



**Arab American University  
The Faculty of Postgraduate Studies**

**Prevalence, Risk factors and Under Reporting of  
Violence against Health Care Workers in Emergency  
Department: Mixed Method Study**

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**This Thesis is submitted in Partial Fulfillment of the  
Requirements for the Doctorate Degree in Philosophy  
of Nursing**

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## Thesis Approval

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This thesis was defended successfully on 10 January, 2024 and approved  
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## **Declaration**

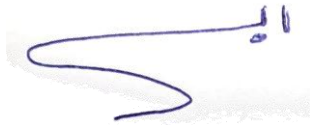
I, the undersigned, presenter of the research titled:

“Prevalence, Risk factors and Under Reporting of Violence against Health Care Workers in Emergency Department: Mixed Method Study”, declare that the contents of this research are the product of my work and personal effort, except for what is noted wherever stated.

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**Date: 06/02/2024**

**Signature**

A handwritten signature in blue ink, consisting of a large, stylized 'S' shape followed by a horizontal line and a small vertical stroke at the end.

**Student ID: 202012229**

## **Dedication**

This thesis is dedicated to the two pillars of my journey - my cherished family and the extraordinary individuals who make up the dedicated staff of Emergency Departments (EDs).

To my family, you have been my constant source of love, encouragement, and understanding throughout this academic endeavor. I dedicate this work to you as a token of my deep appreciation and love.

This thesis is also a tribute to the remarkable healthcare professionals, the heroes in the battle against adversity, who courageously face the formidable challenges of workplace violence. It is dedicated to those who have not only cared for the ill and the injured but have, in the process, found themselves on the front lines, often in the path of harm.

Your unwavering commitment to providing compassionate care and support to those in desperate need, despite the dangers you may encounter, is nothing short of extraordinary. The resilience and dedication you demonstrate in the Emergency Departments (EDs) across Israel, in the face of adversity, are a testament to the unwavering human spirit.

As we acknowledge your sacrifices, we must also aspire to provide the support and resources necessary for your safety. This thesis seeks to be a part of that objective by shedding light on the risk factors and protective measures of violence against healthcare workers in EDs. It is our hope that this work will improve protection and lead to more proactive response to violence that you may encounter in your noble and selfless service.

## **Acknowledgements**

My heartfelt appreciation to those individuals whose contributions have been fundamental to the fruition of this thesis.

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My circle of friends and classmates, who steadfastly offered their encouragement and support during the intellectually demanding phases of this research, deserves special recognition. Their unwavering belief in my capabilities and consistent support served as a beacon during writing difficulties.

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Though I experienced some challenges, it was the collective support and inspiration from those mentioned above that propelled this thesis to its completion. Their contributions have been indispensable in bringing this academic work to fruition.

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**Abbreviations**

<b>Abbreviation</b>	<b>Explanation</b>
AAUP	Arab American University Palestine
Hcws	Healthcare professionals
Eds	Emergency departments
ED	Emergency department
WHO	World Health Organization
MH	mental health
MMR	Mixed-methods research
SPSS	“Statistical Package for Social Sciences”
T-test	T student statistical test
WPV	Workplace violence
IRB	Institutional Review Board
SEM	Social Ecological Model

## **Abstract**

### **Introduction**

Workplace violence against healthcare workers in emergency departments poses a severe threat to their safety and well-being and can lead to detrimental consequences for the victims.

### **Aim of the study**

The aim of this research study is to investigate risk factors workplace, prevalence and under reporting of violence against health care workers in emergency departments in Clalit Hospital-Israel and the protective measures that can be applied to decrease the violence rate.

### **Methods**

A cross-sectional design research utilized a mixed-methods research approach. This research study conducted in Meir, Bilinson, and Hasharo hospitals in Israel to identify contributing factors, assess conducive workplace and environmental conditions, explore protective strategies, and evaluate perceptions of risk factors. A convenience sample of 300 emergency department workers for the survey and 10 workers for the interviews.

### **Results**

About 34.3% of participants experienced daily verbal altercations, and 71.3% reported experiencing physical violence in the emergency departments. The main reason for not reporting violence, according to 46.3% of participants, was the long time for reporting. The analysis found that 79.0% of participants considered a long waiting time as the most significant risk factor for Workplace violence. In the interviews, verbal and physical violence were the most common Workplace violence, the main risk factors of Workplace violence were prolonged wait times for treatment and communication

breakdown, and the protective strategies to prevent violence against healthcare professionals in the emergency departments included the activation of security staff, promoting the reporting of violent incidents, and offering training and support to employees.

### **Conclusion**

The study indicated high prevalence of violence, with a substantial number of healthcare workers reporting frequent verbal altercations and physical violence, emphasizing that both verbal and physical violence are daily occurrences, often instigated by patients, family members, and friends. Also, the study highlighted the perception that violence reporting process is often time-consuming, serving as a significant barrier to timely reporting. Furthermore, the study illustrated strong legislative measures as the most highly valued protective strategy.

*Keywords:* workplace violence, emergency department, risk factors and protective measures of violence.

## **Chapter One**

### **Introduction**

Violence at work against healthcare professionals (HCWs) in emergency departments (EDs) poses a substantial threat to HCWs' job safety and health globally, with serious repercussions for victims, patients, and healthcare institutions (Bernardes et al., 2020). According to the National Institute for Occupational Safety and Health, violence is defined as "any act of assault directed against people at work or while performing work-related duties, ranging from aggressive or threatening language to murder" (Martinez, 2016)." Workplace violence (WPV) typically includes threats, property damage, assaults, sexual harassment, physical or verbal abuse, and bullying (Emam et al., 2018; Shafran-Tikva et al., 2017). Healthcare workers have a 20% higher risk of WPV compared to other sectors due to patient pathology and the planning and provision of services (Bhatti et al., 2021; Berlanda et al., 2019). In Israel, workplace violence (WPV) in emergency departments has been reported at the rates of 58 to 70%, which is higher than other developed countries and can be associated to the prevalence of violence due to political and social factors, healthcare system characteristics, including staffing-patient ratio and access to timely healthcare, patient demographics, and staff training (d'Ettorre et al., 2018; Dopelt et al., 2022). All over the world, emergency departments are the areas where patient complaints are most prevalent, leading to a higher risk of WPV against HCWs (Abdella & Salama, 2017; Al Khatib et al., 2023; Alshahrani et al., 2021). Emergency rooms are generally places of distress and anxiety for everyone involved, including patients and loved ones as well as staff members. During an emergency, worried patients and their loved ones can be especially

sensitive to long waits and treatment delays, making them prone to frustration, anger, and violence (Harthi et al., 2020; Sahiran et al., 2022).

According to the WHO (2023), approximately 8% to 38% of healthcare workers encounter physical abuse during their careers, noting that this problem is not only globally prevalent but also drastically underreported. Up to 38% of HCWs may experience physical violence at any point in their careers, which can lead to anxiety and burnout that can impact the delivery of healthcare (Bhatti et al., 2021). One research noted another problem related to workplace violence- its gross underreporting: “Health care workplace violence is an underreported, ubiquitous, and persistent problem that has been tolerated and largely ignored” (Phillips, 2016, p. 1661). A past study confirmed that 70 to 80% of violence against HCWs tends to be unreported due to various reasons, including the absence of significant injury, insufficient time to do the reporting, especially owing to time-consuming reporting procedures, fear of blame or punishment connected to poor support from peers or supervisors, perception of no changes or improvements despite reporting the incident, and the belief that violence is part of the job (“normalization” of WPV), among others (Arnetz et al., 2015; Nelson, 2014; Spencer et al., 2023). Moreover, the ambiguity or lack of clarity on the meaning and kinds of WPV can lead to HCWs thinking that what happened to them cannot be considered as violence (García-Pérez et al., 2021; Spencer et al., 2023). The vast problem of underreporting indicates that more research needs to be conducted because understanding the causes of underreporting can help hospitals and researchers create tools that promote the reporting of violence and, as a result, acquire more accurate and useful data on attacks for the purpose of designing effective strategies (Arnetz et al., 2015; García-Pérez et al., 2021). As one report emphasized: “Not only does

underreporting underestimate the magnitude of the problem, but protection and interventions may address only what is known. Without a full understanding of WPV, efforts and interventions may miss the full spectrum of the problem” (Spencer et al., 2023, p. 3). Reporting of HCW violence and improving its efficiency and effectiveness can be a barrier against physical assault as it can lead to the research on and development of resolutions at individual and organizational levels (Arnetz et al., 2015; García-Pérez et al., 2021).

### **1.1 Problem Statement**

A report by the Knesset Research Center (2023) revealed that since 2018 there have been almost 10,000 attacks against medical teams. The report shows that between the years 2018-2019, the total number of incidents of violence increased from 711 incidents to 861 incidents. In 2020, the year in which the Corona epidemic broke out in Israel, there was a decrease in the number of incidents both in relation to 2019 and in relation to 2018 and so in 2021. It can also be seen that the proportion of incidents of physical violence among all incidents of violence increased over the years, from about 38% of all incidents in 2018 and 2019 to about 46% in 2020 and 50% in 2021.

Compared to other healthcare facilities, EDs are high-risk environments for WPV due to risk factors of violence and a lack of protective measures, leading to repercussions for victims, patients, and healthcare organizations. The HCWs’ age, ethnicity, gender, and organizational unit (Abdellah & Salama, 2017; Al Khatib et al., 2023; d’Ettorre et al., 2018; Dopelt et al., 2022; Harthi et al., 2020) can increase the probability of experiencing WPV. In EDs, HCWs commonly experience WPV as they deal with high risks of workplace violence, such as unexpected deaths, trauma, handling patients who

have a high potential for violence due to their health conditions and/or intoxication from drugs and alcohol, and extended waiting time (Dopelt et al., 2022; d’Ettorre et al., 2018). Moreover, the absence of protective measures, for instance, human security personnel and surveillance tools, can increase the risk of violence at work since patients would not fear being monitored and punished for acting violently against the hospital staff (Emam et al., 2018; Shafran-Tikva et al., 2017). WPV is a serious concern because it can lead to significant physical and mental health care costs for the healthcare organization, especially since victims can suffer both immediate and long-term consequences (d’Ettorre et al., 2018; Shafran-Tikva et al., 2017). WPV causes job overload that can lead to decreased job satisfaction, fatigue, and exhaustion, which in turn frequently results in high levels of job stress, absenteeism, and turnover that may potentially result in a decline in organizational performance, including the delivery of timely, consistent, and quality healthcare services (Dopelt et al., 2022; Ferri et al., 2020; Shafran-Tikva et al., 2017). Lower job satisfaction and high job stress and absenteeism can lessen productivity and impair work performance (Dopelt et al., 2022; Ferri et al., 2020; Shafran-Tikva et al., 2017).

## **1.2 Significance of the Study**

While several academics have looked at WPV around the world, there is little research on violence against medical staff in Israeli EDs (Dopelt et al., 2022). Additionally, some studies have focused on the causes of violent acts against healthcare professionals; however, few have examined the causes of violence, its predictors, the appropriate responses in emergency rooms, or the methods for reducing violent incidents in Israel (Shafran-Tikva et al., 2017). Investigations of the causes, indicators,

and countermeasures of violence against medical personnel in Israeli emergency units are necessary to curtail WPV against ED HCWs and its diverse individual and organizational consequences. First, determining the major factors of WPV against HCWs can enhance patient and staff safety by leading to the development of anti-violence strategies and interventions. Second, addressing these factors can boost quality of care as WPV can directly and indirectly hamper healthcare delivery. Third, identifying the root causes of WPV can lead to a more supportive work environment and higher employee retention rates. Fourth, knowing the specific demographics of HCWs who are more at risk of WPV can lead to better resource allocation when it comes to targeted training, supervisory and peer support, and security measures. Fifth, managing WPV is not only an ethical responsibility but also a legal mandate as healthcare centers can be liable for not sufficiently providing a safe work environment. Sixth, this study can contribute to the creation of evidence-based guidelines and policies that can protect HCWs in EDs and comparable institutions. Seventh, responding to ED WPV can reduce organizational costs from compensation claims, health treatment of abused or injured workers, and other related social and financial costs that can affect the hospitals' bottom-line. Finally, this research can also support the hospitals' crisis preparedness as they can understand and respond more effectively to violent scenarios.

### **1.3 Aim of the Study**

The aim of this research study is to investigate risk factors workplace, prevalence and under reporting of violence against health care workers in emergency departments in Clalit Hospital-Israel and the protective measures that can be applied to decrease the violence rate.

### 1.3.1 Objectives

1. To identify and analyze human and environmental factors, including workplace and environmental elements, contributing to the occurrence of violence against healthcare workers in emergency departments.
2. To determine the prevalence of violence against healthcare providers in emergency departments through a comprehensive assessment of reported incidents.
3. To assess participants' responses regarding the reporting of violence against healthcare providers in emergency departments to higher authorities, examining attitudes and practices.
4. To investigate and understand the reasons behind under-reporting of violence against healthcare providers in emergency departments from the perspective of the participants.
5. To investigate protective strategies to mitigate workplace violence against healthcare providers in emergency departments based on a thorough analysis of effective measures and best practices.

### 1.4 Study Variables

- **Independent variables** – Sociodemographic data, workplace and environmental factors, and protective measures of violence.
- **Dependent variables** – Workplace violence affecting HCWs, Prevalence, Under Reporting in E.Ds.

### 1.5 Research Questions

1. What are the human and environmental factors (workplace factors and environmental factors) that contribute to the occurrence of violence against health care workers in emergency departments?
2. What is the prevalence of violence against health care providers in emergency departments?
3. What is the participants' response towards reporting the incidence of violence against health care providers in emergency departments to the higher authorities?
4. What are the participants' reasons that lead to violence under-reporting against health care providers in emergency departments?
5. What are the protective strategies to mitigate workplace violence against health care providers in emergency departments?

### 1.6 Research Hypotheses

**Hypothesis one:** There is an association between demographic data (age, work experience, and years of experience after completion of MBBS/BSc) and perceptions of violence protective strategies and risk factors of violence against health care workers in emergency departments at  $P \leq 0.05$ .

