# Individual and collective exposure to workplace violence of pre-hospital Emergency Care providers in urban Cape Town

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**DECLARATION**

I, Caroline Shirley Maake, Student Number: 211181943 declare that this dissertation: “Individual and collective exposure to workplace violence of pre-hospital Emergency Care providers in urban Cape Town” is my own work and that all the sources that I have used are indicated and acknowledged by means of complete references.

05/05/2020

**Signature** **Date**

**ACKNOWLEDGEMENTS**

I would like to thank the almighty God for granting me the strength and clarity to complete my Master's in Emergency Medical Care thesis.

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## DEDICATION

This research is dedicated to all EMS personnel in Cape Town and the Western Cape Province, South Africa.

## ABSTRACT

**Background:** Interpersonal violence is an act committed by individuals but is an attribute of society; thus, interpersonal violence is considered a social construct. Such violence is nuanced when it occurs in the course of one's work. Workplace violence is a worldwide phenomenon that is found in South African healthcare where it threatens the safety of healthcare providers at their workplace. Violence epidemiology shows South Africa to be among the most violent countries. Attacks on ambulance personnel and threats to service delivery appear with increased frequency, yet there is still a paucity of research evidence of this manifestation of interpersonal violence.

**Methods:** The study followed a quantitative, cross-sectional, descriptive design. Quantitative research involved numerical analysis of data by means of a structured, self-administered and validated questionnaire instrument. **Results:** Of 254 emergency care providers that were invited to participate, 146 responded (57.6%). The majority of participants (81%; n=119) experienced at least one incident of workplace violence during the 12 month period preceding the survey. The dichotomy of workplace violence is physical (n=42; 29%) and non-physical violence (53%; n=77). The latter includes verbal abuse (77%), sexual harassment (26%), bullying (37%) and racial harassment (47%). Major perpetrators of physical violence (Type I) are the general public and non-physical violence (Type II) was perpetrated by patients (n=87, 60%) and patients friends and relatives (n=83; 57%). The majority of respondents (n=102, 69%) were very concerned about their exposure to violence and violence risk which carries a concomitant risk of negative physical and psychological effects. Such victimology may affect the victim's family and friends, as well as the organisation.

**Conclusion:** The self-reported exposure to workplace violence is prevalent in the Cape Town Emergency Medical Service. Understanding the nature and extent of workplace violence will likely enable problem-specific solutions to be derived

**Key words:** W*orkplace Violence, Violence against Health Care, Workplace Aggression, Verbal Attacks, Bullying, Sexual harassment, Perpetrators of violence*

## ABBREVIATIONS

**AEA**: Ambulance Emergency Assistant
**ALS**: Advanced Life Support
**BAA**: Basic Life Support
**CCA**: Critical Care Assistant
**CPUT**: Cape Peninsula University of Technology
**EC Providers**: Emergency Care providers who respond to the ill and injured with the aim of proving emergency care
**ECP**: Emergency Care Practitioner (protected term)
**EMS**: Emergency Medical Services
**HPCSA**: Health Professions Council of South Africa
**SAPS:** South African Police Service
**WCG:** Western Cape Government
**WPV**: Workplace Violence

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## CHAPTER 1- INTRODUCTION

South Africa is among the most violent countries when its violence epidemiology is compared to that of other countries. The high levels of violence can be attributed to factors like subcultures and criminality of armed violence, inequality, unemployment and marginalization, and the normalization and tolerance of violence (Abrahams, 2010; Altbeker, 2007). Interpersonal violence is an act committed by individuals or by groups of individuals and is an attribute of society. In other words, violence is a social construct (Curbow, 2000; Anderson and Richards, 2004, Dussich, 2006). Violence has been found to occur in South African healthcare (which is also a social construct) where it threatens the safety of healthcare providers at their workplace (Steinman, 2008; Kajee-Adams and Khalil, 2010; Kennedy and Julie, 2013). Workplace violence is a worldwide phenomenon that has gained interest from various international researchers (Kaplan *et al*, 2013; Chappell and Di Martino, 2006; National Institute for Occupational Safety and Health [NIOSH], 2002; Leblanc and Kelloway, 2002).

The above societal context of violence provides a backdrop for the researcher to conduct this research project titled: Individual and collective exposure to workplace violence of pre-hospital providers in urban Cape Town[1]. The study explores the veracity of the threat to healthcare providers in the prehospital Emergency Medical Service setting, with the aim of identifying the prevalence of violence, commonality in violence perpetration and the reporting nuances of the violent incidences.

[1] Cape Town, as referred to in this study forms part of the City of Cape Town municipality and is approximately 2461 square kilometres in area with an average population density of 1530 people per square kilometre. The EMS is a provincial government function whilst the addressing of the social determinants of violence are both a local government and provincial government function.

## 1.1. Background of the Problem

Emergency Care (EC) providers, as *bona fide* health care professionals, have to demonstrate a professional identity, even in the midst of occupation-related violence. To achieve this, formal occupational research in the Emergency Medical Services (EMS) working environment has to be conducted (Campeau, 2008). Against this backdrop of professionalization, this research focused on individual and collective exposure to workplace violence of EC providers in urban Cape Town.

Various survey results demonstrate that violent crimes occur in both the public and private spaces of the society and it does not discriminate against race, gender, and age (Abrahams, 2010, Anderson and Richards, 2004). The surveys also reveal that violence can be perpetrated by friends, family, caregivers, peers, strangers, and educators. The occurrence of violence in the workplace manifests in two subcategories, namely psychological (non-physical) and physical violence (World Health Organisation, 1995; Steinman, 2003).

The World Health Organisation (WHO, 1995) defines violence as the intentional use of physical power, force and/or threats, against an individual or group of people that results in injury and/or a high probability of deprivation, mal-development, psychological harm, or death. Altbeker (2007) states that as more people commit violent criminal acts the more violence feeds on itself, implying a self-perpetuating cycle and resulting in violence being considered *more* acceptable[2] within society. According to the Western Cape Government (2012), gangsterism and drug and alcohol abuse are highly prevalent issues in the Western Cape Province. The occurrence of healthcare workplace violence can be attributed to the infiltration of societal violence into the healthcare setting (Moffat, 2002).

[2] The acceptability of violence relates to its normative. If violence is normalized in society, it is seen to be more acceptable in that society.

Steinman[3] (2003) defined workplace violence in the South African healthcare context as "…the occurrences of incidents where the employee(s) are physically or emotionally abused, threatened, harassed or assaulted in situations related to their work, including travelling to and from work, involving a clear or unclear challenges to their safety, health or well-being…". Workplace violence is a serious concern for healthcare workers in general but is a particular concern for EC providers as a result of their increased exposure to members of the community. Multiple studies into healthcare workplace violence show that workers are regularly subjected to physical and verbal abuse perpetrated by both patients and their visitors (Anderson and Richards, 2004; Chappell and Di Martino, 2006; Kennedy and Julie, 2013; Kaplan, *et al*., 2013).

Healthcare workplace violence might not be taken seriously and can result in workplace violence being viewed as an "acceptable job hazards" (Tintinalli, 1993; Pozzi, 1998, Curbow,2000; Boyle *et al*.,2007; Govender, *et al*., 2012; Holgate, 2015; Pourshaikhian, *et al*., 2016). Healthcare institutional culture appears to not recognize or acknowledge violence towards healthcare providers thus healthcare workplace violence may be seen as a normative occurrence (Grange, *et al*., 2002; Suserud, *et al*., 2002). Normalisation of violence has the potential to undermine reporting and intervention.

The Medical Research Council (MRC) presented a draft paper from data collected in the nursing department of hospitals in Cape Town in the Western Cape (MRC, 2001). The research included 29 registered nurses working at a tertiary hospital in the trauma and emergency department. The research showed that 92.3% (n = 27) of participants in the trauma and emergency department reported being verbally abused and 60% (n = 17) of participants have frequently dealt with workplace crime and violence; 36, 4% (n = 11) had occasionally been threatened with assault and while verbal abuse was frequent/common, and crime concerns and incidents were rife. Personnel in the trauma and emergency department, largely receive patients

[3] Professor Susan Steinman is a researcher based in South Africa known for her international research into bullying and workplace. She contributed towards making the workplace a trauma free and equal environment by implementing programs, which focused on ridding the workplace of physical and emotional violence.

from EC providers, thus an increased probability of exposure to workplace violence may be experienced by EC providers.

Steinman (2003) surveyed 1018 (n) South African healthcare personnel and stakeholders, the study showed that crime and violence have a negative impact on service delivery in the healthcare setting, where 61,1% (n = 622) of respondents frequently deal with crime and violence in the workplace; 42% (n = 428) perceived workplace safety as not being a priority for the Provincial Department and/or city council; 76.1% (n = 775) of respondents did not receive training on diffusing or aggressive behaviour and 63.2% (n = 643) of respondents were unclear about the availability of counselling services for workplace-related violence. This is of interest as violence has long been a feature of the health-care workplace, although this sample only included n=10 (1%) prehospital providers in the public service of Gauteng.

EMS is a system that organizes the majority of features of medical care provided to patients in the pre-hospital setting and is also viewed as the foundation for effective and efficient disaster response and management of mass casualty incidents, therefore patients requiring “pre-hospital care” are intended to be transported to a hospital for definitive treatment (Mehmood *et al*, 2018). EC providers practice in the streets and on chaotic scenes, with often uncontrolled and dangerous elements (Mechem, Dickinson and Shofer, 2002, Hörberg, 2019). The duty of the EC provider is to provide adequate care for the ill and injured from the scene to the hospital. The pre-hospital setting presents unknown risks as EC providers routinely respond to violent scenes.

Violence towards EMS providers is not a ‘new’ phenomenon and was first recognized as an occupational hazard towards EC providers by Tintinalli, through the distribution of a survey to he EMS personel in Pittsburgh, Pennsylvania, in June 1992. EC providers are the only medical personnel in the healthcare sector who are exposed to violent scenes in the community and they have a four-time probability of being assaulted while providing patient care when compared to firefighters (Boyle *et al*., 2007). According to Maguire and Walz (2004), the Department of Homeland Security found that EMS providers were subjected to varying levels of violence whilst

retrieving seriously ill and/or injured patients. Suserund, Johansson and Blomquist (2002) show a high prevalence of violence among Swedish EC providers. Gleby (2018), found that increased waiting times occurred in areas that the Western Cape Emergency Medical Services declared as “no-go” or “hot” zones and were later classified as red zones[4]. In 2017, an eight (8) year old boy died whilst waiting for an ambulance which was attacked and, subsequently delayed, en-route to the scene (IOL, 2017).

All emergency personell endure a level of risk that may be higher than the civilian population, but levels of risk vary among them. Mechem, *et al*. (2002), in a descriptive study design in the United States of America, (n = 110), found that EC providers are four times likely to be attacked during patient management when compared to fire-fighters (Pourshaikhian, *et al*., 2016). Rural practice has also not been found to be protective of violence against EMS providers. The Boyle, *et al*., (2007) survey (n = 160) of rural Australian paramedics showed that 60% (n = 96) of EC providers have experienced pre-hospital workplace violence in the form of physical abuse, whilst 21% (n = 34) to 78% (n = 125) of EC providers experienced verbal abuse. There is lack of scientific literature found to date that discusses the prevalence of workplace violence among South African EC providers, and nor is there empirical evidence demonstrating the occurrence of workplace violence towards the EC providers in Cape Town Metropole.

Anecdotal evidence of workplace violence has been published on various mediums and constitutes non-research contextual evidence where three notable incidents occurred, firstly an ambulance crew held at gunpoint, assaulted and robbed while providing patient care in Khayelitsha (Ramphele, 2019). Secondly, emergency care personnel were shot and injured during an attack in Inanda, Phoenix, Cardham in Durban Kwazulu Natal (Zululand Observer, 2019). Thirdly, police officers had to

[4] “No-go”, “hot” zones or “red” zones have the purpose of identifying areas of heightened risk, but may have the consequence of delaying service delivery as the EMS will only enter such areas with a police escourt.

escort paramedics in Alexandra, Johannesburg inner city, Matholeville, Doornfontein, Orange Farm and Cosmo city (Medical brief, 2019).

### 1.2. Statement of the Problem

The WC EMS has three sub-divisions, namely ambulance services, rescue services and inter-facility patient transportation. The EMS is made up of approximately 2500 staff members. EC providers operate the ambulances and mainly work in pairs per ambulance where they provide basic to advanced life support care based on their training and registration with the HPCSA. A two-person crew works 12-hour shifts for an average of fifteen (15) shifts per month (Pelzer, Penn and Watermeyer, 2014; Western Cape Government, 2011). The ambulance service in urban Cape Town covers four specific areas which are further divided into four divisions, namely the northern division, southern division, eastern division and western division[5].


Figure 1: Map of Western Cape showing Cape Town with the four Metropolitan divisions

Ambulances have challenges reaching informal and agricultural households, where house numbers and street names are non-existent (Pelzer, Penn and Watermeyer, 2014), hence the city of Cape Town has one toll-free number[6] for its residents. This toll-free number allows for the call-taker to be able to see the caller's number, area, and location, this aims for prompt service delivery (Western Cape Government,

[5] https://wcedonline.westerncape.gov.za/branchIDC/Districts/Map-Composite.html
[6] The number is 107.

2011). EC providers who are 'lost' whilst responding to emergencies become easy prey[7] to perpetrators of planned robbery and is enabled through premeditated violence.

The EMS is a risky profession by its nature and EC provider's safety is as essential as the patient's safety (Boyle *et al*., 2007; Carlson, 2007). EC providers ensure their personal safety by focusing on making the scene safe[8] (Campeau, 2008, Boyle *et al*., 2007). Safety is defined as being free from injury, risk or dangers (Metz, 1981, Steinman, 2003, Chappel and Di Martino, 2006, Maguire *et al*, 2017). Multiple factors contribute towards safety risk factors for EC providers, such as shift work, vehicle safety and driving, limited human resources and the EMS working environment which the EC providers are exposed. EC provider's safety can be placed at further risk if they make an incorrect decision, which will, in turn, impact their overall safety.

In summary, socio-political and organizational factors have come to be related to incidents of workplace violence. Society may take for granted that EC providers work in potentially dangerous scenes at unpredictable timings. There is a high degree of under-reporting of workplace violence incidents and healthcare professionals may accept the incidents as being part of the job, resulting in the normalization of violence (Pourshaikhian *et al*., 2016, Pozzi, 1998, Tintinalli, 1993). Pre-hospital EC providers are largely at risk of being violently attacked by patients, patients' relatives, and unknown individuals (Enca, 2016, EWN, 2016, IOL, 2017).

There is a paucity of research that investigates workplace violence in the South African pre-hospital setting. Potential deleterious consequences of workplace violence to individual employees, society, and the patient's safety motivated the researcher to investigate the extent and nature of individual and collective exposure of EC providers to workplace violence.

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[7] This implies increased vulnerability.

[8] EC Providers can utilize the hierarchy of controls to protect themselves against exposure to potential hazards. The hierarchy is used in ascending order of most effective to least effective in order to reduce risks of injury or illness, it includes the following steps, 1. Elimination which can be achieved by physically removing the hazards, 2. Substitution, replacing the hazard, 3.Administrative controls, Isolating the people from the hazard, 4. Administrative controls- changing how people work and 5. Use of personal protective equipment (CDC, 2015)

## 1.3. Purpose of the Study

The aim of the research was to investigate the extent and nature of individual and collective exposure of EC providers to workplace violence. This study also aimed to determine the effect of workplace violence on the EC providers.

## 1.4. Research Questions

The primary research question was: What is the extent and nature of exposure of EC providers to workplace violence in the Cape Town Metropolitan area?

To answer this question, three specific sub-questions emerged:

1.4.1. What is the prevalence of physical and psychological workplace violence among EC workers in the Cape Town Metropolitan?

1.4.2. Who are the common perpetrators (or what is the commonality in perpetration) of workplace violence among EC workers in the Cape Town Metropolitan?

1.4.3. How are instances of workplace violence reported among EC providers in the Cape Town Metropole?

## 1.5. Significance of the Study

There is a paucity of literature regarding pre-hospital workplace violence in the EMS of the Western Cape Province. The study is of value because it scientifically documents the extent and nature of workplace violence towards pre-hospital EC providers in Cape Town, Western Cape Province, how the participant's exposure to workplace violence is documented and how it is communicated.

The collected data can be used by various stakeholders like the South African Health Professions Council (HPCSA) and the EMS training institutions to inform training for EC providers on workplace violence. The research contributed towards the introduction of the topic of workplace violence in the South African EMS and the development of pre-hospital workplace violence strategy from the views of EC providers. The research enables the affected EC providers to have a voice by

sharing their exposure to workplace violence, and in so doing transcend their victim status - a status that is at odds with their rescuer status[9].

### 1.6. Research design and methodology

The study was a quantitative, cross-sectional, descriptive design, which aimed to quantify the nature and extent of workplace violence in the City of Cape Town's WCG EMS. The aim was achieved by using a simple random sampling technique for WCG EC providers based at four various divisions. Data was collected through the use of an adapted questionnaire which was widely used and validated within the healthcare setting. The researcher requested assistance from the Human Resource Development (HRD) department to have an insider representative from each division assist with the distribution of questionnaires. Data analysis was done using descriptive statistics.

### 1.7. Assumptions

The researcher assumes that the participants answered the questionnaire truthfully and as best as they can and free from bias.

### 1.8. Delineation of the Research

The study did not focus on workplace violence that takes place between two or more employees who are employed by the WCG Department of Health and have an interpersonal relationship. The study was not intended to research workplace violence spill-over effects of domestic violence, because the spill-over effects are outside the aims and objectives of this study. The study did not focus on management or the employer's effect on workplace violence.

### 1.9. Definitions of Terms

**Workplace Violence**: The occurrences of incidents where the employee(s) are physically or emotionally abused[10], threatened[11], harassed or assaulted in situations

[9] The victim status is considered paradoxical to the rescuer status and may create a crisis of identity.

related to their work, including travelling to and from work, involving a clear or unclear challenges to their safety, health or well-being.

**Workplace Violence Typologies**: The typology that has four distinct types of relationships that the victim has with the perpetrator (National Institute for Occupational Safety and Health, 2002). The perpetrator is unknown to the victim (Type I) and has criminal intent, a patient or patient's friend and/or relative is a perpetrator towards the victim (Type II). Type III is known as employee-on-employee violence where the perpetrator is one employee who threatens or attacks another employee. In Type III a working relationship exists between the perpetrator and victim whilst in Type IV the victim's violence is spilling over from domestic violence perpetrated at their homes/houses (World Health Organisation, 1995; Steinman, 2003, National Institute for Occupational Safety and Health, 2002).

**Physical Violence**: Physical force used against an individual or group with the result of physical injury, psychological and sexual harm, examples include slapping, kicking, stabbing, shooting, biting, pushing, beating etc.

**Psychological/ Non-physical Violence**: Intentional use of power which can be in the form of a threat, physical force against an individual or group, the result can be individual can be harmed physically, spiritually, physically, socially or morally. It includes harassment, verbal abuse and threats.

**Workplace Harassment:** Occurs when engaging in a course of upsetting conduct or comment against a worker in a workplace that is known or ought to be known to be unwelcome, unwanted and might have a destructive effect. The unwelcome or unwanted conduct that might be based on race, sex (including pregnancy), religion, nationality, age, disability.

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[10] Emotional Abuse: Defined as any action (Intimidation, humiliation etc.) or treatment which diminishes the victim's self-worth, dignity and self-identity.
[11] Threatened: A declaration of an intention to inflict injury, damage or pain.

## 1.10. Summary

In the daily working life of an Emergency Care (EC) provider very little attention is given to the prevalence, nature, extent and consequences of workplace violence. This chapter outlined the presence of scientific evidence and anecdotal evidence towards the existence of workplace violence in the South African EMS and South African healthcare respectively. The chapter further outlined the focus and objectives that guided the researcher in addressing the research questions and problem statement.

The next chapter will review the literature of violence at the workplace. The subsequent chapter defined workplace violence, it will focus on the role of society in violence and how violence filters into the health sector. The succeeding chapter will further delve into how workplace violence negatively affects employees and the organization and preventative strategies.

# CHAPTER 2- REVIEW OF LITERATURE

## 2.1. Introduction

There is an abundant body of literature regarding workplace violence in the healthcare sector, with a focus on the nursing or emergency department. However, there is a paucity of literature focusing on pre-hospital workplace violence, specifically in the South African EMS. The purpose of this literature review was to explore and understand the occurrence of workplace violence. The literature review begins with the definition of workplace violence, discourses on societal violence then proceeds to discuss the prevalence of healthcare and EMS workplace violence. The reviewed literature then includes a focus on risk factors and consequences of workplace violence.

## 2.2. Literature Searching Strategy

The literature reviewed search for current, 2012-2020, peer-reviewed articles was conducted via the Cape Peninsula University of Technology online library databases. Where necessary, the search years were revised to include the history of the various sub-topics. These databases included Wiley Online, Access Emergency Medicine (McGraw-Hill), Current and completed research, Cochrane Library, Ebscohost, JSTOR, Sage Journals, National-Research-Foundation, Science Direct, CINHAL ProQuest and ProQuest Medical. Google Scholar was accessed to search and locate open access articles. The following search terms were used to locate variously referenced articles specific to this study: *Workplace Violence, EMS Workplace Violence, Healthcare Workplace Violence, Workplace Trauma, Organizational Stressors, Ambulance Personnel* and *Violence, Situational Awareness, History* of *Violence, Prevalence of Workplace Violence, Psychological Workplace Violence, Physical Workplace Violence Gender* and *Violence, EMS Violence, Assault* in the *EMS, Job Security* in the *EMS. Perpetrators of Workplace Violence in Healthcare, Consequences of Workplace Violence.* Variations of these terms were used to until the search results were exhaustive.

