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THE EXPERIENCES AND IMPACT OF WORKPLACE VIOLENCE ON DOCTORS AND NURSES WORKING IN EMERGENCY DEPARTMENTS IN THE GAUTENG PROVINCE, SOUTH AFRICA

by

Lerato Kobe

A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, in partial fulfilment for the degree of Master of Medicine

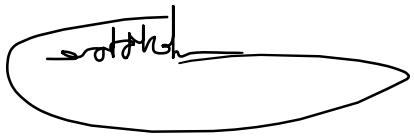
Johannesburg 2023

24th October, 2023

Supervised by Dr Saffy and Prof. Bentley

Candidates' declaration

I, Lerato Kobe, am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong. I declare that this research report is my own work. I have followed the required conventions in referencing the thoughts and ideas of others. It is being submitted for the degree of Master of Medicine in the University of the Witwatersrand, Johannesburg. It has been submitted before and this current submission is for re-examination. It has not been submitted to any other University.



24th October 2023

Dedication

Dear Dr. Saffy, Prof. Bentley, Prof. Pillay, my wonderful family, and my loving partner,

As I reach the end of my Master of Medicine program, I want to take a moment to express my deepest gratitude to each and every one of you.

Dr. Saffy, Prof. Bentley and Prof. Pillay, your guidance, support, and mentorship have been invaluable throughout my academic journey. Your expertise and knowledge have helped me to develop the skills and confidence necessary to pursue my goals, and I am forever grateful for the time and energy you have invested in me.

Mom, Dad and Kamohelo, your unwavering love and support have been a constant source of strength and encouragement throughout my life. Your sacrifices and dedication have allowed me to pursue my dreams, and I am truly blessed to have you as my family.

And last, but certainly not least, my partner Ndumiso. Your love, support, and understanding have been the foundation upon which I have built my success. Your belief in me has helped me to believe in myself, and your presence in my life has made every challenge more bearable and every success more meaningful.

I am incredibly fortunate to have each of you in my life, and I will carry the lessons and love you have given me with me as I move forward in my career. Thank you from the bottom of my heart for all that you have done for me.

With love and gratitude.

Abstract

Objectives: Workplace violence (WPV) remains grossly under-reported preventing a true appreciation of the problem. With South Africa currently rated in the top three in the world for crime, it is likely that such crime correlates with WPV experienced by health care workers. This study investigates the range of WPV experienced in the Emergency Department (ED), the demographics of the perpetrator, the impact of WPV on ED staff, and reporting behaviour. *Study design:* prospective, quantitative, observational, cross-sectional study of five public hospitals in Gauteng. *Methods:* During the period October 2020-March 2021 data was collected through the completion of a self-administered questionnaire. Nursing staff and doctors, with the exclusion of those in training, were enrolled. The questionnaire included questions on demographics, experience of physical and non-physical WPV over the last 12 months as well as responses and effects of those events. *Results:* There were 211 respondents. Seventy percent of respondents had experienced at least one physical WPV event and 84% had experienced at least one non-physical WPV event. In both types of violence most did not require treatment. The incidents, mainly perpetrated by patients or their relatives/visitors, left 42% of victims very worried about violence in their workplace and some with symptoms of post-traumatic stress disorder however reporting of events was severely lacking. Respondents indicated that there were no clear reporting procedures available to them. *Conclusions*: Workplace violence is a problem in the ED and more needs to be done in encouraging reporting of incidents but most importantly methods of preventing violence need to be prioritized.

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Acknowledgments are to the participants for answering the questionnaires, to my assistant and to the unit managers in assisting with data collection.

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Abbreviations

DF-degrees of freedom (statistics)

ED- emergency department

HCW- health care workers

MMED- Master of Medicine

p- p value

PTSD- post-traumatic stress disorder

SA- South Africa

SAMA- South African Medical Association

SD- standard deviation

WHO- World Health Organization

WITS- University of Witwatersrand

WPV- workplace violence

Chapter 1: Approved research protocol

The experiences and impact of abuse on doctors and nurses working in the emergency departments in hospitals in Gauteng.

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Abuse is an increasing concern in the workplace but even more so in the health sector with four times more incidents of violence reported in this sector despite 70-80% of incidents of assaults going unreported (Nelson 2014). The emergency department (ED), described as the "central location for health sector workplace violence", is at a particular risk. According to Nikathil et al, violence was a feature in 36 out of 10 000 presentations to the ED and half of the incidents involved drugs and alcohol intoxication. Mental, neurological and substance-related disorders now comprise the major burden of disease according to the Global Burden of Disease Study 2010 (Whiteford, et al, 2015) which means that levels of violence are certain to increase in the ED (Nikathil, et al, 2017). The structure of the health care system means that the ED is the frontline of the hospital and the very first encounter with health care workers for the patient, and possibly family and visitors. Staff in the ED are thus exposed to different types of personalities, pathologies and potentially stressful situations.

