Çankırı Karatekin University
Graduate School of Health Sciences

Master of Science Thesis

INVESTIGATION OF THE RISK OF VIOLENCE IN NURSES WORKING IN THE EMERGENCY DEPARTMENTS OF DIYALA CITY HOSPITALS IN IRAQ

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Advisor

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ÇANKIRI 2023

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BY

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The Institute of Health Sciences
The Department of Nursing

The Degree of Master of Science

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Çankırı 2023

ACCEPTANCE AND APPROVAL

Alyaa Waleed Jaber AL-TAMEEMI, a graduate student of The Institute of Health Sciences with the student number of 208205302, has successfully presented her thesis entitled “Investigation of the Risk of Violence in Nurses Working in the Emergency Departments of Diyala City Hospitals in Iraq” before the jury whose signatures are below, after fulfilling all of the requirements determined by the relevant regulations for the degree of Master of Science:

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ETHICS STATEMENT

The thesis entitled “Investigation of the Risk of Violence in Nurses Working in the Emergency Departments of Diyala City Hospitals in Iraq” which was prepared and presented as a thesis, was written by myself and in accordance with the scientific, academic rules, and ethical conduct. The idea/hypothesis of my thesis solely belongs to my supervisor and me. The research pertaining to the thesis was conducted by myself and therefore, all of the used sentences and interpretations within the work belongs to me.

I declare the aforementioned issues to be correct.

Signature

2023

Alyaa Waleed Jaber AL-TAMEEMI

ABSTRACT

INVESTIGATION OF THE RISK OF VIOLENCE IN NURSES WORKING IN THE EMERGENCY DEPARTMENTS OF DIYALA CITY HOSPITALS IN IRAQ

Alyaa Waleed Jaber AL-TAMEEMI
Master of Science in Nursing
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January 2023

Health facilities, professional associations, and governmental groups are all working to prevent violence in the medical field. However, workplace violence (WPV), especially violence toward nurses, continues to be a concern in medical institutions worldwide. In the Iraqi emergency departments, violence against nurses has become very common, and many nurses think that violence is part of their job. This study aims to investigate the risks of violence on the nurses handling the emergency department and to examine the relationship between nurses' level of exposure to violence, their intention to leave the job, the risk of violence, the potential for exposure to risks of violence in the future and the quality of the work environment. A descriptive and relational cross-sectional study was performed. The sample consisted of 200 nurses working in emergency departments of hospitals in Diyala city in Iraq, which was reached using the non-probability (targeted) sampling method. Data was collected through a self-report tool that includes socio demographic data for nurses, general information about violent incidents, scales of Intention to Leave Work, Risk of Violence, Violent Events at Work, Probability of Future Exposure to Violence and The Quality of the Work Environment. The data was analyzed using the Statistical Package for Social Sciences (SPSS) version 26. The study revealed that nurses are exposed to a high risk of violence, 30.5%, in their workplace. 31.9% of nurses had experienced violence four or more times in the previous year. 54% of the nurses reported being exposed to four or more incidents of physical violence in the previous year. Patients' relatives committed 79% of violent incidents. The study's results regarding nurses' views on the quality of the work environment showed that 38% of nurses strongly disagree with the idea that the quality

of work environment is sufficient. The rate of exposure to violence in the workplace in the emergency department varied according to the years of experience in the emergency department. There was a high incidence of violence at work from 1 to 9 years of experience (49.5%) compared to other years of experience (10 to 19 years, 20 to 29 years, and 30 to 40 years) by 31.0%, 11.0%, 8.5%, respectively. After being subjected to violence, half of the nurses reported feeling of anger, followed by disappointment (26%), stress (13%), aggrieved (6%) and reduced work enthusiasm (5%). 35.6% of the nurses expressed the possibility of violence in the future. They agreed and strongly agreed (28%) to look for a job in a new profession other than nursing next year, while 63% of them agreed or strongly agreed to look for a new job outside their current hospital. In addition, exposure to violence at work and the level of risk for violence were negatively correlated with the quality of work environment. The level of risk for violence were positively correlated with exposure to violence at work. The possibility of violence in the future was positively correlated with the nurses' decision to leave their jobs. The researcher concluded that relatives of patients cause the most violent incidents in the emergency department. Young nurses have less nursing experience, less experience in the emergency department, and are at greater risk of violence. Many nurses reported being at constant risk of violence four or more times during different work periods. When they experience violence, they seek help and feel angry and disappointed. Therefore, many nurses are considering leaving their jobs due to increased violence in the workplace and reporting the possibility of future violence. As a result, work-related violence toward nurses is an important topic to focus on in producing effective preventive policies.

2023, 108 pages

Keywords: Risk, Workplace Violence, Nurses, Emergency departments

ÖZET

IRAK DİYALA ŞEHİR HASTANELERİ ACİL SERVİSLERİNDE ÇALIŞAN HEMŞİRELERDE ŞİDDET RİSKİNİN İNCELENMESİ

Alyaa Waleed Jaber AL-TAMEEMI

Hemşirelik, Yüksek Lisans

Tez Danışmanı: Dr. Öğr. Üyesi Aysun ERGÜL TOPÇU

Ocak 2023

Sağlık kuruluşları, meslek örgütleri ve hükümet grupları tıp alanında şiddeti önlemek için çalışmaktadır. Ancak, iş yerinde şiddet, özellikle de hemşirelere yönelik şiddet, dünya çapında sağlık kurumlarında endişe kaynağı olmaya devam etmektedir. Irak acil servislerinde hemşirelere yönelik şiddet çok yaygın hale gelmiştir ve birçok hemşire şiddetin işlerinin bir parçası olduğunu düşünmektedir. Bu çalışma, acil serviste çalışan hemşireler üzerindeki şiddet risklerini araştırmayı ve hemşirelerin şiddete maruz kalma düzeyleri, işten ayrılma niyetleri, şiddet riski, gelecekte şiddet riskine maruz kalma potansiyeli ve çalışma ortamının kalitesi arasındaki ilişkiyi incelemeyi amaçlamaktadır. Betimsel ve ilişkisel nitelikte kesitsel bir çalışma gerçekleştirilmiştir. Araştırmanın örneklemi, Irak'ın Diyala kentindeki hastanelerin acil servislerinde çalışan ve olasılıklı olmayan (amaçlı) örnekleme yöntemi kullanılarak ulaşılan 200 hemşireden oluşmaktadır. Veriler, sosyo demografik veri formu, şiddet olayları hakkında genel sorular, İşten Ayrılma Niyeti Ölçeği, Şiddet Riski Ölçeği, İşyerinde Şiddet Olayları Ölçeği, Gelecekte Şiddete Maruz Kalma Olasılığı Ölçeği ve Çalışma Ortamının Kalitesi Ölçeğini içeren bir öz bildirim aracı ile toplanmıştır. Veriler Statistical Package for Social Sciences (SPSS) versiyon 26 kullanılarak analiz edilmiştir. Çalışma, hemşirelerin iş yerlerinde %30,5 gibi yüksek bir oranda şiddet riskine maruz kaldıklarını ortaya koymuştur. Hemşirelerin %31,9'u son bir yıl içinde dört ya da daha fazla kez şiddete maruz kalmıştır. Hemşirelerin %54'ü bir önceki yıl dört veya daha fazla fiziksel şiddet olayına maruz kaldığını bildirmiştir. Şiddet olaylarının %79'u hasta yakınları tarafından gerçekleştirilmiştir. Araştırmanın hemşirelerin çalışma ortamının kalitesine ilişkin görüşleri üzerine sonuçları, hemşirelerin %38'inin çalışma ortamının kalitesinin yeterli olduğu fikrine kesinlikle katılmadığını göstermiştir. Acil serviste şiddete maruz kalma

oranı, acil servisteki deneyim yılına göre değişmitir. 1 ile 9 yıllık deneyim süresinde işyerinde şiddete maruz kalma oranı (%49,5), diğer deneyim sürelerine (10 ile 19 yıl [%31,0], 20 ile 29 yıl [%11,0] ve 30 ile 40 yıl [%8,5]) göre daha yüksektir. Şiddete maruz kaldıktan sonra hemşirelerin yarısı öfke hissettiğini bildirmiş, bunu hayal kırıklığı (%26), stres (%13), mağduriyet (%6) ve çalışma isteğinde azalma (%5) izlemiştir. Hemşirelerin %35,6'sı gelecekte şiddet olasılığı bildirmiştir. Hemşirelerin %28'i gelecek yıl hemşirelik dışında başka bir meslekte iş arama, %63'ü ise çalıştığı hastanenin dışında yeni bir iş arama düşüncesine katıldığını belirtmiştir. Ayrıca, hemşirelerin iş yerinde şiddete maruz kalma ve şiddet riski düzeyleri, çalışma ortamının kalitesi ile negatif yönde; şiddet riski düzeyleri işyerinde şiddete maruz kalma ile pozitif yönde ve gelecekte şiddete maruz kalma olasılığı, işten ayrılma niyetiyle pozitif yönde ilişkiliydi. Araştırmacı, acil serviste en fazla şiddet olayına hasta yakınlarının neden olduğu sonucuna varmıştır. Genç hemşireler daha az hemşirelik deneyimine ve acil serviste daha az deneyime sahiptir ve daha fazla şiddet riski altındadır. Birçok hemşire, farklı çalışma dönemlerinde dört veya daha fazla kez sürekli şiddet riski altında olduğunu bildirmiştir. Şiddete maruz kaldıklarında yardım aramakta, öfkeli ve hayal kırıklığına uğramış hissetmektedirler. Bu nedenle, birçok hemşire işyerinde artan şiddet nedeniyle işten ayrılmayı düşünmekte ve gelecekte şiddet riski bildirmektedir. Sonuç olarak, hemşirelere yönelik işyeri şiddeti, etkili önleyici politikaların üretilmesinde odaklanılması gereken önemli bir konudur.

2023, 108 sayfa

Anahtar Kelimeler: Risk, İşyeri Şiddeti, Hemşireler, Acil servisler

PREFACE AND ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my distinguished advisor Asst. Prof. Dr. Aysun ERGÜL TOPÇU for helping me accomplish this humble work the Alyaa Waleed Jaber AL-TAMEEMI funded this study under the project “Investigation of the risk of violence in nurses working in the emergency departments of Diyala city hospitals in Iraq.

Alyaa Waleed Jaber AL-TAMEEMI

Çankırı-2023

CONTENTS

INDEX OF ABBREVIATIONS AND SYMBOLS

ANA	American Nurses Association
GPS	General Practitioners
HRA	Health Risk Appraisal
HV	Horizontal Violence
OSHA	Occupational Safety and Health Administration
PTSD	Post Trouma Syndrome Disease
US	United States
WPV	Workplace Violence

LIST OF ABBREVIATIONS

ED	Emergency Department
SPSS	Statistical package for social science
C (α)	Cronbach alpha

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1. INTRODUCTION

Workplace violence (WPV) against health care workers is a significant concern in every healthcare setting (Phillips 2016). Violence in healthcare is a global issue, with professional organizations, health facilities, and governmental agencies all taking steps to avoid it (Brunero *et al.* 2021).

However, workplace violence, particularly towards nurses, remains a problem in healthcare systems worldwide (Alsharari *et al.* 2022).Workplace violence can take many forms, including verbal abuse, aggressiveness, harassment, bullying, and physical violence, and it can be perpetrated by a variety of people, like patients/patients, relatives, or colleagues (Fute *et al.* 2015).While violence can occur in various healthcare sectors, the adult emergency department (ED) is frequently highlighted as a source of particular concern (Brunero *et al.* 2021).Staffs in the emergency department are more likely to be subjected to violence than those in other sectors of health care (Sharifi *et al.* 2020 ; Zoleo *et al.* 2020). Nurses in emergency departments work on the front lines of violence because the emergency departments are open 24 hours a day, and the nurse are often the first healthcare provider-patient contacts (Pich *et al.* 2017). Therefore, nurses working in emergency departments are at the most significant risk of being assaulted, were in the recent decade, reports of violence in health care have skyrocketed (Timmins *et al.* 2022).

In the Middle East, violence in hospitals has recently been a topic included in the research. The research study's results on workplace violence were presented in Jordan, Iraq, Iran, Morocco, Egypt, and other countries. According to this research, emergency department nurses suffer a high workplace violence rate (ALBashtawy and Aljezawi 2014; Gilava *et al.* 2018; Rasha and Salama 2017: Rayan *et al.* 2016).

Violence against nurses in Iraqi emergency departments has become commonplace, and many nurses believe that violence is inherent in their vocation. For example, a cross-sectional study with 84 nurses from Basra city general hospitals' emergency departments in Iraq found that most survey participants had been exposed to workplace violence in the previous years, with night shift exposure (48.7%) being the

most common. Participants who had been exposed to violence reported feelings of disappointment (Samira and Sajjad 2018).

Another research that included 198 emergency care workers in Basra hospitals found that 48.7% of workers were subjected to verbal violence and 24.6%were subjected to physical assault, and most victims did not take any action in response to the violence (Ebrahim & Issa, 2018). According to research involving 68 nurses working in the primary emergency department of Iran, all nurses were exposed to verbal violence at least once in the previous year, with 22.1% experiencing physical violence (Alsaleem *et al.* 2017).

Waiting for treatment for a long time, poor communication, excessive workload, mental illness, or being under the influence of alcohol or drugs are common causes of aggression toward nurses (Cashmore *et al.* 2016).In addition, a lack of organizational policies and training for security and staff to recognize and deescalate hostile and assaultive behaviors of patients or employees has been identified as a significant factor in violence against nursing professionals in emergency departments (Ebrahim *et al.* 2018).Furthermore, there are insufficient policy and safety measures to limit the prevalence of violent incidents and protect nursing employees in hospitals, as well as a lack of staff education and training programs on workplace violence prevention (Samira and Sajjad 2018).

The violence has severe effects on nurses, including negative consequences, including lower job performance, lower job satisfaction, and destructive consequences on their physical and mental health (Avander *et al.* 2016).Studies show that one of the factors associated with violence is the workplace environment, where the nursing staff in emergency departments are at risk of violence in the workplace due to a combination of factors such as the physical environment, the personal qualities of nursing staff, state of the patient, and a variety of organizational methods such as the prevention of violence in the workplace aspects (Shi *et al.* 2017). The greater rate of violence among nursing staff in emergency departments is also seen as a significant factor in staff turnover and the struggle to recruit new employees (Avander *et al.* 2016; Han *et al.* 2017).