## 2.3. Defining Workplace Violence

The International Labour Organization (2003) defines workplace violence as any incident, behaviour or actions from an unreasonable conduct where an employee is assaulted, harmed, injured or threatened in his/her work. Wynne, Clarkin, Cox, and Griffiths (1997) defined workplace violence as incidents of staff abuse, threatening or assault in situations related to their work, which include commuting from and to work, and involving an implicit or explicit danger to their well-being or health and safety. The phenomenon of workplace violence is made up of behaviours which are ambiguously understood and very different (Chappell and Di Martino, 2006). Chapel and Di Martino (2006) further believed that a lack of understanding of components and occurrences of workplace violence causes the definition of workplace violence to be a challenging task. There are different definitions of workplace violence and this makes understanding the extent of workplace violence difficult (Kennedy, *et al*., 2011).

There is growing recognition that the term violence relates to both physical and psychological violence and it can take place from outside or inside the workplace (LeBlanc and Kelloway, 2002). Steinman (2003) defines workplace violence in the South African healthcare context as the occurrence of incidents where employee or employees are physically or emotionally abused, harassed [12], threatened, or assaulted[13] in circumstances related to their work, which also includes travelling to and from work, involving direct or indirect challenges to their safety, health or well-being. For the purpose of this research both physical and psychological violence e.g. such as verbal abuse, harassment, bullying and threats, will be included in this study.

[12] Harassment: A verbal or physical unreasonable behaviour that creates a hostile, offensive or intimidating work environment (Kennedy and Julie, 2013).
[13] Assault: An action of inflicting offensive physical harm on an individual who is in the workplace (Steinman 2003)

### 2.3.1. Classification of violence

The following four distinct categories of workplace violence (Table 1) have been outlined, which are congruent with the adopted definition of this study:

| |
|---|
| Type 1: Occurs due to robbery or other forms of activities of a criminal nature. |
| Type 2: Violence of an employee by a client, inmate or patient. Violence in this classification includes the threat that is verbal or an assault that is nonfatal. |
| Type 3: Violence caused by an employee on a fellow employee. |
| Type 4: Domestic violence, which brings relational disputes to a place of work. |

Table 1: Classifications of violence (Kennedy and Julie, 2013, Leblanc and Kelloway, 2002 Wilkinson, 2001)

Healthcare workers are exposed to workplace violence which can be classified as psychological, threats, physical and harassment. These typologies aim to differentiate between co-worker initiated and public initiated violence and aggression and are useful as all may be present in the EMS setting.

LeBlanc and Kelloway (2002) found that healthcare workers are at risk of experiencing type-two violence at the workplace during the EC provider's interaction with patients/clients. This study is reliant on classification or typology of workplace violence that is based on the perpetrator's and victim's relationship in the victim's workplace. For the purpose of this study, only type one and type two of workplace violence will be researched as the two typologies focus on the absence of interpersonal or work-related relationships.

## 2.4. Society and Violence

South Africa is a diverse country with eleven official languages and it is considered a middle-income country (albeit with gross inequalities) (Khokhlova, 2015). The Western Cape Province has five districts with the City of Cape Town as a metropolitan municipality. The province has high rates of unemployment and unequal distribution of wealth (Pelzer, Penn and Watermeyer, 2014). According to the Western Cape Government, (2012b) gang violence is widespread and has

recently spread to areas not commonly associated with gangs. Alcohol and drug abuse are proposed as the major causes of violent crimes (Leblanc and Barling, 2005). The danger of overdose or self-harm might result due to alcohol and drug-related incidents, the occurrence of such incidents will likely require the EC provider's on-scene assistance. This might pose a danger to the EC provider as they will be on a scene where an individual's judgement is impeded by drugs and alcohol.

The interactions between patients and their medical providers are influenced by the society and presenting medical conditions have a psycho-social dynamic. Researchers found that the patients' medical encounters oftentimes suggest ideological messages reflecting the current social order in their respective communities, the experienced encounters have an aftermath for social control and that medical language often excludes assessment of the social context (Waitzkin, 1989, Street, 2003; Griffith *et al*., 2012, Hörberg *et al*., 2019).

Societal "macro-level" structures of the medical philosophy impose healthcare providers and patients as being part of the social context of medical encounters (Waitzkin, 1989, Street, 2003, Griffith *et al*., 2012). The communication between healthcare provider and patient forms micro-level structures of medical discourse and it is influenced by their philosophy about social life. Theorists concluded that individuals are rarely born violent, but they become violent and aggressive through multifaceted societal, physiological and psychological interactions (Moffat, 2002). Moffat (2002) further cites that a person can have genes that predispose them to have aggression that can make them to be violent during aggressive experiences. Exposure to societal violence may begin a cycle of violence at an early age, as it might teach children that violence is an acceptable method of handling various situations (Bronfenbrenner and Morris, 2006). Learned violence may continue into an individual's adulthood resulting in domestic violence which can be witnessed by children at home, this will promote a cycle of violence (Anderson and Richard, 2004).

According to the Western Cape Government, (2012b) gang violence is widespread and has recently spread to areas not commonly associated with gangs. Alcohol and drug abuse are proposed as the major causes of violent crimes. The danger of overdose or self-harm means that alcohol and drug-related incidents are likely to

require EC providers assistance. The Western Cape Government, (2012b) further found that there was a high rate of sexual offences. The high prevalence of these social problems has created the need for effective and efficient EMS in the province. The well-being of EC providers is paramount in addressing the provincial social problems and the occasional threats of abuse or physical violence from members of the public towards EC providers will threaten their well-being and the provision of prehospital emergency care. When violence becomes acceptable in society, then it is easier for it to move into the workplace (McCoy, 2013; Boxer, *et al*., 2012; Bronfenbrenner and Morris, 2006).

On the other hand, the high prevalence of social problems (such as gangsterism, alcohol and drug abuse or sexual offences) in the Western Cape has created the need for an effective and efficient EMS in the province. The well-being of EC providers is paramount in treating the effects of the provincial social problems and the occasional threats of abuse or physical violence from members of the public towards EC providers (Gleby, 2018). These social problems are likely to threaten the well-being of and care-provision by pre-hospital EC providers as it induces fear and disrupt service provision (Boyle, *et al*., 2007; Bigham, *et al*., 2014). When violence becomes normative in society, then it is probable to manifest in the workplace (as it is also a structure within society).

The South African Police Service crime statistics data for March 2018 to April 2019 showed that 617 210 contact crimes[14] occurred in South Africa and of those, 113 987 contact crimes occurred in the Western Cape Province (SAPS, 2019). Contact crime takes place when victims are targets of violence or the property or victims is targeted, or the victim is in the vicinity during the commission of the crime or violence. The majority of these contact crimes are taking place in areas where EC providers are likely to respond to emergencies. The SAPS data displays high occurrences of societal violence, and it will be expected that EC providers will be

[14] Contact crimes is defined as a criminal act such as assault , robbery, or rape where the victim is the target and the act often involves physical contact between two or more individuals (Mncanca and Okeke, 2019).

called out to attend such violent emergencies and be routinely exposed to criminals who have no medical justification for emergency services[15] (SAPS, 2019).

Macro-level structures influence interpersonal processes at the micro-level structures. Therefore medical encounters between healthcare provider and patient are "micro-level" interactions which are shaped by the macro-level structures that occur in the social context (Bronfenbrenner and Morris, 2006, Anderson and Richard, 2004). Therefore violence can be attributed to a society even though it is committed by an individual or individuals residing in that society (Anderson and Richards, 2004).

Medical encounters express ideological messages that support the current social order and that these encounters have repercussions for social control (Waitzkin, 1989, Street, 2003, Griffith *et al*., 2012). Societal violence forms the "micro-level" structures might filter into the EMS when the EC provider interacts with the patient at micro-level structure. Patients that interact with EC providers come from the same society that shapes their world-view in relation to violence (Anderson and Richard, 2004, Bronfenbrenner and Morris, 2006).

Kennedy and Julie (2013) suggest that societal violence in South Africa has reached epidemic levels to the extent that it has infiltrated the workplace. "Violence that occurs during the course of a labour dispute is frequently overlooked in discussions of workplace violence" (Barling, *et al*., 2009). For illustration, on the 15 August 2012 in Marikana, North-West province, platinum mining employers were of the opinion that their employee's strike was no longer a labour dispute thus they viewed the strike as criminal[16]. In Marikana, later that afternoon, five hundred and fifty (550) policemen gathered with four thousand (4000) bullets of live ammunition. This had set the scene of the events the following day. On the 16 August 2012, the South African Police Service (SAPS) members opened fire on striking platinum miners in Marikana. This assault by the (post-apartheid) State resulted in the shooting of one hundred and twelve (112) miners and the killing of thirty-four miners (34), which was the conclusion of "a vortex of violence" (Davies, 2015).

[15] https://www.saps.gov.za/services/crimestats.php
[16] There were deaths of the mining security guards, union members as well as miners that preceded this labour action

The Department of Labour (2013) emphasises the need to provide adequate safety grids to protect the basic rights of workers that may be vulnerable to violence. It adds that, despite having labour policies and progressive employment, the level of workplace incidents and injuries in the South African labour industry is unacceptably high, this correlates with Chappell and Di Martino's (2006) findings that developing countries, like South Africa, received little or no attention on the statistical measurement of violence that is work-related. Therefore workplace violence in South Africa is not only secluded to the Western Cape, it is an overlooked and under-researched in developing countries.

Violence in South African society filters through the workplace. In the public sector, very high levels of violence in the workplace are indicative of a greater problem with its roots in the socio-economic and political realities of South Africa (Di Martino, 2002). Without considering these socio-economic and socio-political realities, it is probably unfeasible to understand the impact of management methods, the inadequacy in the administration and management of health system, the lack of commitment to ethical conduct, the impact of societal violence on the psycho-social development and well-being of healthcare workers.

## 2.5. Theoretical implications for EMS workplace violence[17]

The EMS is a risky profession by nature and EC provider's safety is as essential as the patient's safety. The literature review describes how EC providers ensure their personal safety by focusing on making the scene safe. Safety is defined as being free from injury, risk or dangers (Metz, 1981). Multiple factors contribute towards presenting as safety risk factors for EC providers, for example, shift work, vehicle safety and driving, limited human resource and the EMS working environment which the EC providers are exposed. EMS personnel safety can be placed at risk if they make an incorrect decision; this will, in turn, impact the overall patient safety.

[17] The author presented this section as a paper at the inaugural violence against EMS Conference at CPUT in 2018. The conference recommendations and position statement, influenced by the paper are published in: Emergency Physicians International, available at: 1. https://www.epijournal.com/home/2018/12/10/ending-violence-against-ems-a-position-statement-of-the-south-african-ems-safety-symposium
2. https://issuu.com/cput6/docs/ems_position__statement

EC providers establish impromptu work spaces to establish a working space that supports the delivery of optimum care to the patient. Metz (1981)[18] observed that EC providers perceive scene management as the measure of doing work in the EMS, thus they equate good patient management with good scene management. The most significant part of scene management involves the EC provider's interaction with the people on the scene. EC providers are able to a solve problems through working with others on both human and physical factors. EC providers establish scene safety with the purpose of achieving a functional working environment; according to the literature review, EC providers use the space-control theory, Interactionism theory and social theory. These theories are not mutually exclusive but they are typically employed by EC providers in varying degrees and are discussed below.

### 2.5.1. Space-control theory

EC providers establish a safe zone in order to have a working area that is safe from threats of injury where emergency patient care can be delivered. According to Campeau (2008), space-control theory shows that scene management is an important aspect of prehospital patient management. EC providers do not have a predetermined work space therefore they accept the location where they find the patient as their work space.

The unpredictability of the work space requires EC providers to adapt and the environment to enable them to effectively treat the patient. Campeau (2008) further ascertained that an EC provider establishes a safe zone by considering three factors. Firstly the "what-if" strategy: where the EC provider adopts a suspicious and cautious orientation to potential hazards. Secondly, the rationalized self-interest: where EC providers perceive and ensure their safety as a prerequisite to treating patients. Thirdly, trading off patient care and scene safety: the EC provider views patient care as a priority; when they arrive at a close enough situation which enables

[18] Metz introduced an influential theory that influenced the development of the medical field thus the inclusion of the citation from the primary source.

the EC provider to treat the patient rather than ensuring their safety first (Campeau, 2008).

### 2.5.2. Interactionism theory in attaining scene safety

An EC provider might interact with allied and non-allied personnel in achieving a safe scene. Interactionism offers several concepts that can be applied to EC provider social relations. As emphasized by Haas and Shaffir (1977)[19] EC providers are able to construct their view of the boundaries between the various groups at a scene through their anticipation from the viewpoints of others. Boundaries are important because interactionists recognize that the division of labour is a process of social interaction (Allen, 2001).

EC providers have to be certain that they control the scene where the emergency occurred. Scene control is done by EC providers and allied workers like the traffic department, fire department and police and non-workers such as the patient's relatives and bystanders. The attainment of scene safety can be accomplished when a team works together towards it. Work space - defined as comprising both conceptual and physical spheres - are socially constructed and mutually dependent (Campeau, 2008). When making decisions about approaching a scene EC providers use rationalized self-interest, where the EC provider's own safety is a prerequisite to them treating the ill and injured patients.

The Interactionism theory explains the concept of being close to the situation, where the EC provider takes the role of being a rescuer (Haas and Shaffir, 1981)[20]. EC providers are socialised and trained to provide assistance in the prehospital setting. The provision of self-care is constantly traded off in the delivery of optimum patient care and scene safety. The EC provider's subconscious competes with meeting their

[19] Haas and Shaffir conducted an observational study that investigated the professionalization process by medical students in an educational setting and they found that participants convinced themselves and others of their competence and confident demeanor when facing responsibilities in their role. Although old, the reference plays an integral part in ensuring understanding of actions undertaken by a professional in their privileged role.

[20] Role-taking is a process in which we 'see' or attempt to appreciate the perspective of others in a particular situation

own perceived needs of functioning as a rescuer and the patient's needs of receiving emergency care. These-trade off can allow an EC provider to overlook that a scene is not safe and rely on his perception of being viewed as a rescuer by the community. Under these circumstances, an EC provider might deliberately endanger themselves.

### 2.5.3. Bioecological theory

The ecosystem theory was first introduced by Bronfenbrenners in 1979, where he posited that the social ecology was made up of hierarchical systems of influences namely: the microsystem, mesosystem, exosystem, and macrosystem. Each system plays a role in the developmental influences of children. The theory was recently renamed the bioecological systems theory, with the aim of emphasizing that the child biology fuels their development (Boxer, *et al*., 2013). The child maturing biology interaction with the family, community and societal factors fuels and directs their growth and development. Bronfenbrenner and Morris (2006) found that any changes in one of these hierarchies will have a ripple effect through the other systems.

The bioecological theory posited that a child's development was greatly influenced by the surrounding environment in which they were embedded. Environment influences children on multiple hierarchical systems where the individual facilitates the social processes. Studies found that children are exposed to violence in their families, in neighborhoods and within peers (Boxer, Gullan and Mahoney, 2009, Huesmann and Spindler, 2003, Synder, *et al*., 2003). Childhood exposure to violence predisposes children to have aggression later in life.

### 2.5.4. Social theory

Social theory gives one a framework to make sense of the world around us, with the aim of understanding everyday life, individual behaviours and interactions in the social context (Campeau, 2008). According to Goffman's social theory, Prehospital emergency care involves interactions were EC providers perform life-saving skills in front of an audience with the objective of making an impression and projecting a desirable image. The audience present on scene includes patients, allied workers

and non-allied workers and their partners can sometimes be part of an audience. Individual EC provider's previous life experience and educational background forms their EC provider-self. EC providers present themselves as being competent, confident, trustworthy, and without recoiling in terror or disgust (Tangherlini, 2016).

EC providers have limited legal authority to compel anyone to do anything, and so most of their work is actually conducted with the voluntary cooperation of patients and bystanders. Consequently, they must rely on a combination of implicit or ascribed authority and negotiating skill to achieve their scene-management objectives. Key to successful negotiating is the ability to understand others because caregivers can imagine how they feel and think (Campeau, 2008; Tangherlini, 2016). EC providers do this by empathizing with others, by symbolically assuming their point of view.

EC provider's self-image is that of the rescuer and in the short-term they value self-interested to enable valuable patient care in the long term. EC providers' trade-off patient care and scene safety (in respect to personal safety) in an attempt to resolve the tension. Optimum patient care is always an ethical and regulatory priority. Therefore scene management is a social process where the society is actively involved. The public perceives patient care procedures as the only important pre-hospital work and they do not foresee the role they play in patient assessment. These three theories are not exclusive and are typically employed by EC providers in varying degrees.

## 2.6. Prevalence of Pre-Hospital Workplace Violence

Violence towards EMS providers is now a global phenomenon (Murray *et al*., 2019). It seems it was first recognized by Tintinalli (1993) in the United States of America. Whilst EC providers are not the only medical personnel in the healthcare sector who are exposed to violent scenes, they have a four-time probability of being assaulted while providing patient care when compared to fire-fighters (Boyle *et al*., 2007, Maguire *et al*.,2017, Maguire *et al*., 2018, Murray *et al*., 2019). According to Maguire and Walz (2004) and Maguire *et al*., (2018), the US Department of Homeland

Security found that EMS providers were subjected to varying levels of violence whilst retrieving seriously ill and/or injured patients. Suserund, Johansson and Blomquist (2002) show a high prevalence of violence among Swedish EC providers. United States emergency medical workers have a seven-time assault fatality rate when compared with nurses, and other allied healthcare providers and 22 times the non-fatality injury rate (Maguire and Walz, 2004, Maguire et. al., 2018).

Apart from being documented in developed EMS settings abroad, the prevalence of violence against EMS providers is considered high (Maguire *et al*., 2017). Murray *et al*., (2019) found that the prevalence of EMS workplace violence is high and had been studied for forty years. French descriptive study by Duchateau *et al*., (2002) sampled 276 EC providers found that one or more assaults had been experienced by 23% (n = 63) of ambulance personnel during their careers, and 4% (n = 11) of these incidents resulted in sick leave and 4% (n = 11) led to a need for PTSD therapy. Boyle *et al*. (2005) surveyed 119 Australian EC providers and showed that 87.5% (n = 104) had been exposed to workplace violence during the previous 12 months and the most common form of workplace violence was verbal abuse 82% (n = 98) following by intimidation 55% (n = 65), physical abuse 38% (n = 45), sexual harassment 17% (n = 20) and sexual assault 4% (n = 5).

In 2016 Maguire *et al*., (2018) distributed questionnaires internationally from April to November and 1778 EMS personnel completed the questionnaire. The results showed that n = 761 (65%) of the respondents had experienced physical attacks and 10% (n = 67) had been attacked with a weapon. Wang *et al*, 2019 surveyed 152 paramedics in Asian EMS and found that the n = 133 (74.3%) had experienced verbal assault whilst n=75 (49.3%) had experienced physical assaults.

The fear of encountering the potential violence creates an occupational stress which creates a negativity that affects the health of the employee, organizational performance, and efficiency (Mechem, *et al*., 2002). Although limited studies have been conducted internationally, most found that there is a high prevalence of pre-hospital workplace violence towards EC providers (Suserund, Johanssen and Blomquist, 2002; Mechem, *et al*., 2002; Pourshaikhian, *et al*., 2016, Maguire *et al*., 2018; Wang *et al*., 2019, Murray *et al*., 2019).

## 2.7. Workplace Violence Risk Factors

Most workplace violence incidences are perpetrated by individuals outside the organization rather than by employees (Chappell and Di Martino, 2006). Rossi *et al*. (2014) further state that the risk for workplace violence depends on the nature of the employee's occupation; those who largely work with members of the public are more likely to experience workplace violence. Employees who provide service, care and education are at risk of assault, if client's experience frustration, insecurity or stress (Leblanc and Kelloway, 2002, NIOSH, 2002). Therefore one may postulate that EC providers are at high risk of workplace violence based on their close proximity to clients on a daily basis.

Perpetrator and victim both interact at the workplace (Leblanc and Kelloway, 2002, Pourshaikhian, *et al*., 2016). Risk factors that contribute towards the occurrence of workplace violence are overcrowded scenes, dirty and noisy premises and poorly ventilated premises. Such places experience a higher rate of violence than do those which have a good environmental design (Chappell and Di Martino, 2006). EC providers respond to a variety of emergencies and do not get to choose the 'design' of their scene. Australian research has shown, for example, that the levels of violent and destructive behaviour in or near licensed premises (pubs, clubs, bars and like establishments) are influenced by a range of situational factors including the physical design and comfort of the premises (LeBlanc and Kelloway, 2002). The poor organization may, for instance, lead to an excessive workload for a specific group of workers (while others may be relatively inactive), slow down their performance, create unjustified delays and queuing, develop negative attitudes among such workers and induce aggressive behaviour among the customers. Such risk factors are currently not documented for the South African EMS.

First impressions and appearance are important in any job as they set the tone for interaction and establish characteristics and roles for an encounter. Wearing uniforms may encourage or discourage violence towards the EC providers (LeBlanc and Kelloway, 2002). Uniforms are worn by employees who are expected to act with authority and to have respect for members of the public. A uniform serves to identify employees and to distinguish them from the general public. Uniforms may seem likely to discourage violence against EC providers, but this is situationally dependent

(LeBlanc and Kelloway, 2002). EC providers in the United Kingdom changed their uniform colours from blue to green because the blue colour was similar to that of the police officers (Cooper and Swanson, 2002, LeBlanc and Kelloway, 2002). The blue uniform for EC providers resulted in increased cases of aggressive behaviour because the people may have thought EC providers were Police officers. The role of uniform in SA cases of violence is unknown.