Variables that make the staff in the ED more vulnerable to abuse are that the facility is accessible 24-hours a day meaning large volumes of people encountered; and people using the facility are doing so under stressful conditions of ill health and trauma. The ED may not have well trained security personnel especially skilled in violent situations and security may not always be visible and available in the unit. CCTV may not be available or only found in certain areas and there are no panic buttons available. Weapons may be brought into the ED: in the first six months after metal detectors were installed in The Henry Ford Hospital in Detroit they confiscated 33 guns, 1324 knives and 97 chemical sprays (Nelson 2014). The setup of the ED, such as harsh lighting and no privacy, may compound the situation. Stress

and anxiety in the patient and visitors combined with this workplace situation breeds violence and increases the risk of worker abuse.

A variety of staff members are involved in the management of patients in the ED and thus liable to abuse. These include medically trained personnel (doctors, nurses, radiographers, etc) and support staff such as porters, security guards, clerks and cleaners. Workplace abuse has been divided into 4 types: either a simple criminal act, a patient becoming violent towards a staff member, a staff member perpetrates violence on another staff member or the violence is related to a personal relationship with a staff member (Stevenson 2014).

All types of abuse can be experienced by these members of staff. One definition of abuse that has been used is "incidents where persons are abused, threatened or assaulted in circumstances related to their work, involving an explicit or implicit challenge to their safety, wellbeing and health" (Merecz, et al, 2006). Thus, abuse ranges from minor emotional, physical and sexual abuse categories to life-threatening events or those leading to death. To some extent those working in the medical field and especially in the emergency medicine and psychiatric specialities have come to believe that some sort of abuse is a part of the job description and thus a norm (Richardson, 2018). Banda described the perceived effects of workplace violence. Some of the nurses studied became fearful when working. Others were demoralised, performed poorly at work, were embarrassed, had psychological disturbances and a loss of interest in their profession (Banda et al 2016). Only a very small number thought that violence would make a person stronger and their thinking sharper.

The increase in awareness of the importance of the wellbeing of medical professionals has even led to an amendment of the Hippocratic Oath. The Hippocratic Oath has been a part of the medical fraternity for 2500 years and a moral compass for doctors. For 55 years the focus of the Hippocratic Oath was outwards - on the patient and the profession. Now it has been amended to include the words "I will attend to my own health, well-being, and abilities in order to provide care of the highest standard" reflecting the humanity of physicians (Parsa-Parsi, 2017).

The patient-doctor relationship is very important, and it is defined as "a consensual relationship in which the patient knowingly seeks the physician's assistance and in which the physician knowingly accepts the person as a patient" (Chipidza, 2015). Over time the

relationship between the patient and doctor has changed from that of medical paternalism to that of patient autonomy where the patient has more of a say in their management (Chipidza, 2015). The more power that is given to the patient the more chance there is of conflict or challenges occurring which may have a harmful effect on the care given by the health professional. Even something as small as rudeness to the medical team by the perpetrator has a significant effect on performance compromising patient safety and care (Risken et al 2017). The media has played a role in the growing challenges with patients and doctors but has also been key in raising awareness to the abuse encountered by the health professionals. An article, in *IOL News* in 2017, gave alarming statistics of 107 violent hospital attacks in Gauteng Hospitals from January 2016- January 2017, mainly in emergency and psychiatric units (IOL News, 2017).

The Crime Survey for England and Wales (CSEW) in 2014/15 showed that after protective services professions (such as the police), health professions had the second highest risk for violence in the workplace. The risk for violence was higher than the average at 3.1% and has been consistently higher than the average risk for workplace violence. Clearer processes for reporting, zero-tolerance initiatives, and even the development of the *Protection of Workers Bill* (Worksmart, 2019) have been instituted for professions where people are face to face with the public, as well as to support those victims of violence.

As humans we spend a majority of our lives at work making it imperative that it be a place of safety. When one is safe from threats or violence one feels in control and functions at a higher level (Wills, 2014). There are two sets of factors that make one more susceptible to abuse- particularly abuse from assailants that are unknown to the victim (public stranger violence). These 2 factors are 1) *situational factors* (the environment that the victim is in) including visibility, location, and level of support for potential victims and 2) *individual factors* (characteristics of the specific individual) which are predictability, ease of target, stereotypes, ethnicity, race, the distracted individual, and personality traits (Maxwell, 2018).

The effects of abuse vary and can be divided into a) work-related effects such as decreased productivity, absenteeism, declining patient care, decreased staff morale and specifically for doctors - more medical errors and b) personal effects such as physical injury and disability; psychological/emotional; higher levels of post-traumatic stress disorder, anxiety, substance use and depression (Stokowski, 2010). These effects can have a significant negative impact on the workplace in general.