**Hypothesis two:** There is a significant difference between the profession and the perception of violence protective strategies and risk factors of violence against health care workers in emergency departments at  $P \text{ value} \leq 0.05$ .

**Hypothesis three:** There is a significant difference between gender and the perception of violence protective strategies and risk factors for violence against health care workers in emergency departments at  $P \leq 0.05$ .

## 1.7 Theoretical Framework

A relevant theoretical paradigm for understanding and addressing workplace violence that affects healthcare professionals in emergency departments (EDs) is the Social Ecological Model (SEM), developed by Urie Bronfenbrenner, a prominent developmental psychologist, in 1979. Bronfenbrenner believed that humans develop in a nested structure that consists of the following: The microsystem is composed of activities, roles, and interpersonal relations, the mesosystem intersects groups such as the family and school, the exosystem refers to the broader system that can impact the individual, such as the government, and the macrosystem contains the culture and society (Baron et al., 2014; Johnson, 2011). Using this framework, Bronfenbrenner underscored that examining the interaction between systems can lead to a more sophisticated and inclusive understanding of human behavior and development (Johnson, 2011; Vélez-Agosto et al. 2017). The next paragraphs discuss each level further.

The microsystem represents the immediate surroundings, activities, roles, and interpersonal relations that directly impact individuals within the workplace. Baron et al. (2014) highlighted that within the microsystem, individual behaviors, such as stress management and communication skills, play a pivotal role in shaping the dynamics that contribute to or mitigate WPV. Workplace stressors, job dissatisfaction, and communication breakdowns can manifest at this level, influencing the likelihood of violent incidents (Baron et al., 2014; Johnson, 2011).

The mesosystem depicts the interconnectedness of groups, emphasizing the importance of interpersonal relationships within the healthcare team. Baron et al. (2014) underscored that the quality of relationships between healthcare professionals and the

support networks within the organization can significantly shape the occurrence of WPV. Strategies aimed at fostering effective communication, teamwork, and mutual support are crucial components in addressing WPV within the mesosystem (Baron et al., 2014; Johnson, 2011).

Expanding the analysis to the exosystem, Baron et al. (2014) stressed the impact of broader systems on the individual, such as organizational policies and community dynamics. Workplace conditions, safety protocols, and the availability of support services fall within the exosystem. Policies that comprehensively address immediate workplace issues, as well as external factors contributing to violence, are important (Baron et al., 2014; Johnson, 2011).

At the macrosystemic level is the overarching culture that shapes societal attitudes towards violence (Baron et al., 2014; Johnson, 2011). The macrosystem sets the broader context within which workplace violence unfolds. Addressing deeply ingrained norms, prejudices, and stigmas associated with healthcare work becomes imperative in developing effective protective strategies.

Consequently, the SEM can view WPV as a complex problem that arises from interconnected variables, including individual, interpersonal relationships, organizations, communities, and societies (Davey et al., 2020; Johnson, 2011; Spencer et al., 2023). This model's application to workplace violence in healthcare settings, especially in emergency departments, can offer an integrated, systems-based viewpoint that can direct research and identify preventative initiatives and interventions at various organizational and environmental levels (Ramacciati et al., 2018; Vrablik et al., 2019). The SEM can enable interventions tailored to each level, spanning from individual-focused training programs for healthcare professionals to the establishment of

organizational policies and community-wide initiatives advocating for zero tolerance towards WPV. The SEM is a robust and adaptable framework for understanding and addressing workplace violence against healthcare professionals in EDs because it considers the intricate interplay of factors at individual, interpersonal, organizational, community, and societal levels and serves as an invaluable guide for research and the development of effective preventative measures and interventions.

### **1.8 Conceptual Framework**

According to the studies, the following HCW demographics may affect their susceptibility to WPV: age, gender, ethnicity, occupation, work experience, education level, and lack of training, particularly communication and de-escalation (Abdellah & Salama, 2017; Al Khatib et al., 2023; d’Ettorre et al., 2018). Workplace factors can also directly impact the risk of WPV: job demand, number of staff working together, long wait times, crowding, and management, including WPV policies and procedures and support (Di Prinzio et al., 2022; Harthi et al., 2020; Sahiran et al., 2022). Moreover, environmental factors can also matter, including the kind of hospital and the poverty incidence of the community (Davey et al., 2020). Likewise, perpetrator risk factors are also major factors for increasing the risk for WPC for ED HCWs, which can include being related to the patient, and the perpetrator’s mental health status, substance abuse, crisis management skill, and access to weapons (Al Khatib et al., 2023; Berlanda et al., 2019; Landau & Bendalak, 2008). As for the preventative measures for WPV in EDs, several scholars recommended the following: awareness raising, reporting policy, management that promotes reporting and supports victims, staff training on communication strategies for HCWs, a surveillance system, and the presence of

colleagues and supervisors (d’Ettorre et al., 2018; Dopelt et al., 2022; Di Prinzio et al., 2022). See

**Figure 1: Conceptual Framework**

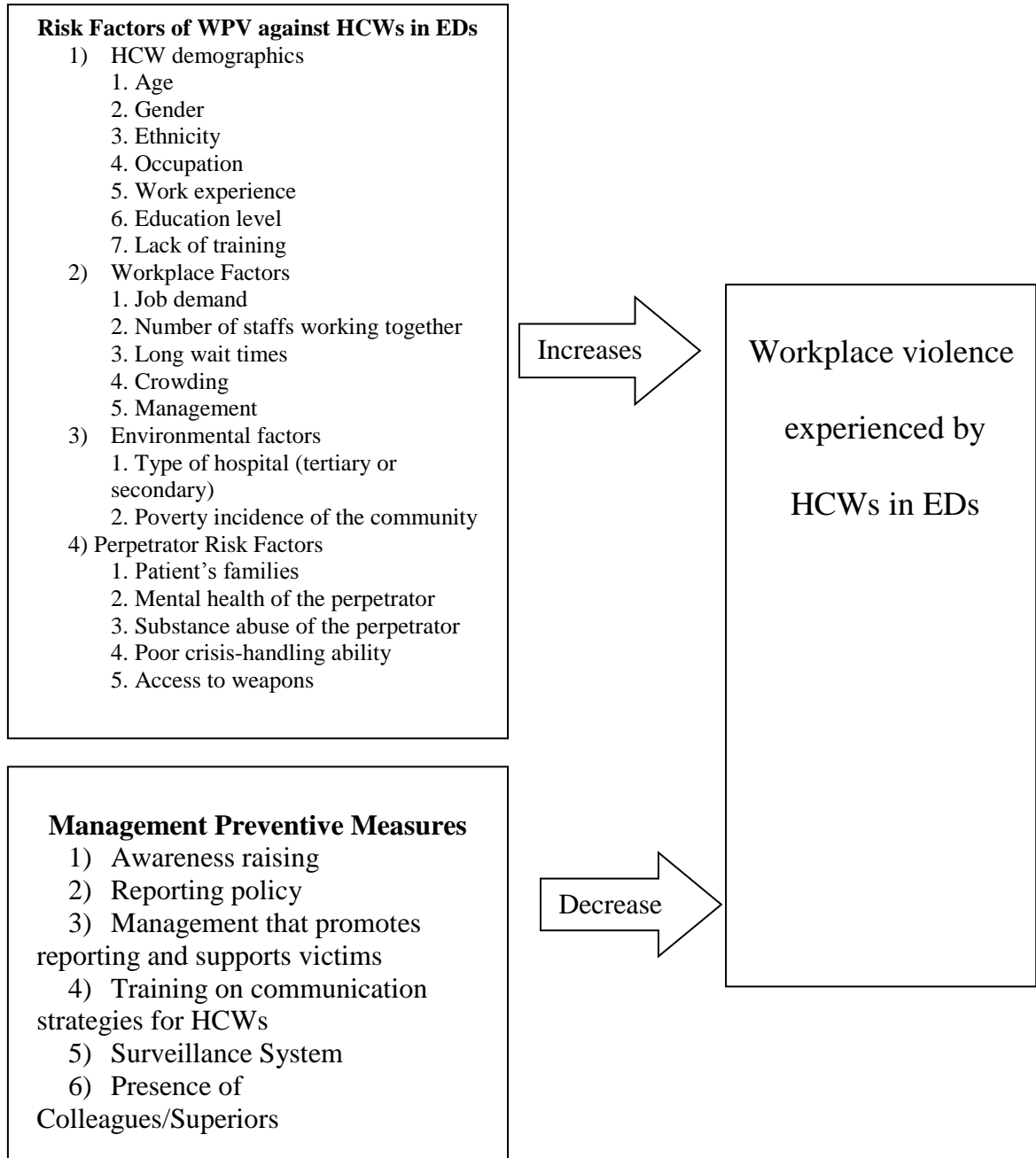


Figure 1: Conceptual Framework.

## 1.9 Operational Definition of Workplace Violence

### Operational Definition of Workplace Violence

Any act or sequence of acts that entail physical harm, verbal abuse, threats, or other violent behaviors directed against healthcare professionals or staff members are referred to as workplace violence (WPV) in healthcare settings (Sahiran et al., 2022; WHO, 2014). These behaviors, which can cause bodily or psychological harm, unsettling work environments, and impede patient care, may be purposeful, unintentional, or include the application of force (Dopelt et al, 2022; Shafran-Tikva et al., 2017). Among other factors, workplace violence in healthcare contexts includes:

**Forms of Violence:** This domain intends to assess the frequency of various forms of violence experienced by healthcare workers in healthcare settings, it was assessed using two questions, answers were 1 = Nearly daily; 2 = About once a week; 3 = About once a month; 4 = About once every six months; 5 = About once a year or less.

**Reporting of Incidence:** This domain assesses how comfortable or confident the workers are about reporting the incidence of violence to the higher authorities, it was assessed using one question, answers were: 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree.

**Reasons for Incidence:** This domain looks for some of the reasons why incidences of violence are not reported to the authorities. It contains six questions, answers were: 1 = significantly; 2 = somewhat significantly; 3 = insignificantly.

**Mitigation Strategies:** This domain focuses on the strategies that can be useful in preventing episodes of violence in the workplace. Statements given in this domain focus on the strategies that can be useful in preventing episodes of violence in the workplace.

Measured by 11 items, answers were: 1 = Very useful; 2 = Somewhat Useful; 3 = Not useful.

**Risk factors related to incidents of Workplace violence:** This domain assesses the various risk factors associated with violence in healthcare settings. It contains 12 items, answers were: 1 = Very important; 2 = somewhat important; 3 = Not important.

## **Chapter two**

### **Literature Review**

#### **2.1 Introduction**

The aim of this research study is to investigate risk factors workplace, prevalence and under reporting of violence against health care workers in emergency departments in Clalit Hospital-Israel and the protective measures that can be applied to decrease the violence rate.

For this literature review, the databases used were PubMed, EBSCOHost, MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Scopus, and Google Scholar. This section reviews the evidence related to the phenomenon under investigation. It discusses esHPV in the ED context, types of WPV in EDs, the prevalence of WPV in EDs, and the risk factors of WPV, particularly perpetrators, workers, and workplace or organizational levels. Next, it determines protective strategies to deter or manage WPV and identifies the gap in the literature.

#### **2.2 Violence in the ER**

Worldwide, the rise in workplace violence in the last few decades has been a significant health concern (Di Prinzio et al., 2022; Grinberg et al., 2022). Workplace violence, or WPV, is defined as abuses, attacks, and threats that endanger the health and safety of supervisors, employees, and clients while conducting business (Davey et al., 2020; Ferri et al., 2020). Harassment, intimidation, or other threatening and disruptive behavior at work is now considered part of WPV (Oliveira et al., 2020; Sahiran et al., 2022). Likewise, violence against healthcare professionals is a serious issue on a global scale (Harthi et al., 2020; Leineweber et al., 2019). According to Harthi et al. (2020)

and Navas et al. (2022), “violence in health care” is defined as occurrences where staff members are mistreated, threatened, or attacked in situations relating to their work and comprising an explicit or implicit risk to their security, wellness, or health. This definition covers any abusive language or sexual harassment (Alshahrani et al., 2021; Anyanwu, 2021; d’Ettorre et al., 2019) that provides an HCW a reason to fear they are in danger (Al-Ghabeesh & Qattom, 2019; Al-Qadi, 2021).

One of the hospital’s high-risk areas for workplace violence is the emergency department. The emergency department particularly has been recognized as a high-risk location for WPV, and emergency nurses are the ones who are most exposed to it (Ramacciati et al., 2018; Vrablik et al., 2019). In the ED, patients typically require immediate treatment for injuries or face the risk of death, while others who visit the ED or accompany patients have psychological conditions and dependency on drugs or alcohol (Ashton et al., 2018; Bingöl & İnce, 2021; Dopelt et al., 2022). As a result, ED staff face significant risks while caring for critically ill and injured patients who may have a wide range of medical conditions, social problems, and psychiatric illnesses that could make them act violently or aggressively without warning during their emergency care (Al-Ghabeesh et al., 2019; Berlanda et al., 2019).

Violent attacks and threatening and other harmful statements against HCWs in the ED can lead to not only physical harm but also psychological and organizational consequences. A study showed that 14.6% of staff witnessed physical violence against ED healthcare workers, as well as 27.1% observing verbal violence (Bingöl & İnce, 2021). Given these negative experiences, the psychological effects of WPV on ED HCWs who have experienced and/or seen it frequently result in absenteeism, low morale, and reduced productivity (Ashton et al., 2018; Bingöl & İnce, 2021). Further

investigation into the impact of WPV on ED nurse productivity revealed that, in contrast to their perceptions that they were able to preserve work performance and provide safe and competent care, ED nurses' exposure to violent events significantly reduced productivity in the areas of Cognitive Demands and Support/Communication Demands (d'Ettorre et al., 2018). ED WPV can cause feelings of resentment, self-blame, embarrassment, anger, and a decline in health-related quality of life (HRQoL), which can decrease job satisfaction and retention (d'Ettorre et al., 2018; Di Prinzio et al., 2022). Thus, hospital management should care to know about the risk factors of WPV in EDs and the measures to reduce and manage them better to prevent the loss of staff, and low job performance and service quality.