Gender has been identified as a risk factor for violence. Female EC providers have a higher likelihood of experiencing sexual assault, sexual harassment and intimidation (Koristas, *et al*., 2009). Koristas *et al*. (2009) found that 77% of female EC providers were more likely to experience covert sexual assault. Men are more likely to respond aggressively than females, whilst women are at greater risk of victimization than men (NIOSH, 2002). Anxious behaviour by the victim is likely to trigger violence while controlled behaviour may help diffuse tensions (Chappell and Di Martino, 2006). Stress from a heavy workload or mild forms of mental illness may lead to misunderstanding behaviours to which the perpetrators respond aggressively (Chappell and Di Martino, 2006). Age and experience of employees can also decrease the possibility of aggression. Previous experience of handling similar difficult scenarios enables older workers to react more wisely than inexperienced employees (Barling, *et al*., 2009). An individual's male gender can influence aggressive behaviour (Kaplan, *et al*., 2013; Dussich, 2006). The role of gender in South African experiences of EMS-related violence is not documented. It is unknown if being a male or female EC provider is protective of violence or not.

Most workplace violence incidents are perpetrated by organizational outsiders rather than co-workers. The perpetrators of violence fall into three categories, namely, a client, colleague or fellow worker of a relative or stranger (Pourshaikhain, *et al*., 2016, Koristas, *et al*., 2009, Suserud, *et al*., 2002). Risk factors for violence include perpetrator history of violence, difficult childhood, alcohol and /or drug abuse and mental ill-health as they are circumstances conducive to violence (Chappell and di Martino, 2006). The key characteristics of perpetrators most likely to be associated with risk of violence are males, psychotropic and problematic substance and alcohol abuse respectively and mental illness (Curbow, 2000). In the nursing field majority of workplace violence is perpetrated by patients and the patient's family (Khalil, 2010,

Kajee, 2010, Kennedy *et al*., 2013, Keller *et al*, 2018). The patient's families were the most frequent perpetrators of threats of violence and physical violence (Curbow, 2000, Di Martini, 2003, Keller *et al*, 2018)**.**

Risk factor identification is a fundamental epidemiological imperative in the study of violence. During a systemic literature review on workplace violence against EMS personnel, Pourshaikhain *et al*. (2016) reviewed n = 18 articles and found that 72% of the articles (n = 13) showed that lack of formal education and training on exposure of violent situations was a risk factor and 9-97% of employees (n = 13) had never had formal education and training on the topic. Delayed response or arrival on the scene was seen in 28% of articles (n = 5) whilst 22% of articles (n = 4) concurred that alcohol and substance abuse can be risk factors to the occurrence of violence in the workplace. Only 11% of articles (n = 2) found that psychological disorders can escalate to violence, other risk factors can include unexpected injury, illness or death, lack of safety or police presence of scene, lack of awareness, incompetency of personnel and inadequate skills. Again, the South African risk factor profile is not documented.

## 2.8. Consequences of Workplace Violence

When a violent attack is in progress, perpetrators temporarily force victims to role-play that displays a dichotomous relationship between prey and predator, vanquished and victor, slave, and master and winner and loser. The consequences of workplace violence not only affect the EC provider as an employee but they also affect the employer and the relationship between the employee and the employer. Being exposed to workplace violence incidences or any characteristic of workplace violence has a negative impact of employee's feelings towards their work and the organization (Aytac and Dursun, 2012). Therefore the employee's physical and psychological well-being can be negatively impacted.

### 2.8.1. Non-physical consequences

Physical violence can result in non-physical consequences (WHO, 1995; Aytac and Dursun, 2012). Exposure to violence can be classified as a critical incident[21]. In South African EMS, the exposure of paramedics to violence was considered to be among the highest in the world (Holgate, 2015; Ward, Gwebushe and Lombard, 2006). Holgate (2015) investigated the opinion of private Emergency Medical Service personnel regarding safety in the pre-hospital emergency care practice and found that 56% of participants perceived themselves to have been exposed to workplace violence. Physical violence is one of the reasons for the emigration of EC providers from South Africa (Govender, *et al*., 2012).

Violence generates distress in the victims with deleterious and long-lasting effects on the victim's health (Leblanc and Kelloway, 2002). The more vulnerable an individual is the more at risk they are of victimization which can result in the victim being more vulnerable a person. Vulnerability includes both external and internal factors which include physical, social and situational factors. Vulnerability communicates risks that might be posed to an individual (Cinini and Singh, 2019). Stress and violence causes immediate and often long term disruption to interpersonal relationships at the organization, working environment and at home.

The EC provider might start experiencing anger, reduction of the *Espirit de corps*[22], absenteeism, changing of jobs, low self-esteem and even death (Madani and Hashemi, 2015). These effects can negatively impact the employer and it may result in the public receiving sub-standard care. Madani and Hashemi (2015) also cited that the more frequent and intense the workplace violence the more impact it will have on that individual; the consequences will be more exaggerated. Consequences also include burnout, which can result from the individual's failure to control their emotions and their physical well-being. Other consequences include negative behavioural manifestations, anxiety, sleep disorders, fear of safety, sensitization, disturbing memories and irritability (Mechem, 2012; Koristas, *et al*., 2010). The professional

[21] Critical Incident: Alleged or actual situation or event or that creates a significant risk of serious harm to the safety, mental or physical health, or well-being of individuals.
[22] *Espirit de corps*: EC Provider might lose the sense of togetherness, unity and common interests , which were developed among a group working together

violence can lead to burnout (in nurses) resulting in the loss of physical and emotional faculties and cause negative behaviours and attitudes toward themselves and the others (Kajee, 2010). It is of concern that emergency care providers are less protected than nurses.

Victimology can be explained as an “academic scientific discipline that comprises events leading to victimization, victim’s experience, its aftermath and actions taken by society in response to these victimizations. In the African continent, there is a shift in the definition of victimology that must encompass the historical background of conflicts, abuse of power and colonization and institutional racism in South Africa. Dussich (2006) investigated the evolution of victimology, by reviewing the past, present, and future of existence of victimology. Dussich (2006) viewed victimization as an incident experienced by individuals, societies and institutions are damaged or injured in a significant way. Individuals who are affected by people or events suffer a violation of rights and dignity or disruption of their well-being.

Silent public tolerance impedes recognition of victimization by the victim and even the public (Cinini and Singh, 2019). Cinini and Singh, (2019) further cites that the victimized individual has to transition from seeing themselves as a victim; it is critical and must not be neglected. Therefore the EC providers as the rescuers become victims of violence and thus will undergo the process of victimization which will predispose them to vulnerability (Christopher, Naidoo and Harrison, 2019). When the EC provider is in a state of vulnerability, provision of care may be compromised by the damaged relationship that exists between the EC provider and the society.

### 2.8.2. Physical consequences

EC providers experience frequent violence, job insecurity and are faced with physical injury. Workplace violence decreases interest in the job, create feelings of inadequate support, reduces the organization’s power and ultimately reduces the reputation and performance of the EMS organization (Poushaikhian, *et al*., 2016). Mechem (2002) found minor to serious physical injuries were experienced during

workplace violence. Bigham (2002) found that physical assault was a common occurrence in Canadian female EC providers than in males. The assaults included punching, hitting, slapping, biting and kicking which results in physical injuries on the face and eyes, dislocations, fractures, bruises, scratches and various wounds. Stress can also manifest as the occurrence of chronic headaches.

In summary, there is a paucity of information on workplace violence towards Western Cape EC providers and South African EC providers at large. Potentially violent situations should be identified early to ensure that violence is prevented (Carlson, 2007). EC provider's safety considerations should be thought of before being dispatched to a scene which is potentially violent. Though workplace violence is not guaranteed, EC providers need to understand that the scene and the patient can change at any moment. Krebs, Henry, and Gabriele (1990) cited that the EC providers must prioritize their safety above others. The safety of EC providers is paramount to the management of patients (Gleby, 2018). There is a need to conduct research on this subject in the South African pre-hospital setting, given that the literature reviewed showed a considerable knowledge gap towards the topic of pre-hospital workplace violence in SA, with particular reference to epidemiological description, risk factors, incidence, prevalence, impact, mediating factors etc. This study is likely to contribute to the knowledge on the consequences of workplace violence towards the EC providers.

### 2.8.3. Consequences to the Organization

Pourshaikhain *et al*. (2016) found that 44% (n = 18) had a prevalence of organizational harm in the form of increased sick leave, work effectiveness, occupational leave, threatened job safety, decreased work effectiveness and decision making. The occurrence of organizational harm increases the cost of emergency care provided to the society. Suserud *et al*. (2002) sampled 66 Swedish ambulance personnel and found that 80% (n = 53) of workplace violence cases had a negative effect towards the relationship between EC providers and the patient which resulted in decreased quality of care.

The occurrence of physical and psychological damage experienced by EC providers during the provision of care will require the organization to compensate the victim for exposure to violence and harm in the workplace (Pourshaikhain, *et al*, 2016). The organization is also expected to avail specialized psychological management to enable the victim to serve the society with clarity post-treatment[23]. Organizational support is important to the victim (Koristas, *et al*., 2009).

In summary, there is a paucity of information on workplace violence towards Western Cape EC providers and South African EC providers at large. Potentially violent situations should be identified early to ensure that violence is prevented (Carlson, 2007). EC provider's safety considerations should be thought of before being dispatched to a scene which is potentially violent. Though workplace violence is not guaranteed, EC providers need to understand that the scene and the patient can change at any moment. Krebs, Henry, and Gabriele (1990) cited that the EC providers must prioritize their safety above others.

### 2.9. Prevention of Workplace Violence

According to Bensimon (1994), an organisation must proactively address workplace violence issues by ensuring that all employees are placed on compulsory training that will enable them to better understand exactly what workplace violence is made up of in their specific and relevant organisation to, and how to react when it. Bensimon (1994) further suggested that threat management plans should incorporate a team of people, possibly from the Legal, Security and Human Resources departments, and have a private telephone number where employees can report any violence-related incident as they may not feel comfortable in reporting the incident to their immediate manager or supervisor. Head of the organisations should fully participate, support and encourage the adoption of the violence prevention policy or protocol (Mayhew and Chappell, 2005). Wilkinson (2001) suggests that for most businesses, a workplace violence prevention program

[23] Occupational Health and Safety Act No: 85 of 1993 states that every employer must provide a safe working environment for their employees

consists of two elements:  A coherent management plan of disruptive employees or customers and a physically safe place for employees to work.

Maslow's theory of human being's needs is illustrated using a bottom-up hierarchical pyramid (Figure 2) made of five levels of needs structured according to importance. Maslow's theory shows a significant contribution in terms of making management aware of the diverse needs of employees at work to enable the employers to address employee issues (Luthans, 2011). Once the first need has been satisfied, it no longer acts as a strong motivator and the need at the highest level becomes the "motivator". Safety needs focus on an individual being free of any physical harm or danger and the fear of losing their job, food, property and protection against emotional damage. Safety needs are basic needs.

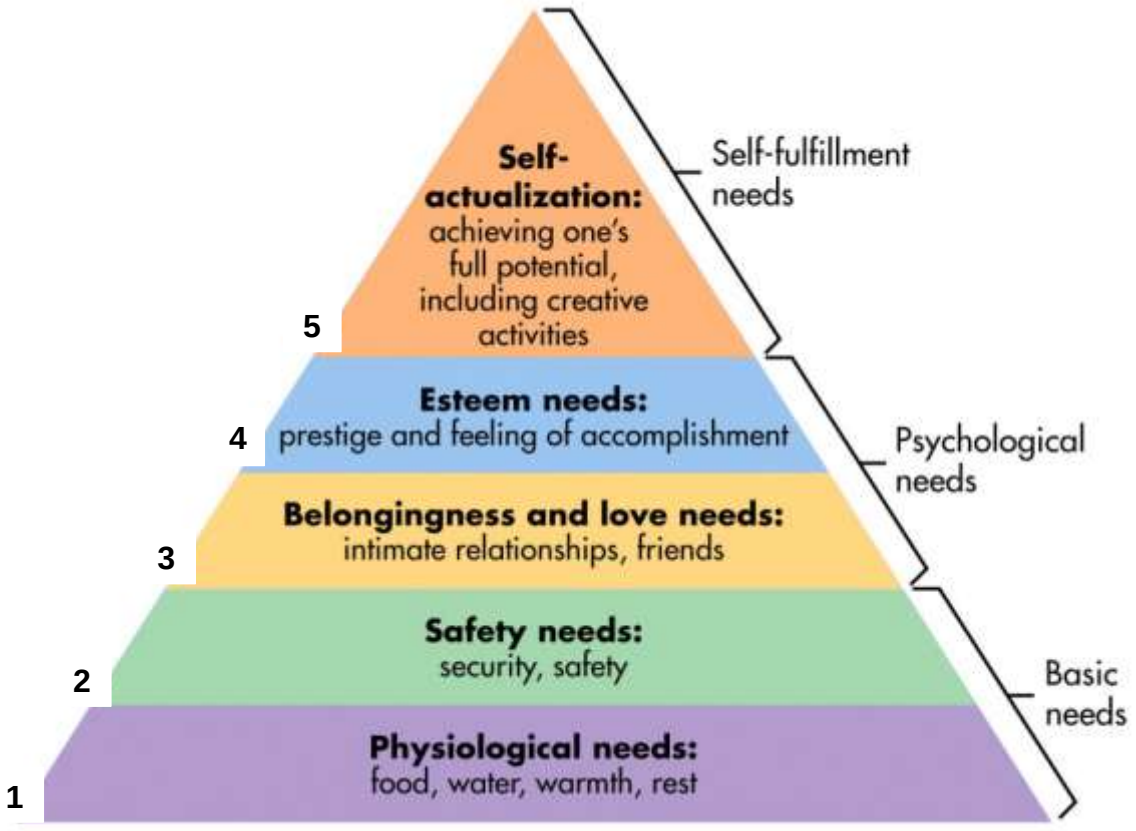



Figure 2: Maslow's Hierarchy of Needs (Mullins, 2005, p. 646).

Employers need to be cognisant that employees have a varying range of needs within the workplace. The needs are mediated by experiential and empirical evidence, therefore the hierarchical concept may not be as important as

understanding the different stages. Gleby (2018), cited that the 2015 attacks on ambulances escalated and resulted in EC providers resigning, requesting transfers and absenteeism in the Western Cape Government. As part of the preventative strategy, a protocol was drawn up and implemented, where areas were classified into zones depending on their level of danger they posed to EC providers (Gleby, 2018). Red zones were permanent or temporary, a hot zone and a No-go zone. For red zones and hot zones, cooperation is needed between the South African Police Service and the Emergency Medical Services, where the response to the red zone declared areas occurs with the presence of armed SAPS or Metro police as an escort. No-go zones are declared for a short period of time by SAPS due to the hostility that exists at that time.

### 2.10. Summary

This chapter focused on the reviewing workplace violence literature. The first part focused on literature which defined workplace violence and suitable definitions for this study were outlined. The literature further delved into classifications of workplace violence. The second part focused on the role of society in violence and how violence filters into the health sector. The third part focused on pre-hospital EC providers were literature showed how EC providers ascertain safety in the workplace, the prevalence of workplace violence and predisposing risk factors in the pre-hospital sector. The fourth part focused on how workplace violence negatively affects employees and the organization to enable the employer in the organization to develop preventative strategies.

There is a need to conduct research on this subject in the South African pre-hospital setting, given that the literature reviewed showed a considerable knowledge gap towards the topic of pre-hospital workplace violence in SA, with particular reference to epidemiological description, risk factors, incidence, prevalence, impact, mediating factors etc. This study is likely to contribute to the knowledge of the emergency medical services occurrence of workplace violence in Cape Town, South Africa.

The subsequent chapter discusses the research methodology utilised in this study. It focuses on how sampling was done and how data was collected and analysed in this

study. The reasons for a questionnaire, as the instrument for data collection, will also be discussed.

# CHAPTER 3- RESEARCH METHODOLOGY

## 3.1. Study Design

The proposed study followed a quantitative, cross-sectional, descriptive design. The quantitative research involved numerical analysis of gathered data by means of a structured self-administered questionnaire that was adapted from a previously validated instrument (Creswell, 2007). The study design serves as a constant point of reference for the researcher and aims to supply scientific research for the demand created by anecdotal information regarding violence against EMS personnel in the Western Cape (Naidoo, 2011). Naidoo (2011) further asserts that research validates existing knowledge and allows for the creation of new knowledge.

The questionnaire was an open source document which was developed through adaptation of questions donated by the UNISON, the Royal College of Nursing (UK) and the Irish Nurses Organisation by the International Labor Office, the International Council of Nurses, the World Health Organization, and the Public Services International and it was titled the “Joint Programme on Workplace Violence in the Health Sector” (ILO/ICN/WHO/PSI, 2002).

## 3.2. Research Paradigm

Post-positivism is an extension of a positivist paradigm because it displays thinking ‘after’ the positivist paradigm, challenging the idea of objective and complete truth of information in the social sciences (Creswell, 2007). A post-positivist approach was thought to allow for greater freedom than positivist approaches using quantitative methods. This paradigm allows researchers not to believe in a singular reality but believe in various perspectives from participants (Creswell, 2007). This paradigm allows for the approximation of reality because reality can never be ‘fully’ apprehended. The researcher aimed to understand the research as it evolves; the study begins with an area of study which is an investigation into the exposure of pre-hospital emergency care providers to workplace violence in Cape Town.

## 3.3. Population and Sampling

### 3.3.1. Sampling Technique

Probability sampling states that each unit of the population will be reflected in the sample (Adwok, 2015). The primary objective of sampling from a population is to get a representative sample[24] with common units as the population (Creswell, 2014). Therefore, this research used the Probability Sampling Technique, specifically using a simple random sampling technique. The population was made up of 703 EC providers, who had the same probability of being selected for the study. The first step in deriving a sample from the population was to define the sample frame (Adwok, 2015, Creswell, 2014).

### 3.3.2. Sample Frame

The sample frame signifies an individual who has a chance of being selected to be part of the sample from the population. The researcher acquired a list of all EC providers employed by the WCG EMS. The population is said to be valid when the general population is represented by the targeted population. From the general population, the targeted population was derived within the set sampling frame. The targeted population was made up of N = 703 EC providers. The sampling frame that was used for the study was made up using inclusion and exclusion criteria:

#### 3.3.2.1. Inclusion Criteria

For a participant to be considered for this study, they had to be registered with the HPCSA with a minimum registration of Basic Ambulance Assist (BAA) and practising within the EMS, urban Cape Town, for at least the previous 12-months under the Western Cape Government's Department of Health. Males and females of any age and any population group were included in the study.

#### 3.3.2.2. Exclusion Criteria

The study excluded individuals not employed by the WC Department of Health and not working as EC providers in the EMS. Personnel that did not respond to emergency care calls as being part of their duty were not considered for this study,

[24] Representative sample- Resembles the population and allows for generalisability of results.

except where they are non-operational due to circumstances arising from exposure to violence. Personnel not registered with the HPCSA were excluded from this study. The private sector and rural EMS were excluded due budgetary limitations (high costs to offer the survey and travel to various base/stations), logistics (more equipment and personnel required), time restrictions and unknown target population size (with various private sector EMS).