Research articles into healthcare workplace violence all agree: violence in the workplace is grossly under-reported which hinders research into the extent of the problem (Arnetz, 2015). In a 12-month period 88% of affected health professionals had not reported their incident electronically (via a self-reported questionnaire) and only 45% had reported their incidents only verbally to supervisors (Arnetz, 2015). Reasons cited for not reporting an incident include that the injury was minor, reporting was time consuming, there are concerns about lack of support from seniors or supervisors, fear of negative consequences from reporting and that abuse is part of the job description. In South Africa reporting facilities specifically for violence are lacking. Data is only submitted to the Compensation Commissioner in terms of the Compensation for Occupational Injuries and Diseases Amendment Act 61 of 1997 which is not ideal. Reporting should be easy, concise, and short. Accessing workplace support systems, such as occupational health psychologists, should be just as simple.

Workplace violence may also be a spill over of the increasing violence from households and communities into the hospital (Geneva, 2002). In the World Health Organization (WHO) report, 8-38% of health care workers experienced physical violence in their careers. Globally, emergency staff are at high risk for violence because of the patient profile served (WHO: Violence, 2019; Steinman, 2003). In South Africa the research is extremely scanty on violence in the health care sector. The largest study on workplace violence was published in 2003 in affiliation with the WHO which found that 61.9% of health care workers had been victim to at least one type of workplace violence in the preceding 12 months. Of these workers 17.8% had experienced three to five types of violence (i.e. verbal, bullying, racial, sexual or physical). Much higher reports were found in the public sector compared to the private sector. Of those physically attacked 73.6% cited this as a commonplace occurrence.

The aim of this study is to describe the abuse of staff working in emergency departments at selected secondary and tertiary academic hospitals in Gauteng and the effects of this abuse and knowledge on reporting.

The objectives are as follows:

1) to describe the ranges of abuse experienced in the Emergency Department (ED) of public hospitals in Gauteng,

2) to describe the demographic of the abusers,

3) to describe the demographics of staff working in the ED that are abused,

4) to describe the impact of abuse on the ED staff,

5) to describe the reporting of abuse and

6) to compare incidents of abuse and the impact on employees between the various hospitals.

Methodology

The study will be a prospective, qualitative, observational, cross-sectional study.

The public hospitals used for this study will be: Helen Joseph Hospital, Thelle Mogoerane Hospital, Tambo Memorial Hospital, Chris Hani Baragwanath Academic Hospital (CHBAH) and Charlotte Maxeke Johannesburg Academic Hospital (CMJAH). All these hospitals have dedicated emergency departments serviced by specialized emergency medicine specialists. Those working in CHBAH and CMJAH have emergency departments that are divided into trauma and medicine thus their departments will be approached separately.

The research population is health care workers in emergency departments in Gauteng public hospitals in the academic circuit for the University of Witwatersrand and the sample is the nursing staff and doctors in these departments. The staff members will be invited to complete a questionnaire in order to achieve the above objectives. The sample size is 300 participants based on the number of employees working in the various EDs. As the participants are employees it is presumed that they are above the age of 18 and there is no maximum age limit. All sexes will be included in the study.

Inclusion criteria:

- Regular* doctors and nurses working at the 5 selected hospitals employed by the Department of Health and working in the ED.
  *regular is defined as: a nurse or doctor working more than 12 hours per week for >4 months in a government hospital

Exclusion criteria:

- Students in training including interns.
- Allied health workers.

The written questionnaire (appendix A) is not itself validated but has been adapted from that used in the study conducted by Alshehri, 2016 and the Workplace Violence in the Health Sector Country Case Study Questionnaire utilised by the World Health Organization (Appendix B for details of amendments).

Written permission from CEOs and Heads of Department of all 5 hospitals mentioned above will be obtained. An application has been sent to Human Research Ethics Committee (medical) for ethics approval to conduct the study and provisional clearance has been granted. Data will only be collected once final ethics approval is received.

Procedures for sample collection:

Data will be collected over a period of eight weeks. This is an attempt to cover all the staff working in the emergency departments: consultants in the ED, medical officers, community service doctors and the nurses working day and night shifts. This project will be conducted using a self-administered questionnaire completed by the interviewee without intervention from the researcher (except for clarification of questions should that be required). It will be a stand-alone method of data collection and completed without ongoing feedback. The self-administered questionnaire format will allow for more careful responding and by personal contact (being present in the unit to recruit participants) the hope is that participation will be increased. No identifying data will be collected from the participant and thus the questionnaire will be completely anonymous. The questionnaire will be distributed with a help sheet and an information sheet providing contact details to seek counselling for those that require it and information detailing the nature and function of the study respectively. Completion time for the questionnaire is 30-40 minutes and following completion the questionnaire will be submitted and filed. Distribution will be done in two manners to optimise response: 1) personally during my off days and 2) questionnaires will be left with the Heads of Department and the unit managers with collection on the day and once weekly respectively.

The most convenient area in that emergency department, that allows for privacy and responsible social distancing, will be used as the venue for questionnaire completion. This likely to be the tearooms for the doctors and the nursing staff. Should a more private area be

required or requested by the participant then one will be provided. Here they will be able to complete the questionnaire away from the stress of the ED and in relative privacy while allowing them space to reflect on their experiences. I will not sit in with participants as they complete their questionnaires to ensure anonymity but will be visible should there be questions. Considerations have been made during the SARS-CoV-2 pandemic- I will adhere to strict social distancing, practise good hand hygiene and be donned in personal protective equipment. Ideally the questionnaire should be completed within 30-40 minutes, but more time will be allocated should it be needed and should there be any questions.