In summary, violence in Middle Eastern hospital emergency departments has recently been investigated more frequently. There are findings on violence in Jordan, Iraq, Iran, Morocco, Egypt, and other nations in the literature, where the prevalence of violence among nurses in emergency departments was shown to be high in these studies (ALBashtawy and Aljezawi 2014; Gilava *et al.* 2018: Rasha and Salama 2017: Rayan *et al.* 2016). Furthermore, the valid number of actual violent occurrences is likely to be substantially greater than documented due to massive underreporting of violence cases in healthcare settings, which is the result of a lack of institutional reporting standards or the mistaken idea that assaults are a normal part of the job (Holmes *et al.* 2016).While the number of nurses exposed to workplace violence in Iraqi hospitals grows by the day, there is little research on the factors associated with workplace violence among nurses (Abed 2014).For example, because most research has focused on the lifetime prevalence of verbal or physical violence by employment types without a multivariate estimate of risk factors, identifying the role of the work environment in raising the risk of violence among nurses has been limited. Also, little attention has been paid to the relationship between workplace violence and the intention to leave the job (Shi *et al.* 2017).

1.1. Aims of the Study

This study aimed to investigate the prevalence of violence among nursing staff working in emergency departments in Diyala city hospitals in Iraq, as well as the factors that were related to violence against nurses. In light of this purpose, two main aims can be defined as follows:

1. To determine the level and basis of violence that nurses are exposed to.
2. To determine the day of violence mainly occurred, the time of violence occurring, the identity of perpetrators, nurses' responses to the violent incident, and the nurses' feelings after the violent incident.
3. To examine whether nurses' exposure to violence differs in terms of nurses' age, gender, marital status, education level, years of experience in nursing, years of experience in the emergency department, work hours, and role in the emergency department.
4. To determine the level of nurses' intention to leave their job, the risk of violence, their perception of future violence risk, and the quality of their working environment.
5. To examine the relationships between nurses' exposure to violence, their intention to leave their job, the risk of violence, their perception of future violence risk, and the quality of their working environment.

1.2. Problem statement

RQ1: What is the prevalence of exposure of nurses to violence?

RQ2: Who carried out the violent incident mostly?

RQ3: What day of the week does the violence mostly happen?

RQ4: What is the nurse's response to the violent incident?

RQ5: How do the nurses feel after the violence happens?

RQ6: Do nurses' exposure to violence differ according to age, gender, marital status, education level, years of experience in nursing, years of experience in the emergency department, work hours, and role in the emergency department?

RQ7: What is the level of nurses' intention to leave their job, the risk of violence, their perception of future violence risk, and the quality of their working environment?

RQ8: What is the relationship between nurses' exposure to violence, their intention to leave their job, the risk of violence, their perception of future violence risk, and the quality of their working environment?

1.3. Research hypothesis

H0: There will not be a relationship between violence level, workplace environment, and intention to leave the job among Nurses in Emergency Departments at Diyala City Hospitals in Iraq.

H1: There will be a negative relationship between violence level and workplace environment quality and a positive relationship between violence level and intention to leave the job among Nurses in Emergency Departments at Diyala City Hospitals in Iraq.

1.4. Limitations of the study

Time limits: 2022

Place limits: The emergency departments in the city of Diyala in Iraq.

The duration of the study sample limits the results, the scale explicitly used for this study, and the fact that the data were based on self-reports from nurses in the hospitals in question.

2. LITERATURE REVIEW

This chapter's purpose is to review pertinent literature and research on the phenomenon under consideration.

2.1. Definition of Workplace Violence

Violence has always been associated with vocations that need extensive interactions with various people, including the general public, and has become a serious worry in the medical field (Baig 2018). The U.S. Department of Labor defines workplace violence as verbal, written, or physical aggression resulting in death, significant physical harm to self or others, or property damage (Farrell and Shafiei 2012). Workplace violence is rising, particularly among healthcare employees (Zafar *et al.* 2013). Workplace violence against nurses includes anything that makes nurses feel uncomfortable or afraid, anything that alters their job through oppression or intimidation, or anything that makes them less respected as a person in their role as a nurse. Workplace violence in the healthcare systems are prevalent and underreported a problem that has gone chiefly noticed and unsolved (Phillips *et al.* 2016). Workplace violence can be perpetrated by patients, families, doctors, or colleagues work (Duncan *et al.* 2015).

According to studies in Alberta and British Columbia hospitals, between 35% and 80% of healthcare workers have been exposed to at least one violent event by patients or visitors throughout their employment (Duncan *et al.* 2016). Furthermore, according to Occupational Safety and Health Administration (OSHA), about 75% of the nearly 25,000 workplace violence incidents reported each year occurred in the health sector, and nurses in the healthcare field are four times more likely to be violent than workers in other fields (Silver Spring 2017). A cross-sectional study (Zainal *et al.* 2018) involving 136 healthcare workers in a public hospital in Malaysia found that 71.3% of the participants had been exposed to at least one of the four types of violence, with verbal abuse being the most common (70.6%), followed by bullying/mobbing (29.4%), physical violence (11.0%), and sexual harassment being the least common (6.6%). It was also found that nurses have a greater one-year prevalence of workplace violence

(73.2%) than doctors (69.2%). The emergency department had the highest prevalence of violent occurrences in the past 12 months (87.9%), while the pediatric section had 55.7%.

Workplace violence is classified in different ways in the literature. The Canadian Nurses Association divided workplace violence into four categories. Psychological violence includes a worker's harassment, bullying, intimidation, and degrading management (Davison *et al.* 2006). Sexual harassment is a type of harassment in which the victim is subjected to repeated unwelcome sexual acts that pose harm to the victim. Physical violence includes using physical force against an employee in the workplace that results in or threatens physical injury. Financial violence is described as actions taken to obstruct an individual's development or advancement, which may have a financial impact. Classified workplace violence as verbal abuse, physical violence, bullying or harassment, assault, and sexual harassment (Varghese *et al.* 2022).

Based on the literature given above, the types of violence can be examined in three main groups in line with the aims of this study psychological violence, physical violence, and sexual violence.

2.2. Types of Workplace Violence

2.2.1 Psychological Violence

The intentional use of force against an individual or group of individuals to influence their thoughts, behaviors, actions, and decisions is known as psychological violence (Spector *et al.* 2013). Psychological violence is also called emotional abuse, characterized by a person subjecting or exposing another person to behavior that may result in psychological trauma, including anxiety, chronic depression, or post-traumatic stress disorder (Kitaneh 2012; Wyatt 2016).

Psychological or emotional abuse can range from verbal and persistent criticism to more subtle tactics like intimidation, manipulation, and an unwillingness to be satisfied. It can also come in various forms where aggression, denial, and minimization are three common tendencies of abusive conduct (Tee 2016). The threat of using physical force or power in the future, which causes the targeted individuals or groups to

fear suffering a physical, sexual, or psychological injury, or other adverse effects, is another example of psychological violence (Baig 2018).

A Danish study found that psychological violence is the most common type, followed by physical and sexual violence. It was also shown in this study that psychological violence is the most potent risk factor for all mental health outcomes, emphasizing the importance of recognizing the severity of this type of violence (Dokkedahl *et al.* 2021).

According to a study by (Li *et al.* 2018), people who experience psychological violence are seven times more likely to experience physical violence. Most respondents described how they dealt with violence by "pretending that nothing happened," 55.63% of general practitioners and 62.64% of nurses reported that the offender received no punishment. Nearly 47.62% of respondents stated that there are no formal reporting processes for violence at their places of employment in Chinese hospitals. When a reporting system was in place at work, 57.73% of employees could use it. Only 36.98% of people received instruction on controlling aggressiveness and violence.

The frequency of psychological violence was 49.12%, compared to the prevalence of physical violence, which was 15.36%, in a survey of general hospitals in Guangdong Province, China. According to research, women were shown to be more vulnerable to non-physical violence than men (Chen *et al.* 2004).

Psychological violence can be mainly classified as verbal violence, bullying or harassment, and mobbing.

2.2.1.1 Verbal Violence

Verbal violence is a type of communication that is recognized as causing harm to the recipient (Ezenwa-Ohaeto *et al.* 2022). Although verbal abuse is a form of workplace violence that does not leave physical signs of injury, the mental toll it takes on the victim's identity can be devastating, where verbal abuse is transmitted through words, tone, or manner that disparages intimidates, patronizes, threatens, accuses, or disrespects someone (Çelik *et al.* 2007). This is verbal aggression when someone

violates language norms in a humiliating, demeaning way or shows a lack of respect for their dignity and worth (Chapman *et al.* 2010).

Studies on patient and visitor abuse of nurses in public hospitals show that emergency department nurses are more susceptible to verbal abuse from patients and visitors than other nurses (Hahn *et al.* 2012). Verbal violence, physical assault, and threats have all been identified as the most common and repeated forms of violence recorded in general hospitals (Magnavita 2014). Verbal abuse, followed by physical threats and attacks, was the most frequent form of violence encountered by research participants, according to a study by (Chapman *et al.* 2010).

Several studies have been conducted on verbal violence between nurses and health personnel. For example, a study conducted in Korea with 205 nurses working in large-scale public hospitals in City D observed that newly recruited nurses are frequently subjected to verbal abuse (Park *et al.* 2022).

In a cross-sectional study conducted in a hospital in Turkey, where verbal abuse was present in 41.8% of cases. Most nurses who experienced verbal abuse in the emergency department were more careful to leave their positions, organization, and professions if given the opportunity (Aksakal *et al.* 2015). Also, in Turkey, 72.3% of emergency personnel had been subjected to some violence, and 87.3% of the individuals reported having been victims of verbal abuse (Kaya 2016). In another study in Turkey conducted with 286 healthcare workers, 61 participants mentioned that they were exposed to violence in the workplace once, and 115 mentioned that they were exposed to it several times (Pekince *et al.* 2022).

In addition, according to a study in Iraq among 84 nurses employed in emergency departments of general hospitals in Basra City to assess the prevalence and causes of various forms of violence, the majority of participants (71.1%) experienced verbal abuse (Samira and Sajjad 2018). In a prior study on 198 emergency care nurses in Basra city, Iraq, the majority did not respond to violent incidents, with the majority of the participants experiencing verbal aggression (48.7%) (Abed 2014).

Threatening nurses were most prevalent in Australia (66%) and Germany (55%) and least prevalent in Palestine (20%) (Kitaneh and Hamdan 2012). A retrospective

study of 275 Italian nurses found that 43% of nurses had experienced at least one act of verbal violence while working in the emergency department, with the majority of attacks coming from patients or their families and friends (Albashtawy 2013).

According to reports, nurses are frequently the target of verbal abuse that includes yelling, cursing, and shouting (El Ghaziri 2014). In a study in Turkey, it was reported that healthcare workers were subjected to verbal aggression, primarily in the form of swearing, insults, and threats (Pekince *et al.* 2022). The nurses were humiliated more frequently by doctors (34.3%) and exposed to malicious rumors by other nurses (26.5%) (Ahmed 2012).

2.2.1.2 Bullying or Harassment

Over the past few decades, bullying and harassment in the workplace have become a global phenomenon (León-Pérez *et al.* 2021). In other words, one frequently discussed form of violence in research that victims complain of is bullying. Bullying is any form of repeated physical or verbal abuse in which the victim is subjected to humiliating or intimidating treatment. It can also be defined as persistent and unpleasant behavior over time that includes malicious or nefarious attempts to weaken a person or group of workers (Koh *et al.* 2016).

According to Blackstock *et al.* (2015), bullying is best described as generalized psychological harassment, which refers to actions with a broader scope and consequences than discrimination based on a person's sex, race, or ethnicity (Blackstock *et al.* 2015). Harassment can be defined as any unwanted behavior that threatens the dignity of both men and women at work because of their age, disability, domestic status, gender, gender change, race, color, language, religion, trade unions, opinion or other belief, or origin national or social, minority, property, birth, or another status (Brunetto *et al.* 2016).

Bullying at work includes the abuse or exploitation of power and influence within the organization, sometimes causing the victim to feel vulnerable and severely impairing their ability to maintain their dignity at work (Roche *et al.* 2010). So, any persistent damaging or threatening behavior by an individual or group of individuals at the place of employment that puts the workers' health and safety at risk is known as

workplace bullying or harassment (Reynolds *et al.* 2014). Also, bosses and co-workers may be able to bully personnel at the workplace.

Bullying is widespread among emergency department nurses in Jordan. It has significantly impacted nurses' perceptions of their effectiveness and level of care. When bullying was reported, 61.7% of nurses said it affected their ability to respond to cognitive demands, offer support, have appropriate conversations, give safe care, and provide competent care (Al-Ghabeesh *et al.* 2019). Although nurses claimed to have taken action to stop bullying, this widespread issue was not adequately addressed because nurses with less emergency department experience were more likely to be the targets of bullying than other nurses.

A cross-sectional study in Turkey revealed that the prevalence of violent harassment/bullying was 17.1% in the emergency department, and most of the nurses who experienced harassment violence were more eager to change their job and organization (Aksakal *et al.* 2015). In Egypt, a study conducted in Cairo showed that nurses were bullied by patients and relatives (Elewa and El Banan 2019). The study conducted in Egypt Port Said revealed that more than half of the nurses (54.1%) were victims of workplace bullying, two-thirds of the nurses (60.6%) were bullied by patients and relatives of patients, and more than a third (33.3%) were bullied by their supervisor and manager (Hassan and Rashwan 2021).

Several studies have reported that workplace bullying has severe consequences for individual health, teamwork, and patient care delivery (Duffy and Sperry 2012). Also, a cross-sectional study was undertaken in Karachi, Pakistan, with a 33.8% frequency of bullying and attacking conduct among nurses. According to the study, young emergency department nurses (aged 19 to 29) with less than five years of work experience had the highest prevalence of bullying/harassment conduct (Somani *et al.* 2015). The nurse is responsible for caring for patients, and bullying negatively affects patient health and healthcare institutions and affects patient safety (Ekici and Beder 2014).

2.2.1.3 Mobbing

Mobbing is a negative phenomenon in all professional fields. It is defined as the deliberate and repeated use of frightening, confidence-damaging, insulting, excluding, disregarding, and unfair words and behaviors toward a targeted person in the workplace (Ministry of Labor and Social Security 2011). Mobbing refers to hostile conduct and unethical communication directed systematically at one person by one or more coworkers (Yildirim *et al.* 2007).

Mobbing risk is higher for recent graduates and nurses with less than five years of experience (Berry *et al.* 2012). The same holds for nurses with an employment history who switch workplaces (Somani *et al.* 2015). Ineffective workplace communication, issues with the work team, and a heavy workload are the most frequent causes of mobbing (Turan and Öncü 2018).

Mobbing impacts society, its victim, and the work organization, so it has a detrimental effect on a person's health and general well-being (Einarsen *et al.* 2011). It may cause physical (such as headaches, back pain, joint pain, and gastrointestinal issues) and mental health issues (such as post-traumatic stress disorder, burnout syndrome, frequent job switching, and reduced work satisfaction) (Babiarczyk *et al.* 2019; Fugueiredo-Ferraz *et al.* 2015; Nielsen *et al.* 2012; Tong *et al.* 2017). Employees who have experienced mobbing exhibit more significant mental tiredness and stress (Agervold *et al.* 2004).

Everyone who works in the emergency department is negatively impacted by the existence of mobbing, not simply the individuals who are the targets of the harmful behavior. The same medical conditions that the attack's victims experienced may also affect those who witnessed it (Myers *et al.* 2016).