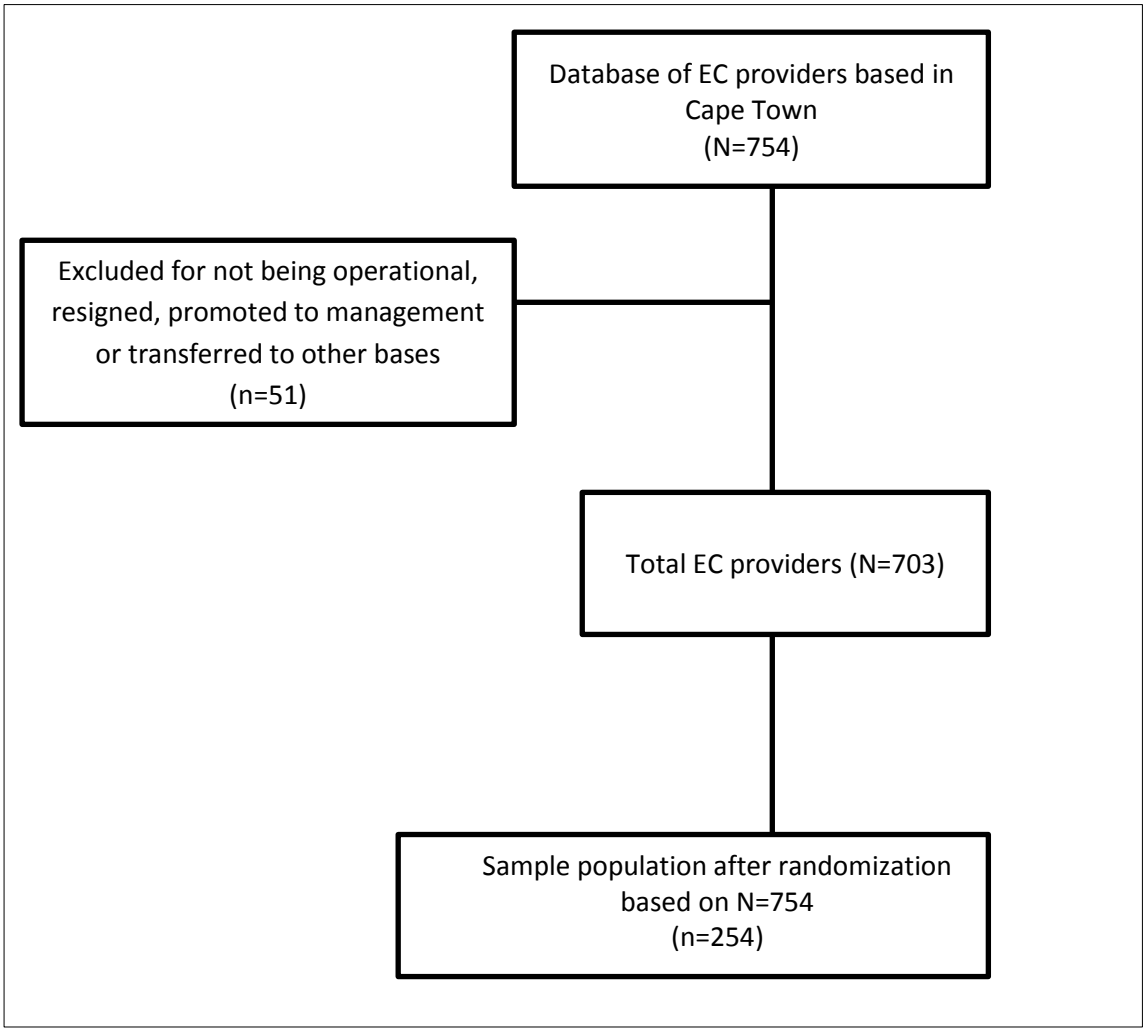



Figure 3: Recruitment process

### 3.3.3. Representative Sample

A representative sample accurately reflects and represents the population thus allowing for collected data to be inferred to the population (Creswell, 2014). The researcher allocated numbers from one to seven hundred and three to the Cape Town WCG EMS EC providers and used the computer to randomly select a

representative sample from the targeted population. All EC providers from the population had the same probability of being selected to partake in the study. The population was made up of 754 EC providers, working within Cape Town and based in four different divisions. Simple random sampling was employed with a confidence interval of 95%, a margin of error of 5% and a sample size of 254[25]. A simple random sample ensured that all EC providers in the targeted population had the same probability of being selected to partake in the study (Creswell, 2014). A representative sample provides credible results as it reflects the population's characteristics. The formula used for the study to determine the sample size formula:

Finite population:

$$CI' = \hat{p} \pm z \times \sqrt{\frac{\hat{p}(1-\hat{p})}{n'} \times \frac{N-n'}{N-1}}$$

where
**z** is z score
**p̂** is the population proportion
**n** and **n'** are sample size
**N** is population size

(Lohr, 1999)

The sampling frame has gender and ethnicity for the whole population, allowing us to verify that the population is 61.14% male and 52.12% African. The drawn sample is 61.81% male and 49.61% African. The realized sample (i.e. those who responded) are, based on the questionnaire data, 55.94% male and 56.85% African. The binomial test was used to test the null hypothesis that the respondents are taken from a population that is 61.14% male against the alternative that they represent a population with a different proportion of males than 61.14%. The results of the binomial test show a p-value of 0.2296 and fail to reject the null hypothesis. Similarly, the binomial test was used to test the null hypothesis that the respondents are taken from a population that is 52.12% African against the alternative that they represent a

[25] Sample size calculation: The population of operational EC providers in Cape Town metropolitan is 703 (N), with confidence interval of 95% and a margin of error of 5%, when calculated and resulted in a sample size of 254

population with a different proportion of Africans than 52.12%. The p-value is 0.2816 and so again we fail to reject the null hypothesis. Thus, there is insufficient evidence to claim non-representativeness of the sample in terms of gender or ethnicity, and so it is reasonable to argue that the respondents are demographically representative of the population.

### 3.4. Data Collection

A closed-ended questionnaire was developed by adapting the existing workplace violence data instrument of the International Labor Office, the International Council of Nurses, the World Health Organization, and the Public Services International (ILO/ICN/WHO/PSI, 2002). The data collection questionnaire was used by Maguire *et al*., (2018) and Wang *et al*., (2019) during their studies of workplace violence in the prehospital sector. The researcher printed questionnaires for distribution by the human resource development practitioner, acting as the research assistant that disseminated and collected the questionnaire. Brink (2010) cites that data collection should be systematically collected data to answer the research question methodically. Data was collected through a self-administered questionnaire that took 15-30 minutes to complete. A literature review assisted in obtaining secondary data on the exposure of EC providers to workplace violence in other contexts and was contracted with these study findings.

The questionnaire outlines four main questions, namely; demographic information, physical workplace violence, psychological workplace violence under the following subtopics, verbal abuse, sexual harassment, bullying and racial harassment, and the questionnaire further looked into education and training of EC providers about workplace violence. The questionnaire was self-administered questionnaire which was readily available from the base/stations specifically from the shift manager(s). The questionnaire from the World Health Organisation was adapted to suite the EC providers as the audience as opposed to it focusing on the broad healthcare system by mainly replacing hospital with the pre-hospital setting. Questions which required the qualitative opinion of employees were removed as this research is quantitative in design.

The researcher arranged to meet with the members of the Western Cape's EMS Human Resource Development (HRD) department who were recognised as research assistants and they all agreed to help with the dissemination and collection of the questionnaires to all the Cape Town Metropolitan bases. Each district had a designated HRD representative facilitating a decentralised approach to data collection. The questionnaires had no identifiers. The research assistants first distributed the information letter and consent forms, after completion of the consent form participants were handed the questionnaires for completion. The participants completed their questionnaires at their own leisure and in the absence of HRD staff.

Randomization was conducted on the whole population using simple random sampling, thus all of the 703 individuals in the sampling frame provided had an equal chance to be included in the sample. There was therefore no unfair selection or exclusion.

### 3.5. Validity and Reliability

A questionnaire was developed in a joint program between the International Labour Office (ILO), World Health Organisations (WHO), International Council of Nurses (ICN) and Public Services International (PSI) in 2003 with the aim of understanding workplace violence in the healthcare sector. The researcher adapted the questionnaire to enhance specificity for the nuance of pre-hospital workplace violence, where the focus of the questionnaire is towards the EC providers as opposed to the healthcare sector as a whole. The questionnaire outlines four main closed-ended topics namely; demographic information, physical workplace violence, psychological workplace violence. The questionnaire has been widely used in the healthcare sector specifically within the hospital setting and was used in various countries like South Africa, Mozambique, China, Lebanon, Brazil, Australia, Bulgaria and Thailand (WHO, 2003). The adapted version of the questionnaire was further used in the prehospital setting (Maguire *et al*., 2018; Wang *et al*., 2019). There was no perceived need for a pilot study.

## 3.6. Data Analysis

Data were analysed using 'R' statistical software used by statisticians globally (Spiegel, Schiller and Srinivasan, 2013). Descriptive statistics was deduced from collected data to allow the researcher to draw inferences from the collected data (Creswell, 2014). Descriptive statistics were used, and data were manually entered into an excel spreadsheet with no participant identifiers. A statistician was consulted where statistically significant associations between data points are considered, such as demographic of the perpetrator/victim and violence typology.

## 3.7. Ethical Considerations

Ethics provide a framework for evaluating potential problems and determine the course of action to circumvent the problems. Ethical analysis reflected both the locally relevant values and internationally accepted norms. The governing principles which govern the appropriateness of the researchers were followed. The identified governing principles were as follows:

### 3.7.1. Autonomy

The potential participants received information concerning the study with regards to, benefits, expectations and the risks involved **(Appendix A)**. Recruited participants gave informed consent prior to enrolling in the study **(Appendix B)**. The participants were made aware of their role in the study and informed about the advantages and disadvantages of partaking in the study.

Social or epidemiological activity that involves a systemic collection or analysis of data with the intention of generating new knowledge requires the researcher to attain ethical clearance from the relevant Research Ethics Committee (REC) (Moodley, 2010). Ethical approval for this research was granted by the Human Research Ethics Committee of the Faculty of Health and Wellness Sciences at the Cape Peninsula University of Technology prior to commencement of the study, the clearance number for this study is as follows: ***CPUT/HW-REC 2017/H38***. The REC is duly registered with the National Health Research Ethics Council and is approved for studies involving human participants in a health context (NDOH, 2015). Site approval was granted by the Western Cape's Emergency Medical Services and the Western Cape Provincial Government **(Appendix C)**.

### 3.7.2. Confidentiality

Confidentiality was assured throughout the study by ensuring that participants are referred to by their allocated unique numbers, thus ensuring anonymity (NDOH, 2015; Moodley, 2010). Each participant was allocated a unique number through the completion of the consent form; a consent form number will correspond with the questionnaire number and is only known to the researcher. The researcher would have (had the need arisen) activated the therapeutic services available to all EMS staff at no expense to participants to provide counselling to the participants who start experiencing anxiety, depression, or any other discomfort that might result due to the recall of trauma under study so as to ensure the principle of no further harm.

All attempts to maintain confidentiality were made throughout the study. Each participant was allocated a number through the completion of the consent form; a consent form number corresponded with that of the questionnaire. The researcher did everything in their power to maintain confidentiality. The completed questionnaires were stored in a cupboard that is locked with a combination lock.

### 3.7.3. Beneficence

There was no physical, economic and financial risk to participants who chose to partake in the study but there might be a minimal psychological and social risk. Partaking in this study as a previous victim of workplace violence may have resulted in the victim reliving of the incident(s) which may be potentially psychologically disturbing to the participant. The participant may have relived traumatic encounters of experienced workplace violence. This may have resulted in the EC provider being emotional and anxious when answering the questionnaire.

### 3.7.4. Non-maleficence

The researcher requested a Psychologist from CPUT to be on stand-by to provide counselling to the participants who start experiencing anxiety, depression, or any other discomfort that might result due to the study. The participants were also asked to seek further help if the need arose. Withdrawal from the study by participants could occur at any time during the process of completing the questionnaire and incomplete questionnaires were not included in the study. If at any time after the completion of this form, self-reported adverse events occurred, participants were advised to contact their physician for further professional care or access the free

counselling service provided by the employer. The social risks stems from the impact the research might have on communities that are found to have been the site for workplace violence. The social risk for the study can occur if the society/community that is served by the EC providers feels victimized by having their society/community being named in the study (NDOH, 2015).

### 3.7.5. Justice

The researcher did not guarantee benefits to individuals prior to completion of the research as this may constitute coercion, but potential or indirect benefits were inferred as per the principle of justice and beneficence. The inferred benefits of this study are that the research identifies the extent and nature of pre-hospital workplace violence in the Emergency Medical Service (EMS) in the Cape Town Metropole. The participant's exposure to workplace violence was scientifically documented to add to the body of evidence and existing narratives. This study might enable community members to sympathise with the EC providers and rally for their safety (NDOH, 2015). The benefit might also be to inform the government on the need to examine the limitations of existing legislation to deal with the infliction of physical or psychological violence on EC providers during the provision of care to vulnerable communities.

This study was conducted in line with the Declaration of Helsinki pertaining to the ethical principles for medical research involving human participants (World Medical Association, 2013). The institutional ethics clearance **(Appendix B)** is attached. Participants could withdraw at any time and without reprisals. Participation was voluntary and was formalised after documented informed consent. The completed questionnaires were stored in a cupboard that is locked with a combination lock.

## 3.8. Summary

This chapter discussed the research methodology of this study. It focused on how sampling was done and how data was collected and analysed in this study. The chapter focused on the validity and reliability of the questionnaire as a data collection tool. Ethical considerations were also discussed.

The next chapter outlines the results or findings and describes the analysis of these results.

## CHAPTER 4- RESULTS

### 4. Introduction

This chapter outlines the results or findings of the study from the survey. The study investigated the prevalence of physical and psychological workplace violence, the common perpetrators (or what is the commonality in perpetration) of workplace violence and the reporting of workplace violence procedure by EC providers in the Cape Town Metropole. In order for the researcher to answer the outlined research purpose and questions stated in section 1.3 and 1.4 respectively, a quantitative descriptive survey was conducted. The questionnaire had 45 questions and it was adapted from the International Labor Office, the International Council of Nurses, the World Health Organization, and the Public Services International (ILO/ICN/WHO/PSI, 2002). This chapter outlines the following: demographic information, physical workplace violence, psychological workplace violence and training of EC providers and reporting procedures about workplace violence. Descriptive and inferential statistics are used to explain the results.

Table 2. Response rate per division

| Division | Sample per Division | Returned And Eligible | Percentage |
|---|---|---|---|
| **A** | 62 | 35 | 56.4 |
| **B** | 62 | 38 | 61.2 |
| **C** | 76 | 42 | 55.3 |
| **D** | 54 | 31 | 57.4 |
| **Total** | **254** | **146** | **57.6** |

### 4.1. Response Rate

The questionnaire was distributed to all four divisions throughout the four main base stations in Cape Town's Western Cape Government's EMS. Returned questionnaires were assessed for completeness and admissibility for data analysis. The assessment of questionnaires resulted in the return of 179 questionnaires where (n = 28) of the participants did not meet the inclusion criteria and (n = 5) were incomplete. Ultimately, 146 questionnaires were eligible for analysis. The response rate for this study was therefore 57.6% (n = 146) for completed and returned questionnaires by the end of the data collection phase. The lowest response rate in

the four divisions was 55.3% (n = 76) whilst the highest was 61.2% (n = 62) (as described in Table 2). From the 254 sampled population, non-response rate was seventy five (75), where twenty three (23) sampled population refused to fully participate in the study citing having partaked in a similar study and were awaiting results of that study whilst others failed to return the form. The researcher was unable to make contact with fifty two (52) sampled participants selected to partake in the study. Due to variable constraints such as time, finances and unavailability of samples personal contact information, the researcher was unable to follow up on the whereabouts of the missing participants.

### 4.2. Demographic Information

Table 3 provides the demographic data which was obtained from the participants through the survey: age, gender, ethnicity, job category, division, years of experience, number of partners, gender of patients seen and concerns about WPV. Over half of the participants (n = 76, 52%) have 6-10 years' experience of working in the pre-hospital setting and have been responding to emergencies. Half of the participants were male (n = 82, 56%) whilst less than half of the participants were female (n = 64, 44%). Age groups which were represented in the study are as follows: 18-20 (n = 0, 0%), 20-30 (n = 19, 13%), 30-40 (n = 75, 51%) 40-50 (n = 39, 27%) and 50-60 (n = 13, 9%). More than two quarters (n = 94, 64%) of participants were aged below 40 whilst more than one quarter (n = 52, 36) were aged above 40 years. The majority of the respondents' ethnicity[26] was self-identified as "African" (n = 83, 57%) and it was followed by over one quarter of so called (self-identified) "Coloured" (n = 55, 38%), less than one quarter of respondents were Caucasian[27] (n = 6, 4%) and Indian (n = 2, 1%).

The majority of respondents who were above one-quarter were from the western division (n = 42, 29%) followed by eastern division (n = 38, 26%). The remaining two divisions had less than one-quarter of respondents from the northern division (n =

[26] The reference to racial classification is only on the basis of potential for redress. The author and supervisor are critical of the use of apartheid classifications in research. Racially motivated violence and xenophobia are documented in South African history. Note that ethnicity was self-identified.
[27] Caucasian refers to white Africans

35, 24%) and southern division (n = 31, 21%). Over half of the respondents were practising as ILS (n = 83, 5%) and just over one-quarter of respondents were practising as BLS (n = 38, 26%). Only 12 respondents (8%) were practicing as ALS-ANT and nine respondents (6%) were practising as ALS-ECP, the other job categories had four respondents (3%).

The numbers of partners that are with the respondents during carrying out their duties were as follows: Respondents who had no partners and was working alone (n = 13, 9%), working with one partner (n = 29, 20%), working with 2-5 partners (n = 72, 49%), 6-10 partners (n = 5, 3%), 11-15 partners (n = 7, 5%) and >15 partners (n = 20, 14%). The respondents showed that in terms of gender of patients that they treat were equally female and male (n = 131, 90%), whilst 12 respondents (8%) treated mostly females and 3 respondents (2%) treated mainly males. Majority of respondents were very worried about workplace violence (n = 102, 69%), twenty-two respondents (16%) were moderately worried, while twelve (8%) of respondents were somewhat worried, six (4%) where slightly worried whilst four (3%) of respondents were not worried about the occurrence of workplace violence (Table 3).

Table 3: Demographic data of pre-hospital EC providers

| **Variable** | **Category** | ***n*** | ***%*** |
|---|---|---|---|
| **Age** | 18-20 | 0 | 0 |
| | 20-30 | 19 | 13 |
| | 30-40 | 75 | 51 |
| | 40-50 | 39 | 27 |
| | 50-60 | 13 | 9 |
| **Gender** | Female | 64 | 44 |
| | Male | 82 | 56 |
| **Ethnicity** | African | 83 | 57 |
| | Caucasian | 6 | 4 |
| | Coloured | 55 | 38 |
| | Indian | 2 | 1 |
| | Other | 0 | 0 |
| **Job Category** | BLS | 38 | 26 |
| | ILS | 83 | 57 |
| | ALS-ANT | 12 | 8 |
| | ALS-ECP | 9 | 6 |
| | Other | 4 | 3 |
| **Division** | Eastern | 38 | 26 |
| | Western | 42 | 29 |
| | Northern | 35 | 24 |
| | Southern | 31 | 21 |

| | | | |
|---|---|---|---|
| **Years of Experience** | 0-1 | 0 | 0 |
| | 2-5 | 32 | 22 |
| | 6-10 | 76 | 52 |
| | 16-20 | 22 | 15 |
| | >20 | 16 | 11 |
| **Number of partners** | None | 13 | 9 |
| | 1 | 29 | 20 |
| | 2-5 | 72 | 49 |
| | 6-10 | 5 | 3 |
| | 11-15 | 7 | 5 |
| | >15 | 20 | 14 |
| **Gender of Patients often seen** | Female | 12 | 8 |
| | Male | 3 | 2 |
| | Both | 131 | 90 |
| **How worried are you about WPV** | 1 (Not Worried) | 4 | 3 |
| | 2 | 6 | 4 |
| | 3 | 12 | 8 |
| | 4 | 22 | 16 |
| | 5 (Very worried) | 102 | 69 |

### 4.3. Physical violence in the pre-hospital setting

Respondents (n = 42, 29%) had reported that they had experienced physical violence within the previous 12 months and describe the physical attack as being an attack with a weapon. The majority of the attack was perpetrated by the general public (n = 79, 54%), followed by the patient's relative (n = 34, 23%) and patients (n = 31, 21%) and a minority of attacks were perpetrated by patients friends (n = 4, 3%). More than a quarter of attacks took place at the emergency scene (n = 66, 45%) or in the ambulance (n = 62, 42%). The majority of the attacks take place between 24:00-07:00am (n = 59, 41%). The majority of respondents who were physically attacked did not sustain physical injuries (n = 117, 80%) and (n = 117, 80%) did not require treatment respectively, while (n = 29, 20%) of the respondents sustained injuries due to the physical attack and (n = 29, 20%) required treatment (Table 4).

Table 4: Physical violence responses

| Variable | Category | *n* | *%* |
|---|---|---|---|
| **Ever been physically attacked** | Yes | 42 | 29 |
| | No | 104 | 71 |
| **Attacked with a weapon** | Yes | 79 | 54 |
| | No | 67 | 46 |

| | | | |
|---|---|---|---|
| **Who attacked you** | Patient | 31 | 21 |
| | Patients Relative | 34 | 23 |
| | Patients Friends | 4 | 3 |
| | General Public | 79 | 54 |
| **Location of attack** | Scene | 66 | 45 |
| | Ambulance | 62 | 42 |
| | In hospital | 15 | 10 |
| | Other | 4 | 3 |
| **Time of attack** | 07:00-13:00 | 29 | 12 |
| | 13:00-18:00 | 10 | 17 |
| | 18:00-24:00 | 29 | 20 |
| | 24:00-07:00 | 59 | 41 |
| | Do not remember | 15 | 10 |
| **Injuries sustained due to attack** | Yes | 29 | 20 |
| | No | 117 | 80 |
| **Treatment required** | Yes | 29 | 20 |
| | No | 117 | 80 |

### 4.4. Non-physical violence in the pre-hospital setting

More than half of the respondents (n = 77, 53%) had experienced psychological violence whilst just below half of the respondents (n = 69, 47%) had not experienced any self-reported psychological violence. The majority of the respondents posited that they sometimes (n = 80, 55%) experience verbal attacks, whilst 29 (n) respondents (20%) experienced verbal attacks 'all the time' during the previous 12 months and 28 (n) respondents (19%) had never experienced verbal attacks within the 12 months period.

The majority of the respondents (n = 101, 69%) had never experienced sexual attacks, whilst the minority of the respondents (n = 29, 20%) and (n = 9, 6%) had 'sometimes' and 'all the time' experienced sexual attacks, respectively. Eighty respondents (n = 80, 55%) had never experienced bullying, whilst 35% (n = 51) and 2% (n=3) of respondents had sometimes and all the time respectively had experienced bullying. Some (n = 12, 8%) of the respondents do not remember experiencing bullying within the 12 month prior period. Just below half of the respondents (n = 66, 45%) had never experienced racial harassment, whilst almost a third (n = 39, 27%) of respondents sometimes experience racial attacks. Alarmingly, one in five (n = 29, 20%) of respondents experienced racial harassment all the time during the 12 month prior period (Table 5).

Table 5: Non-physical violence responses

| Variable | Category | *n* | *%* |
|---|---|---|---|
| **Ever been psychologically attacked** | Yes | 77 | 53 |
| | No | 69 | 47 |
| **Verbal Attack** | All the time | 32 | 22 |
| | Sometime | 80 | 55 |
| | Never | 28 | 19 |
| | Do not remember | 6 | 4 |
| **Sexual Attack** | All the time | 9 | 6 |
| | Sometime | 29 | 20 |
| | Never | 101 | 69 |
| | Do not remember | 7 | 5 |
| **Bullying** | All the time | 3 | 2 |
| | Sometime | 51 | 35 |
| | Never | 80 | 55 |
| | Do not remember | 12 | 8 |
| **Racial harassment** | All the time | 29 | 20 |
| | Sometime | 39 | 27 |
| | Never | 66 | 45 |
| | Do not remember | 12 | 8 |

Non-physical workplace violence in the form of verbal abuse was mainly perpetrated by patient's relatives (n = 55, 38%) and the patient (n = 54, 37%). Whilst the general public was responsible for 23% (n = 34) of verbal abuse towards EC providers. Sexual harassment, bullying and racial harassment perpetrators were all below 12% and were perpetrated by patients, patient's relative and the general public at a smaller scale (Table 6).