If the participant experiences any distress or discomfort, we will stop the process or resume at another time. If they need some support or counselling services following completing the questionnaire they can contact the services referenced to in the help sheet which also gives information on the signs and symptoms of post-traumatic stress disorder- important as recounting the abuse experienced may cause emotional distress. These services are at no cost to the participant (Appendix C). The benefits of this study outweigh the risks involved and by completing this questionnaire the wish is that the participants will become more self-aware and perceive that sharing their experiences will benefit others.

The research plan has been highlighted below in Appendix D. Some possible problems are as follows: The questionnaire not being answered correctly, for example when asked for only one answer multiple answers may be selected. Participants may fear the consequences of being involved in such a study or may find that the study will not "change the system". More significant incidents of abuse may have occurred outside of the timeframe specified thus the data may not truly reflect the extent of the problem.

Data analysis

Description of categorical data will be expressed as percentages. Parametric data will be described using means and standard deviations. Non-parametric data will be described using median and interquartile ranges.

The research will be funded by myself; the researcher and foreseen costs are for stationary (paper, printing, stapler, pens) and for transport to the various hospitals.

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APPENDIX A: Questionnaire

The experiences and impact of abuse on staff working in the emergency department in hospitals in Gauteng

A confidential survey

Context:

Abuse is common in the health sector and the emergency department (ED) is at particular risk. Despite it being so common, close to 80% of cases go unreported. What contributes to increased violence in the ED is that we see the burden of mental illness, neurological and substance-related disorders and we are also the first encounter for the patient, their family and visitors.

Purpose:

The purpose of this study is to obtain information on the level of workplace violence in the emergency department from nurses and doctors. In particular, the survey is looking into factors that may contribute to violence and strategies to prevent it. The results will be used to describe the real challenges faced by those in the ED- the frontline of the health-sector.

I hope you will take the time to support my efforts to bring light to the problems faced. Your completed questionnaire is a valued contribution for raising awareness of the issues and I hope it will give you the opportunity to express your opinions.

Please read the instructions carefully:

Some of the questions provide multiple choice answers and others single choice answers which may be quickly answered by ticking (√). When answering "no" to certain questions, you will be asked to move on to the next section in order to save time. The first four sections are on your experience *in the last 12 months in the current hospital at which you are employed*. Section five is on what you consider the worst, and your most traumatic experience in *your entire career in medicine*. You may stop at any point. If you do not understand a question, leave it blank and move on to the next. I guarantee that your responses will be handled in strict confidence and remain anonymous.

Section One: Demographic information

	HOSPITAL NAME:		
1	Sex	□ male	□ female
2	Your age in years		
3	What is your race?	□ Black	□ White
		□ Coloured	□ Indian
		□ Asian	□ Other, *(specify):……..*
4	Nationality	□ South African	□ Foreign
5	Your occupation	Nursing staff:	Doctor:
		□ registered nurse	□ consultant
		□ enrolled nurse	□ medical officer
		□ enrolled nursing assistant	□ comm. service
		□ Other, *specify:……..*	
6	Your highest level of education	□ Diploma	□ Bachelor
		□ Postgraduate	
7	How many years of experience do you have in the medical field since qualification? ….. years		
8	How many months have you been working in this emergency department? ……months (…….years if applicable)		
9	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		
10	Are there clear procedures for the reporting of violence in your workplace? □ yes □ no If YES, do you know how to use them? □ yes □ no		
11	Is there encouragement to report workplace violence? □ yes □ no If YES, by whom? ○ management/employer ○ colleagues (you may √ more than one) ○ union ○ association ○ own family/friends ○ other, *specify:*		

Section Two: Physical violence

Physical Violence: the use of physical force against another person or group, that results in physical, sexual or psychological harm. Includes beating, kicking, slapping, stabbing, shooting, pushing, biting, spitting, pinching, among others. This includes sexual assault (i.e. rape). ***(WHO, Geneva 2003 and Alshehri, 2016).***

Please answer (tick- √) on your experience *in the last 12 months in the current hospital at which you are employed.*

12. How many times have you been exposed to physical violence? (√ only one) **If your answer is NEVER, please proceed to section three.**	□ Never □ Once □ 2-3 times □ 4-5 times □ 6 times and more
13. What types of physical assault were you exposed to during these incidents? (you may √ more than one)	○ Beating ○ Pushing ○ Slapping ○ Kicking ○ Biting ○ Pinching ○ Shooting ○ Stabbing ○ Spitting ○ Other, please specify……
14. In the physical incident(s), who assaulted you? (you may √ more than one)	○ Patient ○ Visitor/Patient's relative ○ Co-worker ○ General public ○ Other, please specify……..
15. In the most recent incident, when did the incident happen? (please √ only one)	□ Morning □ Afternoon □ Night □ Unsure
16. In the most recent incident, where did the incident happen? (please √ only one)	□ Resuscitation □ Waiting area □ Triage area □ Treatment area □ Corridors □ Other, please specify…….
17. Did you receive treatment after the most recent incident? (please √ only one)	□ Yes, I received treatment □ There was no need for treatment □ I needed treatment but did not receive it □ I treated myself
18. If yes, who treated you? (please √ only one)	□ Doctor □ Psychiatry/psychology department □ Nurse □ Other, please specify……..

