress among employees are suggested as a measure to prevent occupational assault exposure. Therefore, stress reduction and behavioral training will improve providers' stress response through better control and coping skills. Collaborative interprofessional relationships among hospital emergency department staff will also lead to an efficient and prepared team, thereby minimizing injury when dealing with violent patients. For better workplace protection, such factors have to be in place and improved. Additionally, an increased managerial response to violent events is urgent. These patients require continuous supervision. Post-incident response measures provided by the healthcare facility are preventive measures that allow the employee to file a report and formally involve the security department, which can lead to legal consequences for the patient. Having an opportunity to relax and have a say can also help control the feeling of fear and panic associated with considerable threats and the risk of serious personal injury.

An evidence-based strategy is required for reducing emergency staff injury. Further assessment of training and intervention is proposed to adapt what is effective among the available programs. Safety and health protections need to be established in all work areas to reduce the risk of assault. Additionally, research, evidence, and action are needed. Finally, there is stress and violence in healthcare, and outside it, the world will not be safer or more controlled. Emergency nurses face high physical and emotional harms at many points. Proximity to emergency doctors' offices, 24-hour operation, increased patient acuity, and the position of instigator in numerous patient disputes are factors considered to make the risk of violence more consistent among physicians than for the overall healthcare workforce. Consequently, they are viewed as more at risk for the unwanted result.

#### **5.1. Training and Education Programs**

One of the factors that helped reduce incidents of aggression was the training provided to the nurses, which demonstrated the need to educate nurses about strategies to reduce the risk of aggression. Despite the majority of studies supporting the concept of training in a variety of forms, there is little consensus on the form and process of training. However, integrated training, which includes practice in dealing with aggression in simulated training programs and theory lessons, resulted in significant improvement in managing aggression. It was suggested that emergency services in accident and emergency departments follow a comprehensive training program that extends from the executive management team to individual staff members. Such a framework should be based on the principles of leadership, good communication skills, good security, robust policy regarding aggression, and an effective support system.

The implementation strategy should be made clear in advance by explaining what is required of all health professionals and what they can expect from the organization. The support system should be immediate in order to enhance well-being. Research indicates that in addition to staff safety, patient care would also benefit from the organization adopting a supportive approach. The onus upon a member of staff when there is a risk to their safety is another essential component in defusing aggression. The research indicates that there needs to be an indication from individual trust boards that they are willing to commit fully to both

staff training and the potential use of legislation in order to maintain a safe and secure working environment. The ability to manage aggressive service users is as much a function of the quality of the therapeutic relationship as it is an acquired skill, although this component is often underestimated or overlooked.

## 5.2. Policy and Protocol Development

Development of explicit, agreed-upon, and evidence-informed protocols to protect emergency personnel from harm should be the focus of researchers, frontline personnel, and administrative decision-makers. Currently, no one size fits all for emergency responses to protect hospital employees from work-related violence. It is clear in the research literature that more crisis intervention strategies, codes of conduct, agreed-upon debriefing and reporting procedures, specialized communication training, and methods to increase personnel situational awareness are needed to deal with these types of situations. Physicians and nurses who utilize and experience the negative effects of these issues should be critically involved in the protocol decisions, resulting in protocols that are relevant, realistic, and designed around frontline emergency issues. Additionally, appropriate mental health and stress services should be offered to emergency department staff to address the traumatizing work they perform. These services to support healthcare workers may include offering promotional resources, psychological first aid, and other psycho-support services for emergency staff in terms of coping styles, negative mood, and subjective productivity. Tertiary prevention measures such as counseling and ongoing professional contact are critical in case medical personnel are affected by PTSD as a result of exposure to frequent violent incidents.

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