Nurses are the group most susceptible to mobbing in the medical field. Compared to other healthcare professionals, nurses are up to 7 times more likely to be mobbing (Fugueiredo-Ferraz *et al.* 2015). Investigations were also conducted into the prevalence and effects of mobbing on nurses at Al Mukhtar Hospital, and participants reported mobbing at a rate of 10.5%, which was lower than the rate that participants reported in the other studies, where mobbing occurred on average at a rate of 40%

(Václavková *et al.* 2021). Since nurses are more likely than other health professionals to experience mobbing, the studies revealed that 2.85% of nurses experienced mobbing daily, 4.15% weekly, 19.3% monthly, and 24.8% occasionally (Al-Sagarat *et al.* 2016; Berry *et al.* 2012; Carter *et al.* 2013).

2.2.2. Physical Violence

Physical violence is using physical force against another person or group that causes physical, sexual, or psychological harm to that person or group (Phillips 2016). Even though anyone working in a hospital can be a victim of abuse, nurses and aides are more vulnerable (Alsaleem 2018).

The emergency department has the highest risk of physical violence compared to other departments because violence happens almost daily. The recognized effects of physical violence on nurses involve acute anxiety, lower work productivity, physical injuries, and mortality (Gillespie *et al.* 2013). It is also reported that clients or their friends and family were more likely to engage in physical aggression, threats, or sexual harassment (Magnavita and Heponiemi, 2011).

Studies have revealed that physical violence against nurses is more widespread in Turkey (75%), Switzerland (62%), and Egypt (62%) (AlOmari, 2015). However, physical violence was mentioned less frequently in Italy (5%) and Israel (13%), respectively (Kitaneh & Hamdan, 2012). Also, in a prior study on 198 emergency care nurses in Basra city, Iraq, the majority of the nurses did not respond to violent incidents, with the majority of the participants experiencing physical violence (24.6%) (Abed 2014).

A cross-sectional study of 447 nurses working in various departments across three hospitals in Amman, Jordan, showed that 37.1% of the participants were physically abused, with younger, less experienced nurses and those working in emergency departments being more at risk (Ahmed 2012). Furthermore, Iranian research of 6,500 nurses across the Middle East found that patients' relatives made up 56% of physical violence, while nursing personnel working in emergency departments made up 78% of violent offenders (El-Gilany 2010).

In addition, a cross-sectional study was conducted in Turkey, and physical violence was present in 13.9% of nurses. This study adds to the topic by showing that long working hours significantly increased physical violence in nurses (Aksakal *et al.* 2015).

According to research involving 68 nurses working in the primary emergency department of Iran, nurses were exposed to violence at least once in the previous year, with 22.1% experiencing physical violence (Alsaleem *et al.* 2017). Another research that included 198 emergency care workers in Basra hospitals found that (24.6%) were subjected to physical violence and that most victims did not take any action in response to the violence (Ebrahim and Issa 2018). Workplace violence against nurses is also prevalent in the west. A retrospective study of 275 Italian nurses found that 43% of nurses had experienced at least one act of physical violence while working in the emergency department, with the majority of attacks coming from patients or their families and friends (Albashtawy 2013). Also, 3,765 registered nurses participated in an American Nurses Association (2014) health risk evaluation survey in 2014, and the results revealed that 50% of the participants had experienced physical violence.

2.2.3 Sexual Harassment

Sexual harassment is a type of harassment that may take the form of physical or sexual assault, lousy cursing, or requests for sexual desires (Gianakos *et al.* 2022). Also, sexual harassment is any unwanted and irreversible behavior of a sexual nature that offends the person concerned (Boafo *et al.* 2015). A person's dignity may also be violated by any unwanted verbal, nonverbal, or physical conduct of a sexual character, mainly when it results in an intimidating, hostile, degrading, humiliating, or offensive atmosphere; therefore, sexual harassment can affect both men and women (Nowrouzi-Kia *et al.* 2018).

A study in Ghana found that 12% of nurses experienced sexual harassment at least once because it was not deemed essential to report such incidents, and in response to sexual harassment, people pretended that nothing had happened (Boafo *et al.* 2015). Also, according to a survey conducted in Germany, sexual assault was one of the main issues that developed and developing countries had to deal with (Franz *et al.* 2010).

Therefore, resigning or quitting a job was the strategy they used to address the problem as the victim of this type of violence, as they had been exposed to embarrassment, humiliation, and threats as a result (Boafo *et al.* 2015).

Numerous studies have described sexual harassment, which of all the types of workplace violence, it was the least explicit, whereas Germany (21%) and Palestine (2%) received fewer reports (Kitaneh and Hamdan 2012). In Medscape United Kingdom, among the 749 nurses who responded to a different online survey, 5% reported that they had been sexually harassed by a doctor or other medical staff member (Locke *et al.* 2019).

Also, nearly half (46%) of 188 critical care nurses in American hospitals who participated in the study said they had experienced sexual harassment, which included inappropriate sexual comments, unwanted physical contact, unwanted nonverbal attention, requests for unwelcome dates, sexual propositions, and one physical assault. The majority of instances were caused by doctors (82%), coworkers (20%), and direct supervisors (7%), however nurses failed to report the majority of them, possibly as a result of insufficient sexual harassment training or the facility's reporting procedures (Sandberg 2002).

2.2.4 Horizontal/ Lateral Violence

Horizontal violence is when healthcare workers act violently toward each other. In nursing, much horizontal violence or nonphysical intergroup conflict is displayed in overt and covert hostility behaviors, which has been explored in the literature for more than 20 years. These include harassment, physical or verbal abuse, planned interruptions, and other unethical behavior (Volz *et al.* 2017).

Hubbard et al. (2016) defined horizontal violence as aggression by a fellow nurse against another nurse that leads to workplace hostility. Despite zero-tolerance regulations in the workplace, this type of abuse still affects nearly half of the nurses (Hubbard *et al.* 2014). It is expensive and can have disastrous consequences, such as high nurse turnover rates, an increase in disease, lower productivity, and a decline in the caliber of patient care (Bloom *et al.* 2019). In a 2010 study, it was also found that

horizontal aggression causes nurses more stress than attacks on physically harmful clients (Roche *et al.* 2010).

Additionally, it is found that nurses, nursing managers, other medical and administrative staff, patients, and their families are all affected by horizontal violence (Bloom et al., 2014). Besides, these actions may harm the delivery of patient care, with consequences for hostile nurses, including anxiety, depression, PTSD, and resignation from their jobs (Purpora *et al.* 2012).

2.2.5 Vertical Violence

The way a senior coworker interacts with a subordinate is referred to as “vertical aggression” (Cantey *et al.* 2013). Any act of violence, including yelling, stinging remarks, withholding vital information, rudeness, neglecting others, and degrading behaviors between two or more people at different levels of the hierarchical system, is called vertical violence (Kanti *et al.* 2013). Vertical violence can be both transparent and blatant (such as making false charges and criticizing while other staff members are present), as well as implicit and difficult to detect (such as withholding information or spreading rumors) (Jackson *et al.* 2002).

The phenomenon of "nurses are eating their young" in the workplace has long been referred to (Longo 2007). Whether in the emergency unit or a community setting, nurses are also cited as victims of this behavior (Cantey *et al.* 2013). Since they are consistently influenced by someone higher in the hierarchy, such as a nurse supervisor, newly hired nurses are exposed to horizontal and vertical violence (Pejtersen *et al.* 2010). Other healthcare workers have also been accused of using horizontal and vertical aggression toward nurses (Magnavita and Heponiemi 2011).

Vertical violence is claimed to have various adverse effects on feelings of inferiority, sadness associated with victimization, and the desire to seek asylum. In addition, this type of aggression can be stopped, eliminating professional productivity or creating a hostile work atmosphere (Cantey *et al.* 2013). Nurses frequently feel helpless in the hospital hierarchy and cannot receive support from the hospital management (Thomas and Burk 2009).

2.3. Reasons for Increased Incidence of Violence towards Nurses in the Emergency Department

The Emergency Nurses Association lists various factors that have contributed to the emergency department becoming an important site of potential violence, including 24-hour access, its use as a medically cleared area for individuals with psychiatric conditions, and a threatened waiting area. Examples include congestion in workplaces, extended waiting times, turbulence and loudness, and non-acceptance of the triage system. These things can lead to increased tension and anger among visitors, friends, and family (Gillespie *et al.* 2010).

Nursing personnel in the emergency department are particularly vulnerable to workplace violence due to the conditions under which care is provided in healthcare settings. The reasons behind the rise in incidents of violence against emergency department nurses are as follows (Duncan *et al.* 2016):

1. A variety of patients who are distressed from pain or illness come into direct contact with nurses in the emergency unit.
2. Providing emergency department nursing care to confused or emotionally unstable patients.
3. The emergency department's nursing staff frequently makes close physical contact while performing interventions.
4. The emergency room's nursing staff speaks with the patient's family members, frequently experiencing intense emotional distress due to severe trauma, mental illness, or bereavement.
5. Nursing staff may occasionally consider diagnostic or therapeutic interventions when caring for patients in isolated locations.
6. Long wait times, high stress levels, and crowded emergency rooms are standard.
7. Staffing levels frequently drop, especially during busy periods.
8. Staff members are not adequately trained in managing and preventing aggression and violence.

Every location experiences violence against healthcare professionals, with the emergency department recording the highest number of incidents (Albashtawy 2013).

Domestic disputes between patients or visitors and the presence of firearms, knives, and other weapons among patients and their relatives and friends are additional factors that raise the likelihood of violence against nursing staff (Hahn *et al.* 2013).

Additionally, increasing diversity within the workplace, high employee monitoring, frequent change in management, and pay cuts or freezes, were all associated with having experienced aggression in the workplace (Leon-Perez *et al.* 2016). Other factors include high worker turnover, inadequate security, mental health personnel on site, unrestricted public movement in clinics and hospitals, and increased workplace violence (Choi and Lee 2017).

One of the most common causes of increased violence against nurses is the perpetrator's perception that violence is tolerated, and victims will not be able to report the incident to the police or press charges (Duncan 2016). Negative social perceptions about emergency care workers and a lack of support from hospital administration are two other factors contributing to violence among nurses (Ahmed 2012).

2.4. Reporting Violence Incidents

An international barrier preventing complete data collection during the study of workplace violence is the underreporting of violence in healthcare settings (Spector 2014). Childhood socialization, experiences with, and handling of sexual, physical, or verbal abuse, from such events, personal life experiences, and historical and cultural barriers might contribute significantly to underreporting of violence (Morken 2015). Nurses in abusive relationships are less likely to disclose violence in the workplace (Jiao 2015).

One of student nurses' most widely utilized coping mechanisms is to do nothing about violence (Baig, 2018). So, when nurses are subjected to violent acts by clients, their family members, or other staff members, they view it as part of their job (Magnavita and Heponiemi 2011). Usually, unreported violent incidents in emergency departments are associated with excessive paperwork, inadequate or ineffective reporting mechanisms, and a lack of support from hospital leadership (Powley 2013).

There are specific reasons why employees fail to take action or report violent crimes, including (Talas *et al.* 2011).

- ❖ Panic and ignorance of what to do.
- ❖ Concerns regarding what other people will think of their performance.
- ❖ Fear brought on by a lack of confidence and low self-esteem.
- ❖ Horror of aggressiveness from others.
- ❖ Being afraid of getting angry or having a bad reaction.

Additionally, the hospital management did nothing even after they complained about these behaviors, which was another factor. Also, almost no one reported the incident to security or the police (Silver Spring 2017).

2.5. Consequences of Violence

Workplace violence against nurses has increased recently, and it is regarded as a serious issue among healthcare providers. For nurses, workplace violence is a severe occupational and health risk. It has an impact on nurses' physical and mental well-being, as well as healthcare delivery (Kibunja *et al.* 2021).

The effects of violence go beyond the number of reported events. Additionally, it happens at the level of the person, workplace, and services provided in health care settings and at organizational levels (Smith *et al.* 2010; Gillespie *et al.* 2013). Depending on the circumstances, several consequences may occur, and the intensity of the incident may vary.

2.5.1 Consequences of Violence at the Individual Level

Workplace violence entails physical harm, significant absenteeism, psychological repercussions on nurses, and effects on retention and clinical practice (Albashtawy 2013). In addition to anger, shock, fear, melancholy, anxiety, and disturbed sleep, physical and emotional violence can also have emotional repercussions (Pompeii *et al.* 2015). The nurses who experienced physical and verbal abuse reported experiencing pain, sprains, hearing damage, palpitations, sleep difficulties, stress, sadness, and a sense that their vocation is not appreciated (Bordignon and Monteiro 2016).

Hahn *et al.* (2012). Found that up to 60% of healthcare employees who had been exposed to physical violence and up to 90% of those who had been exposed to verbal violence found the emotional effects of violence to be upsetting. Many healthcare professionals claimed to be experiencing severe effects and needed time off for sick leave. Additionally, the study found that a lack of organizational strategies and measures regarding violence harmed healthcare workers' confidence levels. In contrast, training and courses on violence management had no discernible impact on their confidence level in dealing with violent incidents (Hahn *et al.* 2012).

Violence at work may also influence a worker's career. Bullying causes emotional and physical distress, according to a study done among 303 emergency nurses in the US. Additionally, about 95% of study participants reported experiencing anxiety and gastrointestinal symptoms due to bullying, and 72% reported experiencing headaches (Pompeii *et al.* 2015).

2.5.2 Consequences of Violence at The Level of Emergency Departments of The Hospitals

There are many consequences for nurses who experience violence in the emergency department. They may experience negative influences in their physical, emotional, social, and professional lives, affecting them at home and work. Iranian nurses who observed violence in the emergency department complained of physical and mental problems and harmful repercussions on their economic and professional lives (Hassankhani *et al.* 2018).

Therefore, violence against nurses has been described as a silent epidemic that leads to severe consequences such as life-threatening injuries and PTSD (Fute *et al.* 2015; Elliott *et al.* 1997). Also, consequences of working in the emergency department may include stress, uncomfortable working conditions, lack of confidence, confusion about tasks, hostile behavior towards co-workers, increased workload, inadequate teamwork, and a tense environment (Magnavita *et al.* 2014).

2.5.3 Consequences of Violence on the Level of the Services That Are Delivered in The Health Care Settings

When it comes to the level of services provided in healthcare settings, poor facility quality, a shortage of nurses who start working in other regions to avoid becoming victims of violence, physical damage to the healthcare settings, and poor provider perception of the health services in that hospital are all significant issues (Liu 2018). Healthcare organizations have noted that bullying and workplace violence cause high levels of nurse absenteeism, low self-esteem, loss of competency, high staff turnover, increased sick days, and higher costs for hiring, paying out, and legal fees (Choi and Lee 2016).