### **2.3 Impact of Violence on Health Workers**

The health and wellbeing of healthcare professionals can be adversely affected by workplace violence in major and lasting ways. These impacts can lead to health and professional consequences. Health workers can have physical injuries due to violent incidents, including cuts and bruises, as well as fractures and head trauma (Baron et al., 2014; Navas et al., 2022). Sometimes, they can also experience life-threatening injuries that can lead to long-term disability and higher mortality risks (Richardson et al., 2018; Spelten et al., 2020). Besides physical impacts, WPV can lead to significant mental health problems, including post-traumatic stress disorder (PTSD), anxiety, and depression (Harthi et al., 2020; Sahiran et al., 2022; Shafran-Tikva et al., 2017). Even witnessing WPV can lead to distress and sleep quality problems. Furthermore, WPV can reduce job satisfaction and morale, especially when they feel unsupported or unsafe (Grinberg et al., 2022; Ferri et al., 2020). Additionally, WPC can hinder job

performance as it can make duties more challenging to complete or to do effectively in light of stress and anxiety (Dopelt et al., 2022; Emam et al., 2018; Grinberg et al., 2022). Moreover, WPV can reduce productivity due to absenteeism and lower work motivation (Dopelt et al., 2022; Emam et al., 2018; Grinberg et al., 2022). WPV may result in widespread negative health effects that can shape their job satisfaction and work outcomes, making it crucial for organizations to analyze the risk factors and design a culture and environment that can resolve and prevent WPV.

## **2.4 Types of Violence**

The literature illustrates that there are different types of violence directed at health care workers working in EDs. The different types of violence are physical violence, verbal abuse and threats, sexual harassment, and the use of weapons to attack HCWs (Shafran-Tikva et al., 2017). Shafran-Tikva et al. (2017) studied the different types of violence experienced by nurses and physicians, the types of perpetrators, and the specialty fields involved through a survey to which 678 HCWs responded. Findings showed that they experienced 700 acts of passive aggressive behavior, 660 acts of verbal violence, and 81 acts of sexual harassment (Shafran-Tikva et al., 2017). Specifically, ER nurses experienced a 5.5-fold higher risk of WPV than those in the internal medicine department (Shafran-Tikva et al., 2017). Furthermore, nurses were exposed to two times more violence than doctors (Shafran-Tikva et al., 2017). The study shows the various kinds of WPV that HCWs experience and how some are more at risk than others due to their job position. Dopelt et al. (2022) added that external stressors, especially the past COVID-19 pandemic, intensified WPV. In the cross-sectional study that 486 HCWs answered in Israel, findings showed that 71% experienced WPV and

that 64% noted that the pandemic increased the prevalence and intensity of WPV (Dopelt et al., 2022). Particularly, 69% of HCWs experienced verbal and psychological WPV, while 11% reported physical assaults. Working in emergency care, having lower seniority, and being a nurse also increase the risk of WPV. Dopelt et al. (2022) confirmed past studies (Al Khatib et al., 2023; d’Ettorre et al., 2018) noting the intersection between unique ED conditions, job types, and patient characteristics that heighten the risk for WPV.

## **2.5 Prevalence of Violence in EDs**

WPV is significantly high in EDs compared to other hospital units. Abdellah and Salama (2017) investigated the prevalence of WPV in EDs. In their cross-sectional research, findings showed that, according to 134 HCWs, 59.7% reported experiencing WPV, with verbal violence being the highest at 58.2%, followed by physical violence at 15.7% (Abdellah & Salama, 2017). This study shows the high prevalence of WPV among ED HCWs compared to other units, such as internal medicine (Abdellah & Salama, 2017). Harthi et al. (2020) showed comparable results for HCWs in the EDs in Saudi Arabia. They conducted a cross-sectional survey, to which 324 HCWs responded. Findings indicated that 47.8% experienced at least one kind of violent act in the past year, where the most prevalent was verbal abuse (52%), followed by physical violence (19%) and sexual harassment (3%) (Harthi et al., 2020). This study noted that being a Saudi national increased the risk of violence too, although not all studies found a connection between ethnicity and WPV (Harthi et al., 2020). Al Khatib et al. (2023) noted the same high percentage of WPV at EDs in Jordan. They also conducted a cross-sectional study in which 67 doctors and 96 nurses from three public hospitals

participated (Al Khatib et al., 2023). Findings showed that 33% of doctors and 53% of nurses experienced physical and verbal violence, while men more than women experienced physical assaults (43.7% vs. 2.3%) and verbal abuse (61.3% vs. 29.5%) (Al Khatib et al., 2023). This study added the dimension of gender to the higher risk of WPV, with male HCWs being more exposed to violence at work.

Two studies indicated that ED WPV is also very high in Israel. The study of Shafran-Tikva et al. (2017) showed that ERs have the highest prevalence of violence (92% for nurses in the ER compared to 57% for nurses in internal departments), and nurses in ERs experience the highest number of WPV acts at 5.5 times more than those in internal departments. Dopelt et al. (2022) noted that in their study, 71% of HCWs reported WPV in Israel. These studies show a much higher rate than in other countries, such as 33 to 53% in Jordan (Al Khatib et al., 2023) and 59.7% in Saudi Arabia (Harthi et al., 2020). Furthermore, Shafran-Tikva et al. (2017) and Dopelt et al. (2022) noted that it is only recently that the prevalence of WPV in ERs has been studied, and additional research is needed to examine this issue at the national level as well as to determine which hospitals and areas have the highest WPV in their ED units.

## **2.6 Perpetrator Risk Factors**

Several risk factors can lead to ED WPV, and one of them is the perpetrator risk. Perpetrators commonly refer to the patients' families (Davey et al., 2020). Sahiran et al. (2022) examined WPV factors in the EDs in Malaysia using a cross-sectional study. Findings indicated that WPV has a prevalence of 38%, 88.9% was psychological violence, and 51.9% were considered perpetrator types (Sahiran et al., 2022). Around 50% of all WPV was done by more than one kind of perpetrator (51.9%), with 24.7%

perpetrated by relatives of the patient or the patient, while 11.1% was committed by the patient or other staff members at 11.1%, respectively (Sahiran et al., 2022). This study shows that most perpetrators refer to patients or their family members. Davey et al. (2020) conducted a qualitative study of WPV affecting HCWs in EDs in India. The results of 63 semi-structured interviews showed that the majority of violence came from the companions of patients and involved verbal abuse, although some showed physical violence too. Like Sahiran et al. (2022), Davey et al. (2020) learned that the relatives of patients tend to be the perpetrators, especially since they are stressed due to the health conditions and other hospital factors.

Besides being a relative of the patient, other factors can also impact the risk of being a WPV perpetrator, especially mental health (MH). The primary reasons MH patients go to the ED for care are suicidal thoughts and attempts (Navas et al., 2022). In many circumstances, mental diseases may lead to misunderstandings between the HCWs and the patients or visitors (Navas et al., 2022). These misunderstandings may lead to conflicts and, in turn, verbal or physical assaults on the care providers in the ED (Navas et al., 2022). In the ED, the relatives or companions of patients are more at risk of perpetrating WPV against HCWs if they have MH issues. Navas et al. (2022) reviewed the literature on ED care for people with MH in North America and included seventeen studies. Findings indicated that some patients who seek MH care in EDs suffer from a lack of information about resources, poor connections among hospitals, and overcrowding, which can lead to feelings of helplessness, fear, and anxiety that may result in violence (Navas et al., 2022). This study does not specifically examine the connection between MH and perpetrator status, however, but points to additional research needed to explore this relationship. d’Ettorre et al. (2018) noted that, according

to past literature from Vezyridis et al. (2015) and Wong et al. (2015), when people have mental health issues and have families or are in the ED, they are at risk of being perpetrators of violence against HCWs.

When patients or their companions have alcohol or drug use or dependence, this can also lead to perpetrator violence. In a study by Richardson et al. (2018), one of the factors that leads to perpetrator WPV is being under the influence of drugs or alcohol. Likewise, Grinberg et al. (2022) confirmed that for 150 nursing staff in emergency medicine, they experience more burnout than nurses in inpatient departments because of their exposure to WPV. The nurses noted that patients or companions who are intoxicated or under the influence of drugs tend to exhibit violence against them too. These studies indicate that being under the influence of alcohol or drugs can impact the tendency toward violence that can lead to WPV against ED HCWs.

Another risk factor for perpetrators of workplace violence is their failure to handle situational crises. Berlanda et al. (2019) examined the prevalence of patient/visitor violence in EDs in Italy and determined the relationship between violence and the psychosocial variables of adult attachment style, age, and job satisfaction. The researchers conducted an online survey. Findings indicated that patients who have anxiety and cannot handle problems can lash out more than those who do not have anxiety and have stress-coping mechanisms. Berlanda et al. (2019) considered that other factors can also impact the reaction of patients and visitors to ED healthcare problems that can lead to them being more at risk of showing violence, such as long wait times, denial of requests or services, perceptions of ED staff as rude or unsympathetic, grief due to the death of a family member, and the powerlessness felt when facing difficult health problems. Spelten et al. (2020) conducted two focus groups with ED nurses in

Australia and found out that besides perpetrators suffering from underlying mental health and physical issues and substance abuse and addiction, having other emotional problems can also lead to violence. The inability to deal with and communicate effectively in the ED can be some of the reasons that patients or companions become frustrated, plus long wait times and other problems can cut patience and logic, potentially leading to emotional or physical abuse of HCWS in the ED. These studies point out that individual factors related to coping and communication can also impact the risk of perpetrator violence.

Finally, perpetrator violence can be increased by access to weapons or poor security. Alshahrani et al. (2021) conducted a cross-sectional study of EDs in Saudi Arabia and the United Arab Emirates, where 492 completed the survey. Findings indicated that 32.3% were attacked with a weapon. The researchers noted that easy access to weapons or sharp objects, besides poor security onsite and staff shortages, can increase the risk of WPV. Al-Qadi (2021) reviewed the literature on WPV in healthcare and determined that access to weapons, lax security, and not enough personnel can enhance the tendency of perpetrators to use weapons against HCWs in EDs where stress and anxiety tend to be high. The two studies indicate that the ease of access to weapons plus the absence or shortage of staff or security can make it easier for perpetrators to physically attack or threaten HCWs in emergency departments.

## **2.7 Worker Risk Factors**

Gender can be a significant factor in WPV risk. Emam et al. (2018) conducted a cross-sectional study on the EDs of three educational hospitals in Iran, in which 280 HCWs participated. Findings showed that gender increased the risk of experiencing WPV. Male HCWs tend to be the most affected. Likewise, the studies of Harthi et al.

(2020) and Al Khatib et al. (2023) of ED violence showed that being male can increase the risk of being exposed to both physical and verbal abuse compared to being female, but most likely because male HCWs tend to handle aggressive patients or visitors more than their female counterparts. The studies note that men can be more prone to experiencing WPV than women, although women, especially nurses in ED, also go through verbal and physical abuse, including sexual assault (Emam et al., 2018; Oliveira et al., 2020).

Besides gender, some studies indicate that being younger can increase the risk of WPV in EDs. Shafran-Tikva et al. (2017), Abdellah and Salama (2017), and Sahiran et al. (2022) learned from their studies that doctors and nurses younger than 30 years are at a higher risk of experiencing WPV, probably due to their being more vulnerable in the eyes of perpetrators as well as their lack of emotional maturity and experience in handling challenging patients, visitors, and situations. Al Khatib et al. (2023) added that younger HCWs may be more vulnerable too if the perpetrators see older workers as more respectable. The research indicates a relationship between age and a higher risk of WPV in EDs.

The type of job can also enhance the risk of WPV violence. Shafran-Tikva et al. (2017) and Dopelt et al. (2022) noted that nurses were more physically and verbally attacked than physicians, probably due to patients and companions being more frequently with nurses or having perceptions of nurses as being “lower” than doctors. Being a nurse increases the risk of WPV for ED workers because of these social perceptions and individual professional and emotional factors.

## **2.8 Workplace Risk Factors**

Several studies already showed that the workplace itself can also increase the risk of violence in EDs against HCWs. Several studies stressed that a long waiting time, coupled with overcrowding and shortage in medical staff, can lead to perpetrator violence against ED HCWs (Abdellah & Salama, 2017; Dopelt et al., 2022; Shafran-Tikva et al., 2017). Likewise, dissatisfaction with ED staff and services because of bureaucracy and poor staff training can lead to anxiety and poor mental state of patients and their companions (Dopelt et al., 2022; Navas et al., 2022). Furthermore, having low support from the management and high job stress or strain can also lead to WPV experiences according to Sahiran et al. (2022). The absence or poor security and staff shortage can increase WPV risk too, based on the studies of Davey et al. (2020) and d’Ettorre et al. (2018). Additionally, when there is lack of information or communication as well as empathy from ER staff, this can lead to WPV too (d’Ettorre et al., 2018). Poor management of staff and resources, and weak communication and security can contribute to a higher tendency of WPV in EDs.

## **2.9 Protective Strategies for Workplace Violence**

To protect the safety and wellbeing of medical staff and patients, emergency departments (EDs) must implement protective methods against workplace violence. Due to the natural high-stress environment, lengthy wait times, and presence of people in crisis, EDs are particularly prone to violence. As a result, protective strategies entail broad and multifaceted techniques designed to avoid, lessen, and address instances of workplace violence (Baron et al., 2014; Navas et al., 2022). They can consist of training healthcare workers to diffuse difficult situations, setting clear policies, providing

security measures to ward off possible attackers, and cultivating a culture of reporting and support (Anyanwu, 2021; d’Ettorre et al., 2018). By addressing these issues, these strategies can help guarantee a safer environment, raise the standard of treatment, and improve the overall experience in the emergency room.