19. How did you respond to the incident? (you may ∨ more than one)	○ Took no action ○ Tried to pretend it never happened ○ Told the person to stop ○ Tried to defend myself physically ○ Told family/friends ○ Sought counselling ○ Told a colleague ○ Reported it to a senior colleague ○ Transferred to another facility ○ Completed an incident form ○ Completed a compensation form ○ Went to the police ○ Other, please specify:……..				
20. What do you think was the cause of the most recent incident? (you may ∨ more than one)	○ Waiting to receive services ○ Failure to meet the desires of the patient or his companions ○ Mental health/psychiatric patient ○ How the staff dealt with the patient ○ Unavailability of medication or needed services for patient ○ Fear/stress ○ Lack of tools to prevent the attack on workers ○ Impact of disease/pain ○ Influence of alcohol/drugs ○ Do not know the reason ○ Another reason, please specify……..				
21. Since you were attacked, how BOTHERED have you been by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
a) Repeated, disturbing memories, thoughts, or images of the attack?	□	□	□	□	□
b) Avoiding thinking about or talking about the attack or avoiding having feelings related to it?	□	□	□	□	□
c) Being “super-alert” or watchful and on guard?	□	□	□	□	□
d) Feeling like everything you do is an effort?	□	□	□	□	□

Section Three: Non-physical violence

The intentional use of power, including threat of force, against another person or group, that can result in harm to physical, mental, spiritual, moral or social development. This includes verbal abuse, bullying, harassment and threats and is any behaviour towards an employee based on age, disability, sex , race, colour, language, religion, political beliefs, national or social origin, belonging to a minority, poverty, richness, place of birth or any unwanted status which negatively influences dignity of the employee.

Threat: happens when someone (patient, relatives, visitors, co-workers) uses words, gestures, behaviours to intimidate or threaten harm (physically or other) to an employee.

Sexual abuse/harassment: any unwanted, unreciprocated and unwelcome behaviour of a sexual nature that is offensive to the person involved, and causes that person to be threatened, humiliated or embarrassed. It may include sexist remarks, behaviour, or sexual advances which result in a tense and unproductive environment. ***(WHO, Geneva 2003 and Alshehri, 2016).***

Please answer (tick- √) on your experience *in the last 12 months in the current hospital at which you are employed.*

22. How many times have you been exposed to non-physical violence during the last 12 months? (please √ only one) **If your answer is NEVER, please proceed to section four**	□ Never □ Once □ 2-3 times □ 4-5 times □ 6 times and more
23. What types of non-physical abuse have you been exposed to during the last 12 months? (you may √ more than one)	○ Threat ○ Verbal abuse ○ Sexual abuse
24. In the most recent non-physical incident, who assaulted you? (you may √ more than one)	○ Patient ○ Visitor/Patient's relative ○ Co-worker ○ Other, please specify…….
25. In the most recent incident, when did the incident happen? (please √ only one)	□ Morning □ Afternoon □ Night □ Unsure
26. In the most recent incident, where did the incident happen? (please √ only one)	□ Resuscitation □ Waiting area □ Triage area □ Treatment area □ Corridors □ Other, please specify…….
27. Did you receive treatment after the most recent incident? (please √ only one)	□ Yes, I received treatment □ There was no need for treatment □ I needed treatment but did not receive it □ I treated myself

28. If yes, who treated you? (please √ only one)		□ Doctor □ Psychiatry/psychology department □ Nurse □ Other, please specify……..			
29. How did you respond to the incident? (you may √ more than one)		○ Took no action ○ Tried to pretend it never happened ○ Told the person to stop ○ Tried to defend myself physically ○ Told family/friends ○ Sought counselling ○ Told a colleague ○ Reported it to a senior colleague ○ Transferred to another facility ○ Completed an incident form ○ Completed a compensation form ○ Went to the police ○ Other, please specify:……..			
30. What do you think was the cause of the most recent incident? (you may √ more than one)		○ Waiting to receive services ○ Failure to meet the desires of the patient or his companions ○ Mental health/psychiatric patient ○ How the staff dealt with the patient ○ Unavailability of medication or needed services for the patient ○ Fear/stress ○ Lack of tools to prevent the attack on workers ○ Impact of disease/pain ○ Influence of alcohol/drugs ○ Do not know the reason ○ Another reason, please specify……..			
31. Since you were attacked, how BOTHERED have you been by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
a) Repeated, disturbing memories, thoughts, or images of the attack?	□	□	□	□	□
b) Avoiding thinking about or talking about the attack or avoiding having feeling related to it?	□	□	□	□	□
c) Being “super-alert” or watchful and on guard?	□	□	□	□	□
d) Feeling like everything you do is an effort?	□	□	□	□	□

Section Four: Systems and means of protection available and procedures for reporting physical and non-physical violence.