Violence hurts the organization. One study revealed that approximately 60% of newly graduated nurses would leave their first sites within six months, and 50% of that number would actually leave the nursing profession due to poor treatment by nursing administration in one setting (Liu 2018). The cost of workplace violence results in a high proportion of nurses' intention to leave their jobs and a reduction in the health of the nursing staff (Roche *et al.* 2010).

Other detrimental organizational effects include a hostile work atmosphere, low worker morale, high job stress, increased nurse turnover, and diminished trust in management (Duncan *et al.* 2016). Also, patients' and their relative's assaults at work cause considerable financial loss for the healthcare business (Hahn *et al.* 2010).

Stathopoulou *et al.* (2014) noted the influence of violence in hospitals on the following conditions:

- ❖ A rise in absenteeism and sick leave usage.
- ❖ A decline in employee motivation and morale.
- ❖ Employee performance is impacted by avoidance behavior.
- ❖ Increasing costs for security equipment installation and maintenance.

3. MATERIALS AND METHOD

3.1. Study Design

It is a cross-sectional, descriptive, and relational study.

3.2. Study Sample

The sample consisted of 200 nurses working at emergency departments in hospitals in Diyala city in Iraq, which were reached using a non-probability sampling (targeted) method.

3.3. Study Tool

This study consisted of a descriptive and relational study, which was planned to determine the risks of violence and related factors among nurses in emergency departments in Diyala, Iraq. Accordingly, a measurement instrument developed by Rogers and Kelloway (1997; Schat and Kelloway 2000) and adapted into Arabic by Hussein and Faraj (2021) was used in the research. The measuring instrument consists of six parts (Appendix 1):

Part One: This section includes primary demographic data such as age, gender, marital status, and educational level obtained from nurses.

Part Two: Professional information form consists of 4 questions about the professional characteristics of the participants, such as years of experience in nursing, years of experience in the emergency department, working hours, and role in the emergency department.

Part Three: General information about violence consists of 5 questions about violence to which emergency services are exposed:

3.1 The day the violent incident occurred: The emergency nurses determined the day it occurred by answering the question, Which day of the week did it happen?

3.2 Time of the day in which violence occurs: The emergency nurses determined the time of the day in which the violent incident occurred by answering the question, At which time did it happen?

3.3 Source of violent incident: The emergency nurses determine the source of the violent incident by answering the question, Who attacked you?

3.4 Response to the violent incident: The emergency nurses determined the initial response to a violent incident by answering the question, How did you respond to the incident?

3.5 Consequences of violence: The effect of violence on the emergency nurses was identified by answering the question, What do you feel after the incident?

Part Four: Intention to Leave the Job

Intention to leave the job consists of 3 questions to measure participants' intention to leave their jobs. It was developed by Cammann et al. (1979). Each item (e.g., I may search for new work outside of my current hospital next year) was rated on a 7-point scale with responses ranging from 1 (strongly disagree) to 7 (strongly agree), with higher scores reflecting a higher intention to leave the job.

Part Five: The Risk of Violence

The Risk of Violence consists of 20 items designed to assess an employee's risk of being exposed to violence based on job characteristics (e.g., In your present employment, do you work evenings/nights?"). All items were rated using a 5-point scale, with responses ranging from 0 (never) to 4 (always). Higher scores indicate a higher employee risk of being exposed to violence in the workplace.

Part Six: Violent Events at Work

Violent Events at Work is a 17-item scale that includes violent or aggressive behaviors that may come from many sources at work, such as patients, students, or co-workers. It consists of examples of violence (e.g., "Have you been hit, kicked, grabbed, shoved, or pushed while you have been at work?" and "Have you ken yelled at or shouted at while you have been at work?"). The measure was a modified version of the

13-item scale used by Rogers and Kelloway (1997; Schat and Kelloway 2000), who established the reliability and validity of the scale. All items were rated on two 5-point scales (one scale measured the frequency of violence from coworkers, and the other measured frequency of violence from the public), with responses ranging from 0 (never) to 4 (four or more times). Higher scores indicate a higher level of exposure to violence in the workplace. In this research, we only used the measure of violence from the public.

Part seven: Likelihood of Future Violent Events

The likelihood of Future Violent Events consists of 13 items that measure participants' perceptions of the possibility of experiencing violence over the next year. The items were rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The five items that made up this scale corresponded to the Violence at Work Scale (e.g., "It is likely that I will be hit, kicked, grabbed, shoved or pushed while I'm at work"). Higher scores indicate a higher possibility of experiencing violence in the workplace.

Modified Nursing Work Indicator Practice Environment Scale

We used the current Arabic version of the Modified Nursing Work Indicator Practice Environment Scale to measure work environment quality (Appendix 2). It is a four-point Likert scale that ranges from strongly agree (1) to disagree (4) strongly. The scale consists of 32 items (e.g., "Enough time and opportunity to discuss patient care problems with other nurses") distributed in five subscales: Nurse Participation in Hospital Affairs (8 items), Nursing Foundations for Quality of Care (9 items), Nurse Manager Ability, Leadership, and Support of Nurses (4 items), Staffing and Resource Adequacy (4 items), Collegial Nurse-Physician Relations (7 items). After reverse coding the items, higher scores indicated a higher quality of nursing work environment.

Reliability of the Scales

The concept of reliability, as defined by Munro (2005), was applied in order to ascertain whether or not the questionnaire was accurate. This is due to the fact that the results demonstrate very high levels of stability and internal consistency of principle

sections about item replies. In this particular investigation, the measure of internal consistency reliability that was utilized was the Cronbach alpha coefficient test. The risk for violence scale received a reliability score of.76, the violent events at work scale received a reliability score of.82, the likelihood of future violent events at work received a reliability score of.75, the nursing work environment scale received a reliability score of.83, and the intention to leave the job scale received a reliability score of.89. According to Nieswiadomy (2012), reliability coefficients of less than 0.70 are accepted, and it is not recommended to employ an instrument with a reliability of less than 0.70.

Table 3.1 Internal consistency reliability coefficients for the ınvestigated questionnaire

No	**Scale**	**Reliability Coefficients of the studied Questionnaire**		
		Alpha (Cronbach - α)	Standard lower bound	Assessment
•	Risk for Violence Scale	0.76	0.70	Accepted
•	Violent Events at Work	0.82	0.70	Accepted
•	Likelihood of Future Violent Events at Work	0.75	0.70	Accepted
•	Nursing Work Environment Scale	0.83	0.70	Accepted
•	Intention to Leave the Job	0.89	0.70	Accepted

3.4. Data Collection

Data was collected through a self-report tool that includes socio-demographic data for nurses, professional information, general information about violent incidents, and the scales of Intention to Leave the Job, Risk for Violence, Violent Events at Work, Likelihood of Future Violent Events at Work and Nursing Work Environment. Data collection procedures started on April 8, 2022, until August 28, 2022. Each nurse spends approximately 20-25 minutes responding to the questionnaires.

3.5. Statistical Data Analysis Approach

With the assistance of the Statistical Package for the Social Sciences (SPSS) Version 26, the following statistical data analysis method approaches were utilized in order to examine the findings of the study:

3.5.1 Descriptive data analysis approach:

- Frequencies and Percentages

-The questionnaire's internal consistency reliability was measured by Cronbach alpha (α).

3.5.2 Inferential Data Analysis approach

This has been used to accept or refuse statistical hypotheses. It contained the following:

A-Chi-Square test for determining the independency distribution of observed frequencies and determining the type of relationship between study variables.

B- For the comparison of significant abbreviations, the following were used:

Ns: Non-Significant at $P>0.05$

S: Significant at $p\leq0.05$

3.6. Ethical Aspect

Approval to conduct the study was obtained from Approval of the Iraq ethics committee (Appendix 3), and additional approval was obtained from the the Ethics Committee of Çankırı Karatekin University (Appendix 4) and Facilitate the task of collecting study samples from Diyala City Hospitals (Appendix 5).

4. RESULTS OF THE STUDY

In this chapter, we will expose the results shown by the study regarding the risks of violence against nurses working in emergency wards.

Table 4.1 Distribution of nurses according to their socio-demographic characteristics and their occupational information

Variables		**f**	**%**	**Cumulative Percent**
Age	< 20 years	27	13.5	13.5
	20 - 39 years	113	56.5	70.0
Mean ± SD	40 - 59 years	50	25.0	95.0
35.1 ± 4.73	≥ 60 years	10	5.0	100.0
	Total	200	100	
Gender	Male	68	34.0	34.0
	Female	132	66.0	100.0
	Total	200	100	
Marital status	Not married	78	39.0	39.0
	Married	122	61.0	100.0
	Total	200	100	
Educational Qualification	Nursing High School	48	24.0	24.0
	Diploma (two-year university education)	123	61.5	85.5
	Bachelor's Degree	29	14.5	100.0
	Total	200	100	
Years of experience in nursing	1 - 9 years	101	50.5	50.5
	10 - 19 years	60	30.0	80.5
	20 - 29 years	18	9	89.5
Mean ± SD	30 - 40 years	21	10.5	100.0
11.4 ± 0.87	Total	200	100	
Years of experience in the emergency	1 - 9 years	99	49.5	49.5
	10 - 19 years	62	31.0	80.5

department Mean ± SD 12.8 ± 0.95	20 - 29 years	22	11.0	91.5
	30 - 40 years	17	8.5	100.0
	Total	200	100	
Work hours	6 hours	118	59	59.0
	18 hours	82	41	100.0
	Total	200	100	
Role in the Emergency Department	Staff Nurse	178	89	89.0
	Supervisor	22	11	100.0
	Total	200	100	
	Total	200	100	

f = Frequencies, % = Percentages, M = Mean of score, SD = Standard Deviation

The socio-demographic characteristics and occupational information table exposed that the 56.5% of nurses that work in the emergency unit in the age group of 20-39 years, 66% of them were female, and 61% were married. 61.5% of the nurses had a diploma in nursing as an educational qualification. 50.5% of them had years of experience in nursing between 1-9 years, and 49.5% of them had years of experience in the emergency department between 1-9 years. 59% of the nurses worked 6 hours daily, and 89% were staff nurses in the emergency department.

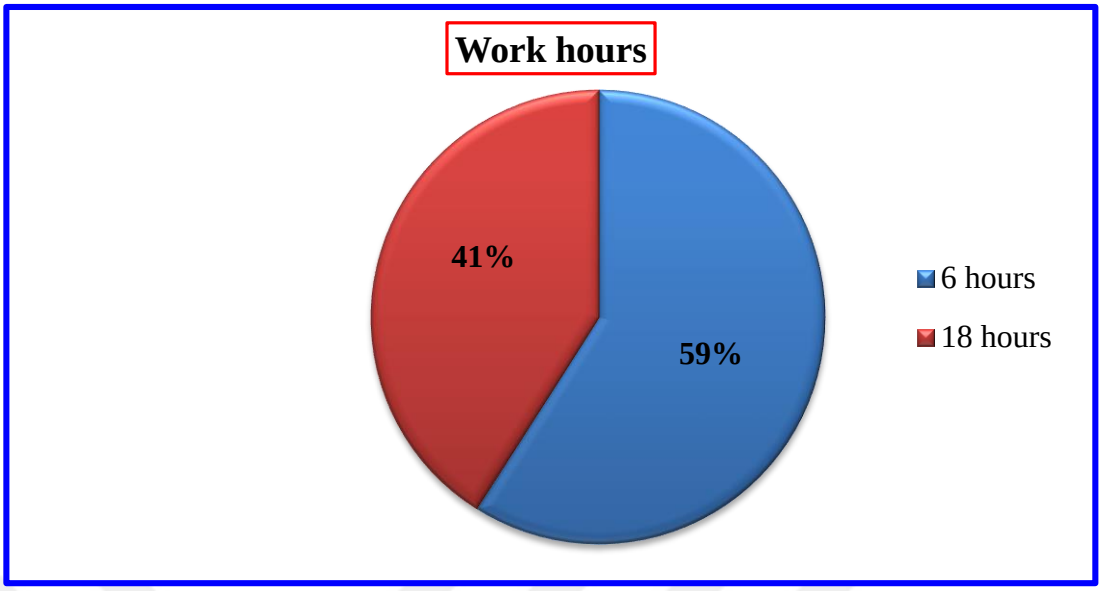

Figure 4.1 The nurses' work hours in the emergency department per day.

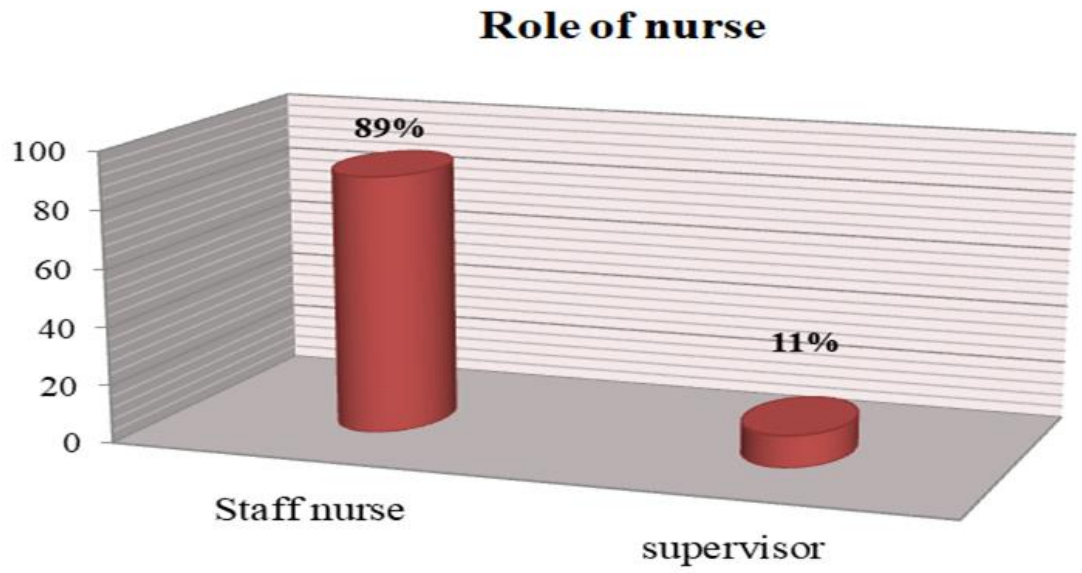

Figure 4.2 The nurses' role in the emergency department

Table 4.2 General information about violent incidents

General Information		F	%	Cumulative Percent
Day of violent occurrence	Sunday	34	17.0	17.0
	Monday	31	15.5	32.5
	Tuesday	30	15.0	47.5
	Wednesday	25	12.5	60.0
	Thursday	35	17.5	77.5
	Friday	29	14.5	92.0
	Saturday	16	8.0	100.0
Time of violent occurrence	At morning	72	36	36
	At evening	128	64	100
Identity of perpatrators	Patient	22	11.0	11.0
	Patient's relatives	158	79.0	90.0
	Another nurse	12	6.0	96.0
	Health team member	6	3.0	99.0
	Physician	2	1.0	100.0
What was your response to the violent incident	Managed it by myself	58	29.0	29.0
	Asked help	70	35.0	64.0
	Asked the help of another person	54	27.0	91.0
	Used alarm	6	3.0	94.0
	Did nothing	12	6.0	100.0
How did you feel after the violence happened	Angry	100	50.0	50.0
	Disappointed	52	26.0	76.0
	Stressed	26	13.0	89.0
	Aggrieved	12	6.0	95.0
	Reduced work enthusiasm	10	5.0	100.0

f = Frequencies, % = Percentages

Table of General information about violent incidents reported no difference in the possibility of workplace violence occurring according to the days of the week. 64% of violence occurred in the evening time. 79% of the incidents of violence experienced by nurses in the emergency ward were by relatives of patients. 35% of nurses who experienced violent incidents while working in the emergency ward sought help as part of their response to this violence. 50% of nurses felt angry when exposed to workplace violence.