Due to the different risk factors, one of the most recommended protective strategies comes from the organizational level, especially training ED staff. Anyanwu (2021) created and applied an educational toolkit for violence prevention against HCWs that is based on Kotter’s 8-step change model, evidence-based nonviolent crisis prevention strategies, and the Crisis Prevention Institute’s top 10 de-escalation tips for 11 healthcare workers. Findings indicated a 9% decrease in HPV after the program. This study illustrates the importance of toolkits for reducing HPV. Navas et al. (2022) added that ED staff must be trained to handle patients and companions with MH issues while also properly caring for their own MH to avoid poor handling of violence at work. They also noted the importance of system-level factors such as proper discharge planning, helpful resources and policies, and training for knowledge and expertise. d’Ettorre et al. (2018) reviewed the evidence on WPV prevention in EDs. Findings showed that building HCW-patient relationships, enhancing workers’ communication skills, accurately documenting each violent occurrence, increasing the participation of employees in WPV preventive initiatives, and improving the labor context through management commitment should be the training courses prioritized as part of a strategic approach to the management of WPV. These studies underscore that management must have active WPV prevention measures, especially staff training, to address WPV in EDs.

Additionally, hospital management should set strict norms and regulations that staff members must follow while dealing with violent or threatening patients and visitors. Several studies stressed that the management must be clear with policies regarding WPV so that the staff can handle them appropriately (Navas et al., 2022; Oliveira et al., 2020). The rules must include de-escalation procedures as well as reporting guidelines to prevent the same perpetrators from coming into the hospital again if they repeatedly violate anti-WPV rules (Emam et al., 2018; Oliveira et al., 2020). The management must have supporting directives for handling WPV, besides preventing it.

Other measures include providing security and having sufficient, competent staff. Some of the intertwining reasons that patients and companions get violent are that they do not see anyone who can prevent them from doing so; thus, adding security or ensuring the visibility of security measures can deter violence (Bingöl & İnce, 2021; Emam et al., 2018). Likewise, having more staff to cater to patients and their companions, particularly those capable of providing timely and relevant information, can reduce their anxiety and the risk of being aggressive (Bingöl & İnce, 2021; Navas et al., 2022).

## **2.10 The Gap in the Literature**

The literature shows the prevalence, types of WPV, risk factors, and protective factors for ED WPV. While there are studies already exploring the types of violence and perpetrators of HPV in Israeli hospitals (Shafran-Tikva et al., 2017) and also during the COVID-19 pandemic (Dopelt et al., 2022), there is no known recent study focusing on the human and systematic factors (workplace factors and work place environmental

factors) that contribute to the occurrence of violence against health care workers in emergency departments, effective protective strategies to mitigate workplace violence against health care providers in emergency departments, and the demographics of health care workers affecting workplace violence in the healthcare setting. There is a need to determine the factors of violence against health care workers, predictors, and measures in emergency departments in Israel.

## **Chapter Three**

### **Methodology**

#### **3.1 Introduction**

In this chapter, the study's design, ethical considerations, site and setting, inclusion, and exclusion criteria, as well as the procedures for sampling, study instruments, data collection, and data analysis for both quantitative and qualitative methods are discussed in detail. This chapter provides a comprehensive overview of the research methodology, establishing a systematic foundation for the study.

#### **3.2 Design**

This research utilized a mixed-methods research (MMR) approach. According to Creswell and Creswell (2018), MMR is the combination of both qualitative and quantitative techniques in the data collection process. The justification for such combinations has been constant throughout the past 50 years: By concentrating solely on qualitative or quantitative methodologies, researchers may miss significant evidence that can lead to different findings and conclusions (McKim, 2017; Pluye & Hong, 2014). Subsequently, to address research topics that neither quantitative nor qualitative approaches alone could adequately address, a mixed-methods approach is ideal (Pluye & Hong, 2014; Shorten & Smith, 2017).

Moreover, while there are many kinds of MMR, this study followed the convergent MM design. In the convergent design, quantitative and qualitative methods are complementary during data collection, or data analysis, or both (Pluye & Hong, 2014; Shorten & Smith, 2017). Likewise, integration happens during the data collection, or analysis, or collection and analysis, of quantitative and qualitative data (McKim,

2017; Pluye & Hong, 2014). In this study, data was integrated during the data collection and analysis procedures by combining the data instead of merely using one kind to support the other.

The advantages of MMR are the following: First, the use of mixed methods can help researchers better understand the relationships or discrepancies between qualitative and quantitative data (McKim, 2017; Shorten & Smith, 2017). In contrast to conventional qualitative or quantitative research methodologies, MMR offers a different methodological approach that enables researchers to conduct in-depth analyses of complicated phenomena (Halcomb & Hickman, 2015; Shannon-Baker, 2016). Or, to put it another way, blending approaches combines the strengths of both collecting and analyzing stories and hard data (Pluye & Hong, 2014; Shorten & Smith, 2017). Stories have the capacity to influence public health policies (Palinkas et al., 2015), and statistics typically offer a compelling case for change, also called the “power of stories and the power of numbers” (Pluye & Hong, 2014, p. 30). Second, MMR can give participants a chance to speak up and share their experiences throughout the research process and facilitate various lines of inquiry that add to the body of evidence and help researchers get to the heart of the matter (McKim, 2017; Shorten & Smith, 2017). Third, MMR can promote increased scholarly productivity and improve the experiences of researchers, as many viewpoints shed light on the topics under investigation (Halcomb & Hickman, 2015; Shorten & Smith, 2017).

Despite these advantages, MMR also has its drawbacks. Combining different approaches within a single study can make the research more challenging. Multidisciplinary research teams frequently need to become familiar with alternative research paradigms and different methods related to sample selection, data collection,

data analysis, and data synthesis or integration, which frequently necessitates more resources (time and staff) and extra training (Palinkas et al., 2015; Turner et al., 2017). Knowledge of both quantitative and qualitative approaches is necessary for mixed-methods research (McKim, 2017; Shorten & Smith, 2017). Finding more researchers with specialized knowledge in a given field may be necessary because numerous investigators lack training in quantitative and qualitative techniques (McKim, 2017; Shorten & Smith, 2017).

### **3.3 Site and Setting**

The three settings where the study took place were Meir, Bilinson, and Hasharon. The selection of these three centers was based on their central location in the State of Israel, an area known for its high hospitalization activity and numerous requests from patients and visitors. Additionally, these centers have a larger number of employees compared to hospitals in the northern or southern regions of the State of Israel. It is noteworthy that these three centers are part of Clalit, an organization that excels in providing medical services at a professional and high standard.

Meir Hospital serves the Sharon area in Israel and has 40 beds allocated for internal, surgical, and orthopedic patients. The hospital's emergency department caters to both Jewish and Arab residents. Bilinson and Sharon Hospital cover the central region of Israel and provide 60 beds for patients in the internal and orthopedic surgery wing. The hospital's emergency room serves a population consisting of both Arab and Jewish residents. These centers treat patients from diverse cultures and ethnic groups. They are chosen because this researcher has contacts from these centers, making it

easier to get approval and to conduct the research. Likewise, for cost concerns, this researcher can easily access the centers to reduce travel costs.

### **3.4 Population and Sampling**

The current study utilized a convenience sampling procedure of healthcare providers (physicians and nurses) in the emergency departments in the three centers by getting the list of workers and selecting 300 from them. Lists of workers in these departments were obtained, and a total of 300 participants were selected based on their accessibility. Convenience sampling was implemented within each center, ensuring representation across various roles and shifts. Informed consent was obtained from the selected healthcare providers, who were then approached to participate in the study.

#### **3.4.1 Inclusion Criteria**

- More than one year of experience in ER {this is important}
- Being between 24 and 60 years old.
- Working as a full-time health care worker at the ED of Clalit Hospital Israel.

#### **3.4.2 Exclusion Criteria**

- Part-time works.
- Less than one year of experience in the ER.

### **3.5 Quantitative Technique**

Quantitative methods refer to collecting numerical data on the topic (Creswell & Creswell, 2018), and subsequently, the researcher gathered numerical data on the

phenomenon under study. The term “quantitative research” refers to a rigorous, impartial, and methodical strategy used to define variables, analyze their interactions, and consider the relationships between causes and effects across predetermined variables (Burns et al., 2015, p. 510; Shannon-Baker, 2016). Quantitative research produces numerical data and is mostly guided by the positivist or post-positivist paradigm and several assumptions, particularly the existence of a single reality or truth, objectivity, and deduction (Bloomfield & Fisher, 2019; Shannon-Baker, 2016). Hence, quantitative research looks for the actual solution by putting hypotheses to the test through unbiased and impartial techniques used in science (Burns et al., 2015; Davies & Fisher, 2018).

In medical research, surveys are frequently employed because of their advantages, although they also have weaknesses. Surveys are a good way to obtain significant data to characterize samples and populations (Watson, 2015). Unlike experiments, which can take a long time for data-collection and analysis, surveys can be done more easily across a large sampling, leading to cost efficiency. Surveys are often conducted through the distribution of questionnaires, but they can also be done through interviews or observation. However, unlike experiments, surveys cannot and do not aim to determine and measure causes and effects (Turner et al., 2017; Watson, 2015). As such, surveys cannot answer questions seeking for cause-and-effect relationships. This researcher conducted the surveys face-to-face or via telephone.

The two main kinds of surveys are cross-sectional and longitudinal methods. Cross-sectional studies are done once, making them easy and cost-efficient. Contrarily, longitudinal studies involve a series of surveys done over a long period of time, leading to the problem of attrition (Turner et al., 2017; Watson, 2015). This paper focused on a

cross-sectional research design because it was done one time only, and this methodology is sufficient to gather relevant data to answer the research questions.

### **3.6 Study Instrument**

This research used a survey questionnaire adopted and modified from the study of (Dopelt et al., 2022; Shafran-Tikva et al., 2017). The questionnaire was translated from English to Arabic by professional person who was proficient in both languages and then translated back from Arabic to English by another professional person who was also proficient in both languages. According to the feedback from six nurses as panel of experts in emergency departments modifications were done to improve the understanding of the questions by participants, such as rewording in Arabic to improve clarity.

The questionnaire composed of the following parts (Appendix A)

Part 1 collects demographic data, particularly the respondent's age, gender, profession, educational level, marital status, work experience, and numbers of years of experience after completion of MBBS/BSc. It also gathered a preliminary overview of the respondent's experience of workplace violence.

Part II. Section A: collected information on "Forms of Violence" at work and intended to assess the frequency of various forms of violence experienced by healthcare workers in healthcare settings (2 items).

Section B, Reporting of Incidence, assessed how comfortable or confident the workers were about reporting the incidence of violence to the higher authorities (1 item), and some of reasons why the incidences of violence are not reported to the authorities (6 items).

Section C, Mitigation Strategies, focused on the strategies that can be useful in preventing episodes of violence at the workplace (11 items).

Section D, Risk factors are related to incidents of Workplace violence (12 items).

### **3.7 Pilot study**

The pre-test was conducted before the main study on 30 participants of physicians and nurses in emergency department. All of them were provided with a clear explanation about the study and its objectives. The pilot study done to ask them about the difficulties, the average time to fill out the questionnaire, and their opinion of the questionnaire. The participants consider it clear, without comments, and the time range between 10-15 minutes to complete the questionnaire. The research was conducted under similar circumstances as the main study. The participants and the questionnaires used in the pre-test were excluded in the main study. Also, the instrument's internal consistency is determined as high (Cronbach's alpha = 0.93).

### **3.8 Data-Collection Procedures**

Since the study involved collecting quantitative data, the researcher targeted the recruitment of 300 participants using the random sampling method and the following data collection procedures:

1. First, the researcher went to the three centers, asked for the database names of target healthcare workers, and 100 participants were selected from each center. The identified potential participants were cross-examined using the inclusion criteria to determine if they were suitable for the study.

2. Second, a consent form letter was given to them, and those who agreed to take part in the study were recruited.
3. Third, the researcher conducted the survey by giving the forms on the respective dates. The questionnaire was distributed face-to-face, and each participant was given 15 minutes to complete it, and then the researcher collected it. This process of visiting the centers will continue until the sample of the study reached.

### 3.9 Data Analysis for Quantitative

The Statistical Package for Social Science (SPSS, version 23) was used to analyze the data. Descriptive and inferential statistics were used to test the study hypotheses.

Descriptive statistics as frequency, percentage, mean, and standard deviation were used to describe the characteristics of the participants. The inferential statistics as Pearson Correlation and an independent t- test were utilized to test the research questions.

Table 3-1 Data analysis plan

<b>Research question/hypothesis</b>	<b>Statistical test</b>
Research question one: What is the prevalence of violence against health care providers in emergency departments?	Frequency and percentage
Research question two: What is the participants' response towards reporting the incidence of violence against health care providers in emergency departments to the higher authorities?	Frequency and percentage
Research question four: What are the protective strategies to mitigate workplace violence against health care providers in emergency departments?	Frequency and percentage

<b>Research question/hypothesis</b>	<b>Statistical test</b>
Research question five: What is the perception of participants regarding risk factors related to incidents of workplace violence against health care providers in emergency departments?	Frequency and percentage
Hypothesis one: There is an association between demographic data (age, work experience, and years of experience after completion of MBBS/BSc) and perceptions of violence protective strategies and risk factors of violence against health care workers in emergency departments at $P \leq 0.05$ .	Pearson correlation
Hypothesis two: There is a significant difference between the profession and the perception of violence protective strategies and risk factors of violence against health care workers in emergency departments at $P \leq 0.05$ .	An independent t test
Hypothesis three: There is a significant difference between gender and the perception of violence protective strategies and risk factors for violence against health care workers in emergency departments at $P \leq 0.05$ .	An independent t test

### 3.10 Qualitative Technique

Qualitative methods involve collecting data on the attitudes and perceptions of participants on the selected topic (Creswell & Creswell, 2018). Studying the nature of phenomena, which involves their quality, various manifestations, the circumstances in which they appear, or the viewpoints from which they can be perceived, is known as qualitative research (Al-Qadi, 2021; Busetto et al., 2020). This formal description can be supplemented with a more practical guideline: qualitative research typically uses verbal data rather than numerical data (Busetto et al., 2020; Renjith et al., 2021). Qualitative research methods typically involve semi-structured data collection, such as

in-depth interviews, observations, and focus group discussions (Renjith et al., 2021). This researcher collected data through telephone and face-to-face interviews.