Please answer about available systems, means and procedures for reporting of assaults against workers in the hospital:

32. Are there enough methods to prevent violence on staff (such as guards, security, cameras, warning devices, emergency contacts) in the department?	Yes □	No □	Do not know □
33. Are there enough policies, systems and instructions to prevent violence on workers in the hospital?	Yes □	No □	Do not know □
34. Are there reporting procedures for the reporting of violence in the hospital?	Yes □	No □	Do not know □
35. Did you receive training or educational programs by the hospital to prevent and deal with violence?	Yes □	No □	Do not know □
36. In the most recent incident, did you write a report to your administration or to any third party administrator for the violence against you?	**Physical violence**	Yes □	No □
	Non-physical violence	Yes □	No □
37. If the answer is no to **question 36**, why was the incident not reported? (you may ∨ more than one)	○ The incident was not important ○ Fear of consequences on me and my work ○ Feeling ashamed of the incident ○ I do not know whom I should write to ○ No benefit in writing, from my experience there will be no follow up or action against the assaulter ○ Other, please specify……		
38. Has any action been taken against the assaulter?	Yes □	No □	Do not know □
39. What is the impact of violence on you? (please ∨ only one)	□ I have fear and anxiety □ I feel guilty □ I feel a desire for revenge □ There is no impact		
40. What is the impact of abuse on your delivery of patient care? (please ∨ only one)	□ I refuse to work with the abusive patient □ I minimise my response to the abusive patient □ I minimise the time spent on the potentially abusive patient care □ There is no impact		

41. In the next 1-3 years, do you think you will stop working in the emergency department (ED) because of exposure to violence?	**Very likely** □	**Likely** □	**Undecided** □	**Unlikely** □	**Very unlikely** □

Section five: The *most traumatic* incident of abuse you have experienced in your medical career.

42. Please share and describe your most traumatic and worst experience of abuse (physical/non-physical) as a nurse or doctor experienced at any hospital and at any time during your medical career: *please use the back of the questionnaire if you need more space*

_____

_____

_____

_____

_____

43. How long had you been working in the medical field when this incident happened?
    □ less than 1 year □ 1-5 years □ 5-10 years □ more than 10 years

44. Did this experience occur at the hospital where you are currently working?
    □ Yes □ No

45. If **yes** to question **44**, are you thinking of leaving this environment because of the experience?
    □ Yes □ No

46. If **no** to question **44**, did you leave the environment because of this experience?
    □ Yes □ No

47. If **no** to question **44**, at which hospital did this most traumatic incident of abuse occur and in which department:
    _____Hospital name
    _____Department

48. Of all of the emergency departments in which you have worked, which ED do you consider the most likely place to experience abuse (i.e. which ED in Gauteng have you worked in that you think is the worst with respect to abuse experienced)?
    _____

Once completed please place in the designated box. Thank you for taking the time to participate in this study.

Appendix B: Details on the adaptation of the questionnaire

The beginning of the questionnaire has a 1-page introduction on the study. This page is clearly structured in the WHO study therefore it was used. Its paragraph on the context was made relevant for my study, then I further utilised their paragraphs detailing the purpose of the study and the instructions for completion of the study (making it relevant to my questionnaire, especially with the addition of section 5).

Section one:
The question on age was changed to "in years" and not made into categories to assist in making the questionnaire not too lengthy. A category on "race" was added to observe if that has an impact on the risk of abuse and the nationality section was changed to "South African or Foreign National"- this was taken from the Alshehri study as this seemed pertinent as well. In this section questions 1-8 were used for the demographic data from Alshehri. Questions 17-19 were used from the WHO questionnaire as they begin collecting information on the knowledge of reporting of workplace violence.

Section two: physical violence

The definitions of physical violence were used from both questionnaires and collated to make it clear and easily understandable. Questions 9-19 were taken from Alshehri, adding question PV 1.7. and 1.10 from the WHO questionnaire, eliciting the response from the incident of violence and any resultant symptoms of PTSD respectively as these are pertinent to the study. In giving examples of what constitutes physical violence the example of spitting was added as, in my experience, it occurs very often especially from psychiatric patients.

Section three: non-physical violence

The definition of non-physical violence was taken from the WHO study as the language is simpler to understand. Further subtyping this type of violence, I used the definitions from Alshehri as their definitions were also clearer. I used questions 17-24 from Alshehri, again adding the 2 questions from WHO about the response to the abuse. The WHO goes into

extensive detail asking about each subtype of abuse in their own dedicated sections (verbal abuse, bullying, sexual harassment and racial harassment) and this was not done in my questionnaire as it would have made it too lengthy.

Section four: systems and means of protection and procedures for reporting

The entire section was used from Alshehri (questions 1-10, section four) as it contains very important questions about reporting behaviours.