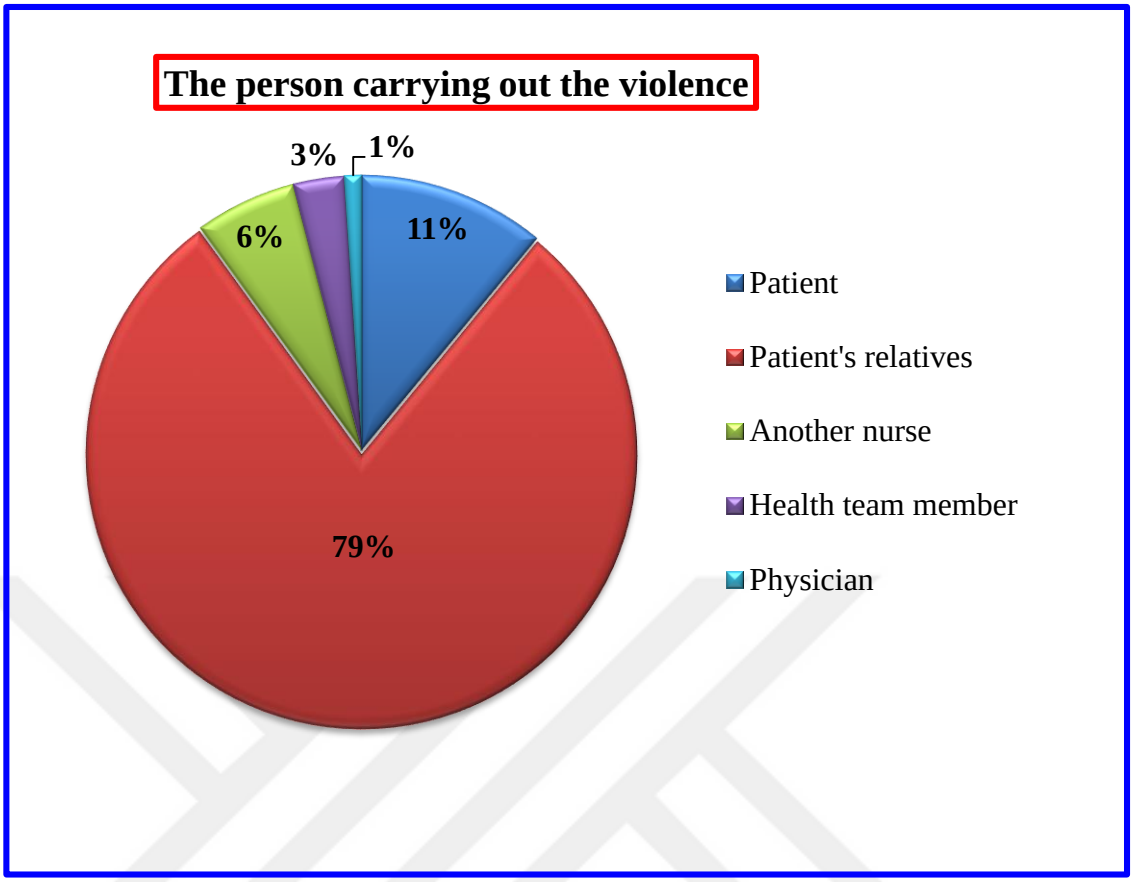

Figure 4.3 The person who carrying out the violence in emergency ward

Table 4.3 Nurses' intention to leave the job

Intention to Leave the Job	Value	f	%	M	SD
I may apply for a new job in my current hospital next year	Strongly Disagree	70	35.0	3.25	2.36
	Disagree	54	27.0		
	Slightly Disagree	0	0		
	Neither agrees/Disagree	0	0		
	Slightly Agree	0	0		
	Agree	60	30.0		
	Strongly Agree	16	8.0		
I may search for new work outside of my current hospital next year	Strongly Disagree	24	12.0	4.59	2.28
	Disagree	50	25.0		
	Slightly Disagree	0	0		
	Neither agrees/Disagree	0	0		
	Slightly Agree	0	0		
	Agree	88	44.0		
	Strongly Agree	38	19.0		
I am probably looking for a job in a new profession other than nursing next year	Strongly Disagree	56	28.0	2.92	2.15
	Disagree	88	44.0		
	Slightly Disagree	0	0		
	Neither agrees/Disagree	0	0		
	Slightly Agree	0	0		
	Agree	40	20.0		
	Strongly Agree	16	8.0		

f = Frequencies, % = Percentages, M = Mean of score, SD = Standard Deviation

The table of nurses' intention to leave the job exposed that 38% of nurses who suffer from violence agree or strongly agree with this opinion I may apply for a new job in my current hospital next year. 63% agreed or strongly agreed with a search for new work outside their current hospital next year, but 28% agreed or strongly agreed to look for a job in a new profession other than nursing next year.

Table 4.4 Risk for violence for nurses

Item	Never		Rarely		Some of the time		Most of the time		Always		M	SD
		%	f	%	f	%	f	%	F	%		
In your present employment, how often are you involved in the physical care of others?	5	2.5	18	9.0	27	13.5	75	37.5	75	37.5	2.9	1.04
In your present employment, how often are you involved in the emotional care of others?	1	0.5	17	8.5	31	15.5	84	42.0	67	33.5	2.9	.93
In your present employment, how often do you interact with the public who come to the hospital?	10	5	16	8.0	24	12.0	80	40.0	70	35.0	2.9	1.1
How often are you in a position to deny public service in your present employment?	11	5.5	34	17.0	21	10.5	55	27.5	79	39.5	2.7	1.2
How often do you make decisions that influence other people's lives in your present employment?	8	4.0	20	10.0	27	13.5	60	30.0	85	42.5	2.9	1.1
If your organization is open to the public the day, are there times when you are the only employee present (if your organization is not open to the public, respond zero)	17	8.5	20	10.0	27	13.5	92	46.0	44	22.0	2.6	1.1
If your organization is open to the public during the evening or night, are there times when you are the only	31	15.5	39	19.5	25	12.5	63	31.5	42	21.0	2.2	1.3

employee present (If your organization is not open to the public, respond zero)?												
How often do you administer other people's money in your present employment?	15	7.5	15	7.5	21	10.5	45	22.5	104	52.0	3	1.2

Table 4.4 (Continue) Risk for violence for nurses

In your present employment, how often do you dispense drugs?	130	65.0	52	26.0	8	4.0	5	2.5	5	2.5	0.5	0.8
How often do you handle valuables (e.g., jewelry) in your present employment?	100	50.0	28	14.0	21	10.5	24	12.0	27	13.5	1.2	1.4
In your present employment, how often do you handle money?	73	36.5	51	25.5	21	10.5	28	14.0	27	13.5	1.4	1.4
In your present employment, how often do you exercise physical control over others?	38	19.0	26	13.0	38	19.0	55	27.5	43	21.5	2.1	1.4
In your present employment, how often do you supervise others?	14	7.0	16	8.0	44	22.0	62	31.0	64	32.0	2.7	1.1
In your present employment, how often do you interact with frustrated individuals?	10	5.0	14	7.0	37	18.5	66	33.0	73	36.5	2.8	1.1
In your present employment, how often do you deliver items of value?	59	29.5	34	17.0	23	11.5	41	20.5	43	21.5	1.8	1.5
In your present employment, how often do you collect items of value?	59	29.5	36	18.0	23	11.5	41	20.5	41	20.5	1.8	1.5
In your present employment, do you work evenings/Nights?	34	17.0	19	9.5	20	10.0	48	24.0	79	39.5	2.5	1.5
In your present employment, how often are you in contact with individuals who are under the influence of alcohol?	7	3.5	6	3.0	31	15.5	102	51.0	54	27.0	2.9	0.9

How often are you in contact with individuals under the influence of illegal drugs in your present employment?	7	3.5	9	4.5	11	5.5	75	37.5	98	49.0	3.2	0.9
In your present employment, how often are you in contact with medicated individuals?	7	3.5	9	4.5	23	11.5	58	29.0	103	51.5	3.2	1.02

Table 4.5 Overall total distribution of violence risk

Item	Never		Rarely		Some of the time		Most of the time		Always	
	f	%	f	%	f	%	f	%	f	%
Violence Risk	636	15.9	479	11.9	503	12.5	1159	28.9	1223	30.5

f = frequencies, % = Percentages

The table of the overall distribution of violence risk explains that 30.5 % of nurses who experienced violence at work were always at risk of violence and 28.9% of them were at risk of violence.

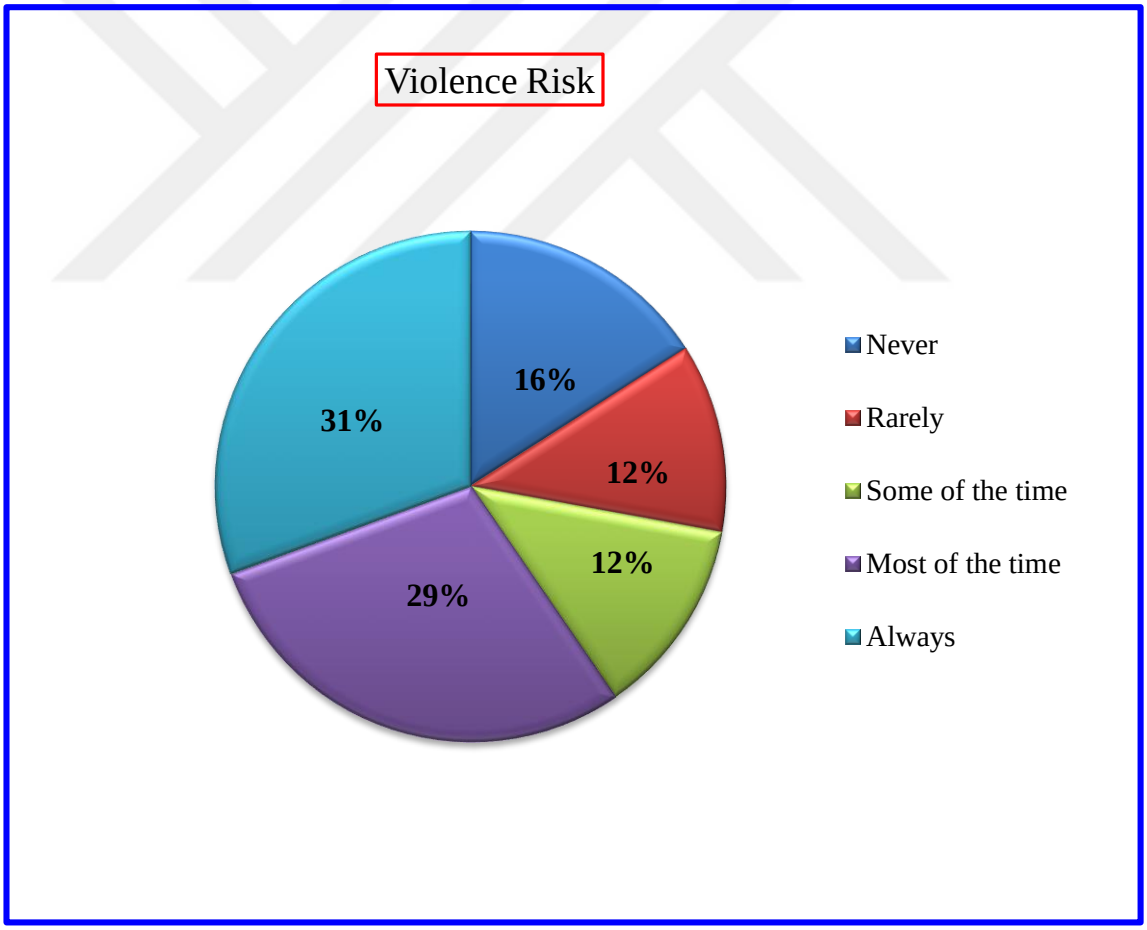

Figure 4.4 Nurses' violence risk

Table 4.6 Violent events at work among nurses in the last year

Item	Never		One time		Two times		Three times		Four times or more		M	SD
	f	%	f	%	f	%	f	%	f	%		
Have you been hit, kicked, grabbed, shoved, or pushed while you've been at work?	16	8.0	10	5.0	10	5.0	74	37.0	90	45.0	3.0	1.1
Have you ken spat on or bitten by anyone while you've been at work?	50	25.0	16	8.0	14	7.0	71	35.5	49	24.5	2.2	1.5
Have you had an object thrown at you while you've been at work?	68	34.0	17	8.5	14	7.0	51	25.5	50	25.0	1.9	1.6
Have you ken threatened with any of the above examples of physical violence while you've been at work?	33	16.5	13	6.5	6	3.0	65	32.5	83	41.5	2.7	1.4
Have you ken threatened with a weapon while you've been at work?	95	47.5	10	5.0	16	8.0	48	24.0	31	15.5	1.5	1.6
Have you been sexually harassed while you've been at work?	63	31.5	5	2.5	26	13.0	51	25.5	55	27.5	2.1	1.6
Have you been sexually assaulted while you've been at work?	75	37.5	9	4.5	19	9.5	49	24.5	48	24.0	1.9	1.6
Have you ken yelled at or shouted at while you've been at work?	26	13.0	26	13.0	22	11.0	50	25.0	76	38.0	2.6	1.4
Have you seen sworn at while you've been at work?	45	22.5	21	10.5	18	9.0	46	23.0	70	35.0	2.3	1.5
Has someone at work damaged your personal property or workplace property?	58	29.0	18	9.0	15	7.5	51	25.5	58	29.0	2.1	1.6
Has anyone threatened to damage your personal or workplace property while you've been at work?	73	36.5	14	7.0	15	7.5	47	23.5	51	25.5	1.9	1.6
Have you had a door slammed in your face while you've been at work?	60	30.0	22	11.0	14	7.0	44	22.0	60	30.0	2.1	1.6

Have you seen any of your co-worker so managers experiencing violent events at work?	25	12.5	28	14.0	23	11.5	51	25.5	73	36.5	2.5	1.4

Table 4.6 (Continue) Violent events at work among nurses in the last year

Have you heard about your co-workers/managers experiencing violent events at work?	38	19.0	32	16.0	20	10.0	53	26.5	57	28.5	2.2	1.4
Have you seen co-workers/managers being threatened with physical violence at work?	-	-	-	-	10	5.0	82	41.0	108	54.0	3.4	0.6
Have you heard about co-workers/managers being threatened with physical violence at work?	39	19.5	27	13.5	19	9.5	52	26.0	63	31.5	2.3	1.5
Have any of your Friends/ relatives experienced or been threatened with physical violence while they've been at work	50	25.0	23	11.5	21	10.5	42	21.0	64	32.0	2.2	1.6

Table 4.7 Overall total mean distribution of violent events at work among nurses

Item	**Never**		**One time**		**Two times**		**Three times**		**Four times or more**	
	f	%	f	%	f	%	f	%	F	%
Total mean of Violent Events	89	22.2	50	12.5	282	8.2	927	27.2	1086	31.9

f = frequencies, % = Percentages

The table of the overall mean distribution of violent events at work among nurses explains that 31.9% of nurses who work in an emergency experienced violence four times or more and 27.2% experienced violence three times.