### **3.11 Study interview**

A combination of completely structured (closed-ended) and unstructured (open-ended) surveys or interviews compose semi-structured questionnaires. These kinds of surveys allow for some flexibility while keeping some degree of consistency (Busetto et al., 2020; Renjith et al., 2021). This is necessary in the current study since the researcher aimed to find out the factors, predictors, and measures for preventing and reducing violence against healthcare workers in Emergency Departments in Israel. Questionnaires contained open-ended questions to facilitate answering the research questions (Davey et al., 2020; Oliveira et al., 2020). The pilot participants were excluded from the main study. The interview composed of four parts:

Part I contains questions on the demographic details.

Part II. It collected information about “Forms of Violence” at work and intended to assess the frequency and various forms of violence experienced by healthcare workers in healthcare settings.

Part III. The subjects were asked about risk factors related to incidents of workplace violence.

Part VI. It asks about the most effective protective strategies to mitigate workplace violence against health care providers in emergency departments according to their experience or suggestions.

### **3.12 Data-Collection of qualitative part**

Since the study constituted collecting qualitative data, the researcher targeted 10 participants as the sources of qualitative data using the following process:

- i. First, the researcher went to the three centers involved and conducted convenience sampling where a letter was sent to ask for interested healthcare workers who can discuss their experiences of workplace violence.
- ii. Second, a consent form letter was given to them and those who agreed to take part in the study were recruited. They chose between a phone/zoom or face-to-face interview for their convenience and to increase the number of participants by increasing the interview options.
- iii. Moreover, the participants were also asked if they can refer others who also fit the inclusion criteria.
- iv. The interview took place in the center and lasted for 30 minutes to an hour. The room is quiet and private enough to help the participants feel at ease and become more open in sharing their experiences and ideas about workplace violence in EDs. The interviewer also informed the participants that the interview will be recorded and they consented.
- v. The interviewer added other questions for clarification as needed. If there were also new experiences or problems, the participants were asked to expound and give examples.
- vi. The interviewer reminded the subjects that they could request to stop the interview if he or she felt uncomfortable.

Table 3-2 Participants responses to interview questions

Participant	Response to questions
Participant 1	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced? Verbal violence, threats of physical violence and legal prosecution.</li> <li>• In most violent incidents you experience, what are the main reasons? Shortage of orderly workers (sanitary) and long waiting time for imaging contribute to the violence. Security staff try to help once violence gets physical, but they do not help at all reducing the triggers that cause the violence</li> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so? I think security staff should patrol the area proactively and seek to prevent violence even before things escalate.</li> </ul>
Participant 2	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced? The most common form I had experienced when I worked on the night shift we received and a young man in emergency condition and when I asked the brother to wait outside he started cursing and hitting.</li> <li>• In most violent incidents you experience, what are the main reasons? Anger and Impatience</li> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so? Security guards</li> </ul>
Participants 3	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced? The most common form of violence that I have experienced is verbal violence</li> <li>• In most violent incidents you experience, what are the main reasons? A long waiting time for the patient Availability of devices is limited for the purpose to do X-rays or Ct- Scan What makes the patient impatient while waiting A long waiting time until a medical treatment given for the patient</li> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so? In my opinion, a police station in the emergency department</li> </ul>

	<p>I think that a police officer prevents violence more effectively than a security guard and this is due to the fact that a police officer has a constitutional power protected by law to arrest people, which can deter people who would think of causing violence</p>
Participant 4	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced? the most common form of violence is the verbal violence</li> <li>• In most violent incidents you experience, what are the main reasons? it can be related to the culture we work in it but most often it related to costume and traditions of the patients were dealing with</li> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so? I consider the most effective method is to call the police because they're the only ones who have the authority and all the powers to deal with any situation.</li> </ul>
Participant 5	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced? The most common form of violence I have experienced in my work is verbal violence</li> <li>• In most violent incidents you experience, what are the main reasons? long waiting for treatment, dissatisfaction with the attitude of service providers or the medical treatment, a cultural gap between patients and service providers</li> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so? In my opinion the most effective strategy is preventing treatment of violent patient and placing more staff on shifts</li> </ul>
Participant 6	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced? Verbal violence</li> <li>• In most violent incidents you experience, what are the main reasons? Misunderstanding, Workload and negligence, Miss Communication.</li> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so? Having security staff and very close police personal.</li> </ul>

	Learning defensive techniques in approaching angry patient and cases of violence.
Participant 7	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced? The most common form of violence that I have experienced is a verbal abuse by the patients.</li> <li>• In most violent incidents you experience, what are the main reasons? In most times the reason is the waiting time, and the unmet patient expectation</li> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so? The most effective strategy I think is installing easy to use panic button technology. Workplace violence has many forms, making it important that your staff stays aware of how to respond to unsafe situations. That's where we step in, securing your workplace should be a top priority when considering how to effectively prevent and/or resolve violent incidents as they occur. The panic button is an emergency button that empowers healthcare workers to immediately call for help in a crisis. This panic button is equipped with features that make your hospital safer: <ul style="list-style-type: none"> <li>1. One-button activation that discreetly and immediately calls first responders for help.</li> <li>2. Location accuracy that delivers floor- and room-level information, with 100% coverage of the facility or campus</li> <li>3. Immediate audio and visual notification of emergency information</li> <li>4. Easy installation without alterations to physical structures or systems</li> </ul> </li> </ul>
Participant 8	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced? Verbal violence.</li> <li>• In most violent incidents you experience, what are the main reasons? Prolong wait.</li> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so? To have a continuance connection with the patients.</li> </ul>
Participant 9	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced?</li> </ul>

	<p>The most common form of violence is the "verbal violence"</p> <ul style="list-style-type: none"> <li>• In most violent incidents you experience, what are the main reasons?</li> </ul> <p>The main reason is that patients or their families come to the emergency department thinking that they will get the treatment immediately; however unfortunately in fact most of the shifts are very busy and it takes very long time to get the treatment. Which makes the patients and their families very angry.</p> <ul style="list-style-type: none"> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so?</li> </ul> <p>I always prefer to call the security even before the violence act starts, if I have any doubt that it might be a violence I will ask the security to be near in case; and that's how I protect my myself.</p>
Participant 10	<ul style="list-style-type: none"> <li>• What is the most common form of violence that you have experienced?</li> </ul> <p>Verbal abuse</p> <ul style="list-style-type: none"> <li>• In most violent incidents you experience, what are the main reasons?</li> </ul> <p>Lack of satisfaction with services offered to the patients or escalation of verbal arguments.</p> <ul style="list-style-type: none"> <li>• Which violence prevention strategy do you consider most effective and why do you consider it so?</li> </ul> <p>Verbal de-escalation – from personal experience this is very effective.</p>

All audio-taped materials were listened at the first time and transferred by the researcher to transcribed written materials. Again, these audio-taped materials were listened for three times to ensure that all the participants' verbatim and the semantic audio were precisely transcribed. Then, all these taped materials were erased to ensure the confidentiality of the participants.

### 3.13 Data Analysis of qualitative part

Thematic analysis was used to analyze the qualitative data. **First**, the researcher informed the participants that their answers will be recorded and kept confidential.

**Second**, the researcher listened to the audio from the interview to get familiar with the emerging themes. **Third**, the researcher listened again to the audio and recorded short notes of the emerging themes. **Fourth**, the themes were coded and categorized in broader themes that were used in the discussion. Another peer was asked to also code and identify the themes and the results were integrated. If there were differences in coding and analyses, the researchers discussed them and had to agree on a consensus based on the data collected.

### **3.14 Ethical Consideration**

The current research adhered to the ethical practices of research. This researcher abided by the primary ethical principles of official authorization, confidentiality of data autonomy, and voluntariness. First, the researcher sought authorization from the Institutional Review Board (IRB) of Arab American University before conducting the study. Second, the anonymity and privacy of participants were upheld by not saving personal information and ensuring that access to their data would be limited to the researchers only. The names and other personally identifiable information were not included in the transcripts of the interviews to maintain anonymity (Manti & Licari, 2018). Interview questions and informed consent were also kept in separate databases to reduce possible unauthorized access of third parties. The institution's Department of Nursing received the data gathered for this study and kept it electronically for two years. The data was entered into the computer by the School of Nursing staff and kept on discs in a secured cabinet in a secured storage area. The only people who can access the records maintained are nursing directors or the research supervisor. Third, participant knowledge and consent were essential to this research. Before taking part in this study,

each participant signed an informed consent document and obtained a copy of it. A cover letter outlining the purpose of the study, participant details, and informed consent will be distributed before the survey and the interview. Likewise, at any point during the data collection, participants had the freedom to leave the research without any need for additional explanation.

## **Chapter Four**

### **Results**

#### **4.1 Introduction**

This chapter deals with the quantitative and qualitative data collected. The aim of this research study is to investigate risk factors workplace, prevalence and under reporting of violence against health care workers in emergency departments in Clalit Hospital-Israel and the protective measures that can be applied to decrease the violence rate.

#### **4.2 Quantitative Results**

The statistical method allowed the investigator to deduce, analyze, coordinate, measure, evaluate and convey the numerical information. The aim of data analysis is to provide answers to questions about the study. The data analysis strategy comes directly from the question, the design and the data collection process and the level of measurement of the data. This chapter edits, tabulates, analyzes and interprets the data collected. It expresses the findings concerning to investigate the violence risk factors and protective strategies against health care workers in emergency departments in Israeli hospitals.

#### **4.3 Cronbach's Alpha for Scales**

For each of the instruments, Cronbach's Alpha was above 0.75 in all ratings, as seen in table 4-1.

Table 4-1: Cronbach's Alpha for instruments used in the study

Scale	Cronbach's Alpha	Number of Items
Reasons of the violence under-reporting	0.76	6
Mitigation Strategies	0.83	11
Risk factors related to incidents of Workplace violence	0.91	12

#### 4.4 Participants' Characteristics

Three hundred of nurses and physicians participated in the study. The average age of the participants was  $36.5 \pm 9.5$  year. The findings revealed that 186 (62.0%) of them were nurse and 210 (70.0%) were males. The majority of them 195(65.0%) were married. The average work experience was  $9.8 \pm 8.3$  year and experience after completion of MBBS/BSc was  $7.3 \pm 6.7$  years, as seen in table (4-2).

Table 4-2: Demographic characteristics of the participants (N=300)

Characteristics		N (%)	M(SD)
<b>Age</b>			36.5(9.5)
<b>Gender</b>	Male	210(70.0)	
	Female	90(30.0)	
<b>Profession</b>	Nurse	186(62.0)	
	Physician	114(38.0)	
<b>Marital status</b>	Single	86(28.7)	
	Married	195(65.0)	
	Divorce	19(6.3)	
<b>Level of education</b>	Nursing diploma	13 (4.3)	
	Bachelor in Nursing	109 (36.3)	
	Master and above in Nursing	64 (21.3)	
	Bachelor in Medicine	18 (6.0)	

	High Diploma in Medicine	54 (18.0)	
	Master and above in medicine	42 (14.0)	
<b>Work experience</b>			9.8(8.3)
<b>Number of years of experience after completion of MBBS/BSc</b>			7.3(6.7)

Note: % percentage

#### 4.5 Testing Research Questions

##### **Research question one: What is the prevalence of violence against health care providers in emergency departments?**

According to workplace violence, most of the participants 280 (93.3%) reported that they have direct interaction with patients during their routine work. Also, 252 (84.0%) reported they are worried about workplace violence and have experienced being verbally abused or bullied. Surprisingly, 91(30.3%) have been injured as a result of violence, as seen in Table 4-3.

Table 4-3: Distribution of participants responses regarding their experience of workplace violence (N=300)

Item	Yes	No
	N (%)	N (%)
Do you have direct interaction with patients during their routine work?	280(93.3)	20 (6.7)
Are you Worried about workplace violence?	252 (84.0)	48 (16.0)
Is there any procedure for reporting workplace violence?	229 (76.3)	71(23.7)
Is there any encouragement to report workplace violence?	225 (75.0)	75(25.0)
Did you experience any physically attacked in their workplace?	166 (55.3)	134 (44.7)

Item	Yes	No
Did you experience verbally abused or bullied?	252 (84.0)	48 (16.0)
Did you experience abuse by patients or relatives of patients?	195 (65.0)	105 (35.0)
Did you ask help from nursing union or police?	175 (58.3)	125 (41.7)
Did you got injured as a result of violence?	91(30.3)	209 (69.7)
Did you receive treatment as a result of violence?	94(31.3)	206 (68.7)
Could the violence be prevented?	244(81.3)	56 (18.7)

In respect to forms of Violence, 103(34.3%) of the participants reported nearly daily experience verbal altercations (e.g., threats, abuse, exaggerated arguments, offensive comments etc.) at their workplace. Also, 214(71.3%) of them reported that they have experienced physical violence (e.g., slapping, beating, thrashing, vandalizing, attack with weapons etc.) at their workplace as seen in Table 4-4.

Table 4- 4: The frequency of various forms of violence experienced by healthcare workers in health-care settings (N=300)

Item		N(%)
How often do you experience verbal altercations (e.g., threats, abuse, exaggerated arguments, offensive comments etc.) at your workplace?	About once a year or more	32(10.7)
	About once every six months	32(10.7)
	About once a month	53(17.7)
	About once a week	80(26.7)
	Nearly daily	103(34.3)
How often do you experience physical Violence? (e.g., slapping, beating, thrashing, vandalizing, attack with weapons etc.) at your workplace?	yes	214 (71.3)
	No	86(28.7)

**Research question two: What is the participants' response towards reporting the incidence of violence against health care providers in emergency departments to the higher authorities?**

The analysis revealed that 104 (34.7%) and 38 (12.7%) of the participants responded agree and strongly agree towards reporting the incidence of violence to the higher authorities, as seen in Table 4-5.