Table 6: Perpetrators of non-physical workplace violence

| Variable | Category | n | % |
|---|---|---|---|
| **Verbal Abuse** | Patient | 54 | 37 |
| | Patient's Relative | 55 | 38 |
| | Patient's Friends | 18 | 12 |
| | General Public | 34 | 23 |
| **Sexual Harassment** | Patient | 7 | 5 |
| | Patient's Relative | 7 | 5 |
| | Patient's Friends | - | - |
| | General Public | 1 | 1 |
| **Bullying** | Patient | 13 | 9 |
| | Patient's Relative | 6 | 4 |
| | Patient's Friends | - | - |
| | General Public | 12 | 8 |
| **Racial harassment** | Patient | 13 | 9 |
| | Patient's Relative | 15 | 10 |

| | | | |
|---|---|---|---|
| | Patient's Friends | 4 | 3 |
| | General Public | 18 | 12 |

### 4.4.1. Consequences of Exposure to psychological violence

In the 12 months prior to the completion of the questionnaires, 53% of the respondents had experienced psychological violence. The consequences experienced by the respondents were outlined through answering a Likert scale type rating and the responses were classified under verbal abuse, sexual harassment, bullying and racial harassment. The majority of respondents had not experienced repeated disturbing memories (n = 41, 28%), did not feel like everything they were doing was an effort (n = 44, 30%) and they avoided talking about the verbal abuse (n = 39, 27%) a little bit yet the majority of respondents (n = 55, 38%) were extremely super-alert or watchful and on-guard for verbal abuse.

The majority of respondents had no adverse consequences from experiencing sexual harassment in that respondents had not at all experienced repeated disturbing memories (n = 107, 73%). They also avoided thinking and talking about the sexual harassment (n = 10, 7%) whilst (n = 104, 71%) were not at all super-alert or watchful and on guard. The majority of the respondents further posited that they did not feel like everything they were doing was an effort (n = 107, 73%) whilst (n = 13, 9%) of the respondents felt like everything they did was an effort.

The majority of respondents had 'not at all' experienced consequences to workplace bullying in the 12 months prior to completing the survey. Respondents (n = 102, 70%) had 'not at all' experienced repeated disturbing memories whilst (n = 19, 13%) said they had 'extremely' experienced repeated disturbing memories. Below a quarter of respondents had 'not at all' avoided thinking or talking about (n = 91, 62%) and being super-alert or watchful and on guard (n = 91, 62%) whilst (n = 26, 18%) of respondents were extremely super-alert or watchful and on guard as a consequence of their experience of workplace bullying. Furthermore, the majority of respondents (n = 98, 67%) felt like everything they did was 'not at all' an effort whilst (n = 26, 18%) had 'extremely' felt like everything they did was an effort.

The majority of respondents had ‘not at all’ experienced consequences of racial harassment through having repeated disturbing memories (n = 92, 63%), avoided thinking or talking about it (n = 92, 63%), being super–alert or watchful and on-guard (n = 77, 53%) and felt like everything they did was an effort (n = 72, 49%). The other respondents further posited that they had ‘extremely’ experienced consequences of racial harassment through having repeated disturbing memories (n = 26, 18%), avoided thinking or talking about it (n = 26, 18%), was super–alert or watchful and on guard (n = 37, 25%) and felt like everything they did was an effort (n = 37, 25%) (Table 7 provides the summary).

Table 7: Summary of consequences of exposure to psychological violence

| **Consequences of Exposure to Verbal Abuse** | | | |
|---|---|---|---|
| **Variable** | **Category** | ***n*** | ***%*** |
| **Repeated disturbing memories** | Not at all | 41 | 28 |
| | A little bit | 37 | 25 |
| | Moderately | 26 | 18 |
| | Quite a bit | 13 | 9 |
| | Extremely | 29 | 20 |
| **Avoid thinking or talking about it** | Not at all | 32 | 22 |
| | A little bit | 39 | 27 |
| | Moderately | 37 | 25 |
| | Quite a bit | 26 | 18 |
| | Extremely | 12 | 8 |
| **Being super-alert or watchful and on guard** | Not at all | 47 | 32 |
| | A little bit | 9 | 6 |
| | Moderately | 15 | 10 |
| | Quite a bit | 20 | 14 |
| | Extremely | 55 | 38 |
| **Feeling like everything I did was an effort** | Not at all | 44 | 30 |
| | A little bit | 12 | 8 |
| | Moderately | 28 | 19 |
| | Quite a bit | 29 | 20 |
| | Extremely | 34 | 23 |
| **Consequences of Exposure to Sexual Harassment** | | | |
| **Variable** | **Category** | ***N*** | ***%*** |
| **Repeated disturbing memories** | Not at all | 107 | 73 |
| | A little bit | 16 | 11 |
| | Moderately | 6 | 4 |
| | Quite a bit | 6 | 4 |
| | Extremely | 10 | 7 |
| **Avoid thinking or talking about it** | Not at all | 107 | 73 |
| | A little bit | 16 | 11 |
| | Moderately | 13 | 9 |

| | | | |
|---|---|---|---|
| | Quite a bit | 10 | 7 |
| | Extremely | 0 | 0 |
| **Being super-alert or watchful and on guard** | Not at all | 104 | 71 |
| | A little bit | 6 | 4 |
| | Moderately | 6 | 4 |
| | Quite a bit | 13 | 9 |
| | Extremely | 16 | 11 |
| **Feeling like everything I did was an effort** | Not at all | 107 | 73 |
| | A little bit | 10 | 7 |
| | Moderately | 6 | 4 |
| | Quite a bit | 10 | 7 |
| | Extremely | 13 | 9 |

**Consequences of Exposure to Bullying**

| Variable | Category | *N* | *%* |
|---|---|---|---|
| **Repeated disturbing memories** | Not at all | 102 | 70 |
| | A little bit | 6 | 4 |
| | Moderately | 16 | 11 |
| | Quite a bit | 3 | 2 |
| | Extremely | 19 | 13 |
| **Avoid thinking or talking about it** | Not at all | 91 | 62 |
| | A little bit | 10 | 7 |
| | Moderately | 4 | 4 |
| | Quite a bit | 29 | 20 |
| | Extremely | 10 | 7 |
| **Being super-alert or watchful and on guard** | Not at all | 91 | 62 |
| | A little bit | 13 | 9 |
| | Moderately | 3 | 2 |
| | Quite a bit | 13 | 9 |
| | Extremely | 26 | 18 |
| **Feeling like everything I did was an effort** | Not at all | 98 | 67 |
| | A little bit | 10 | 7 |
| | Moderately | 6 | 4 |
| | Quite a bit | 6 | 4 |
| | Extremely | 26 | 18 |

**Consequences of Exposure to Racial Harassment**

| Variable | Category | *N* | *%* |
|---|---|---|---|
| **Repeated disturbing memories** | Not at all | 92 | 63 |
| | A little bit | 9 | 6 |
| | Moderately | 9 | 6 |
| | Quite a bit | 12 | 8 |
| | Extremely | 26 | 18 |
| **Avoid thinking or talking about it** | Not at all | 92 | 63 |
| | A little bit | 6 | 4 |
| | Moderately | 15 | 10 |
| | Quite a bit | 9 | 6 |
| | Extremely | 26 | 18 |
| **Being super-alert or watchful and on guard** | Not at all | 77 | 53 |
| | A little bit | 0 | 0 |

| | | | |
|---|---|---|---|
| | Moderately | 18 | 12 |
| | Quite a bit | 15 | 10 |
| | Extremely | 37 | 25 |
| **Feeling like everything I did was an effort** | Not at all | 72 | 49 |
| | A little bit | 9 | 6 |
| | Moderately | 15 | 10 |
| | Quite a bit | 15 | 10 |
| | Extremely | 37 | 25 |

### 4.5. Reporting and Prevention

Over three quarters of the respondents (n = 123, 84%) indicated that they know how to report workplace violence incidents but 57% (n = 83) of the respondents posited that they were not encouraged to report workplace violence incidents. Respondents (n = 105, 72%) indicated that the employer afforded them the opportunity to report workplace violence incidents and 52% of respondents (n = 76) were offered counselling, while just below half of the respondents (n = 70, 48%) were not offered any counselling. Most respondents (n = 80, 55%) were not offered other support while 45%, (n = 58) of the respondents were offered "other support" after experiencing workplace violence.

Majority of the respondents (n = 121, 83%) were encouraged to report workplace violence by their employer, followed by their colleagues (n = 61, 42%). Respondents who did not report their workplace violence incidents felt that it was not important to report it (n = 32, 22%) while (n = 42, 29%) felt it was useless to report an incident of workplace violence (Table 8).

Table 8: Reporting of workplace violence

| **Variable** | **Category** | ***n*** | ***%*** |
|---|---|---|---|
| **Know how to report** | Yes | 123 | 84 |
| | No | 23 | 16 |
| **Encouraged to report** | Yes | 63 | 43 |
| | No | 83 | 57 |
| **Employer provide with opportunity to report** | Yes | 105 | 72 |
| | No | 41 | 28 |
| **Was there any counselling** | Yes | 76 | 52 |
| | No | 70 | 48 |
| **Employer offered other support** | Yes | 58 | 45 |

| | | | |
|---|---|---|---|
| | No | 80 | 55 |
| **Who Encouraged you to report** | Employer | 121 | 83 |
| | Union | 35 | 24 |
| | Family/Friends | 28 | 19 |
| | Colleagues | 61 | 42 |
| | Associations | 13 | 9 |
| | Other | 9 | 6 |
| **Reasons for not reporting** | Not important | 32 | 22 |
| | Felt Ashamed | 12 | 8 |
| | Guilty | 1 | 1 |
| | Afraid | 9 | 6 |
| | Didn't know who to report to | 12 | 8 |
| | Useless | 42 | 29 |
| | Other | 12 | 8 |

Three quarters and above of the respondents indicated that the verbal abuse (n = 109, 75%), sexual harassment (n = 116, 76%), bullying (120, 82%), and racial harassment (n = 121, 83%) were preventable. Other respondents indicated that the verbal abuse (n = 37, 25%), sexual harassment (n = 35, 24%), bullying (26, 18%), and racial harassment (n = 25, 17%) incidents were not preventable (Table 9).

Table 9: Prevention of workplace violence

| **Variable** | **Category** | **Verbal Abuse** | | **Sexual Harassment** | | **Bullying** | | **Racial Harassment** | |
|---|---|---|---|---|---|---|---|---|---|
| | | ***n*** | ***%*** | ***n*** | ***%*** | ***n*** | ***%*** | ***n*** | ***%*** |
| **Was the incident preventable** | Yes | 109 | 75 | 111 | 76 | 120 | 82 | 121 | 83 |
| | No | 37 | 25 | 35 | 24 | 26 | 18 | 25 | 17 |
| **Was there any action to investigate** | Yes | 53 | 36 | 92 | 63 | 25 | 53 | 45 | 31 |
| | No | 87 | 60 | 54 | 37 | 69 | 47 | 101 | 69 |

### 4.6. Training and Education

The majority of respondents (n = 117, 80%) had not received education and training whilst one in five respondents (n = 29, 20%) posited that they *had* received education and training of dealing with potential violent situations. The majority of respondents (n = 89, 61%) cited that their workplace did not have a written policy regarding workplace violence whilst some of the respondents (n = 57, 39%) indicated that their workplace had a written WPV policy. Eighty respondents (55%) knew about the existence of the WPV policy. Majority of the respondents (n = 77, 53%) knew

about the availability of support programmes for victim of WPV, whilst 47% (n = 69) did not know about the support programme. This is of concern considering the respondents are all in the same employ.

As for the availability of guidelines for being dispatched into dangerous neighbourhoods, respondents (n = 57%) indicated that they were non-existent while 43% (n = 69) of respondents knew about the existence of guidelines. Regarding withholding of services or asking for SAPS accompaniment, the majority of respondents (n = 137, 94%) indicated that they were allowed such measures whenever they were needed whilst 6% (n = 9) indicated that they were not allowed accompaniment by law enforcement. The majority of respondents (n = 79, 54%) indicated that they sometimes have law enforcement accompaniment to scenes whilst 42% (n = 61) posited that law enforcement was always available to accompany them to scenes (Table 10).

Table 10: Training and Education of EC providers

| **Variable** | **Category** | ***n*** | ***%*** |
|---|---|---|---|
| **Written Policy** | Yes | 57 | 39 |
| | No | 89 | 61 |
| **Read and understood its contents** | Yes | 80 | 55 |
| | No | 66 | 45 |
| **Programme supporting victims** | Yes | 77 | 53 |
| | No | 69 | 47 |
| **Guidelines for dangerous neighbourhoods** | Yes | 63 | 43 |
| | No | 83 | 57 |
| **Allowed to withhold service or ask for SAPS accompaniment** | Yes | 137 | 94 |
| | No | 9 | 6 |
| **Availability of law enforcements to accompany to scenes** | Always | 61 | 42 |
| | Sometimes | 79 | 54 |
| | Never | 7 | 5 |

### 4.7. Inferential Test/Logistic regression

Data analysis was conducted using R statistical[28] software. Logistic regression was used to model the relationship between a binary response variable and one or more predictor variables. Dependent variables were as follows:

- Have been physically attacked in last 12 months at work (yes/no)
- Have experienced verbal abuse at work in last 12 months (yes/no)
- Have experienced sexual harassment at work in last 12 months (yes/no)
- Have experienced bullying at work in last 12 months (yes/no)
- Have experienced racial harassment at work in last 12 months (yes/no)
- Have received education and training on how to deal with violent situation (yes/no)
- Workplace has written policy on workplace violence (yes/no)
- There is a program supporting victims of workplace violence (yes/no)
- Have been provided with guidelines for dangerous patients or neighbourhoods (yes/no)

Independent variables considered were as follows:

- Age category
- Ethnicity category
- Gender
- Job category
- Division
- Years of experience

A stepwise selection algorithm, using Akaike Information Criterion (AIC) [29] as the selection criterion, was used to select which predictor variables (if any) to include in the model. The results were as follows.

[28] R: Is a programming language and environment for graphics, statistical and statistical computing
[29] Akaike Information Criterion (AIC) - Developed by Akaike in 1973, with the objective of finding the approximating model to the generation process of unknown data (Acquah, 2017).

For the following dependent variables, no statistically significant relationship (at 5% level of significance) was found with any of the following predictors using logistic regression:

- Physical Attack, Verbal Abuse, Received Education/Training, Guidelines

For all other dependent variables, at least one statistically significant predictor was identified and these models' results are discussed in more detail below.

### 4.7.1. Sexual Harassment

The Eastern division is the reference category here. At 5% level of significance, the Western Division (p-value = 0.0213) and Northern Division (p-value = 0.0356) were less likely than staff in the Eastern division to report that they have experienced sexual harassment at work in the last 12 months. Expressed as odds ratios, the odds of a staff member in the Eastern Division having experienced sexual harassment in the past 12 months is estimated to be 6.59 times as much as the odds of a staff member in the Western Division having experienced sexual harassment in the past 12 months. The odds of a staff member in the Eastern Division having experienced sexual harassment in the past 12 months is estimated to be 5.63 times as much as the odds of a staff member in the Northern Division having experienced sexual harassment in the past 12 months[30].

Table 11: Sexual Harassment

```
Coefficients:
                 Estimate Std. Error z value Pr(>|z|)
(Intercept)        -0.6616     0.4260  -1.553   0.1204
Gender Male        -0.8150     0.5054  -1.613   0.1068
division Western   -1.8852     0.8185  -2.303   0.0213 *
division Northern  -1.7282     0.8223  -2.102   0.0356 *
division Southern  -0.1095     0.5769  -0.190   0.8495
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

[30] Note: these odds ratios can be calculated using $e^{|\hat{\beta}|}$ where $\hat{\beta}$ is the parameter estimate. If $\hat{\beta}$ is negative we reverse the direction of the comparison.

There is no statistically significant difference between the Southern Division and Eastern Division in this respect (p-value = 0.8495).

There is some evidence though not at the threshold of statistical significance (p-value = 0.1068) that Males were less likely than Females to report that they have experienced sexual harassment at work in the last 12 months. The odds of a female staff member having experienced sexual harassment in the past 12 months is estimated to be 2.26 times as much as the odds of a male staff member having experienced sexual harassment in the past 12 months (Table 11).

### 4.7.2. Bullying

Results for bullying were somewhat similar to those of sexual harassment apart from the absence of Gender as a predictor in this model. It appears that staff in the Western (p-value = 0.00310) and Northern (p-value = 0.00564) Divisions were significantly less likely to report bullying at work in the past 12 months compared with staff in the Eastern Division; and there is no statistically significant difference in odds of bullying between the Southern and Eastern Divisions (Table 12).

Table 12: Bullying

```
Coefficients:
                 Estimate Std. Error z value Pr(>|z|)
(Intercept)       -0.3185     0.3286  -0.969  0.33243
Division Western   -1.7097     0.5782  -2.957  0.00310 **
Division Northern  -1.7292     0.6247  -2.768  0.00564 **
Division Southern  -0.8711     0.5425  -1.606  0.10831
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

In terms of odds ratios, the odds of a staff member in the Eastern Division having experienced bullying in the past 12 months is estimated to be 5.53 times as much as the odds of a staff member in the Western Division having experienced bullying in the past 12 months. The odds of a staff member in the Eastern Division having experienced bullying in the past 12 months is estimated to be 5.64 times as much as

the odds of a staff member in the Northern Division having experienced bullying in the past 12 months (Table 12).

### 4.7.3. Racial Harassment

Results for racial harassment were again similar, although this time the difference between Northern and Eastern Divisions is also not statistically significant. Staff in the Western Division were significantly less likely to report racial harassment than staff in the Eastern Division (p-value = 0.00579).

Table 13: Racial Harassment

```
Coefficients:
                 Estimate Std. Error z value Pr(>|z|)
(Intercept)        -0.4274     0.3319  -1.288  0.19777
Division Western   -1.6007     0.5800  -2.760  0.00579 **
Division Northern  -0.9589     0.5373  -1.784  0.07434 .
Division Southern  -0.5842     0.5297  -1.103  0.27013
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

The odds of a staff member in the Eastern Division having experienced racial harassment in the past 12 months is estimated to be 4.96 times as much as the odds of a staff member in the Western Division having experienced racial harassment in the past 12 months.

Interestingly, the staff member’s own ethnicity was not a statistically significant predictor of whether they reported having experienced racial harassment in the past year. This was verified directly using a Pearson chi-squared test of independence (p-value = 0.6189).

### 4.7.4. Workplace Policy on Workplace Violence

Table14: Workplace Policy on Workplace Violence

```
Coefficients:
                   Estimate Std. Error z value Pr(>|z|)
(Intercept)        -1.105689   0.429735  -2.573  0.01008 *
ethnicnewOther     1.946598    0.985361   1.976  0.04821 *
ethnicnewColoured  1.285173    0.470087   2.734  0.00626 **
genderMale         0.751973    0.416395   1.806  0.07093 .
yearsexpnew6-10    -0.902143   0.515799  -1.749  0.08029 .
yearsexpnew>10     0.007703    0.637004   0.012  0.99035
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

This model (Table 14) found statistically significant differences between ethnic groups in the response to whether their workplace has a policy on workplace violence.

Specifically, staff members from the 'Other' ethnicity category (which was formed by merging the 'White' and 'Indian' groups, which had sample sizes too small to be considered separately) were significantly more likely than staff members from the 'Black African' ethnic group (p-value = 0.048) to report that their workplace has a policy on workplace violence. Staff members from the 'Coloured' ethnic group were also significantly more likely than staff members from the 'Black African' ethnic group (p-value = 0.00626) to report that their workplace has a policy on workplace violence. In terms of odds ratios, the odds of a staff member from 'Other' ethnicity category (White or Indian) responding that his/her workplace has a workplace violence policy was 7.00 times as much as the odds of a staff member from 'Black African' ethnicity category responding that his/her workplace has a workplace violence policy. The odds of a staff member from 'Coloured' ethnicity category responding that his/her workplace has a workplace violence policy was 3.62 times as much as the odds of a staff member from 'Black African' ethnicity category responding that his/her workplace has a workplace violence policy.

The model also gives some indication, though not statistically significant, that male staff were more likely than female staff to report that their workplace has a workplace violence policy (p-value = 0.0709), and that staff with 6-10 years' experience were

less likely than staff with 2-5 years' experience to report that their workplace has a workplace violence policy (p-value = 0.0803).