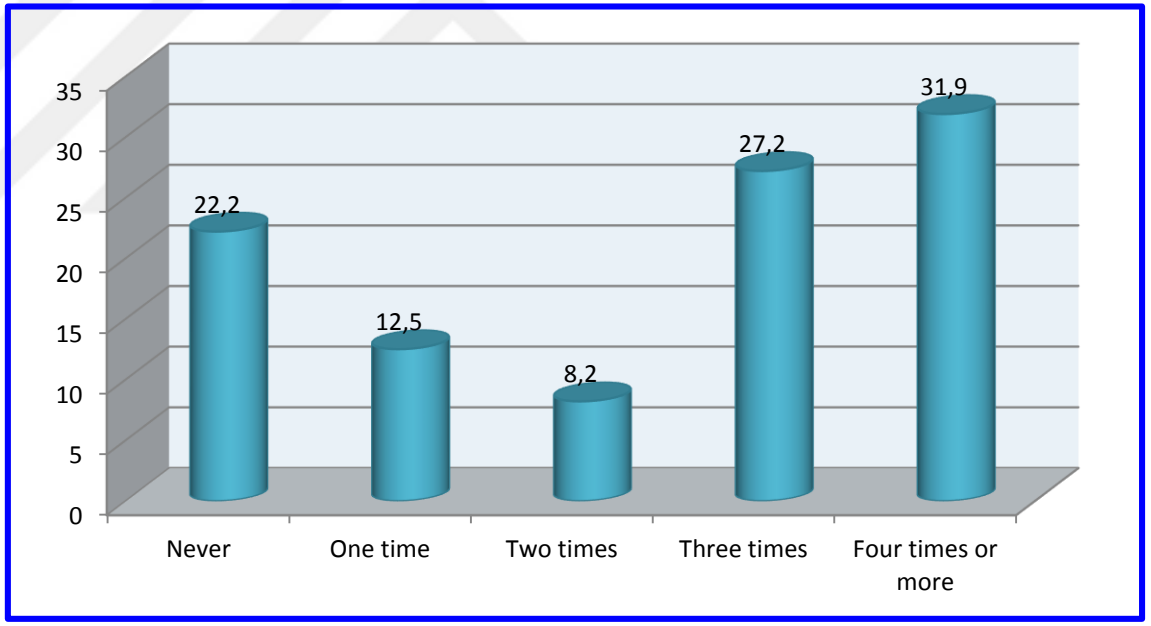

Figure 4.5 Violence events

Table 4.8 Likelihood of future violent events at work among nurses

Item	Strongly Disagree		Disagree		Slightly Disagree		Neither agrees /Disagree		Slightly Agree		Agree		Strongly Agree		M	SD
	F	%	f	%	f	%	f	%	f	%	f	%	f	%		
One will likely be hit, kicked, grabbed, shoved, or pushed while I'm at work.	19	9.5	10	5.0	2	1.0	10	5.0	28	14.0	68	34.0	63	31.5	5.3	1.88
One will likely be spat on or bitten while I am at work.	19	9.5	7	3.5	0	0	2	1.0	18	9.0	101	50.5	53	26.5	5.5	1.77
One will likely be hit with an object while I am at work	18	9.0	10	5.0	9	4.5	14	7.0	18	9.0	62	31.0	69	34.5	5.3	1.93
One will likely be threatened with any of the above examples of physical violence while I'm at work	17	8.5	3	1.5	4	2.0	9	4.5	70	35.0	53	26.5	44	22.0	5.2	1.67
One will likely be threatened with a weapon while I am at work.	14	7.0	2	1.0	7	3.5	15	7.5	102	51.0	36	18.0	24	12.0	4.9	1.44

One will likely be sexually harassed while I am at work.	21	10.5	10	5.0	4	2.0	17	8.5	43	21.5	99	49.5	6	3.0	4.8	1.70
One will likely be sexually assaulted while I'm at work.	14	7.0	6	3.0	2	1.0	6	3.0	42	21.0	119	59.5	11	5.5	5.2	1.48

Table 4.8 (Continue) Likelihood of future violent events at work among nurses

One will likely be sworn at while I am at work	9	4.5	4	2.0	1	0.5	6	3.0	43	21.5	45	22.5	92	46.0	5.8	1.50
One will likely be shouted at while Tm at work	13	6.5	14	7.0	9	4.5	11	5.5	42	21.0	69	34.5	42	21.0	5.1	1.75
Someone will likely damage or threaten to damage my personal or workplace property while I'm at work.	11	5.5	7	3.5	4	2.0	12	6.0	90	45.0	48	24.0	28	14.0	5.0	1.46
One will likely be a victim of workplace violence	10	5.0	4	2.0	2	1.0	10	5.0	14	7.0	28	14.0	132	66.0	6.1	1.60
If one encounters a potentially violent individual at work, likely, I will not king able to prevent a violent confrontation	6	3.0	10	5.0	8	4.0	10	5.0	44	22.0	109	54.5	13	6.5	5.2	1.37
If 1 am a victim of workplace violence, One will likely be injured	16	8.0	6	3.0	6	3.0	16	8.0	48	24.0	88	44.0	20	10.0	5.0	1.61

f = frequencies, % = Percentages, M = Mean of score, SD = Standard Deviation

Table 4.9 Overall total mean distribution of likelihood of future violent events at work among nurses

Item	Strongly disagree		Disagree		Slightly disagree		Neither agrees/ Disagree		Slightly agree		Agree		Strongly agree	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
The total mean of Likelihood of Future Violent Events	187	7.2	93	3.6	62	2.2	157	5.3	570	23	940	35.6	591	23.2

f = frequencies, % = Percentages

35.6% of nurses agreed with the question about their likelihood of experiencing violence. 23.2% of nurses answered strongly agreed with the question about their likelihood of experiencing violence; also, 23% agreed slightly.

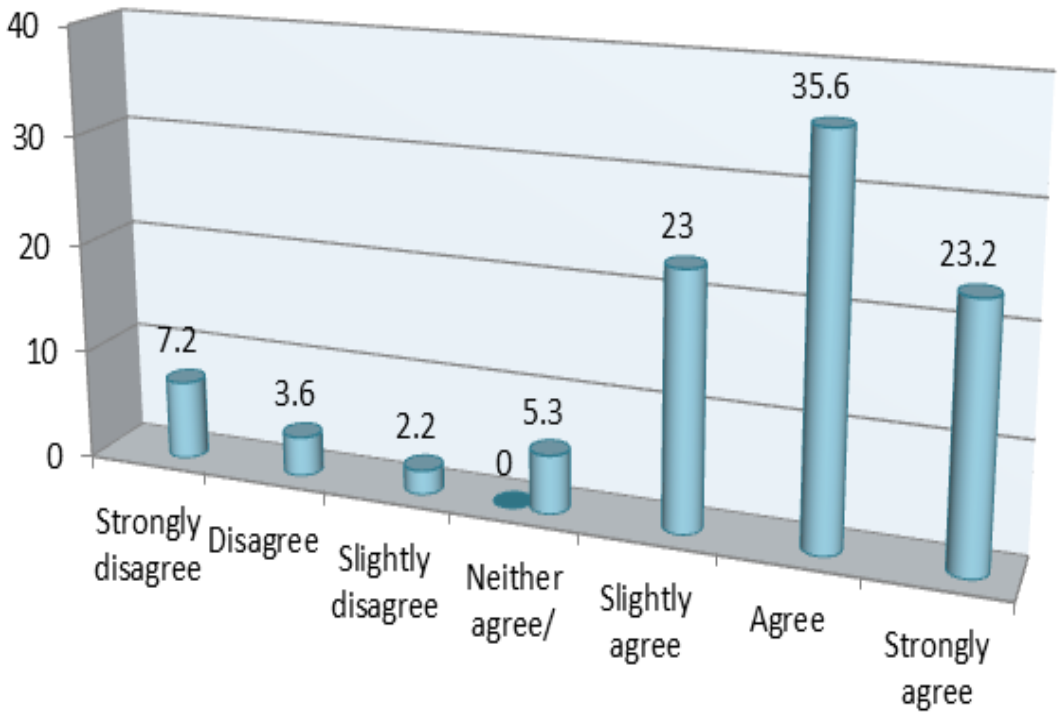

Figure 4.6 Overall total mean distribution of likelihood of future violent events at work among nurses

Table 4.10 Nurses' opinion about the quality of the workplace environment

Item	Strongly disagree		Disagree		Agree		Strongly agree		M	SD
	f	%	F	%	f	%	f	%		
Adequate support services allow me to spend time with my patients (support services such as nurses' aides, unit assistants, patient escort, transport of test samples to the lab,etc.	16	8.0	75	37.5	56	28.0	53	26.5	2.7	0.94
Physicians and nurses have good working relationships	18	9.0	84	42.0	60	30.0	38	19.0	2.5	0.89
Supervisory staff is supportive of the nurses (supervisory staff such as shift nurse in charge, nurse manager, nurse administrators, and supervisors).	16	8.0	47	23.5	53	26.5	84	42.0	3.0	2.46
Active staff development or continuing education programs for nurses	32	16.0	81	40.5	49	24.5	38	19.0	0.9	0.97
Career development/clinical ladder opportunity.	17	8.5	47	23.5	41	20.5	95	47.5	3.0	1.02
Opportunity for staff nurses to participate in policy decisions (such as overtime policies, patient to nurse ratio, safety protocols, etc.).	19	9.5	65	32.5	50	25.0	66	33.0	2.8	1.00
Doctors appreciate the nurses' observations and decisions	24	12.0	63	31.5	66	33.0	47	23.5	2.6	2.61
Enough time and opportunity to discuss patient care problems with other nurses	21	10.5	78	39.0	58	29.0	43	21.5	.96	0.93
Enough registered nurses (nurses with bachelor's degrees) to provide quality patient care	19	9.5	80	40.0	61	30.5	40	20.0	2.6	0.91

Table 4.10 (Continue) Nurses' opinion about the quality of the workplace environment

A nurse manager who is a good manager and leader	10	5.0	88	44.0	61	30.5	41	20.5	2.6	0.85
A chief nursing officer who is highly visible and accessible to staff	20	10.0	89	44.5	57	28.5	34	17.0	2.5	0.89
Enough staff to get the work done.	25	12.5	85	42.5	51	25.5	39	19.5	2.5	0.94
Praise and recognition for a job well done.	22	11.0	65	32.5	65	32.5	48	24.0	2.6	0.95
The administration expects high standards of nursing care	21	10.5	88	44.0	50	25.0	41	20.5	2.5	0.93
A chief nursing officer equal in power and authority to other top-level hospital executives	16	8.0	77	38.5	57	28.5	50	25.0	2.7	0.93
Much team-work between nurses and physicians.	21	10.5	89	44.5	50	25.0	40	20.0	2.5	0.92
There are opportunities for advancement	27	13.5	68	34.0	63	31.5	42	21.0	2.6	0.96
A clear nursing philosophy pervades the patient care environment (Philosophy of nursing means: a mission, vision, and a guide of principles for delivering nursing services).	15	7.5	92	46.0	53	26.5	40	20.0	2.5	0.89
Working with clinically competent nurses.	24	12.0	96	48.0	42	21.0	38	19.0	2.4	0.93
A nurse manager backs up the nursing staff in decision-making, even if the conflict is with a physician.	20	10.0	77	38.5	59	29.5	44	22.0	2.6	0.93
An administration that listens and responds to employee concerns	19	9.5	79	39.5	47	23.5	55	27.5	2.6	0.97

An active quality assurance program	7	3.5	47	23.5	76	38.0	70	35.0	3.0	0.85
Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees).	5	2.5	43	21.5	77	38.5	75	37.5	3.1	0.82

Table 4.10 (Continue) Nurses' opinion about the quality of the workplace environment

Collaboration (joint practice) between nurses and physicians	9	4.5	61	30.5	67	33.5	63	31.5	2.9	0.89
There is a training program for newly hired nurses	23	11.5	67	33.5	56	28.0	54	27.0	2.7	0.99
Nursing care is based on a nursing, rather than a medical, model	9	4.5	118	59.0	36	18.0	37	18.5	2.5	0.84
Staff nurses have the opportunity to serve on hospital and nursing committees	7	3.5	102	51.0	46	23.0	45	22.5	2.6	0.86
Doctors appreciate the nurses	9	4.5	35	17.5	80	40.0	76	38.0	3.1	0.85
Written, up-to-date nursing care plans for all patients.	12	6.0	63	31.5	65	32.5	60	30.0	2.8	0.91
Patient care assignments that foster continuity of care (the same nurse cares for the patient from one day to the next).	14	7.0	103	51.5	45	22.5	38	19.0	2.5	0.87
Doctors are aware of the nursing contribution to patient care	7	3.5	49	24.5	66	33.0	78	39.0	3.0	0.87
Doctors respect nurses as work professionals	7	3.5	61	30.5	58	29.0	74	37.0	2.9	0.90

f = frequencies, % = Percentages, M = Mean of score, SD = Standard Deviation

Table 4.11 Total mean of the nurses' opinion about the quality of the workplace environment.

Item	**Strongly disagree**		**Disagree**		**Agree**		**Strongly agree**	
	f	**%**	**f**	**%**	**f**	**%**	**f**	**%**
The total mean of the quality of the workplace environment	2432	38	2176	34	1088	17	704	11

f= frequencies, % = Percentages

This table shows the nurses' opinions and convictions about the quality of the work environment as it was revealed that 38% of the nurses said they strongly disagreed about the quality of the work environment, and 34% of them said they disagreed. This

shows that most nurses are not satisfied with the work environment and consider it one of the reasons that lead to violence.