Section five: the most traumatic incident of abuse you have experienced

This section was not adapted from the questionnaires but developed with myself and my supervisor. We thought this section important to elicit other incidents of violence outside of the specified time period of the study especially so that more traumatic incidents are not missed even if not experienced at the specified ED in which they work (even outside of the ED and in other department). This assists in also getting more knowledge on the extent of abuse (even if this information would be more limited than that obtained from the other sections of the questionnaire). This section also tries to determine which ED has the worst perceived violence and if violence experienced influences the retention of staff at these institutions.

APPENDIX C: Help Sheet



If you think you may have the symptoms of PTSD or would like to find help, below are contact details for the support you may need:

- ***The South African Depression and Anxiety Group (SADAG):***

To find a Support Group in your area, please phone SADAG on

0800 21 22 23.

- ***Life Line:***

Life Line is a non-profit organisation (NPO) that offers free counselling and 24-hour telephonic counselling for all ages and any issues you are faced with. Life Line centres can be found in Norwood, Soweto, and Alexandra.

0861 322 322

011 728 1347

- ***AKESO: behavioural healthcare group:***

24 Hour Emergency contact: 0861 435 787 (free psychiatric intervention unit for those requiring *emergency* psychiatric intervention)

NOTE: any counselling required by the participant can be obtained from SADAG and Life Line free of charge.

APPENDIX D: Timeline for MMED

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Data collection

Name	Owner	Status	Timeline - Start	Priority
Inform Heads of Department about study	lerato	Working on it	2020-08-15	High
Buy pens, stationary (staples, paper, ink for printer, env	lerato	Working on it	2020-08-15	Medium
Print questionnaires	lerato	Working on it	2020-08-20	Medium
Collection of data: Helen Joseph Hospital	lerato	Working on it	2020-10-01	Medium
Collection of data: Thele Mogoerane Hospital	lerato	Working on it	2020-10-12	Medium
Collection of data: Tambo Memorial Hospital	lerato	Working on it	2020-10-26	Medium
Time for collection of additional data	lerato	Working on it	2020-11-09	Medium
Transfer data to excel format	lerato	Working on it	2020-11-23	High

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Write up of data

Name	Owner	Status	Timeline - Start
Main findings	lerato	Working on it	2020-12-01
Principal conclusion	lerato	Working on it	2020-12-01
Introduction	lerato	Working on it	2020-12-01
establishing a territory	lerato	Working on it	2020-12-01
establishing a niche	lerato	Working on it	2020-12-10
occupying the niche	lerato	Working on it	2020-12-10
Literature review	lerato	Working on it	2021-01-01
Methodology	lerato	Working on it	2021-01-01
Results	lerato	Working on it	2021-01-01
Discussion...	lerato	Working on it	2021-01-01
introduction	lerato	Working on it	2021-01-05
evaluation	lerato	Working on it	2021-01-05
conclusion	lerato	Working on it	2021-01-14
Acknowledgements	lerato	Working on it	2021-01-20
References	lerato	Working on it	2021-01-20

Chapter 2: submissible article for WITS Journal of Medicine

The experiences and impact of workplace violence on doctors and nurses working in Emergency Departments in the Gauteng Province, South Africa

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Abstract

Objectives: Workplace violence (WPV) remains grossly under-reported preventing a true appreciation of the problem. With South Africa currently rated in the top three in the world for crime, it is likely that such crime correlates with WPV experienced by health care workers. This study investigates the range of WPV experienced in the Emergency Department (ED), the demographics of the perpetrator, the impact of WPV on ED staff, and reporting behaviour. *Study design:* prospective, quantitative, observational, cross-sectional study of five public hospitals in Gauteng. *Methods:* During the period October 2020-March 2021 data was collected through the completion of a self-administered questionnaire. Nursing staff and doctors, with the exclusion of those in training, were enrolled. The questionnaire included questions on demographics, experience of physical and non-physical WPV over the last 12 months as well as responses and effects of those events. *Results:* There were 211 respondents. Seventy percent of respondents had experienced at least one physical WPV event and 84% had experienced at least one non-physical WPV event. In both types of violence most did not require treatment. The incidents, mainly perpetrated by patients or their relatives/visitors, left 42% of victims very worried about violence in their workplace and some with symptoms of post-traumatic stress disorder, however reporting of events was severely lacking. Respondents indicated that there were no clear reporting procedures available to them. *Conclusions*: Workplace violence is a problem in the ED and more needs to be done in encouraging reporting of incidents but most importantly methods of preventing violence need to be prioritized.

Keywords: Emergency department, physical WPV, non-physical WPV, workplace violence.