### 4.7.5. Program Supporting Victims of Workplace Violence

Table 15: Program Supporting Victims of Workplace Violence

```
Coefficients:
                Estimate Std. Error z value Pr(>|z|)
(Intercept)      -0.3844     0.5130  -0.749   0.4537
jobcatnewILS      1.1172     0.4487   2.490   0.0128 *
jobcatnewALS      0.5041     0.6015   0.838   0.4020
jobcatnewOther    0.2684     1.0093   0.266   0.7903
yearsexpnew6-10  -0.6537     0.4577  -1.428   0.1532
yearsexpnew>10    0.4361     0.5395   0.808   0.4189
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

In this case (Table 15) the only statistically significant predictor was job category. With BLS serving as reference category and with the two ALS categories (ANT and ECP) merged, it was found that ILS staff were significantly more likely than BLS staff to report that there is a program supporting victims of workplace violence (p-value = 0.0128). The odds of an ILS staff member reporting that there is a program supporting victims of workplace violence were estimated to be 3.06 times as much as the odds of a BLS staff member reporting that there is a program supporting victims of workplace violence.

## 4.8. Summary

The data collection instrument, in the form of a questionnaire, yielded much data and subsequent analysis. The findings document the demographics and exposure parameters relevant to the study question. Statistically significant findings are provided in relation to sexual harassment, bullying, racial harassment, workplace policy on workplace violence and programmes supporting victims of workplace violence. Of note is that the experience of violence is influenced by the base location (division), suggesting the role of environmental and social determinants of violence.

The next chapter provides a discussion on the above findings.

## CHAPTER 5- DISCUSSION OF RESULTS

### 5.1. Introduction

The aim of this study was to investigate the extent and nature of individual and collective exposure of EC providers to workplace violence. This study also aimed to determine the effect of workplace violence on the EC providers. In this chapter, the study results outlined in Chapter 4 will be discussed with the objective of addressing the research aim and questions outlined in Chapter 1.

### 5.2. Workplace violence

Workplace violence in the pre-hospital setting of Cape Town, either physical or non-physical, was reported by n = 119 (81%), of a sample population of 146 EC providers. Therefore 81% (n = 119) of EC providers experienced at least one incident of workplace violence during the previous 12 months. According to the World Health Organisation's framework for addressing health sector workplace violence, ambulance staff members are at an extremely higher risk of exposure to violence when compared with other healthcare professions (ILO/ICN/WHO/PSI, 2002). Maguire *et al*., (2017) found that violence against EMS personnel was a problem for the majority of EMS agencies throughout the world. Reviewed literature from studies conducted in countries like Sweden, Iran, Australia and Canada (See Table 16 below), shows the prevalence of prehospital workplace violence towards EC providers is comparable to that obtained in this study. However, it is possible that South African prevalence is under-reported due to poor reporting systems and the normative nature of violence in criminality and violence as dispute resolution (Steinman, 2003, Kennedy and Julie, 2013).

Table 16: Comparable pre-hospital studies

| Title | Author (year) | Country/ Setting | Respondents | Prevalence |
|---|---|---|---|---|
| To identify the percentage of EMS personnel who had experienced six different forms of workplace violence | Boyle et a., 2007 | Australia | 270 EMS personnel | Verbal abuse was (82%), followed by intimidation (55%), physical abuse (38%), sexual harassment (17%) and sexual assault |

| | | | | |
|---|---|---|---|---|
| | | | | (4%). |
| Threats and violence in Swedish prehospital emergency care | Petzall *et al*., 2011 | Sweden | 134 Swedish ambulance services personnel located in four counties in Sweden | 66%: experienced threats and/or violence during their work; 26%: experienced threats, and 16% faced physical violence |
| Exposure of Iranian EMTs to workplace violence: a cross-sectional analysis | Rahmani *et al*.,2012 | Iran | 138 ambulance personnel in Azerbaijan Province | 75%: experienced at least one form of WPV; 71%: verbal abuse, 38%: physical assault, 9%: cultural harassment, 4%: serious injuries due to violence, 8%: workplace violence that included the use of weapons. |
| Paramedic self-reported exposure to violence in the EMS workplace, a mixed-method cross-sectional survey | Bigham *et al*., 2014 | Canada | 1676 ambulance paramedics | 75%: experiencing violence. 67%: verbal, 41%: intimidation, 26%: physical, 14% and 3%: sexual harassment and assault. |
| International Survey of Violence against EMS Personnel: Physical Violence Report | Maguire *et al*., 2018 | International, (USA, Australia, Canada, etc) | 1778 EMS personnel | 65% experienced physical attacks, in 10% of physical attacks weapons were used |
| Workplace violence in Asian Ems: A pilot Study | Wang *et al*., 2019 | Taiwan | 152 EMS personnel | 74.3% experienced verbal assault, 49.3% experienced physical assault |

Further results of both the physical and non-physical workplace violence are discussed below.

### 5.3. Prevalence of physical and psychological workplace violence

Physical violence (n= 42, 29%) had occurred far less when compared to non-physical violence (n = 77, 53%). The findings of this study show non-physical violence incidents were more prevalent than physical violence in the Cape Town metropolitan's Emergency Medical Care service. The findings illustrate that approximately one in four of the respondents were victims of physical violence and 2 in 4 of respondents were victims of non-physical violence at the workplace. The prevalence of violent behaviour towards EC providers in the Cape Town Metropolitan becomes clearer. Furthermore, the majority of respondents (n = 102, 69%) were very worried about violence during the carrying out of their work.

#### 5.3.1. Physical workplace violence

The extent of physical violence towards EC providers in Cape Town within the previous 12 months is 29% (n= 42). Such a finding for the occurrence of physical violence are comparative with other studies. Petzall *et al*., 2011 found that 16% (n = 21) of EC providers experienced physical violence in Sweden. Bigham *et al*., (2014) found that 26% (n=436) of EC providers experienced physical violence in Canada. There seems to be an increase in the occurrence of workplace violence. Steinman's (2003) research findings showed that 17% of employees in the South African public sector healthcare providers (doctors, nurses, ambulance personnel, etc.) had experienced violence.

In this study, the nature of physical violence experienced by EC providers within the previous 12 months were such that 77 (n, 53%). of providers were attacked with a weapon[31] and 20% of respondents (n = 29) sustained injuries due to the physical attack and (n = 29) 20% of those required treatment. Petzall *et al*., (2011) found that 27% (n=36) of EMS personnel experienced threats involving weapons whilst Arnetz and Hamblin (2018) found that 4.1% (n = 18) of Midwestern hospital employees having experienced workplace violence involving weapons.

[31] Weapon- Covers any object which was designed for use as a weapon, for example swords, panga and daggers and any object which, although not designed for use as a weapon, was used or intended to be used as a weapon (knife, axe, etc.) (Du Toit and Ferreira, 2013.)

The presence of a weapon can prime an individual to be aggressive. This is known as the 'weapon's priming effect' (Benjamin and Bushman, 2016). The General Aggression Model[32] is used to hypothesize that an escalation in aggressive thoughts and hostility can occur due to exposure to weapons. Therefore the use of a weapon during workplace violence is indicative of the individual's aggressive hostile behaviour. Weapon use in inflicting harm is premeditated behaviour that could result in the use of objects designed or adapted for causing harm and are brought to the incident location by the perpetrator for criminal intent (Swogger, *et al*., 2015, Helfritz-Sinville and Stanford, 2013). Premeditated aggression often involves a behaviour that is aligned to achieving a negative goal. Premediated aggression can be viewed from Bandura's Social-Cognitive Learning theory in that aggressive behaviour that was acquired and reinforced by achieving the rewards that follow the behaviour (Swogger, *et al*., 2015). The premeditated behaviour can be linked with personality disorders such as pathological lying, antisocial behaviour, lack of empathy and remorse (Walsh, Swogger, and Kosson, 2004; Helfritz-Sinville and Stanford, 2013).

It is of interest that there were no statistically significant predictors for physical workplace violence. The implication is that a larger sample size may be needed or that the predictors of physical violence are rather varied. Given that 1 in 5 in this study was attacked with a weapon, it may suggest premeditation. However, this may be mediated by the high gang violence culture (and normalization of civilian and gang weaponization) in the Western Cape (Western Cape Government, 2012).

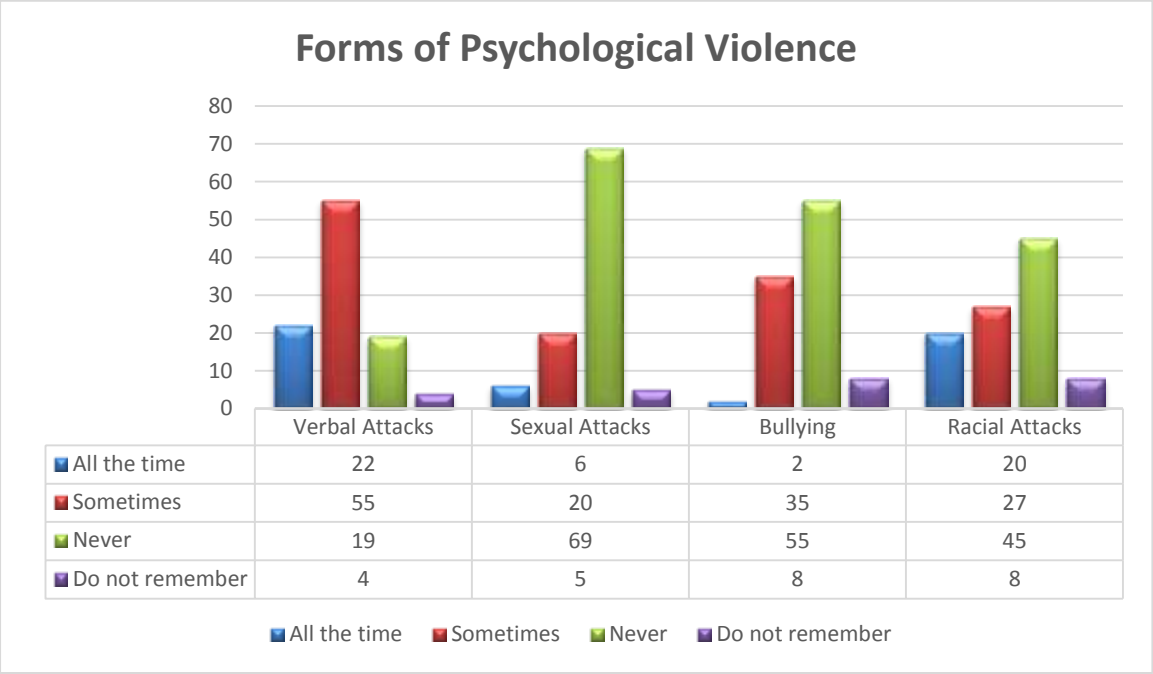
### 5.3.2. Non-Physical workplace violence

More than half of the respondents (n = 77, 53%) had experienced psychological violence, notwithstanding the delayed manifestations of psychological trauma in the previous 12 months. The prevalence of non-physical workplace violence is comparable with findings from other studies within the healthcare setting (Kennedy and Julie, 2013; Kaplan *et al*., 2013; Khalil, 2010; Steinman, 2003) and the

[32] General Aggression Model- Learned attitudes that forms and becomes an automatic response after learning aggressive patterns and behaviors that results in the formation of an individual's aggressive personality which predict aggression (Benjamin and Bushman, 2016).

Emergency Medical Service setting (Maguire, *et al.,* 2018; Pourshaikhain, *et al.,* 2016; Rahmani, *et al.,* 2012; Bigham, *et al.,* 2014; Petzall, *et al.,* 2011; Mechem, *et al.,* 2002; Suserud, *et al.,* 2002).

The results from this study demonstrated that EC providers frequently encountered various acts of non-physical violence (Figure 3). The nature of non-physical violence was reported as follows by the respondents:




| | Verbal Attacks | Sexual Attacks | Bullying | Racial Attacks |
|---|---|---|---|---|
| All the time | 22 | 6 | 2 | 20 |
| Sometimes | 55 | 20 | 35 | 27 |
| Never | 19 | 69 | 55 | 45 |
| Do not remember | 4 | 5 | 8 | 8 |

Figure 4: Forms of psychological violence

5.3.2.1. Verbal Attacks

Majority of the respondents (n= 112, 77%) posited that they experienced verbal attacks at least sometimes (n = 80, 55%) and all the time (n = 32, 22%) during the previous 12 months. There are similarities between the findings from this study and other studies from various countries, where verbal abuse was a common occurrence during patient care in the prehospital setting (Rahmani, *et al.,* 2012; Bigham, *et al.,* 2014; Petzall, *et al.,* 2011; Boyle, *et al.,* 2005). Steinman (2003) found that 60.1% of employees in the South African healthcare (public sector) had suffered verbal attacks within the previous 12 months.

During the synthesis of the literature, Chappel and Di Martino (2006) found verbal abuse was prevalent in the healthcare setting whereas 32% of Bulgarian, 40% of Brazilian, 41% of Lebanese, 48% of Thailand and 67% of Australian healthcare workers posited that they had experienced verbal abuse during the previous 12 months. Verbal attacks were the most common form of psychological violence experienced by EC providers during the past 12 months but it did not have a statistically significant relationship with other predictive variables.

Verbal abuse is an act of emotional abuse that causes humiliation, extreme fear or denigration to the victim (Keller, *et al.,* 2018). Verbal abuse is characterised by the following actions; yelling, swearing, defaming, threatening, blaming, accusing, condescending and insulting (Keller, *et al.,* 2018; WHO, 2003). Acts of verbal abuse are unacceptable, unfair and unjust. An EC provider that experiences repeated verbal abuse is likely to view their workplace as unhealthy and stressful and this will likely result in a negative physical and psychological health state.

5.3.2.2. Bullying

Majority of the respondents (n = 54, 37%) posited that they experienced bullying[33] at least sometimes (n = 51, 35%) and (n = 3, 2%) all the time during the previous 12 months. It interesting to note that in 2000, Steinman found that workplace bullying occurred in 77-78% of respondents in a South African internet survey. This prompted an international workplace bullying conference to take place in Johannesburg in November 2000. Steinman (2003) later found that 21% of South African healthcare workers had experienced workplace bullying in the previous 12 months. Cunnif and Mostert (2012) found bullying among 31.1% (N = 139 111) of South African employees from various sectors (financial, manufacturing, government, academic, mining and call centres). It can be extrapolated that workplace bullying is present

[33] Bullying - Repeated actions that are directed to one or more employees, which are unwanted by the victim, and are done either deliberately or unconsciously. The deleterious action is to causes humiliation, distress, and offence resulting in interference with job performance or an unpleasant work environment.

within the South African workplace, through the Steinman (2003) and Cunnif and Mostert (2012) findings. Contrast with this research results is problematic due to various factors which include, the differences in the research setting, audience, data collection tool, etc.

The concept of bullying is a complex phenomenon that may be better understood through the correlation between bullying, victimization and psychosocial challenges. Bullying is described as an interpersonal aggression that is complex yet unique and may be portrayed in different forms of relationships (Swearer and Hymel, 2015). According to Bronfenbrenner (1979), human development is conceptualized interaction between two directions, the individual and multiple systems. This is viewed through the Social-Ecological theory. Therefore, the individual's characteristics are not the only factors that constitute bullying behaviour, but the behaviours are influenced by several relationships with families, neighbours, teachers, peers and influences within the environment. It was for this reason that Espelage and Swearer (2003) suggested that bullying is influenced by the social ecology and should be viewed as a dynamic experience.

The individual's cognitive and biological vulnerabilities and stressful life experiences cause difficulties in psychological development, this is according to the Diathesis-stress Model[34]. Swearer and Hymel (2015) argued that for bullying to be addressed there has to be integration between social-ecological factors and Diathesis-stress model, thus recognizing the complex and dynamic nature of bullying involved in multiple settings.

Hoel and Cooper (2001) list five main factors that influenced bullying at workplace namely: working environment, group dynamic, social interaction, organizational and political level. An interaction with these factors at an individual or organizational level triggers workplace bullying. Ariza-Montes *et al.,* (2013), discovered that healthcare professionals were at greater risk of being bullied at work as compared to other occupational sectors. The study also indicated that most healthcare workers who

[34] Diathesis–stress model it's a theory derived from a psychological philosophy, it describes the interaction between stress and predisposition vulnerability caused by life experiences (Colodro-Conde *et al*. 2019)

were bullied were the ones who suffered from stress, has little satisfaction at work, working on a shift system and did not see any opportunities of being promoted within their organization. As demonstrated by the study, bullying has an impact on the individual's psychological status and it poses as a hazard for EC providers who often work in a shift system and under an enormous amount of pressure during a medical emergency. By utilizing the Diathesis-stress theory, social-ecological factors within the pre-hospital setting may be identified and this could contribute to decreasing the frequency of bullying within the workplace.

The odds of a staff member in the Eastern Division has experienced bullying in the past 12 months is estimated to be 5.53 and 5.64 times as much as the odds of a staff member in the Western Division and Northern Division respectively. The social conditions in geographic areas, even in close proximity, may differ and explain the odds above. The above five-fold risk of Eastern division folk is not acceptable, but this study was not able (in its design limitations) to unpack why this is so and what the socio-cultural dynamics and/or practitioner-protective mechanisms or complicity were.

5.3.2.3. Sexual Harassment

Respondents (n= 38, 26%) posited that they experienced sexual harassment sometimes (n = 20, 6%) and all the time (n = 9, 6%) during the previous 12 months. Boyle *et al.,* (2005) found that sexual harassment in the form of sexual harassment 17% (n = 20) and sexual assault 4% (n = 5) had occurred in the Australian EMS and Bigham *et al.,* 2014 found that EC providers in Canada experienced 3% (n = 50). The research results for sexual harassment exposure are higher than the results from both the Australian and Canadian EMS. Steinman (2003) found that 4.6% (n = 47) of South African healthcare workers had been sexually harassed in the previous 12 months. This finding is also low when compared with the research results.

Sexual harassment is a human rights issue that is defined as unwelcome sexual advances, requesting sexual favours, physical or verbal sexual conduct. There are

two types of sexual harassment namely: *Quid pro quo* and hostile environment. Sexual harassment occurs when either a male or female dominates their opposite sex, this can be explained through the social model of a patriarchal system (Cogin and Fish, 2009). Sexual harassment creates a hostile environment for members of one sex and it also hinders sexual equality in the workplace.

The study results showed that sexual harassment is prevalent in the Cape Town EMS despite the existence of South African laws prohibiting the acts of sexual harassment in the workplace. In 1998 the Employment Equity Act (EEA) 55 of 1998 was passed to enable for gender parity in the workplace by fostering equal opportunities, fair and just treatment with the goal of achieving equality in the workplace. The EEA categorized sexual harassment as a form of discrimination (Employment Equity Act, 1998). In 2010 the government gazetted the Protection from Harassment Act and it was introduced in 2011 with the aim of addressing sexual harassment in South Africa (Protection from Harassment Act, 2010). The South African government in 2007 amended the Sexual Offences Act, No 32 with the aim of addressing sex crimes. The occurrence of sexual harassment in the EMS is against the country's laws, and it also tramples on the victims' rights to work in a healthy and safe environment.

The Employment Equity Act 55 of 1998 also aimed to curb workplace sexual harassment by addressing it as a discriminatory practice on the basis of sex, sexual orientation, race, gender, etc. The South African government further amended the Code of Good Practice on the Handling of Sexual Harassment Cases in the Workplace in terms of section 54 (1,b) of the Employment Equity Act 55 of 1998. The amended code of good practice provides suitable measures to address workplace sexual harassment and guidelines for preventing its recurrence. The presence of these laws will provide guidance to the employee and the employer on how to address the prevalent sexual harassment in the EMS, unfortunately, the laws seem to absolve the patient/client as a perpetrator in client-employee sexual harassment but addresses the employee-client sexual harassment where the employee is a perpetrator.

The odds of a female staff member having experienced sexual harassment in the past 12 months is estimated to be 2.26 times as much as the odds of a male staff member experienced sexual harassment in the past 12 months. Gender has been identified as a risk factor for female EC provider's likelihood of experiencing sexual assault, sexual harassment and intimidation (Maguire, *et al.,* 2017; Koristas, *et al.,* 2009; Chapell and Di Martino, 2003). Koristas, *et al.,* (2009) found that 77% of female EC providers were more likely to experience covert sexual assault. A female EC provider has an increased probability of being sexually harassed by patients whilst in the Cape Town EMS.

At 5% level of significance, staff in the Western Division (p-value = 0.0213) and Northern Division (p-value = 0.0356) were less likely than staff in the Eastern division to report that they have experienced sexual harassment at work in the last 12 months. The odds of a staff member in the Eastern Division having experienced sexual harassment in the past 12 months is estimated to be 6.59 and 5.63 times as much as the odds of a staff member in the Western Division and Northern Division, having experienced sexual harassment in the past 12 months respectively.

5.3.2.4. Racial Harassment

The respondents (n= 68, 47%) posited that they experienced racial harassment at least sometimes (n = 39, 27%) and all the time (n = 29, 20%) during the previous 12 months. A considerable (22.3%, n = 227) of respondents had experienced workplace bullying according to Steinman's (2003) findings, the results of bullying were higher in the public sector in comparison to the private sector.

Racial harassment is an example of racial discrimination in that it stems from the belief that due to different phenotypic features people should be treated differently (Ferns and Meerabeau, 2008). The apartheid system saw people being segregated on the basis of their phenotypic features, was introduced by the National Party in 1948 and was in place for 49 years, this resulted in white people being regarded in law as being superior to all other races (Durrheim *et al.,* 2011). In 1994 we saw the end of systemic apartheid in South Africa which resulted in the introduction of

various transformation policies which was centred at transforming the society (Durrheim *et al.,* 2011; Thackwell *et al.,* 2016).

The second democratically elected former president, Thabo Mbeki, was quoted as saying "South Africa is a country of two nations. One of these nations is white, relatively prosperous. The second, and larger nation of South Africa, is black and poor"[35] (Mbeki, 1998, p. 188). Spatial segregation resulted in segregated residential and employment patterns, this results in individuals not relating to one another in the workplace (Durrheim *et al.,* 2011; Lemanski, 2004). The spatial segregation has perpetuated social divisions that were part of the apartheid state into the post-apartheid state and a fear of crime justifies the racist fear (Lemanski, 2004). Post-apartheid South Africa still has pervasive racial inequality and discrimination (Durrheim 2017). This could be the contributing factors to the incidences of reported EC provider's racial harassment.

Thackwell *et al.,* (2016) outlines the importance of racial diversity in fostering a race concordance between practitioner and patient's interaction resulting in better communication. Racial discrimination can be overt or covert and perpetrated by patients or colleagues. Overt racism involves the use of name-calling and racial slurs. Racial discrimination is largely covert because the perpetrator protects them from being prejudiced by carefully contracting racist statements by using subtle criticism masked by anecdotal and stereotypical justification, like mistaking a black resident/physician for a cleaner or lower-ranking medical personnel (Thackwell *et al.,* 2016).