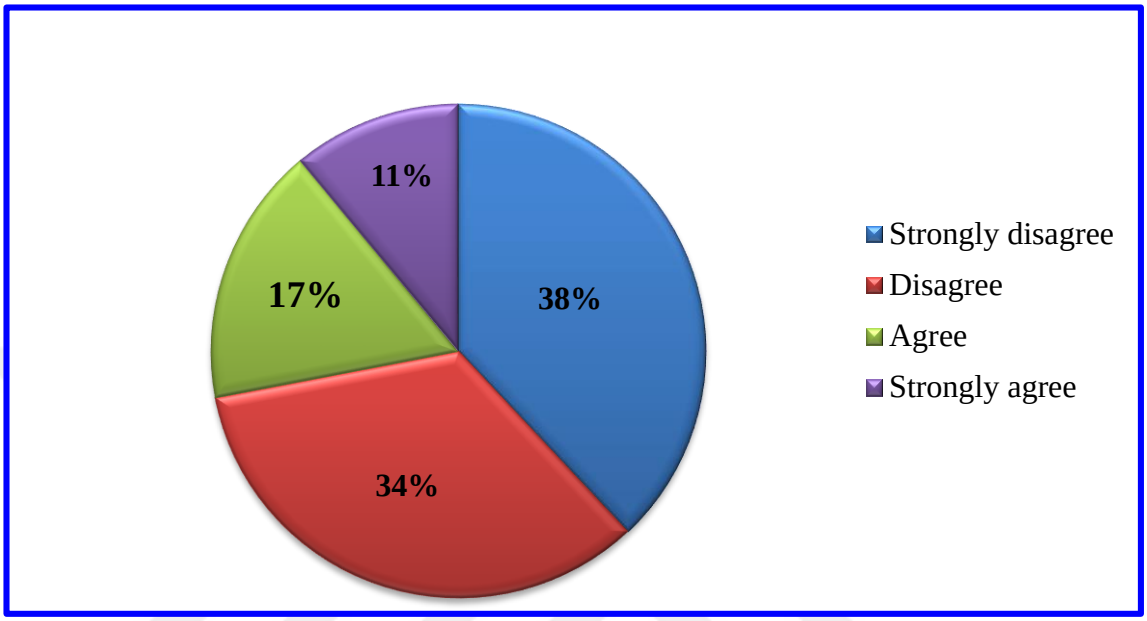

Figure 4.7 Nurses' opinion about the quality of the work environment

Table 4.12 correlation between risk for violence, violent events at work, the likelihood of future violent events, nursing work -environment, and nurses' intention to leave the job

Variables	**2**	**3**	**4**	**5**
	r	**r**	**r**	**R**
1- Nurses' intention to Leave the Job	0.05	0.39	0.23**	0.29
2- Risk for Violence	-	0.55**	0.05	-0.31**
3- Violent Events at Work	-	-	0.04	-0.51**
4- Likelihood of Future Violent Events	-	-	-	0.08
5- Nursing Work Environment	-	-	-	-

*r: Pearson correlation value, **p < .01*

Pearson correlation table shows a positive relationship between nurses' intention to leave the job and the likelihood of future violent events (r = 0.23) and also shows a highly significant association between them (p-value =0.001); this means that nurses are more willing to leave their jobs when the possibility of violence increases. It also shows a strong positive relationship between risk for violence and violent events at work (r = 0.55) and also shows highly significant associations between them (p-value = 0.000); this means that nurses are more exposed to violence at work, the more they are exposed to the risk of violence. While there is a negative relationship between risk for violence and nursing work environment (r = -0.31) and also shows highly significant associations (p-value = 0.000), this means that the bad the work environment for nurses, the greater their risk for violence at work. Finally, there was a negative relationship between violent events at work and the nursing work environment (r = -0.51) and also showed highly significant associations between it (p-value =0.000); this means that the bad the work environment for nurses, the greater their exposure to violence at work.

Table 4.13 Association between violent events at work and socio-demographic characteristics

Variables		%	X^2		
			X^2-value	p-value	Sig.
Age Mean ± SD 35.1 ± 4.73	< 20 years	13.5	228.44	0.000	S
	20 - 39 years	56.5			
	40 - 59 years	25.0			
	≥ 60 years	5.0			
Gender	Male	34.0	49.15	0.588	NS
	Female	66.0			
Marital status	Not married	39.0	48.36	0.618	NS
	Married	61.0			
Educational Qualification	Nursing High School	24.0	123.95	0.089	NS
	Diploma (two-year university education)	61.5			
	Bachelor's Degree	14.5			
Years of experience in nursing Mean ± SD 11.4 ± 0.87	1 - 9 years	50.5	148.52	0.039	S
	10 - 19 years	30.0			
	20 - 29 years	9			
	30 - 40 years	10.5			
Years of experience in the emergency department Mean ± SD 12.8 ± 0.95	1 - 9 years	49.5	156.41	0.047	S
	10 - 19 years	31.0			
	20 - 29 years	11.0			
	30 - 40 years	8.5			
Work hours	6 hours	59	53.83	0.404	NS
	18 hours	41			
Role in the Emergency Department	Staff Nurse	89	57.93	0.266	NS
	Supervisor	11			

Sig.: significance, S: significance, NS: nonsignificance, X2: chi-square

Results of the chi-square test from this table showed that there is a statistical significance between violent events at work and the nurses' age; since the chi-square had a p-value (0.000) less than)0.05(, that means that violent events at work differed by age ($\chi 2$ = 228.44, sd = 4.73, p = 0.000). Violent events at work at the age of 20-39 years (56.5%) was higher than the violent events at work at the other age groups (< 20,

40-59, and ≥ 60 years) of (13.5%), (25.0%), and (5.0%) respectively. On the other hand, there was no relationship between violent events at work and socio-demographic characteristics (gender, marital status, educational qualification, work hours, and role in the emergency department); since chi-square had p-value (0.588, 0.618, 0.089, 0.404, and 0.266) respectively greater than (0.05). This study indicated that there is a statistical significance between violent events at work and the nurses' years of experience in nursing; since chi-square had a p-value (0.039) less than (0.05), which means that violent events at work differed by the nurses' years of experience in nursing ($\chi 2$ = 148.52, sd = 0.87, p = 0.039). Violent events at work at the years of experience in nursing of 1-9 years (50.5%) were higher than the Violent events at work at the other years of experience groups (10-19, 20-29, 30-40 and years) of (30.0%), (9.0%), and (10.5%) respectively. Finally, this study indicated a statistical significance between violent events at work and the nurses' years of experience in the emergency department; since chi-square had a p-value (0.047) less than (0.05). That means violent events at work differed by the nurses' years of experience in the emergency department ($\chi 2$ = 156.41, sd = 0.95, p = 0.047). Violent events at work at the years of experience in the emergency department of 1-9 years (49.5%) were higher than the violent events at work at the other years of experience groups (10-19, 20-29, 30-40 and years) of (31.0%), (11.0%), and (8.5%) respectively

5. DISCUSSION OF THE STUDY RESULTS

This study aims to examine the relationships between nurses' exposure to workplace violence, their likelihood of experiencing violence in the workplace in the future, their exposure to violence at work, their intention to leave their job, and the quality of their working environment. This chapter will review the study's findings in depth, citing relevant literature as support wherever possible.

5.1. Discussion of Socio-Demographic Data of Nurses

Regarding age, our results in the current study showed that the nurses' ages ranged between 20 to 39 years, at a rate of 56.5%; our results agree with (Hussein and Faraj 2021) and (Ebrahim *et al.* 2018). We can conclude that such age groups are more active, energetic, and acceptable in hospitals and health institutions than elderly nurses, and the emergency department needs this age group.

Regarding gender, our study found that the most significant percentage of nurses are female, with an average of 66% more than males. This result is supported by Alyaemni and Alhudaithi (2016). In the Iraqi health system, there are more women than men because of the traditions and customs in our eastern Iraqi society, where men are not allowed to treat and care for women.

Regarding marital status, our results found that most (62%) participants were married. These results are supported by the findings of Emam et al. (2018) and Hussein and Faraj (2021). We can conclude that the group of married people is more because of their acceptable ages in the average age ranged between 20 to 39 years, i.e., from the youth group.

Concerning educational qualifications, the results of our study found that the most significant proportion of those holding a nursing diploma is 61.5%. This finding is supported by the findings of Hussein and Faraj (2021) and Ijaz et al. (2018), who found that most of the study subjects had a diploma in nursing. In response to the growing demand for medical and nursing professionals in Iraq, several medical and health institutions in the country's provinces have been modernized, allowing them to graduate

hundreds of qualified individuals with diploma degrees into the country's health institutions annually.

Regarding years of nursing experience, our study found that over half of the participating nurses had 1-9 years of experience, and the proportion was 50.5%. This result is supported by Al-Bashtawy (2014) and Hussein and Faraj (2021). Similarly, regarding nurses' years of experience in the emergency department, our results revealed that study participants had 1-9 years of experience, 49.5%. This result is supported by Alyaemni and Alhudaithi (2016) and Khan et al. (2015), whose study reported that subjects had 1-9 years of experience in the emergency department. The researcher believes these categories are at the beginning of their appointment, and the emergency department needs such categories of novices more than old groups. In the health system in Iraq, university nurse has limited shifts or work in particular places in hospitals, especially critical wards, such as cardiac care, intensive care wards, or hemodialysis department.

Concerning working hours in the workplace, our results showed that more than half of the nurses surveyed were working 6 hours a day, which is supported by Ebrahim et al. (2018). We can conclude that many nurses prefer to work in critical wards, including the emergency department, and they work for fewer hours because the emergency department requires a lot of effort and activity to work, as well as the admission of patients and occurrence of accidents are more frequent, so they prefer to work in fewer hours.

About the role in the emergency department, the results of our study found that the most significant percentage (89%) are nurses. This result is supported by Khan et al. (2015) and Hussein and Faraj (2021). The researcher believes that the emergency department needs more nursing staff, more numerous and more efficient, due to the nature of work in this critical department.

5.2. Discussion Regarding Violent Incidents

Regarding the day of the occurrence of violence, our results showed that on Sunday and Thursday, the most violent days occurred, and the percentage was, respectively, 17.0% and 17.5%. This result is supported by Vezyridis et al. (2015). Our

results were similar on Thursday and Sunday because, in Iraq, it is the end of the week on Thursday when patients in the emergency department are overcrowded in the early hours and after the official working hours of government hospitals. Also, it is an official working day and the first day of the week on Sunday, as these two days are perhaps more crowded in the emergency department compared to the rest of the week. Although violence was relatively more frequent on Sunday and Thursday, it appeared every day of the week (15.5% on Monday, 15% on Tuesday, 12.5% on Wednesday and 14.5% on Friday, and 8.0% on Saturday).

Concerning the time of violent events, the result of the study showed that more than half of occur in the evening by 64% of the nurses participating in the study. This result is supported by Alyaemni and Alhudaithi (2016). Our study results conflict with Ferri et al. (2016) and Vezyridis et al. (2015), who reported that most violent incidents are reported at 9:00 a.m. Violence often occurs after the official working hours of health institutions and hospitals, and perhaps the absence of supportive cadres for health cadres. Therefore, most accidents happen in the evening, when the number of patients and their companions entering the evening is more than during the day because of the commitment of many people to work.

Regarding the perpetrator of the violent event, the results of our study revealed that the majority of the violent events committed by the patient's relatives were 79%, and the result was supported by Ebrahim and Issa (2018). The presence of patients' relatives with their patients, as they are in a state of tension and nervousness due to their patient's health status. In addition, in Iraq, especially in the emergency department, the presence of patients and relatives of patients is continuous. This is considered part of the culture of Iraqi society, where the patient's family or relatives are always present with their patient, especially in the emergency department.

Concerning the nurses' response to violent incidents, the study's results showed that most nurses sought help with a percentage of 65.0% in any way. These results were supported by Vezyridis et al. (2015) and Hussein and Faraj (2021). The nursing staff asks for help from other people, such as their supervisor or others, because they are unable or do not have enough experience to deal with such situations and manage the violent things that always happen in the emergency department. Therefore, there is an

official report through government agencies, such as police stations in health institutions, according to the system in Iraq, through which the health cadres submit a complaint against the person who assaulted the cadres. So, when violence occurs, the nurses file a complaint or inform their manager, official, or supervisor at work, by the alarm button for emergency cases or by calling the emergency numbers in the health institutions in Iraq, through which a lawsuit or complaint is filed against any person (AbuAlRub et al., 2007; Habbib et al., 2007). However, 6% of the nurses said they did not do anything, and 29% of the nurses managed the situation by themselves when exposed to violence. Resorting to such kinds of behaviors can cause harmful effects on nurses, such as frustration, melancholy, feeling threatened, hostility, isolation, diversion, a rise in medical blunders, and a burden on peers to work more than they should (Bordignon & Monteiro, 2016).

Regarding the nurse's feelings about violent incidents, our results showed that half of the nurses reported anger, 26% of disappointment, 13% of stress, 6% of aggrieved, and 5% of reduced work enthusiasm. These results were supported by Vezyridis et al. (2015), who found that anger was the feeling that study samples reported feeling following a violent occurrence the most (63.7%). The outcome is also consistent with the Emergency Nurses Association's (2011) study, which sought to ascertain the frequency and type of workplace violence experienced by emergency nurses over the previous seven days. In that study, it was found that more than half of the study samples (65.1%) reported experiencing an angry feeling of violence at their place of employment. Because of the nature of the nurse's work in the emergency department and the pressure, they are constantly exposed to their work, as well as from relatives of patients and visitors, and they feel a state of violence and anger. This may affect the nurses' physical, psychological, and mental health, thus reducing their job performance and not giving adequate care to patients.

5.3. Discussion on Nurses' Intention to Leave the Job

Regarding nurses' intention to leave the job, our study found that 38% of nurses who suffer from violence agree or strongly agree with the statement, "I may apply for a new job at my current hospital next year." 63% agreed or strongly agreed to look for a new job outside their current hospital next year, but 28% agreed or strongly agreed to

look for a job in a new profession other than nursing next year. This finding is supported by Pagilagan (2017); in their study on the factors affecting the intention to turnover of registered nurses in acute hospitals, it was found that the intention to leave the job was significantly higher for nurses. Many nurses are considering leaving the job due to the tiring nature of the work; in addition, they announce a lot of difficulties and a feeling of insecurity for their lives.

5.4. Discussing on Risk of Violence for Nurses

Our current study showed that the nursing staff was exposed to a high risk of violence in their workplaces at a rate of 30.5%. Our study agrees with Pourshaikhian et al. (2016). They found that roughly (53%) of the emergency nurses thought there was a moderate probability of violence. It also agrees with Hussein and Faraj (2021), who found the study results reveal that more than half of nurses described the risk of violence they can expose to in the workplace as average (50.8%). As well as other factors like the public's freedom of movement inside emergency rooms and hospitals, low staffing levels during peak patient admission periods, visiting hours, and when staff is transporting patients. Because these dangerous factors are contact with individuals under the influence of illegal drugs, management of other people's money, and also nurse's contact with individuals receiving treatment, the risk of violence is felt by nurses working in emergency departments due to the high prevalence of guns among patients and their families or friends.