Table 4-5. Distribution of the participants response towards comfortable or confident about reporting the incidence of violence to the higher authorities (N=300)

Item		N(%)
I would be comfortable in reporting the episode of violence at my workplace to competent authorities.	Strongly disagree	60 (20.0)
	Disagree	41(13.7)
	Neutral	57(19.0)
	Agree	104(34.7)
	Strongly agree	38(12.7)

**Research question three: What are the participants' reasons that lead to violence under-reporting against health care providers in emergency departments? The**

reason that lead to violence under-reporting according to 139 (46.3%) of the participants reported was that "The process was time-consuming." However, no one reported "Lack of provision to report such incidences," as seen in Table 4-6.

Table 4-6. Distribution of the participants' reasons that lead to violence under-reporting  
(N=300)

Item	Insignificantly	Somewhat significantly	Significantly
	N (%)	N (%)	N (%)
Felt ashamed of reporting	108(36.0)	105(35.0)	87(29.0)
A belief that no action will be taken against the perpetrator	40(13.3)	125(41.7)	135(45.0)
Lack of organizational support	40(13.3)	129(43.0)	131(43.7)
Lack of provision to report such incidences	31(10.3)	269(89.7)	0 (0.0)
The process was time-consuming	34(11.3)	127(42.3)	139(46.3)
Fear that the appraisal or promotion avenues will be affected	53(17.7)	115(38.3)	132(44.0)

**Research question four: What are the protective strategies to mitigate workplace violence against health care providers in emergency departments?**

In regards to strategies in preventing violence at the workplace, majority of the participants 214(71.3%) reported that “Strong legislature measures like provision of significant punishment for offenders” was the highest item that is extremely useful.

However, 46 (15.3%) reported that “Controlling the number of attendants visiting the hospital with a patient” was the lowest item, as seen in table 4-7.

**Table 4-7. Perception of participants regarding protective strategies of violence at the workplace (N=300)**

Item	Not useful	Somewhat Useful	Very useful
	N (%)	N (%)	N (%)
Controlling the number of attendants visiting the hospital with a patient	2(0.7)	252(84.0)	46(15.3)
Educating patients and attendants about limitations of medical sciences and available infrastructure	12(4.0)	104(34.7)	184(61.3)
Regular training of healthcare workers regarding soft skills (communication skills, breaking bad news, counselling skills, problem-solving skills)	13(4.3)	94(31.3)	193(64.3)
Self-defense training of Health care workers	44(14.7)	97(32.3)	159(53.0)
Improving healthcare facilities (like doctor-patient ratio, population-bed ratio)	12(4.0)	75(25.0)	213(71.0)
Improving facilities within a hospital (like availability of medicines and diagnostic tests)	14(4.7)	85(28.3)	201(67.0)
Improving Infrastructure facilities (like installation of CCTVs, metal detectors, alarm system)	13(4.3)	108(36.0)	179(59.7)
Active complaint redressed system	10(3.3)	127(42.3)	163(54.3)
Strong legislature measures like provision of significant punishment for offenders	6(2.0)	80(26.7)	214(71.3)
Unbiased media reporting	21(7.0)	111(37.0)	168(56.0)
Sensitizing politicians and public figures not to give immature/negative statements regarding healthcare workers	28(9.3)	102(34.0)	170(56.7)

**Research question five: What is the perception of participants regarding risk**

**factors related to incidents of workplace violence against health care providers in emergency departments?**

The analysis revealed that majority of the participants 237(79.0%) reported that “Long waiting time” was the most important risk factor related to incidents of Workplace violence. However, 186 (62.0 %) reported “Negative and inappropriate media reporting” is also very important.

Table 4- 8. Perception of participants regarding risk factors related to incidents of Workplace violence (N=300)

Item	Not important	Somewhat important	Very important
	N (%)	N (%)	N (%)
Unrealistic expectations of patients/ attendants	12(4.0)	92(30.7)	196(65.3)
Inappropriate knowledge about the disease/health condition	14(4.7)	96(32.0)	190(63.3)
Poor communication skills	13(4.3)	86(28.7)	201(67.0)
Lack of resources (equipment and medicines, doctor-patient ratio)	7(2.3)	74(24.7)	219(73.0)
Overcrowding	18(6.0)	71(23.7)	211(70.3)
Long waiting time	11(3.7)	52(17.3)	237(79.0)
Inadequate security arrangements	14(4.7)	76(25.3)	210(70.0)
Inadequate action on receiving complaints of WPV	17(5.7)	96(32.0)	187(62.3)
Lack of respect for the authority of doctors/healthcare workers	7(2.3)	68(22.7)	225(75.0)
Negative and inappropriate media reporting	20(6.7)	94(31.3)	186(62.0)
Lack of the provision of harsh punishment for aggressors /offenders	8(2.7)	69(23.0)	223(74.3)
Lack of redressal system	10(3.3)	85(28.3)	205(68.3)

#### 4.6 Testing Study Hypothesis

**Hypothesis one: There is an association between demographic data (age, work experience, and years of experience after completion of MBBS/BSc) and perceptions of violence protective strategies and risk factors of violence against health care workers in emergency departments at  $P \leq 0.05$ .**

The analysis revealed that there are significant relationships between age and protective Strategies ( $r=0.16$ ) and Risk factors ( $r= 0.21$ ) which indicate positive relationship between them. Also, there are significant relationships between work experience and

protective Strategies ( $r=0.13$ ) and Risk factors ( $r= 0.22$ ) which indicate positive relationship between them. However, there is a significant relationship between Years of experience after completion of MBBS/BSc and risk factors ( $r= 0.16$ ) which indicate positive relationship between them, as seen in Table (4-9).

Table 4-9. Association between demographic data and protective Strategies and Risk factors related to incidents of Workplace violence (N=300)

Demographic data		protective Strategies	Risk factors
Age	Pearson	0.16**	0.21 **
	Correlation		
Work experience (Years)	Pearson	0.13*	0.22**
	Correlation		
Years of experience after completion of MBBS/BSc	Pearson	0.06	0.16**
	Correlation		

Note: \*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**Hypothesis two: There is a significant difference between the profession and the perception of violence protective strategies and risk factors of violence against health care workers in emergency departments at  $P \leq 0.05$ .**

The analysis revealed that there was no significant difference between the profession and the perception of violence protective Strategies ( $P > 0.05$ ). Also, there was no significant difference between the profession and the perception of risk factors of the violence ( $P > 0.05$ ), as seen in Table (4-10).

Table 4-10. Differences between the profession and protective Strategies and Risk factors related to incidents of Workplace violence (N=300)

Variable	Profession		t. test	P. value.
	Nurse	Physician		
	M(SD)	M(SD)		
Perception of participants regarding risk factors of Workplace violence	2.7(.40)	2.6(0.37)	0.325	.745
Perception of participants regarding strategies in preventing violence at the workplace	2.5(0.34)	2.5(.37)	1.680	0.094

**Hypothesis three: There is a significant difference between gender and the perception of violence protective strategies and risk factors for violence against health care workers in emergency departments at  $P \leq 0.05$ .**

The analysis revealed that there was no a significant difference between the gender and the perception of violence protective Strategies ( $P > 0.05$ ). Also, there was no a significant difference between the profession and the perception of risk factors of the violence ( $P > 0.05$ ), as seen in Table 4-11.

Table 4-11. Differences between the gender and protective Strategies and Risk factors related to incidents of Workplace violence (N=300)

Variable	Gender		t. test	P. value
	Male	Female		
	M(SD)	M(SD)		
Perception of participants regarding risk factors of Workplace violence	2.7(0.36)	2.6(0.44)	1.339	.181
Perception of participants regarding strategies in preventing violence at the workplace	2.5(0.34)	2.5(0.40)	0.778	.438

#### **4.7 Qualitative Data Analysis**

Ten volunteer health care professions (five nurses and five physicians) agreed to participate for the interview. Also, this study revealed three themes regarding violence against health care profession in emergency departments (Figure 1):

##### **Theme 1: Types of violence against health workers in emergency department**

Informants expressed the types of violence they faced daily in the emergency departments which can be summarized into verbal violence and physical violence.

##### ***Sub-theme 1: verbal violence***

All participants reported that they had experienced verbal violence from patients. One said: “The most common form of violence that I have experienced is a verbal abuse by the patients.” Also, they experienced violence from family and friends of patients at night shift as one stated: “The most common form of violence I had experienced when I worked on the night shift we received a young man in emergency condition and when I asked the brother to wait outside he started cursing and hitting.”

##### ***Sub-theme 2: physical violence***

One participant out of 10 expressed that that he experienced physical and verbal violence. The participant reported, “I feel anger and jealousy when I look at other children who eat freely.” Another one stated: “When I asked the family to be out to give me chance to do assessment for the patient, one of them kicked and hit me”

##### **Theme 2: Risk Factors of Violence against health workers in emergency department**

The Risk Factors of Violence theme had two subthemes: long wait for treatment and miscommunication.

***Sub-theme 1: long waiting time for treatment***

Most of the informants expressed that the cause of violence was a long waiting time for treatment. One said: “Availability of devices is limited for the purpose to do X-rays or Ct- Scan that makes the patient impatient while waiting.” Another stated, “The main reason is that patients or their families come to the emergency department thinking that they will get the treatment immediately; however unfortunately in fact most of the shifts are very busy and it takes a very long time to get the treatment which makes the patients and their families very angry.” Additionally, one HCW stated: “A long waiting time until a medical treatment given for the patient makes patients and their family angry.”

***Sub-theme 2: attitude and miscommunication***

Many informants reported that miscommunication between health care professionals and patients and their families may result in violence. The HCW stated: “We asked the family to be out, and then the family understand it as drive out that made them angry.” One said, “Patient began to shout when I told him I will assess another patient and then I will return back to him. They have a feeling of being neglected.” Also, one said: “Sometimes there are staff members who have a disrespectful attitude towards patients and they become targets of violence.”

**Theme 3: Protective Strategies to prevent the violence against health workers in emergency department**

The results revealed that Protective Strategies to prevent violence against healthcare workers in emergency department involved the following subthemes: security staff activation, encouraging report of violence, and providing employee training and support.

***Sub-theme 1: security staff activation***

Informants were worried about the security staff. They reported that the security only reacts when incidents happen, which mean they are not present to help prevent it. One of the informants reported: “The security staff is activated once called upon by the staff once things escalate. There is no real proactive protection. I think security staff should patrol the area proactively and seek to prevent violence even before things escalate.” Another informant stated, “The existing strategy is to increase security personnel in addition to a police station in the department in my opinion, a police station in the emergency department.” Also, one said “They have security guard that rarely responds to us and they call the police in the most cases. I consider the most effective method is to call the police because they are the only ones who have the authority and all the powers to deal with any situation.”

***Sub-theme 2: encouraging report of violence***

Informants expressed that encouraging the reporting of violence may prevent occurrence of violence against health workers in emergency department. One said: “The hospital must conduct a risk assessment that will decrease the violence.” Another one said: “Having a clear and time-efficient way of reporting incidents of violence may prevent violence.”

***Sub-theme 3: Providing Employee Training and Support***

Most informants noted the importance of training and support to prevent violence. One said: “Health workers should be trained to identify escalation factors and conduct de-escalation techniques as needed. They should also be trained to communicate well to patients and their families to prevent misunderstanding and assure them of their continuous care.” Another one stated, “Mass media education can help

improve the education of patients and families regarding the realities of ER too to manage their expectations and reduce their anger during crisis.” Also, one stated, “One of the most important strategies is to start with the staff members and support them, while those who experience violence of any kind should sit with the managers in order to support them mentally and thus preserve their work output. I would do trainings for employees on violence and how to deal with it, who should be contacted during a violent incident such as the police or the department manager, and how to get proper compensation and healthcare services if needed.”

## **Chapter Five**

### **Discussion, Recommendations, and Conclusion**

#### **5.1 Introduction**

In this chapter, discussion, conclusions, and recommendations will be explained. The conclusion will be formulated according to the aim of the study. The aim of this research study is to investigate risk factors workplace, prevalence and under reporting of violence against health care workers in emergency departments in Clalit Hospital-Israel and the protective measures that can be applied to decrease the violence rate.

#### **5.2 Discussion**

Workplace violence against healthcare workers in Emergency Departments is a pressing issue, demanding in-depth analysis to comprehend its multifaceted nature. This section delves into various aspects of workplace violence, offering a comprehensive overview derived from both quantitative and qualitative research methods. The study focuses on EDs in three Israeli hospitals—Meir, Bilinson, and Hasharon—providing valuable insights into the risk factors, prevalence, reporting dynamics, and reasons for under-reporting, and protective strategies related to workplace violence. This chapter discusses the quantitative and qualitative data and provides answers to the research questions that investigate the risk factors for workplace violence against healthcare workers in emergency departments in Israeli hospitals.

### 5.2.1 Factors Contributing to Violence

Understanding the human and environmental factors that contribute to violence against healthcare workers in emergency departments is essential. The quantitative data showed that workplace factors, such as frequent direct patient interaction (93.3%), concerns about violence (84.0%), and instances of injuries (30.3%) were prevalent. These factors indicate the inherent risks healthcare professionals face in their daily interactions. Additionally, environmental factors like long waiting times (79.0%) and negative media reporting (62.0%) were identified as significant contributors to workplace violence. These findings emphasize the importance of addressing both workplace and environmental factors to curtail violence effectively.

Furthermore, the qualitative data provided further insights. Healthcare professionals reported two primary types of violence: verbal and physical. Patients, family members, and friends were identified as the sources of these aggressions. Verbal violence was common, and healthcare workers described instances of verbal abuse and threats. Participants shared experiences of facing physical violence, including physical assaults and attacks with various objects. This data reinforces the significance of addressing the human factors, such as patient and family behavior that contribute to workplace violence.