The odds of a staff member in the Eastern Division having experienced racial attacks in the past 12 months is estimated to be 4.96 times as much as the odds of a staff member in the Western Division having experienced a racial attack in the past 12 months. Interestingly, the staff member's own ethnicity was not a statistically significant predictor of whether they reported having experienced a racial attack in the past year. This was verified directly using a Pearson chi-square test of

[35] Deputy President Thabo Mbeki delivered the speech at the opening of the debate at the National assembly in Cape Town; the speech was based on the Reconciliation and National Building and it took place on the 29 May 1998.

independence (p-value = 0.6189). Therefore the study cannot quantify which ethnicity is likely to report having experienced racial harassment.

### 5.4. Perpetrators of workplace violence

Most workplace violence incidents are perpetrated by organizational outsiders rather than co-workers (Murray *et al*., 2019). The perpetrators of violence fall into three categories, namely: a client, colleague or fellow worker of a relative or stranger (Pourshaikhain, *et al.,* 2016; Koristas, *et al.,* 2009; Suserud, *et al.,* 2002). Perpetrator and victim both interact at the workplace (Leblanc and Kelloway, 2002; Pourshaikhian, *et al.,* 2016) thus understanding their characteristics can contribute towards violence prevention. The perpetrator finding are summarised as follows (Figure 4):

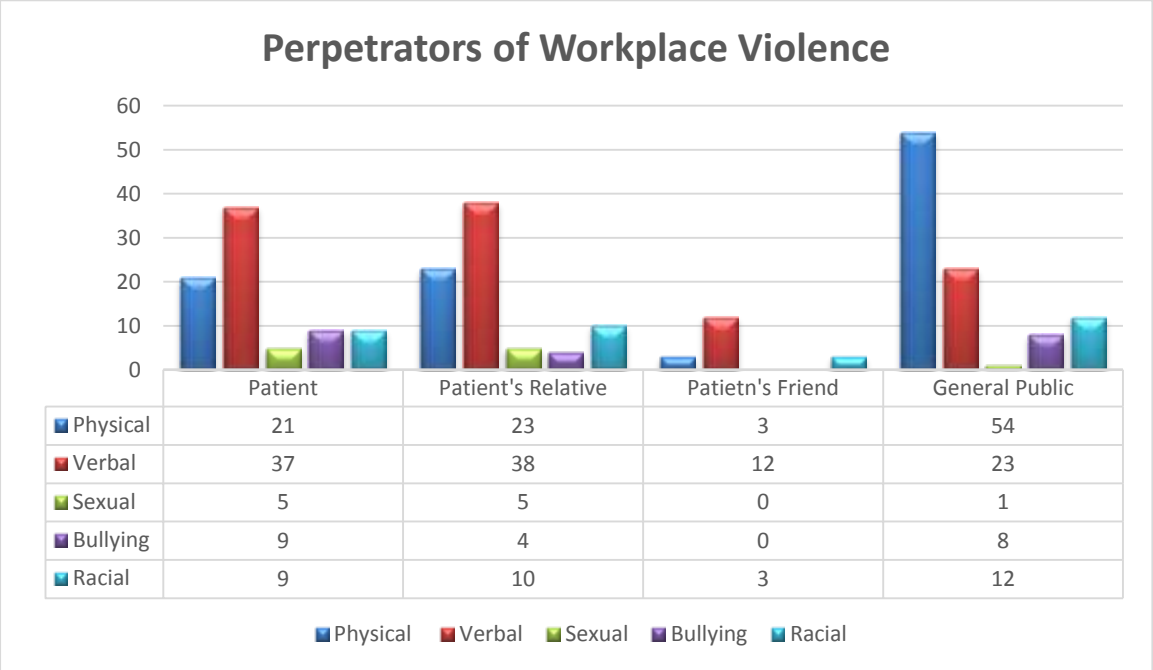



Figure 5: Perpetrators of Workplace Violence in the study

Perpetrator characteristics risk factors that be attributed towards the likelihood to commit workplace violence are, perpetrator history of violence, difficult childhood, alcohol and /or drug abuse, mental health and circumstances conducive to violence (Chappell and di Martino, 2006). The key characteristics of perpetrators most likely to be associated with risk of violence are males, psychotropic and problematic substance and alcohol abuse respectively and mental illness (Curbow, 2000).The

more of these factors that a population group possesses, the higher the risk is that the group may engage in violent behaviour. It should be kept in mind that it is difficult to predict violence due to these varied characteristics and to also avoid stereotyping individuals as potential perpetrators in order to prevent unfair discrimination.

### 5.4.1. Perpetrators of physical violence

The perpetrators of violence fall into three categories, namely, a client, colleague or fellow worker of a relative or stranger (Wang *et al.,* 2019; Pourshaikhain, *et al.,* 2016; Koristas, *et al.,* 2009; Suserud, *et al.,* 2002). Fifty-four per cent (n=79) of the physical attacks were perpetrated by the general public. This is in contrast to the literature reviewed where most of the attacks were perpetrated by patients or patient's relative (Wang *et al.,* 2019, Maguire, *et al.,* 2018, Pourshaikhian, *et al.,* 2016; Kennedy and Julie, 2013, Kaplan, *et al.,* 2013; Koristas, *et al.,* 2009; Boyle, *et al.,* 2007; Suserud, *et al.,* 2002, Wilkinson, 2001). The perpetrator for physical violence is classified as being Type I, because the physical violence occurs due to criminal intent (trespassing, robbery, etc.) and the perpetrator has no relationship with the EC provider. The public sector appeared to be vulnerable to workplace violence with more acts of crime taking place, such as robberies and convicted criminals attacking the medical staff, etc. (Steinman, 2003). It is paradoxical to find that the general public are the main perpetrators of physical violence when the EMS's purpose is to serve the same general public.

According to Steinman (2003) increased level of healthcare workplace violence is a symptom of a problem that is embedded and is a reflection of the socio-economic realities of South Africa thus societal violence permeates the workplace. The occurrence of Type I workplace violence experienced by EC providers can be seen as a crime problem in the community and not merely a workplace safety problem (Chappell and di Martino, 2006). The solution for the societal problem cannot be sought in the workplace, thus it needs to be addressed by or through the society. The ultimate solution needs to involve the society changing its violent behaviour towards EC providers. Until such a solution is found, the employer bears the responsibility of providing the employee with a safe working environment (OSHA, 1993), a concept severely limited in the emergency care context.

### 5.4.2. Perpetrators of psychological violence

Collated perpetrator data for the four forms of non-physical violence is the patient (60%), followed by the patient's relative (57%), general public (44%) and patient's friend (15). Non-physical workplace violence in the form of verbal abuse was mainly perpetrated by patient's relatives (n = 55, 38%) and the patient (n = 54, 37%). This finding is congruent with the majority of the studies (Maguire, *et al.,* 2018; Pourshaikhian, *et al.,* 2016; Koristas, *et al.,* 2009; Boyle, *et al.,* 2007; Suserud, *et al.,* 2002). A sense of entitlement may result in situations where patient/patients relative either unjustifiably or justifiably impose their demands on an EC provider, having a certain expectation of service or response (Sanichur, 2015). Therefore when the action or reaction does not meet the expectation, the patient/patients relative might lean towards displaying violent behaviours. Whilst the general public was responsible for 23% (n = 34) of verbal abuse towards EC providers. Sexual harassment, bullying and racial harassment perpetrators were all below 12% and were perpetrated by patients, patient's relative and the general public at a smaller scale.

Solutions for Type II workplace violence are aimed at ensuring the workplace design allows for prevention of workplace violence by controlling physical access, restricting movement, placing security personnel and having escape routes (Chappell and di Martino, 2006). These solutions are not applicable in the prehospital setting as the design of the EMS work area is unpredictable by nature. Employers can also ensure that employees are trained on workplace violence and are educated on techniques of diffusing potentially hostile and violent situations involving patients, patient's relatives or friends, bystanders and the general public.

## 5.5. Consequence of workplace violence

Workplace violence in the EMS contributes to the risk of occupational injury towards EC providers (Maguire, *et al.,* 2017). From the sampled population N = 146, the results showed 97% (n = 142) of respondents were very worried about workplace

violence in varying degrees, (where 102 (n, 69%) were very worried, 22 (n, 16%) were moderately worried, 12 (n, 8%) were somewhat worried and 12 (n, 8%) were slightly worried). Rahmani *et al.,* (2012) found that 30% (n = 41) of EMS personnel in Iran considered workplace violence as a common occurrence. The constant fear/worry of violence creates a negative relationship between physical health and emotional wellbeing (Maguire, *et al.,* 2017; Aytaca and Dursun, 2012). Direct and indirect violence results in reactions of fear with predicted psychological (anxiety, depression etc.) and physical symptoms (sleep disturbances, etc.) (Schat and Kelloway, 2003).

Violence experienced by the EC providers can also have an effect on the EC provider's work partner who witnesses the violence as well as their families and the organization that employs the victim. The effect of violence on the employee may be long-lasting and can affect their quality of life, finances, mental wellbeing (Xing, *et al.,* 2016). Workplace violence's negative health effects can filter into the organization where the victim starts displaying negative work attitude, job dissatisfaction, decreased job performance and job neglect which were facilitated by fear of future workplace violence and psychological well-being (Schat and Kelloway, 2003).

Twenty-seven percent (n = 39) of verbally attacked respondents were a little bit super-alert or watchful and on-guard whilst thirty eight per cent (n = 55) were extremely super-alert or watchful and on-guard for verbal abuse respectively. Eighteen per cent (n = 28) of respondents had experienced consequences of racial harassment through having repeated disturbing memories whilst avoided thinking or talking about it (n = 26, 18%), being super–alert or watchful. Twenty percent (n = 29) of respondents who had experienced physical attacks sustained injuries of which 22% required treatment. Research findings further demonstrated links between various types of violence and stress, where any kind of violent behaviour was a common precursor to stress (Di Martino, 2003, ILO, 2005, Schat and Kelloway, 2003, Xing, *et al.,* 2016).

The continuation of the stress will likely manifest into physical illness, create dependency issues (alcohol, drugs and tobacco) (Di Martino, 2003; ILO, 2005; Hoel and Cooper, 2000; Schat and Kelloway, 2003; Xing, *et al.,* 2016). Gleby (2018), cited that the 2015 attacks on ambulances in the Western Cape escalated and resulted in EC providers resigning, requesting transfers and absenteeism the Western Cape Government. The recent South African EMS safety symposium position statement outlined that the attacks on EMS personnel jeopardised the reliability and integrity to provide prompt emergency care due to lived consequences of the violent attacks (Christopher, Naidoo and Harrison, 2019).

EC providers are constantly concerned about being attacked in their workplace. The constant thought of experiencing violence will manifest into stress that has both physical and psychological consequences to the victim, victim's family, individual who witnessed the violence and the organization at large. Therefore, workplace violence is a problem that requires immediate attention.

### 5.6. Organizational culture regarding Workplace violence

Curbing or addressing workplace violence is seen as being part of the work organization and the human resource management area of responsibility. Other stakeholders (community, police, government, private sector, etc.) also have an important role to play in addressing workplace violence. This study showed that respondents (n = 117, 80%) had not received education and training of dealing with potentially violent situations and (n = 89, 61%) cited that their workplace did not have a written policy regarding workplace violence. Pourshaikhain *et al.,* (2016) found that a lack of formal education and training on exposure to violent situations was a risk factor. It appears that management has either no set policy in place or they did not effectively communicate these policies to EC providers according to the findings in this study. There is either lack of effective communication or workers are truly not aware of the existence of such policy.

The study found that the odds of an EC provider from the 'Other' and Coloured ethnicity responding that his/her workplace has a workplace violence policy was 7.00 times and 3.62 times respectively as much as the odds of an EC provider from 'Black African' ethnicity category responding that his/her workplace has a workplace

violence policy. This is an interesting finding which could be indicative of the plausible lack of communication in the language that is understood by the black African ethnic group or maybe the absence of disseminating of information in the language understood by black African EC providers. There could be another plausible explanation where information is disseminated in the language understood by the black ethnicity but the information is regarded as not being important until it's actually needed. Communication and transparency are the basis of a healthy organizational culture and this seems to not reach all EC providers (Chappell and Di Martino, 2006).

Majority of the respondents (n = 121, 83%) were encouraged to report workplace violence by their employer. Over three-quarters of the respondents (n = 123, 84%) indicated that they know how to report workplace violence incidents but 83% (n = 57) they were not encouraged to report workplace violence incidents, despite these findings, 51% (n=74) of respondents did not report their workplace violence incident because they felt that it was not important. For some (n = 32, 22%) and (n = 42, 29%) respondents cited that it was not important and useless to report an incident of workplace violence respectively. This assertion will contribute towards not reporting workplace violence incidents when they occur. Underreporting, which is a common finding within healthcare and it occurs due to various factors such as the WPV being viewed as being part of the job, fear of reporting, lack/absence of reporting system, etc. (Maguire, *et al.,* 2018; Maguire *et al.,* 2017; Pourshaikhian, *et al.,* 2016, Kennedy and Julie, 2013, Kaplan, *et al.* 2013, Koristas, *et al.,* 2009, Boyle, *et al.,* 2007, Suserud, *et al.,* 2002, Wilkinson, 2001). According to the study results, underreporting of workplace violence is evident and occurs due to variable factors.

Underreporting was also found in cases where EC providers experienced psychological violence. There is some evidence, although not at the threshold of statistical significance (p-value = 0.1068), that males were less likely than females to report that they have experienced sexual harassment at work in the last 12 months. Men are more likely to respond aggressively than females, whilst women are at greater risk of victimization than men behaviour (Kaplan, *et al.,* 2013; Dussich, 2006; NIOSH, 2002).

Staff in the Western Division were significantly less likely to report racial harassment than staff in the Eastern Division (p-value = 0.00579). Staff in the Western (p-value = 0.00310) and Northern (p-value = 0.00564) Divisions were significantly less likely to report bullying at work in the past 12 months compared with staff in the Eastern Division. The research results clearly show that EC providers are less likely to report experiencing non-physical workplace violence. These results are in line with the report by Arnetz *et al.,* (2016) where she posited that healthcare employees might be hesitant to report psychological violence perpetrated by patients because of the absence of physical injuries (tangible evidence) or lack of organizational sensitivity (and perhaps even stigma of being in emotional need).

Underreporting is a failure to report the occurrence of violent events experienced by the victimized employee to the employer. When the victimized employee fails to report the violent event it results in the underestimation of the magnitude of the problem and implementation of limited preventative strategies which will be inadequate for the unreported violent incidents (Arnetz, *et al.,* 2016). Gates (2004) found that multifaceted factors (absence of injuries, completing time consuming incident report forms, fear of blame, belief that reporting the incident is useless, the perception that workplace violence is part of the job) attributed to the underreporting of workplace violence in healthcare.

Fifty-three per cent (n = 77) of the respondents knew about the availability of support programmes for a victim of WPV and 72% (n = 105) indicated that the employer afforded them the opportunity to report workplace violence incidents and many respondents (n = 76, 52%) were offered counselling. This finding is contratory to Zhao et al., (2015) who found that Chinese healthcare professionals were not supported or received little support from their organisation after being exposed to workplace violence. 66.7% (n=110) of the respondent in Zhao et al., (2015) study had to rely on self-support post workplace violence incidence. The WCG EMS has offered employees support programs, despite their, EC providers were still not sufficiently motivated to report their workplace violence incidences.

As far as the availability guidelines for being dispatched into dangerous neighbourhoods, respondents (n = 57) indicated that they were non-existent while 43% (n = 69) of respondents knew about the existence of guidelines. Regarding withholding services or asking for SAPS accompaniment, the majority of respondents (n = 137, 94%) indicated that they were allowed such measures whenever needed whilst 6% (n = 9) indicated that they were not allowed accompaniment by law enforcement. The majority of respondents (n = 79, 54%) indicated that they sometimes have law enforcement accompaniment to scenes whilst 42% (n = 61) posited that law enforcement was always available to accompany them to scenes. Majority of respondents were aware of the existence of guidelines addressing responding and working in dangerous neighbourhoods.

Chappell and Di Martino (2006) posited that if a business located in a dangerous area had the likelihood of being subjected to crime, also public transportation vehicles routes present a variable risk of violence depending on which part of the community they serve. As part of the preventative strategy, a protocol was drawn up and implemented, where areas were classified into zones depending on their level of danger they posed to EC providers (Gleby, 2018). Red zones were permanent or temporary, a hot zone and a No-go zone. For red zones and hot zones cooperation between the South African Police Service and the Emergency Medical Services, where the response to the red zone declared areas occurs with the presence of armed SAPS or Metro police as an escort. No go zones are declared for a short period of time by SAPS due to the hostility that exists at that present moment.

One can, therefore, deduce that if an EC provider responds to the dangerous area they are likely to be subjected to dangers that are prevalent within that area. The anecdotally and formally (within the workplace) reported attacks on EC providers could be the reason why the WCG devised the zoning criteria. Does the intervention address the issue of EC provider attacks or the employer is fulfilling their occupational safety duty of providing employees with a safe working environment or maybe both. Therefore one can deduce that discrimination already exists (based on location) in the provision of EMS where the management adopted a zoning policy which dictates the dispatching procedure based on the safety of the area. The Western Cape Government's EMS broader organizational culture of safety (safety

policies and procedures) and protection (SAPS accompaniment) of EC providers from potentially violent incidents does exist though it is poorly disseminated amongst their staff.

## 5.7. Summary

This chapter presented the discussion of the results in chapter four, based on the analysis of data obtained using the questionnaire. The research aim, research questions and the research results provided the foundation at the beginning of this chapter, this allowed for the results to lead the discussion.

The next chapter will present the conclusion and recommendations of this study.

# CHAPTER 6- RECOMMENDATIONS AND CONCLUSIONS

## 6.1. Introduction

The questionnaire results established from the collected data provided the foundation for graphical and descriptive interpretation and discussion of the data in the preceding chapter. This chapter outlines the research aims and addresses the research questions. Possible preventative strategies of workplace violence will also be discussed. Recommendations will be presented with the goal of increasing knowledge and prevention of prehospital workplace violence.

## 6.2. Addressing research aims and questions

The aim of the research was to investigate the extent and nature of individual and collective exposure of EC providers to workplace violence. The study also aimed to determine the effect of workplace violence on the EC providers.

The research questions served as a foundation for decoding the phenomenon of workplace violence at the Western Cape Governments Emergency Medical Service in Cape Town, South Africa. The study found physical and non-physical violence which varied in nature and was perpetrated by different assailants.

The individual question with the objective of addressing the research aims are addressed below:

### 6.2.1. Question 1: What is the prevalence of physical and psychological workplace violence among EC workers in the Cape Town Metropolitan?

The results presented in chapter four confirms that violence exists in the City of Cape Town Metropolitan's Emergency Medical Service and also shows that 81% of respondents were victims of workplace violence at work. More than two in four respondents experienced at least one incident of physical (29%) and/or non-physical (53%) violence, suggesting prevalent extent and the violent nature of incidents.

It emerged from the results that the nature of physical violence largely involved use of a weapon by the assailant and one in four attacks resulted in injuries that required treatment. The nature of non-physical violence was reported by over a third of respondents as experiencing verbal attacks, followed by over one-third of respondents experiencing racial harassment (47%), bullying (37%) and sexual harassment (26%). Hence 69% of the respondents were very worried about workplace violence. It further emerged from the discussion that victims of workplace violence are likely to suffer from the consequence of the attacks that permeates their work partners, family and organization resulting in negative psychological and physical effects as they are constantly worried about being physically or psychological violated at work.

The study revealed that non-physical violence was more prevalent than physical violence in the Cape Town WCG's EMS.

### 6.2.2. Question 2: Who are the common perpetrators (or what is the commonality in perpetration) of workplace violence among EC workers in the Cape Town Metropolitan?

It emerged that perpetrators of workplace violence were different depending on the nature of violence. Firstly physical violence was perpetrated by type I[36] assailants, with no working relationship with EC providers but whose reason for attacking EC providers was rooted in criminal intent. The study discussion showed that in more than half of the physical attacks a weapon was used to attack EC providers. It further emerged that the use of a weapon was indicative of premeditated aggressive actions with the intention of causing (grievous bodily) harm, hence the majority of those physically attacked were injured and required treatment.

Secondly, it emerged that non-physical violence was largely perpetrated by the patient (60%) followed closely by a patient's relative (57%). One in two EC providers experienced non-physical violence at work. Both perpetrators are known as Type II

[36] The perpetrator is unknown to the victim (Type I) and has criminal intent when approaching the victim.

assailants as they have a working relationship with the EC provider. This finding was convergent with the majority of the studies cited. It emerged in the results that verbal attack/abuse by Type II assailants was a common trend in the prehospital and healthcare sector.

### 6.2.3. Question 3: How are instances of workplace violence reported among EC providers in the Cape Town Metropole?

It emerged that the organizational culture in the Western Cape Government EMS was one where one in two EC providers felt discouraged to report workplace violence as they deemed it useless (29%) or not important (22%). The results showed that Black Africans were less likely to report having experienced workplace violence when compared with all the non-black ethnic groups. It further emerged that males were less likely than females to report having experienced sexual harassment. Different EMS divisions were less likely to report having experienced workplace violence. All of the above will seem to be contributing to the underreporting identified in Chapter Five. Underreporting largely hinders the estimation of the magnitude of the problem and thus directly affects the implementation of prevention strategies.

Despite the persistence of underreporting, there is evidence that EC providers were encouraged by their employer to report workplace violence incidents and knew the organizational incident reporting procedure, although not consistently (in terms of gender and base location). The employer is proactive (providing SAPS accompaniment to potentially dangerous communities) and reactive (to the lack of education and training on diffusing potentially violent scenes) when handling workplace violence.