5.5. Discussing Violent Events at Work Among Nurses

Concerning violent events at work among nurses, the result of the study explains that 31.9% of nurses who work in the emergency were exposed to violence four times or more in the past year. This finding is supported by Ebrahim and Issa (2018), who found that most participants (71.1%) experienced verbal abuse. Our study found that 45% of nurses reported that they were exposed to physical violence four times or more in the last year, where the nurses were beaten or pushed while working. Also, 54% of nurses reported that co-workers of nurses and doctors were threatened with physical violence in their workplaces four times or more in the last year. The results of our study were supported by (Aksakal et al., 2015). As for verbal violence, 38% of nurses

reported being shouted at, and 35% of nurses reported being sworn at while working; this finding is supported by (Pekince et al., 2022). In terms of sexual violence, 27.5% of the nurses reported that they were sexually harassed, and 24% of them reported that they were sexually assaulted at work. A number of factors contribute to the unsatisfactory working conditions in an emergency room, including the high levels of stress, the demanding nature of the work, inadequate means of communication, and the constant risk of encountering hostile patients. All of them affect the nurses' physical, psychological and mental health, thus reducing their job performance and not giving adequate care to patients (Kibunja et al., 2021).

5.6. Discussion on the Likelihood of Future Violence

The results of the study revealed that 35.6% of the nurses expressed the possibility of violence in the future, which supported the result by Hussein and Faraj (2021), in Iraq where the results of the study revealed that half of the nurses expressed the likelihood of future violence in the workplace. Also, our study agrees with Lin et al. (2014), who found that 45.3% of the nurses reported the highest likelihood of future violence and were particularly vulnerable to it because of their job's requirement for direct contact with patients and their families. The researcher believes that nurses will be exposed to violence in the future because of many factors, including that working nurses do not have the opportunity to work in hospitals and on nursing committees. Also, there are no patient care tasks that enhance continuity of care (the same nurse takes care of the patient from one day to the next), and also a lack of registered nurses (nurses with a Bachelor's degree) to provide quality patient care.

5.7. Discussion Nurses' Opinions about the Quality of Workplace Environment

Regarding the nurses' opinion of the quality of the work environment, the results of our study showed that 38% of the nurses said they strongly disagreed about the quality of the work environment. As there is not a sufficient number of health cadres and nurses to complete the work professionally, there is also no training program for newly appointed nurses, and there are no opportunities for advancement and development of the profession. The study's results were supported by Hussein and Faraj (2021), who found that most nurses described the work environment as unfavorable

(67.1%). Also supported by Klopper et al. (2012), in their study of the practice environment, job satisfaction, and burnout of emergency nurses in South Africa, they found that 69% of nurses reported unfavorable work environments. Some factors contribute to the unsatisfactory working conditions in an emergency room, including not a sufficient number of registered nurses (nurses with a bachelor's degree). There is no additional supervisory staff supporting the nurses, such as duty nurse in charge, nurse manager, administrative nurse, and supervisors, as well as there, are not enough support services that allow nurses to spend time with patients, such as nurse assistants, escorts patient, transporting test samples to the laboratory. Also, consequences of working in the emergency department may include stress, uncomfortable working conditions, lack of confidence, confusion about tasks, hostile behavior towards co-workers, increased workload, inadequate teamwork, and a tense environment (Magnavita et al., 2014). Therefore, the researcher believes that most nurses are not satisfied with the work environment in the emergency department and consider it one of the reasons that lead to violence.

5.8. Discussion on the Relationship between Risk for Violence, Violent Events at Work, Likelihood of Future Violent Events, Nursing Work Environment, and Nurses' Intention to Leave the Job

The study's results showed a positive and significant relationship between the nurses' intention to leave the job and the probability of violent events in the future ($r = 0.23$); the results are supported by Chang et al. (2018). They found a positive correlation between the probability of future violent events and nurses' turnover intention. This means that nurses are more willing to leave their jobs when the potential for violence in the emergency department increases. The likelihood of future workplace violence and conflict will increase as staff nurses spend more years in the profession. As the years increase in the profession, they need to work in more departments, and they assume different roles and positions in the hospital, increasing their contact time with patients and other employees. As a result, nurses' intent to leave their jobs will also increase. Therefore, many consequences may occur for nurses and health care institutions when leaving the job, such as a lack of health staff, and thus a lack of health care provision for patients and a failure to complete the task adequately. In particular, much damage

occurs to the lives of nurses working in the emergency department, including psychological, loss of competency, high staff turnover, an increase in sick days, higher expenditures for hiring, paying out, and legal fees, and lack of self-esteem (Choi & Lee, 2016). It also damages their income, and thus they will face many difficulties.

The results also showed a positive and significant relationship between the risk of violence and incidents of violence at work (r = 0.55); this result is supported by Fujita (2012), who found that there was a significant and positive correlation between incidents of violence at work and risk of violence. This means that as the risk of violence increases, nurses' exposure to violence at work in the emergency department increases. The researcher believes that because of acts of violence against nurses by relatives of patients in emergency wards, the lack of adequate protection for nurses in health institutions, and also because of the lack of training of nurses on how to deal with violence in the workplace and its management, all these factors lead to an increase in violence at work. Other factors include high worker turnover, inadequate security and mental health personnel on site, unrestricted movement of the public in clinics and hospitals, and increased workplace violence (Choi & Lee, 2017).

There was a negative relationship between the risk of violence and the nursing work environment quality (r = -0.31). This result was supported by Esmaeilpour et al. (2011). They found a negative relationship between the risk of violence and the quality of the nursing work environment: poor environmental design, insufficient levels of safety and security, a lack of preventive training and procedures, and uncomfortable or crowded working conditions. This means that the nurses' bad work environment increased their risk of violence at work. Therefore, the researcher believes that the emergency department is unsafe for nurses. The nature of the work of the emergency department is different from the rest of the departments or units of the hospital, where the preparation of patients and the patient's families and their relatives, in addition to critical cases in this department, as well as challenging and continuous work in an emergency, as well as continuous pressure on them, and perhaps the preparation of nursing cadres may be insufficient in this department (Gillespie et al., 2010). All these factors lead to increased violence.

Finally, there was a negative and significant relationship between violent workplace incidents and the nursing work environment (r = -0.51). This result is supported by Wolf et al. (2018). There is an inverse relationship between the work environment and violent incidents in the emergency department. There is not a sufficient number of registered nurses (with a bachelor's degree), and there is no additional supervisory staff to support the nurses, such as the duty nurse in charge, the director of nursing, the administrative nurse, and the supervisor. There are also insufficient support services that allow nurses to spend time with patients (e.g., nurse assistants, accompanying patients, and transporting test samples to the laboratory). As for violent incidents, some nurses have reported verbal violence, screaming in the face while in the emergency department workplace. Moreover, physical violence, where the nurses were beaten or pushed while working, and it was noted that the co-workers of nurses and doctors were threatened with physical violence in their workplaces in the emergency department. This result is supported by (Varghese et al., 2022). So many factors make the emergency department an unfavorable work environment, such as a lack of nursing staff, so there are no appropriate support services to spend enough time with patients and give adequate health care such as support services including patient escorts or nurse assistants. There are also problems with adequate quality assurance programs and patient care tasks that promote continuity of care by nurses in the emergency departments. Conditions such as crowded environments, high stress, strenuous work tasks, limited communication, and direct contact with potentially aggressive people in the workplace increase nurses' exposure to violence. This means that the work environment for nurses is terrible the more they are exposed to violence at work.

5.9. Discussion on the Association between Violent Events at Work and Socio-demographic Characteristics

Regarding the relationship between violent events at work and demographic characteristics, our study found a significant difference in exposure to violence according to the age groups of nurses. The age of 20-39 years (56.5%) was exposed to violent events at work more than other age groups [(< 20, 40-59, and ≥ 60 years) of (13.5%), (25.0%)], and (5.0%) respectively. This was supported by the findings of

Berlanda et al. (2019). In their study about addressing the risks of violence against healthcare staff in emergency departments, they found a significant inverse correlation between the nurses' age and the occurrence of workplace violence. The study result also agrees with Bozorgi et al. (2018) that younger nurses, particularly those aged between 20 and 30, were at higher risk of experiencing WPV than older nurses. The researcher believes that these aged 20-39 years are more exposed to violence in the emergency department because of their bad experience; they are less likely to deal with violence.

Concerning gender, the results of our study found that there is no difference in exposure to violence in the workplace according to the gender of nurses. The results of this study contradicted Hussein and Faraj (2021) and Ebrahim and Issa (2018), who also disagree with Mingli et al. (2015), stated that male staff had higher exposure to workplace violence from patients than females due to the social and cultural factors that may lead to avoiding attacking or insulting women. Our current results contradict the above studies in Iraqi society. Both genders may be exposed to violence, or it may be that a group of men is exposed to violence more than women, according to the culture of Iraqi society, which refuses to be exposed to women by relatives of patients or patients in the emergency department.

Regarding marital status, the study found no differences among the marital status groups of nurses in terms of exposure to violence in the emergency department. This result disagrees with Boafo and Hancock (2017), who said that there are differences in the likelihood of violence occurring across groups of people based on their marital status, with married ones having a somewhat higher risk of being exposed to WPV than single nurses. So marital status may not be considered an administrative concern to be dealt with in order to reduce nurses' exposure to violence.

Regarding educational qualification, the study found no significant difference between nurses in terms of ' exposure to violence in their workplaces according to their educational qualification groups. This result is supported by Ijaz et al. (2018). The results of our study contradicted the result of Muhammad (2018), which stated that there is a significant relationship between nurses' use of conflict resolution strategies and educational qualifications. As a part of the efforts to examine this relation, our study did not find any difference in educational level. It was found that nurses with a

diploma used bargaining with doctors, while nurses with a bachelor's degree used a collaborative strategy to reduce the risk of violence between nurses. This shows that the subject of educational level may need further examination in relation to exposure to violence.

Regarding years of nursing experience, our study found that exposure to violence in their emergency department differed by the years of nursing experience. Violent events at work at the years of experience in nursing of 1-9 years (50.5%) were higher than the violent events at work at the other years of experience groups (10-19, 20-29, 30-40 and years) of (30.0%), (9.0%), and (10.5%) respectively. Our study is supported by Spector and others (2014), who found that there is a significant correlation between the nurses' years of experience in nursing and violent events at work; reducing years of experience leads to a lack of work experience and increases the risk of violence in the workplace. The researcher believes that the more years of experience the nurses have in nursing, the greater their experience in dealing with violent incidents and how to deal with people with an understanding of policy and dialogue to reduce the risks of violence between nurses. On the other hand, if the lack of experience in nursing leads to a lack of experience in dealing with people, and thus increases the risk of violence.

Concerning the years of experience in the emergency department, the results of our study found that exposure to violence in their workplace in the emergency department differed by the years of experience in the emergency department, where 1-9 years (49.5%) was higher than the violent events at work at the other years of experience groups (10-19, 20-29, 30-40 and years) of (31.0%), (11.0%), and (8.5%) respectively. This study is supported by Latif et al. (2019); their study about workplace violence among nurses at hospitals in Bangladesh found significant negative correlations between nurses' years of experience in the ED and exposure to violence in their workplace in the emergency department. The finding also agrees with Fute et al. (2015). They claimed that due to the young nurses' inexperience in dealing with violent situations, young staff members might become involved in altercations that could turn violent. The researcher believes that years of experience in the emergency department has an impact on the nurses because if there is a lack of experience in the emergency,

they may be exposed to severe quarrels, and there is not enough experience how to deal with quarrels and thus increase the risks of violence in the emergency department.

Regarding working duration by hours, the study found no difference among nurses' working hours group in terms of exposure to violence in their workplaces. This result is supported by Ebrahim and Issa (2018). The researcher believes that all nurses are exposed to violence in the emergency department because of the stressful nature of work. Therefore, there is no statistically significant relationship between the working duration by hours of nurses and exposure to violence. Although working duration had no relation with exposure to violence, our previous findings showed that exposure to violence is higher in the evenings. This might show the need to arrange a shorter working shift in the evening to reduce the incidence of violence.

Concerning the role of nurses in the emergency department, our study found that there are no differences in terms of exposure to violence in their workplaces in the emergency department according to the different roles of nurses. His study disagreed with Almuhsen et al. (2017) found that the exposure to violence differs significantly by the nurses' roles in the emergency department. The emergency department official may have experience in dealing with violent events, while the role of nursing assistant does not have sufficient experience in the emergency department, so they may be exposed to violence. The researcher believes that the roles of nurses in the emergency department are not related to exposure to violence, as he believes that all nursing cadres may have the role of a nursing assistant, a supervisory role, or an emergency department official, who may be exposed to violence at any a time and place at work.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusions

Based on the results of our study, Investigation of the Risk of Violence in Nurses Working in the Emergency Departments of Diyala City Hospitals in Iraq, the results indicate the following

- Relatives of patients cause the most violent incidents in the emergency department.
- Young nurses have less nursing experience, less experience in the emergency department, and greater exposure to violence risk.
- The risk of violence is higher among nurses with a diploma degree in the nursing department.
- Most incidents of violence happened in the evening.
- When exposed to violence, the nurses mostly ask for help.
- The nurses are exposed to violence; they feel angry and disappointed.
- Many nurses intend to leave their job due to the violence they are exposed to in the emergency department.
- The risk of violence was greater among the nurses in the role of a clinical nurse than among those in the supervisory role in the emergency department**.**
- Many nurses expressed that they are exposed to the risks of violence permanently and for four times or more for varying work periods.
- Most of the nurses participating in the study are not satisfied with the quality of the work environment.
- The nurses' intention to leave the job and the possibility of violence in the future was greater among nurses due to increased violence at work**.**

6.2. Recommendations

The researcher suggests the following based on findings from the current study:

- Emergency department personnel, and healthcare workers, more broadly, need to be protected by law.
- Planning and carrying out training courses on dealing with acts of violence in workplaces where violence frequently occurs, including the emergency department.
- The likelihood of violence in the workplace can be reduced by raising nurse satisfaction and lowering burnout rates, all of which can be accomplished by raising the number of staff nurses each shift, shortening shift lengths to increase the nurse-to-bed ratio, as well as minimizing the workload against nursing staff.
- Taking additional security measures in healthy institutions can reduce the incidence of violent incidents and help the nursing working in emergency departments feel more secure.
- Limiting who can enter the emergency department and keeping family members away from where patients are being evaluated and treated.
- Facilitating open lines of communication between nursing staff and supervisors, ensuring that nursing positions are clearly defined, reducing the potential for workplace violence, and avoiding the escalation of existing conflicts are all ways in which nursing managers can improve their practices and reduce the likelihood risk of violence to staff.

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APPENDICES

APPENDIX 1. Questionnaire

APPENDIX 2. Modified Nursing Work Indicator Practice Environment

APPENDIX 3. Approval of the Iraq ethics committee

APPENDIX 4. Approval the ethics committee of the Institute of Health Sciences, University of Çankırı.

APPENDIX 5. Facilitate the task of collecting study samples

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