This study replicates the findings of Dopelt et al. (2022), Al Khatib et al. (2023), and d'Ettoire et al. (2018), who confirmed the intersection between unique ED conditions, job types, and patient characteristics that heighten the risk for WPV. Moreover, long waiting time, miscommunication or poor communication between the staff and the patients and their companions, dissatisfaction with ED staff and services because of bureaucracy and poor staff training can lead to anxiety and poor mental state

of patients and their companions (Dopelt et al., 2022; Navas et al., 2022). Certain factors can result in higher WPV risks in EDs. Thus, there is a need to continuously assess and respond to them.

### **5.2.2 Prevalence of Violence**

The study revealed alarming statistics regarding the prevalence of violence. Verbal altercations occurred nearly daily for 34.3% of participants, while a staggering 71.3% experienced physical violence. These numbers underscore the urgency of implementing comprehensive protective strategies and support systems to protect healthcare workers from harm.

The qualitative data complemented the quantitative findings on the prevalence of violence. Healthcare workers shared their experiences of daily verbal altercations and physical violence in emergency departments. Their narratives vividly illustrated the challenging and often dangerous work environment they face. These qualitative accounts corroborated the quantitative data, emphasizing the pressing need for interventions to address this pervasive issue.

Moreover, this study indicated the same results as earlier findings which found that the emergency department is a particularly high-risk location for WPV (Ramacciati et al., 2018; Vrablik et al., 2019). Abdellah and Salama (2017) and Harthi et al. (2020) investigated the prevalence of WPV in EDs and determined a high WPV prevalence in these units. This paper's findings underscore the alarming prevalence of workplace violence against healthcare workers in emergency departments. The data, both quantitative and qualitative, vividly portray the daily challenges and dangers healthcare professionals face. These distressing statistics emphasize the urgent need for

comprehensive protective strategies and support systems to safeguard healthcare workers.

### **5.2.3 Reporting Incidents**

Participants' responses toward reporting violence incidents indicated a willingness to report, with 34.7% agreeing and 12.7% strongly agreeing to report incidents to higher authorities. These responses highlight the importance of establishing clear and efficient reporting mechanisms to empower healthcare workers to report violence without fear of reprisal.

Participants' responses toward reporting violence incidents were confirmed in the qualitative data. Healthcare workers expressed the importance of having efficient reporting mechanisms. They highlighted the need for risk assessment and clear, time-efficient reporting procedures. The qualitative data emphasized that addressing under-reporting requires simplifying the reporting process and ensuring that it does not consume excessive time.

Several studies stressed that the management must be clear with reporting policies regarding WPV (Navas et al., 2022; Oliveira et al., 2020). The rules must include de-escalation procedures as well as reporting guidelines to prevent and resolve WPV as it arises (Emam et al., 2018; Oliveira et al., 2020). Consistent with prior research, it is evident that healthcare management must establish clear reporting policies that encompass de-escalation procedures and reporting guidelines to effectively prevent and address workplace violence.

#### **5.2.4 Reasons for Under-Reporting**

The study delved into the reasons behind violence under-reporting. Notably, 46.3% of participants cited the time-consuming process as a significant barrier to reporting. Addressing this challenge is critical to encouraging timely reporting and ensuring incidents are properly documented and addressed.

The qualitative data provided additional insights into the reasons for under-reporting. The narratives highlighted the perception that the reporting process was often time-consuming. This finding aligns with the quantitative results and underscores the need to streamline reporting procedures to encourage healthcare workers to report violence incidents promptly.

These findings confirm past studies about the causes of under-reporting. Several studies noted that under-reporting of WPV by HCWs tend to happen due to lack of awareness of WPV reporting tools and rules, long process of reporting, thinking that WPV is the norm, and reporting may negatively affect their job performance rating (Al- Maskari et al., 2020; Ashton et al., 2018; Ramacciati et al., 2018; Richardson et al., 2018). Thus, this study aligns with previous research, which highlighted factors contributing to under-reporting, such as a lack of awareness about reporting tools and rules, the lengthy reporting process, the normalization of workplace violence, and concerns about its impact on job performance ratings. Responding to these barriers is crucial for fostering a safer environment and encouraging healthcare workers to report workplace violence promptly.

### 5.2.5 Protective Strategies

Examining protective strategies, the study found strong legislative measures (71.3%) to be highly valued, indicating the need for robust legal frameworks to deter potential perpetrators. Encouragingly, participants recognized the importance of employee training, de-escalation techniques, and communication skills (such as mass media education) to prevent misunderstandings and reduce anger during crises. Security staff activation, encouraging reporting, and providing employee support were identified as essential strategies, emphasizing the multifaceted approach needed to create safer environments for healthcare workers.

The qualitative data shed light on protective strategies to mitigate workplace violence. Healthcare workers expressed the need for more proactive security staff, advocating for patrols to prevent violence before it escalates. They also stressed the importance of employee training to identify escalation factors, de-escalation techniques, and effective communication with patients and their families. These insights align with the quantitative data on the importance of strong legislative measures, employee training, and security staff activation.

Past studies also noted the suggested protective measures. Several authors emphasized the importance of organization rules and laws to prevent and respond to WPV (Emam et al., 2018; Oliveira et al., 2020). Moreover, recent studies underscored that the management must equip staff with related WPV management training, such as an educational toolkit for violence prevention against HCWs, de-escalation and communication skills in EDs, and self-defense (Anyanwu, 2021; d’Ettorre et al., 2018; Navas et al., 2022). Other researchers learned that adding security or ensuring the visibility of security measures can deter violence (Bingöl & İnce, 2021; Navas et al.,

2022). The findings replicated the past studies but with emphasis also on laws that punish perpetrators.

### **5.2.6 Testing Study Hypotheses**

Our hypotheses centered on associations and differences between demographic data, professions, and gender regarding perceptions of violence protective strategies and risk factors. Notably, we found significant relationships between age, work experience, and years of experience after completing MBBS/BSc with perceptions of protective strategies and risk factors. Being younger and having less work experience increased the risk of WPV, as noted in the studies of Shafran-Tikva et al. (2017), Abdellah and Salama (2017), and Sahiran et al. (2022). Furthermore, Shafran-Tikva et al. (2017) who determined profession-WPV connections, where nurses were most at risk and had perceptions of protective strategies and risk factors. However, no significant differences were observed between professions or gender in relation to perceptions of violence protective strategies and risk factors, contrary to the findings of Emam et al., (2018) and Oliveira et al. (2020) who found gender differences.

The quantitative and qualitative findings collectively underscore the prevalence and complex nature of workplace violence against healthcare workers in emergency departments. The insights garnered through this study should inform future interventions aimed at preventing violence, streamlining reporting processes, and fostering a safer environment for healthcare professionals. Addressing these issues is crucial not only for the well-being of healthcare workers but also for the quality of care provided to patients in emergency departments.

### 5.3 Conclusion

This research examined workplace violence against healthcare workers in Emergency Departments (EDs) in three Israeli hospitals—Meir, Bilinson, and Hasharon—and has yielded valuable insights through both quantitative and qualitative research methods. By merging these findings, there is now a more holistic understanding of the risk factors, prevalence, reporting dynamics, reasons for under-reporting, and protective strategies, shedding light on the multifaceted nature of this critical issue.

The ED has risk factors and high WPV prevalence. The quantitative data identified high prevalence of violence, with a substantial number of healthcare workers reporting frequent verbal altercations (34.3%) and physical violence (71.3%). These statistics underscore the urgent need to address the pervasive issue of workplace violence in EDs. Complementing this, the qualitative narratives brought the human aspect into focus, emphasizing that both verbal and physical violence are daily occurrences, often instigated by patients, family members, and friends. These experiences underscore the importance of understanding both workplace and human factors contributing to violence.

Furthermore, reporting and under-reporting are also confounded by issues. Participants' responses regarding reporting incidents were echoed in both the quantitative and qualitative data, revealing a willingness to report, provided efficient reporting mechanisms are in place. However, both data sources highlighted the perception that the reporting process is often time-consuming, serving as a significant barrier to timely reporting. These combined findings emphasize the necessity of

streamlining reporting procedures to encourage healthcare workers to report incidents promptly.

This research also reveals insights on protective strategies. In examining protective strategies, the quantitative data identified strong legislative measures as the most highly valued strategy (71.3%), emphasizing the importance of a robust legal framework in deterring potential perpetrators. The qualitative data reinforced the significance of these measures but also underlined the need for more proactive security staff and employee training. Healthcare workers stressed the importance of security staff activation to prevent violence proactively, as well as the need for employee training, which includes de-escalation techniques and effective communication. These insights reiterate the multifaceted approach required to create safer environments for healthcare workers.

Moreover, the hypotheses focused on exploring connections and distinctions related to demographic data, professions, and gender in relation to perceptions of strategies for preventing violence and risk factors. Notably, the results showed meaningful associations between age, work experience, and the number of year's post-completion of MBBS/BSc with the way individuals perceived protective strategies and risk factors. Specifically, being younger and having less work experience appeared to increase the susceptibility to workplace violence. However, in contrast to the findings of Emam et al. (2018) and Oliveira et al. (2020), this study did not observe any significant variations among professions or genders concerning perceptions of violence protective strategies and risk factors.

The results of the quantitative and qualitative research provide a comprehensive view of workplace violence against healthcare workers in EDs. The prevalence and

complexity of this issue underscore the critical importance of addressing both workplace and human factors to create safer working environments, protect healthcare professionals, and ensure the highest quality of care for patients.

#### **5.4 Strengths of the study**

This study is considered the first mixed method approach about violence which is the main strength of this study. Also, conducting qualitative studies could provide valuable insights into the underlying reasons and perceptions of violence, facilitating the development of targeted preventive measures.

#### **5.5 Limitations of the Study**

Despite using MMR to address the weaknesses of a qualitative- or a quantitative-only research, this study still contains limitations that should be considered when interpreting the results.

**First** is limited generalizability because the findings are specific to the three hospitals in Israel and may not be representative of the broader healthcare landscape in the country or internationally, due to the different dynamics related to workplace violence.

**Second** is sampling Bias where the quantitative and qualitative research participants may not be sufficient to fully capture the diversity of experiences within the healthcare worker population. There could also be selection bias in who chose to participate, potentially skewing the results. Additionally, healthcare workers who have experienced violence may have been more motivated to participate, affecting the prevalence rates.

**Third** is self-report bias, where the data collected through surveys and interviews can be subject to recall bias and social desirability bias. Participants may not accurately

recall or may under-report incidents of violence, which can affect the accuracy of prevalence estimates and reasons for under-reporting.

**Fourth** is the cross-sectional nature of this research where it is done only at a single point in time. Workplace violence is a dynamic issue, and the study is not able to capture changes or trends over time.

**Fifth** is the interviewer bias, where the collection and the interpretation of participants' responses may be subject to the interviewer's interpretation.

**Sixth** is the context, as this study was conducted in Israel, and language and cultural factors may influence participants' responses and experiences. These findings might not be directly applicable to healthcare settings in different cultural contexts. While this mixed-methods study provides valuable insights into workplace violence against healthcare workers in Israeli EDs, these limitations should be considered when interpreting and applying the findings. Further research and studies in diverse settings are needed to expand our understanding of this critical issue.

## **5.6 Recommendations**

The identified problems and protective mechanisms from this study resulted in the creation of recommendations across stakeholder groups, including hospitals, ED HCWs, lawmakers, and researchers.

For hospitals, the following are the recommended measures to prevent and respond to WPV in EDs:

**1. Efficient Reporting Mechanisms:** Hospitals should prioritize the implementation of efficient and user-friendly reporting mechanisms. Hospitals should develop user-friendly reporting systems that are easily accessible to healthcare workers. These

systems should be intuitive, with clear steps for documenting incidents. User-friendliness reduces barriers to reporting, encouraging healthcare workers to share their experiences.

Moreover, hospitals must commit to a timely response to reports. Healthcare workers need assurance that their reports will lead to action. Prompt investigations, interventions, and feedback are essential to building trust in the reporting system. Furthermore, continuous review and improvement of the reporting system are necessary. Hospitals should routinely assess the effectiveness of their reporting mechanisms, incorporating feedback from healthcare workers because this process allows for ongoing refinement and enhancement of the system.

Likewise, hospitals should invest in education and awareness campaigns to inform healthcare workers about the reporting mechanisms. These campaigns can clarify the importance of reporting, provide guidance on how to use the system, and reassure healthcare workers of the hospital's commitment to their safety. Efficient reporting mechanisms not only encourage healthcare workers to report incidents but also contribute to a culture of safety within the healthcare environment. By implementing these measures, hospitals can demonstrate their dedication to addressing workplace violence and fostering an environment where healthcare workers feel empowered to report incidents without hesitation.

**2. Proactive Security Measures:** Hospitals should conduct regular security assessments and invest in proactive security measures to create safer working environments for healthcare workers. This includes security personnel patrolling areas to prevent violence before it escalates. Furthermore, maintaining a visible security presence in key locations within the emergency department can serve as a deterrent to

potential perpetrators. This presence can be achieved through uniformed security personnel, surveillance cameras, and well-marked security stations.

Moreover, the security team and hospitals must develop clear and well-communicated incident response protocols for security personnel. These protocols should outline the steps to take when violence seems to be brewing and when it occurs, ensuring a swift and coordinated response that minimizes harm. Proactive security measures create a safer working environment for healthcare workers and promote a culture of safety within the healthcare facility. By implementing these measures, hospitals can significantly reduce the risk of workplace violence and better protect the well-being of their staff.

**3. Employee Training Programs:** Hospitals should offer comprehensive employee training programs that include de-escalation techniques and effective communication skills. They should develop a comprehensive training curriculum that covers various aspects of workplace violence protective and response, such as recognizing early signs of potential violence, effective communication and de-escalation techniques, and procedures for reporting incidents. Furthermore, hospitals should make these training programs mandatory for all healthcare workers in the emergency department. Mandatory participation ensures that all staff members are adequately prepared to handle situations involving workplace violence.