### 6.2.4. Making sense of EMS workplace violence

Based on this research data and findings of this study, the phenomenon of workplace violence has been better understood. The nature and extent to which workplace violence exists in the Western Cape Government's EMS has been presented and thus confirmed as being prevalent (in the urban setting). The different nature of violence inflicted by type-specific perpetrators has been revealed in this

study. The effects or consequences and organizational culture relating to education and training, reporting procedure, and responding to dangerous areas policies and guidelines towards workplace violence were revealed. The purpose of this study can be regarded as being realised (albeit limited to the urban locale).

### 6.3. Recommendations

Successful management and prevention of workplace violence depends on an approach that involves stakeholders (National Institute for Occupational Safety and Health, 2006) such as the community, EMS personnel and local authorities (WHO, 2003). The recommendations are based on education and training, management and violence prevention. Based on the literature review, discussion and conclusion the following recommendations are made:

- Managers of various divisions, as well as base stations, should be made aware of the findings and be encouraged to undertake positive actions towards availing policies to EC providers and providing education and training opportunities for better preparedness.
- Western Cape Government EMS management should acknowledge that workplace violence is pervasive and take responsibility for addressing the prevention of and response to violence against the EC providers.
- Base managers are to be sensitised to the prevalence of workplace violence and negative consequences victimisation has on EC providers. The risk of secondary victimisation must be managed.
- Any Workplace Violence Policy should be disseminated and communicated to all EC providers and an acknowledgement form should be signed by all recepients.
- Managers must acknowledge and implement the urgent need for advocacy, support and encouragement in this regard.

- Though counselling is provided, it needs to be specific to EC providers traumatized by workplace violence.
- Comprehensively address workplace violence early on and place it on the paramedic training curriculum with the aim of increasing knowledge and awareness.
- Training EC providers on identifying potentially violent scenes, violence de-escalation skills, confrontation skills, assertive skills and negotiation skills should be provided regularly.
- EC providers should report all workplace violence, whether physical or non-physical. Such reporting should be mandatory.

### 6.4. Recommendations for future study

The following future studies relating to workplace violence should be considered

- The study was based in urban Cape Town. The study should be conducted in all urban and rural areas where EMS operates to obtain the prevalence of workplace violence in the South African EMS.
- The cost of workplace violence to the organization, individual EC providers and the community.
- The role of communities and other stakeholders in addressing and preventing Type I pre-hospital workplace violence.

### 6.5. Limitations to the study

The sample size in this study can only allow for the results to be generalised within the sampled population of the Western Cape Government and EC providers in the four divisions of the Cape Town Metropole.

Follow up of non-respondents could not be effectively fulfilled due to financial and time constraints of the research. Furthermore, the Protection of Personal Information Act of 2013 (POPI Act, 2013), prevented targeted follow up's by telephonic and

physical home visits for the sampled population who did not receive and complete the research questionnaire.

The data collection tool excluded the qualitative aspect of the research which would have enabled for better understanding of the consequences of workplace violence. Further research will need to include the qualitative aspect of the effects of workplace violence.

Recall bias may have been present as the EC providers had to recall incidents that occurred within the previous 12 months in their workplace. It is plausible that some episodes of violence could have not been reported due to the inability of the EC provider to recall the events.

### 6.6. Summary

This chapter concludes this study with a discussion aims and research question which are considered to have been met. It has been established that workplace violence is prevalent in the City of Cape Town Western Cape Government EMS that it has variable perpetrators and EC provider's employees may display negative physical and psychological effects if they have been subjected to violence at work.

Based on the literature review and research findings, certain implementable recommendations were proposed. It is predicted that, should management implement these recommendations, the probability of violent incidents may decrease. Training the EC providers on workplace violence will allow them to react in a constructive manner that de-escalates the violence. Workplace violence is prevalent in the Cape Town Metropolitan's WCG EMS. On the premise that one way to judge a country[37], is by how it treats its rescuers, understanding the nature and extent of workplace violence will likely enable problem-specific solutions to be derived. This study is likely to benefit EMS managers, policymakers, and occupational health and safety advocates.

[37] Michael Moore (in the documentary 'Sicko') asserts this notion after 911 rescuers were not properly cared for following injury.

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**APPENDICES**

Appendix A: Information Sheet

Appendix B: Request for Site Utilization

Appendix C: Consent Form

Appendix D: Questionnaire

Appendix E:  Site Utilization Approval

Appendix F: Research Ethic Committee Approval

Appendix G: Sampling Frame

Appendix H: Sample Representativeness

## Appendix A: Information Sheet

You are hereby invited to participate in a study titled: **Individual and collective exposure to workplace violence of pre-hospital Emergency Care providers in the urban Cape Town**

Researcher: Caroline Shirley Maake
Cell: 0726760913
Email: slehabe@gmail.com

Supervisor: Dr Navindhra Naidoo
Tel: 021 953 8408
Email: naidoon@cput.ac.za

**Purpose**

This study is being undertaken in fulfilment of a Master's Degree in Emergency Medical Care at the Cape Peninsula University of Technology (CPUT). The specific purpose of the study is to gain insight into the Emergency Care provider's extent and nature of workplace violence in the pre-hospital setting. Should you as an Emergency Care provider wish to participate in this study, the researcher requests you to partake in the completion of a questionnaire.

**Confidentially**

Confidentiality will be maintained throughout the study. You will be allocated a number upon completing the consent form; a consent form number will correspond with that of the questionnaire. During data analysis your information will be kept confidential and will be allocated a pseudonym should the need arise. The researcher, supervisor and co-supervisor will do everything in their power to maintain confidentiality.

**Appendix B: Request for Site Utilization**

Cape Peninsula University of Technology
PO Box 1906
Bellville Campus
Belville
7535

Emergency Medical Services
Western Cape Government Health
Cape Town Emergency Control Centre
Tygerberg

**RE: REQUEST TO CONDUCT A RESEARCH**

I Caroline Shirley Maake, am a registered student at the Cape Peninsula University of Technology (CPUT) pursuing a Master of Technology in Emergency Medical Care hereby asks for your permission to conduct a study at your Emergency Medical Services bases or stations in the Cape Town Metropolitan.

The study is titled "**An investigation into the individual and collective exposure to workplace violence of pre-hospital Emergency Care providers in the City of Cape Town"**. The proposed study will take place once ethical clearance has been granted from the institution and the Western Cape's research Council. This study is in fulfilment of the requirements for the Master of Technology in Emergency Medical Care.

I hope my request will meet your favourable consideration. Thanking you in advance.

Yours faithfully,

Researcher: Mrs Caroline Shirley Maake Date

Supervisor: Dr Navindhra Naidoo Date

**Appendix C: Consent Form**

You are hereby invited to participate in a study titled "**Individual and collective exposure to workplace violence of pre-hospital Emergency Care providers in the urban Cape Town".**

Researcher: Caroline Shirley Maake
Cell: 0726760913
Email: slehabe@gmail.com

Supervisor: Dr Navindhra Naidoo
Tel: 021 953 8408
Email: naidoon@cput.ac.za

I would like to take part in this research survey about the exposure of pre-hospital Emergency Care Providers to workplace Violence in urban Cape Town. This research will provide me with an opportunity to share my experience and concerns about workplace violence as it relates to provision of emergency medical care. This is strictly confidential and my names will not be mentioned and published. I will answer freely and as honestly as possible. Information I provide will be assisting identifying, describing and improving the pre-hospital workplace safety.

I, _____, hereby agree to voluntarily participate in the research project of Caroline Shirley Maake. I declare that:

1. I have read and understood my rights and responsibilities as a participant as set out above.
2. I understand that i can withdraw from this study at any time.
3. I confirm that I will not in any manner publicly reveal the questionnaire information, nor will I discuss any information pertaining to this study with anyone.

Participant signature: _____ Date signed: _____

Researcher signature: _____ Date signed: _____

## Appendix D: Questionnaire

DEMOGRAPHIC INFORMATION

1. What is your age

| 18-20 | 20-30 | **30-40** | **40-50** | **50-60** |
|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ |

2. Gender

| FEMALE | MALE |
|---|---|
| ☐ | ☐ |

3. Ethnicity

| **AFRICAN** | **WHITE** | **COLOURED** | **INDIAN** | **OTHER** |
|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ |

4. Which category best describes your job

| **BLS** | **ILS** | **ALS ANT** | **ALS ECP** | **OTHER** |
|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ |

5. What is the name of your Division/ base

| | |
|---|---|
| **Eastern division** | |
| **Western Division** | |
| **Northern Division** | |
| **Southern Division** | |

6. How many Emergency care providers respond to emergencies at your base (including you)

| **< 10--20** | **21--39** | **40--49** | **>50** |
|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ |

7. What is your current employment status

| **Permanent** | **Temporary** | **Volunteer** | **Other** |
|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ |

8. How many years EMS experience do you currently have?

| **1Year** | **>1- 5** | **6-10** | **16-20** | **Over 20** |
|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ |

9. How long have you been working at your current position when the incident occurred?

| 1Year | >1-5 | 6- 10 | 16- 20 | Over 20 |
|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ |

10. Do you work shifts?

| YES | NO |
|---|---|
| ☐ | ☐ |

11. How many staff members are with you during most (more than 50%) of your work time (outside your base)?

| None | 1 | 1- 5 | 6- 10 | 11-15 | Over 15 |
|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

12. Which patients do you frequently work with? (Tick all appropriate)

| Newborns | Infants | Children | Adolescent(10-18 yrs) | Adults | Elderly |
|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

13. What is the gender of most patients you frequently treat?

| Male | Female | Female and Male |
|---|---|---|
| ☐ | ☐ | ☐ |

14. Where do you spend most of your time (more than 50%) in your main job

| Station | trauma scenes | Medical scenes | other (please specify) |
|---|---|---|---|
| ☐ | ☐ | ☐ | |
| | | | |

15. How worried are you about violence in your current workplace?

**(Please rate: 1 = Not worried at all, 5 = very worried)**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ |

16. Are there any procedures for reporting violence in your workplace?

| Yes | No |
|---|---|
| ☐ | ☐ |

16.1 If **YES**, Do you know how to use them?

| Yes | No |
|---|---|
| ☐ | ☐ |

17. If NO, is there encouragement to report workplace violence?

| Yes | No |
|---|---|
| ☐ | ☐ |

17.1 If YES, by whom:

| Employer | |
|---|---|

| | |
|---|---|
| Union | |
| Family/friends | |
| Colleagues | |
| Associations | |
| Other, (please specify): | |

**PHYSICAL WORKPLACE VIOLENCE**

18. In the last 12 months have you been physically attacked in your workplace?

| Yes | No |
|---|---|
| ☐ | ☐ |

**If YES, answer continue to answer question 19-25**

**If NO, then go to section**

19 The last time you were physically attacked, how would u describe the event?

| With a weapon | Without a weapon |
|---|---|
| ☐ | ☐ |

20. Who attacked you?

| Patient | Patient's relative(s) | Patient's friend | General Public |
|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ |

21. Where did the incident take place?

| at the scene | in the ambulance | enroute to work | in the hospital | Station | Other |
|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

22. At what time did it happen?

| 07:00-before 13:00 | 18:00- before 24:00 | Do not remember |
|---|---|---|
| ☐ | ☐ | ☐ |
| **13:00- before 18:00** | **24:00- before 07:00** | |
| ☐ | ☐ | |

23. Which day of the week did it happen?

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

24. Were you injured as a result of the incidence?

| Yes | No |
|---|---|
| ☐ | ☐ |

25. If Yes, did you require formal treatment for the injuries?

| Yes | No |
|---|---|
| ☐ | ☐ |

**PSYCHOLOGICAL WORKPLACE VIOLENCE**

26. In the last 12 months, have you been psychologically violated or abused at the workplace?

| Yes | No |
|---|---|
| ☐ | ☐ |

26.1 If Yes, which form of psychological violence have you experienced?

**(Please select the form of violence(s) )**

| Verbal Abuse | Sexual Harassment | Bullying | Racial Harassment |
|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ |

27. How often have you been psychologically violated in the last 12 months?

| Incidents | Verbal Abuse | Sexual Harassment | Bullying | Racial Harassment |
|---|---|---|---|---|
| All the time | ☐ | ☐ | ☐ | ☐ |
| Sometimes | ☐ | ☐ | ☐ | ☐ |
| Never | ☐ | ☐ | ☐ | ☐ |
| Do Not Remember | ☐ | ☐ | ☐ | ☐ |

28. Who attacked you? **(Tick only what is applicable to you)**

| Incidents | Verbal Abuse | Sexual Harassment | Bullying | Racial Harassment |
|---|---|---|---|---|
| Patient | ☐ | ☐ | ☐ | ☐ |
| Patient's Relatives | ☐ | ☐ | ☐ | ☐ |
| Patient's Friends | ☐ | ☐ | ☐ | ☐ |
| General Public | ☐ | ☐ | ☐ | ☐ |

29. At what time did it happen?**(Tick only what is applicable to you)**

| Incidents | Verbal Abuse | Sexual Harassment | Bullying | Racial Harassment |
|---|---|---|---|---|
| 07:00-13:00 | | | | |
| 13:00- before 24:00 | | | | |
| 18:00- before 24:00 | | | | |
| 24:00- before 07:00 | | | | |
| Do Not Remember | | | | |

30. Which day of the week did it happen? **(Tick only what is applicable to you)**

| Incidents | Verbal Abuse | Sexual Harassment | Bullying | Racial Harassment |
|---|---|---|---|---|
| Monday | | | | |
| Tuesdays | | | | |
| Wednesday | | | | |
| Thursday | | | | |
| Friday | | | | |
| Saturday | | | | |
| Sunday | | | | |

31. Where did the incident take place? **(Tick only what is applicable to you)**

| Incidents | Verbal Abuse | Sexual Harassment | Bullying | Racial Harassment |
|---|---|---|---|---|
| Scene | | | | |
| Ambulance | | | | |
| Enroute to work | | | | |
| Hospital | | | | |
| Station | | | | |
| Other | | | | |

32.Below is a list of complaints and problems that people often have in response to stressful situations like the event (s) you have suffered. For each item please indicate how bothered you

have been by these experiences since you were psychologically abused. Please tick one option

**30.1 Verbal abuse**

| Since you were abused, how BOTHERED have you been by: | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|---|---|---|---|---|
| a. Repeated, disturbing memories, thoughts, or imagesof the abuse | ☐ | ☐ | ☐ | ☐ | ☐ |
| b.Avoiding thinking about or talking about the abuse or avoiding having feeling related to it | ☐ | ☐ | ☐ | ☐ | ☐ |
| c.Being "Super-alert" or watchful and on guard? | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. Feeling like everything you did was an effort? | ☐ | ☐ | ☐ | ☐ | ☐ |

**30.2 Sexual Harassment**

| Since you were abused, how BOTHERED have you been by: | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|---|---|---|---|---|
| a. Repeated, disturbing memories, thoughts, or imagesof the abuse | ☐ | ☐ | ☐ | ☐ | ☐ |
| b.Avoiding thinking about or talking about the abuse or avoiding having feeling related to it | ☐ | ☐ | ☐ | ☐ | ☐ |
| c.Being "Super-alert" or watchful and on guard? | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. Feeling like everything you did was an effort? | ☐ | ☐ | ☐ | ☐ | ☐ |

**30.3 Bullying**

| Since you were abused, how BOTHERED have you been by: | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|---|---|---|---|---|
| a. Repeated, disturbing memories, thoughts, or imagesof the abuse | ☐ | ☐ | ☐ | ☐ | ☐ |
| b.Avoiding thinking about or talking about the abuse or avoiding having feeling related to it | ☐ ☐ | ☐ ☐ | ☐ ☐ | ☐ ☐ | ☐ ☐ |
| c.Being "Super-alert" or watchful and on guard? | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. Feeling like everything you did was an effort? | | | | | |

**30.4 Racial Harassment**

| Since you were abused, how BOTHERED have you been by: | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|---|---|---|---|---|
| a. Repeated, disturbing memories, thoughts, or imagesof the abuse | ☐ | ☐ | ☐ | ☐ | ☐ |
| b.Avoiding thinking about or talking about the abuse or avoiding having feeling related to it | ☐ ☐ | ☐ ☐ | ☐ ☐ | ☐ ☐ | ☐ ☐ |
| c.Being "Super-alert" or watchful and on guard? | ☐ | ☐ | ☐ | ☐ | ☐ |
| d. Feeling like everything you did was an effort? | | | | | |

31. Do you think the incident could have been prevented?

| **Incidents** | **Verbal Abuse** | **Sexual Harassment** | **Bullying** | **Racial Harassment** |
|---|---|---|---|---|
| **YES** | ☐ | ☐ | ☐ | ☐ |
| **NO** | ☐ | ☐ | ☐ | ☐ |

32. Was any action taken to investigate the incident?

| Incidents | Verbal Abuse | Sexual Harassment | Bullying | Racial Harassment |
|---|---|---|---|---|
| YES | ☐ | ☐ | ☐ | ☐ |
| NO | ☐ | ☐ | ☐ | ☐ |

33. Did your employer or service offer to provide with?

| | YES | NO |
|---|---|---|
| Counselling | ☐ | ☐ |
| Opportunity to report it | ☐ | ☐ |
| Other support? | ☐ | ☐ |

34. How satisfied were you with the manner that the incident was handled?

**(Please rate: 1 = very dissatisfied, 5 = very satisfied)**

| 1 | | | | |
|---|---|---|---|---|
| ☐ | | | | |

35. If you did not report the incident to others, why not? (Tick every relevant)

| | |
|---|---|
| It was not Important | ☐ |
| Felt ashamed | ☐ |
| felt guilty | ☐ |
| afraid of negative consequences | ☐ |
| Did not know who to report to | ☐ |
| Useless | ☐ |
| Other: | ☐ |

**EDUCATION AND TRAINING**

36. Have you ever received education and training on how to deal with a potential violent situation?

| Yes | No |
|---|---|
| ☐ | ☐ |

37. What type of training would you like to do based on the frequency?

| Type of Training | Very Frequently | Frequently | Occasionally | Rarely | Very Rarely | Never |
|---|---|---|---|---|---|---|
| Physical Violence | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Verbal Abuse | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Sexual Abuse | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Bullying | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Racial Harassment | | | | | | |

38. Does your workplace have a written policy concerning workplace violence?

| Yes | No |
|---|---|
| ☐ | ☐ |

39. If yes have you read and understood them?

| Yes | No |
|---|---|
| ☐ | ☐ |

40. Is there a program supporting victims of workplace violence?

| Yes | No |
|---|---|
| ☐ | ☐ |

41. Are you provided with guidelines for patients or neighbourhoods that have a history of violence?

| Yes | No |
|---|---|
| ☐ | ☐ |

42. Are you allowed to withhold services or ask for accompaniment (South African Police Service) when you fear for your safety?

| Yes | No |
|---|---|
| ☐ | ☐ |

43. Is the law enforcement available to accompany you to scenes where you fear for your safety?

| Always | Sometimes | Never |
|---|---|---|
| ☐ | ☐ | ☐ |

***The end of the survey***

***Thanks you very much for devoting your time to partake in this study***

## Appendix E: Site Utilization Approval

Western Cape Government
Health

STRATEGY & HEALTH SUPPORT
Health.Research@westerncape.gov.za
Tel: +27 21 483 0866 fax: +27 21 483 9895
5th Floor, Norton Rose House., 8 Riebeek Street, Cape Town, 8001
www.capegateway.gov.za

REFERENCE: WC_201712_012
ENQUIRIES: Dr Sabela Petros

**Cape Peninsula University of Technology**

**Keizersgracht Street**

**Zonnebloem**

**Cape Town**

**7925**

For attention: Mrs Caroline Maake

Re: **Individual and collective exposure to workplace violence of pre-hospital Emergency Care providers in the urban Cape Town.**

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact following people to assist you with any further enquiries in accessing the following sites:

| | | |
|---|---|---|
| **EMS Personnel** | **Dr Shaheem de Vries** | **021 508 4523** |

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
3. In the event where the research project goes beyond the *estimated completion* date which was submitted, researchers are expected to complete and submit a progress report

(**Annexure 8**) to the provincial Research Co-ordinator

(Health.Research@westerncape.gov.za).

4. The reference number above should be quoted in all future correspondence.

Yours sincerely

**DR J EVANS**

**ACTING DIRECTOR: HEALTH IMPACT ASSESSMENT**

**DATE:** 06/04/18

## Appendix F: Research Ethics Committee Approval

Cape Peninsula University of Technology

**HEALTH AND WELLNESS SCIENCES RESEARCH ETHICS COMMITTEE (HW-REC)**
Registration Number NHREC: REC- 230408-014

P.O. Box 1906 • Bellville 7535 South Africa
Symphony Road Bellville 7535
Tel: +27 21 959 6917
Email: sethn@cput.ac.za

25 October 2019
***REC Approval Reference No:***
***CPUT/HW-REC 2017/H38 (renewal)***

Faculty of Health and Wellness Sciences – Emergency Medical Science

Dear Ms Caroline Shirley Maake,

**Re: APPLICATION TO THE HW-REC FOR ETHICS RENEWAL**

Approval was granted by the Health and Wellness Sciences-REC on 14 September 2017 to Ms Maake for ethical clearance. This approval is for research activities related to student research in the Department of Emergency Medical Science at this Institution.

**TITLE: An investigation into the individual and collective exposure to workplace violence of pre-hospital Emergency Care providers in the City of Cape Town**

**Supervisors: Dr N Naidoo, Mr P Newton**

**Comment**:

***Data collection*** permission has been obtained; applicant finalising data processing and thesis.

**Approval will not extend beyond 26 November 2020.** An extension should be applied for 6 weeks before this expiry date should data collection and use/analysis of data, information and/or samples for this study continue beyond this date.

The investigator(s) should understand the ethical conditions under which they are authorized to carry out this study and they should be compliant to these conditions. It is required that the investigator(s) complete an **annual progress report** that should be submitted to the HWS-REC in December of that particular year, for the HWS-REC to be kept informed of the progress and of any problems you may have encountered.

Kind Regards

M. le Roes-Hill

*Dr Marilize Le Roes-Hill*
**Deputy Chairperson – Research Ethics Committee**
Faculty of Health and Wellness Sciences