Moreover, the training must incorporate realistic simulation exercises into training programs. These exercises allow healthcare workers to practice de-escalation techniques and response procedures in a controlled environment, providing hands-on experience in managing volatile situations. Additionally, cultural competency training must be included in the curriculum. Healthcare workers should be trained to understand and

respect diverse cultural backgrounds and how they may impact perceptions of healthcare and response to treatment. Another important recommendation is to recognize and incentivize healthcare workers who actively engage in training and demonstrate their commitment to a safe working environment. Recognition can serve as a motivator for continued participation. These programs can help healthcare workers better handle challenging situations and reduce the risk of violence.

**A. For Emergency Department Healthcare Workers**, the following are recommended to them. Healthcare workers should actively collaborate with their respective hospitals to report workplace violence incidents. Reporting is a crucial step in addressing the issue effectively. Moreover, healthcare workers should participate in workplace violence protective training programs. These programs can enhance their understanding of de-escalation techniques and improve their communication skills to prevent misunderstandings. Additionally, HCWs must actively provide feedback to the management regarding WPV policies and mechanisms and give recommendations as needed to improve the latter further.

In connection, since the HCWs mention regulations, lawmakers should enact and enforce strong legislative measures that provide significant punishment for offenders. Such policies will act as a deterrent and send a clear message that workplace violence will not be tolerated. Moreover, these policies must be placed visibly in EDs for patients and their companions to know and observe. By implementing and visibly displaying these policies within emergency departments, patients and their companions will be made aware of the commitment to maintaining a safe and violence-free environment for healthcare workers. This proactive legislative approach is essential in sending a clear message that workplace violence will not be tolerated, and it will

contribute significantly to creating a safer working atmosphere for healthcare professionals.

**b. For researchers,** they can build on this study or pursue new questions. Researchers should expand their studies to include a more diverse range of hospitals and healthcare settings. This will improve the generalizability of findings and provide a more comprehensive understanding of workplace violence in different contexts. Additionally, researchers should conduct more extensive and longitudinal studies on workplace violence. Long-term data collection can track changes and trends over time, allowing for the assessment of the effectiveness of interventions. This approach will contribute to the development of evidence-based practices that can better protect healthcare workers and enhance the quality of care provided in healthcare settings. In addition, more studies are required on the causes of workplace violence from patients and their families' perspective

Addressing workplace violence against healthcare workers in emergency departments is a complex challenge that requires a collaborative effort. By implementing these recommendations, hospitals, healthcare workers, lawmakers, and researchers can work together to create safer environments, protect healthcare professionals, and ensure high-quality care for patients. Moreover, through continued research and adaptation of strategies, these stakeholders can effectively respond to the evolving challenges of workplace violence in emergency departments. Persistent research and adaptation of strategies can altogether respond to the evolving challenges of ED workplace violence.

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## Appendix

### Appendix A: Survey Questionnaire

**Title of Study: Violence against health care workers in Emergency Departments in Israel, Risk factors and protective measures: A Mixed methods design**, Fulfillment of Ph.D. Nursing degree.

This paper aims to investigate the violence risk factors and protective strategies against health care workers in emergency departments in Israeli hospitals.

The researcher Ibrahim Abu Ras is a PhD candidate.

Your responses will be kept strictly confidential, and any identifying information will be anonymized to ensure confidentiality.

Please be assured that the data collected will be used solely for academic purposes and will be used in aggregate form to protect your privacy. Your identity will remain confidential.

Your involvement is of utmost importance to the success of this research, and I sincerely appreciate your willingness to consider participating. If you have any questions or concerns regarding this study or your participation, please do not hesitate to contact me.

#### **Part one: Demographic Characteristics and Experience of Workplace Violence**

- 1) Age: \_\_\_\_\_ Years
- 2) Gender:             M                     F
- 3) Profession-:      Physician         Nurse
- 4) Education Level:  Diploma         BA         Master
- 5) Marital status:    Married             Single     Divorce
- 6) Work experience: -----Years

- 7) Number of years of experience after completion of MBBS/BSc: \_\_\_\_\_
- 8) Do you have direct interaction with patients during their routine work? [  ] Yes [  ]  
No
- 9) Are you Worried about workplace violence? [  ] Yes [  ] No
- 10) Is there any procedure for reporting workplace violence? [  ] Yes [  ]  
No
- 11) Is there any encouragement to report workplace violence? [  ] Yes [  ]  
No
- 12) Did you experience any physically attacked in their workplace? [  ] Yes [  ]  
No
- 13) Did you experience verbally abused or bullied? [  ] Yes [  ] No
- 14) Did you experience abuse by patients or relatives of patients?
- 15) Did you ask help from nursing union or police? [  ] Yes [  ] No
- 16) Did you got injured as a result of violence? [  ] Yes [  ] No
- 17) Did you receive treatment as a result of violence? [  ] Yes [  ] No
- 18) Could the violence be prevented? [  ] Yes [  ] No

## Part Two: Questionnaire for Workplace Violence in Healthcare Settings

<b>Section A- Forms of Violence: This domain intends to assess the frequency of various forms of violence experienced by healthcare workers in healthcare settings. Mark the most appropriate option.</b>		
<b>A1: How often do you experience verbal altercations (e.g., threats, abuse, exaggerated arguments, offensive comments etc.) at your workplace?</b>		
1. Nearly daily	2. About once a week	3. About once a month
4. About once every six months		5. About once a year or less
<b>A2: How often do you experience physical violence (e.g., slapping, beating, thrashing, vandalizing, attack with weapons etc.) at your workplace?</b>		
1. About once in a month or more	2. About once every six months	3. About once a year
4. Less than once a year		5. Never
<b>Section B - Reporting of Incidence: This domain assesses how comfortable or confident the workers are about reporting the incidence of violence to the higher authorities.</b>		
<b>B1: I would be comfortable in reporting the episode of violence at my workplace to competent authorities.</b>		
1. Strongly disagree	2. Disagree	3. Neutral
4. Agree	5. Strongly agree	
<b>The statements given below (B2-B7) are some of the reasons why the incidences of violence are not reported to the authorities. Select the most appropriate choice in your opinion. To what extent do these following reasons lead to under-reporting?</b>		
<b>B2: Felt ashamed of reporting.</b>		
1. Significantly	2. Somewhat significantly	3. Insignificantly
<b>B3: A belief that no action will be taken against the perpetrator.</b>		
1. Significantly	2. Somewhat significantly	3. Insignificantly
<b>B4: Lack of organizational support.</b>		

1. Significantly	2. Somewhat significantly	3. Insignificantly
<b>B5: Lack of provision to report such incidences.</b>		
1. Significantly	2. Somewhat significantly	3. Insignificantly
<b>B6: The process was time-consuming.</b>		
1. Significantly	2. Somewhat significantly	3. Insignificantly
<b>B7: Fear that the appraisal or promotion avenues will be affected.</b>		
1. Significantly	2. Somewhat significantly	3. Insignificantly
<b>Section C- Mitigation Strategies: This domain focuses on the strategies that can be useful in preventing episodes of violence at the workplace. Statements given below focus on the strategies that can be useful in preventing the episodes of violence at the workplace. Select the most appropriate choice in your opinion. To what extent do the following measures will be useful in controlling WPV in healthcare settings?</b>		
<b>C1: Controlling the number of attendants visiting the hospital with a patient</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>C2: Educating patients and attendants about limitations of medical sciences and available infrastructure</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>C3: Regular training of healthcare workers regarding soft skills (communication skills, breaking bad news, counselling skills, problem-solving skills)</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>C4: Self-defense training of Health care workers</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>C5: Improving healthcare facilities (like doctor-patient ratio, population-bed ratio)</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>C6: Improving facilities within a hospital (like availability of medicines and diagnostic tests)</b>		

1. Very useful	2. Somewhat Useful	3. Not useful
<b>C7: Improving Infrastructure facilities (like installation of CCTVs, metal detectors, alarm system)</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>C8: Active complaint redressal system</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>C9: Strong legislature measures like provision of significant punishment for offenders</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>C10: Unbiased media reporting</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>C11: Sensitizing politicians and public figures not to give immature/negative statements regarding healthcare workers</b>		
1. Very useful	2. Somewhat Useful	3. Not useful
<b>Section D- Risk factors related to incidents of Workplace violence: This domain assesses the various risk factors associated with violence in healthcare settings. What is your opinion regarding the importance of the following parameters as a reason for WPV in a healthcare setting?</b>		
<b>D1: Unrealistic expectations of patients/attendants</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D2. Inappropriate knowledge about the disease/health condition</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D3: Poor communication skills</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D4: Lack of resources (equipment and medicines, doctor-patient ratio)</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D5: Overcrowding</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D6: Long waiting time</b>		

1. Very important	2. Somewhat important	3. Not important
<b>D7: Inadequate security arrangements</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D8: Inadequate action on receiving complaints of WPV</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D9: Lack of respect for the authority of doctors/healthcare workers</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D10: Negative and inappropriate media reporting</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D11: Lack of the provision of harsh punishment for aggressors/offenders</b>		
1. Very important	2. Somewhat important	3. Not important
<b>D12: Lack of redressal system</b>		
1. Very important	2. Somewhat important	3. Not important

**Qualitative Part**

- **What is the most common form of violence that you have experienced?**

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- **In most violent incidents you experience, what are the main reasons?**

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- **Which violence prevention strategy do you consider most effective and why do you consider it so?**

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## IRB Approval Letter

**Study title:** "Violence against health care workers in Emergency Departments in Israel, risk factors and protective measures: A mixed methods design".

**Submitted by:** Ibrahim Abd Alkariem Ahmad Abu Ras

**Date received:** 12<sup>th</sup> May 2023

**Date reviewed:** 12<sup>th</sup> June 2023

**Date approved:** 7<sup>th</sup> September 2023

Your Study titled "Violence against health care workers in Emergency Departments in Israel, risk factors and protective measures: A mixed methods design" with archived number 2023/C/111/N was reviewed by the Arab American University IRB committee and was approved on the 7<sup>th</sup> September 2023.

Ahmad Ayed, PhD  
 IRB Committee Member  
 Arab American University of  
 Palestine

Sajed Ghawadra, PhD  
 IRB Committee Vice-chairman  
 Arab American University of  
 Palestine

Reham Khalaf-Nazzal, MD,  
 PhD  
 IRB Committee Chairman  
 Arab American University of  
 Palestine

### General Conditions:

1. Valid for one year from the date of approval.
2. It is important to inform the committee with any modification of the approved study protocol.
3. The committee appreciates a copy of the research when accomplished.



لجنة أخلاقيات البحث العلمي في الجامعة العربية الأمريكية

IRB at Arab American University



Rabin Medical Center  
Helsinki committee  
Phone no. 972 3 9377218

31.07.2023

To whom it may Concern:

This is to confirm that the work on "Violence against health care workers in emergency Departments in Israel, Risk factors and protective measures: A Mixed methods design", does not require the approval of the institution ethics committee.

Meital Buskila  
Executive Administrative  
Director of IRB committee  
Rabin Medical Center

מיטל בוסקילה  
ועדת הלסינקי  
מ.ר. רבין - מיתוב לעיסון

## المُلخَص

### مقدمة

يشكل العنف في مكان العمل ضد العاملين في مجال الرعاية الصحية في أقسام الطوارئ تهديدًا خطيرًا لسلامتهم ورفاهيتهم ويمكن أن يؤدي إلى عواقب وخيمة على الضحايا.

### الهدف من الدراسة

الهدف من هذه الدراسة البحثية هو التحقيق في عوامل الخطر في مكان العمل، وانتشار العنف ضد العاملين في مجال الرعاية الصحية ونقص الإبلاغ عنه في أقسام الطوارئ في مستشفى كلاليت-إسرائيل والتدابير الوقائية التي يمكن تطبيقها لتقليل معدل العنف.

### طُرق الدراسة

استخدم الباحث التصميم المقطعي منهجًا بحثيًا مختلط الأساليب. أجريت هذه الدراسة البحثية في مستشفيات مائير وبيلسون وهاشارو في إسرائيل لتحديد العوامل المساهمة، وتقييم مكان العمل والظروف البيئية الملائمة، واستكشاف استراتيجيات الحماية، وتقييم تصورات عوامل الخطر. عينة ملائمة مكونة من 300 عامل في قسم الطوارئ للمسح و10 عاملين للمقابلات.

### نتائج الدراسة

بينت الدراسة تعرض حوالي 34.3% من المشاركين لمشاجرات لفظية يومية، وأفاد 71.3% أنهم تعرضوا للعنف الجسدي في أقسام الطوارئ. السبب الرئيسي لعدم الإبلاغ عن العنف، بحسب 46.3% من المشاركين، هو طول وقت الإبلاغ. وجد التحليل أن 79.0% من المشاركين يعتبرون أن وقت الانتظار الطويل هو عامل الخطر الأكثر أهمية للعنف في مكان العمل. في المقابلات، كان العنف اللفظي والجسدي هو العنف الأكثر شيوعًا في مكان العمل، وكانت عوامل الخطر الرئيسية للعنف في مكان العمل هي فترات الانتظار الطويلة للعلاج وانقطاع الاتصالات، وتضمنت استراتيجيات الحماية لمنع العنف ضد المتخصصين في الرعاية الصحية في أقسام الطوارئ تفعيل موظفي الأمن، وتعزيز الإبلاغ عن حوادث العنف، وتقديم التدريب والدعم للموظفين.

## خاتمة

أشارت الدراسة إلى ارتفاع معدل انتشار العنف، حيث أبلغ عدد كبير من العاملين في مجال الرعاية الصحية عن مشادات لفظية متكررة وعنف جسدي، مؤكدة أن العنف اللفظي والجسدي حدثان يوميًا، وغالبًا ما يحرض عليهما المرضى وأفراد الأسرة والأصدقاء. كما سلطت الدراسة الضوء على التصور بأن عملية الإبلاغ عن العنف غالبًا ما تستغرق وقتًا طويلًا، مما يشكل عائقًا كبيرًا أمام الإبلاغ في الوقت المناسب. علاوة على ذلك، أوضحت الدراسة التدابير التشريعية القوية باعتبارها استراتيجية الحماية الأكثر قيمة. الكلمات المفتاحية: العنف في مكان العمل، قسم الطوارئ، عوامل الخطر والتدابير الوقائية من العنف .