Introduction

Workplace violence (WPV) is the infliction of physical injury or verbal or sexual threat to staff at work. (1) The emergency department (ED) is a frontline area of the healthcare sector that has grown to take on an increased burden of disease, dealing with a myriad of people ranging from those with minor illnesses to those who are critically ill. (1) The ED also treats psychiatric and intoxicated patients who are often very difficult to manage. (2) The high number of patients also results in prolonged lengths of stay in the ED with patient

dissatisfaction and inefficiency affecting patient care and functionality of the ED. (3,4) These factors, combined with trauma accounting for close to 25% of all presentations, and neuropsychiatric conditions overburdening the already vulnerable health systems, create a high potential for violence in the workplace. (5,6) While many cases of workplace violence in the ED are perpetrated by patients and their dissatisfied family members or escorts, WPV can be classified further based on the relationship the victim has with the perpetrator. The perpetrator may have no relationship with the victim, such as in cases of a pure criminal nature, or have a relationship with the victim such as domestic and interpersonal violence. All forms of WPV reflect violence from outside the ED spilling over into the ED. (7)

The safety of health workers was highlighted by the 2015-2020 Office of Health Standards Compliance Strategic Plan as a "Ministerial priority". (8) However, no published guidelines, such as regulations and enforceable minimum requirements, detail *how* health facilities should be safeguarding their employees against violence. (9,10) Repeatedly the South African Medical Association (SAMA) has raised the issue of safety of staff and of patients, condemning many serious incidents. For example, a "brutal gang-style execution" against a patient in KwaZulu-Natal occurred due to a lack of security as a gun had been smuggled onto the premises. (11) In February 2022, a doctor was attacked at Mapulaneng Hospital in Mpumalanga where she was robbed at gunpoint and threatened with rape. (12)

Amongst African countries, healthcare facilities in South Africa (SA) are reported to have the highest prevalence of WPV ranging from 54-100%. (13) Drawing upon nearly a decade of experience working in EDs in Gauteng my observations show that facilities lack ways to identify patients at high risk for violence, such as those who are affiliated with gangs, and those who have weapons on their person as metal detectors and thorough personal searches are not common. The public is not usually restricted in its movements in the ED and security personnel are not well equipped with the knowledge and training required to manage a violent person and resolve conflicts. (7) The actual numbers of incidents of WPV are unclear because there is still a hesitancy of ED staff when it comes to reporting incidents. (1)

WPV poses both physical and psychological threats, and psychologically may be a contributor towards depression and persistent low levels of anxiety. (14) Approximately a third of the economic burden ascribed to accidents and illnesses worldwide can be attributed to WPV alone. (15) The purpose of this study is to describe the ranges of WPV experienced in the EDs in some of the public hospitals of Gauteng province, South Africa, including a comparison between the types of WPV, the demographics of the perpetrators and the impact of WPV and patterns of reporting behaviour.

Methods

Study design

The study was a prospective, quantitative, observational, cross-sectional study. Five public hospitals in Gauteng, South Africa were involved: Helen Joseph Hospital, Thelle Mogoerane Hospital, Tambo Memorial Hospital, Chris Hani Baragwanath Academic Hospital and Charlotte Maxeke Johannesburg Academic Hospital. Participants were nurses and doctors working full time in the ED and were provided with a 42- question questionnaire which included sections on demographics, experience of physical and non-physical violence over the last 12 months as well as reporting of those incidents.

The written questionnaire was not itself validated but adapted from that used in the study by Alshehri (16) and integrated with the Workplace Violence in the Health Sector Country Case Study Questionnaire. (17) Those excluded from participating were students, interns, and registrars (they would have been doctors in training and not regular staff members in a particular ED, defined as working >12 hours per week for >4 months in a particular ED) and allied health professionals. Data were collected from the period October 2020- March 2021. Written permission was obtained from the relevant Heads of Department of the various departments, the CEO of each hospital and approval from the Human Research Ethics Committee (Medical) of the University of the Witwatersrand (M200568). An anonymous, self-administered questionnaire was distributed (either personally delivered or left with unit managers in a secure file for collection at a later stage) for participants to complete. This questionnaire had an information and help sheet attached, which detailed the nature of the study and provided resources in the event counselling should be required. Completed

questionnaires and written consent forms were returned in a sealed envelope. Incomplete questionnaires (>50% of the questions left unanswered) were excluded from the data analysis. A total of ten questionnaires were deemed incomplete leaving a total of 211 questionnaires for the final data analysis.

Data collection and processing

Data were captured onto a Microsoft Excel spreadsheet and analysed using R software (version 4.0.0) and the results were reported as counts and percentages for categorical variables and mean and standard deviation (SD) for continuous variables. Chi-squared goodness of fit tests were used for comparing count data, with a P-value of <0.05 considered statistically significant. Binary post-hoc tests were conducted using the RVAideMemoire package for pairwise comparisons of significant outcomes in chi-squared tests.

Results

In this study 211 respondents from five public hospitals in Gauteng province participated in this study. Most respondents were female (62% n=131), black (64% n=135), and South African (92% n=195). Registered nurses comprised the largest group of participants (36% n=76) followed by medical officers (26% n=55).

Figure 1 displays the number of physical and non-physical WPV incidents reported by the respondents over a 12-month period. The results show that 70% of participants had experienced at least 1 physical WPV event and 84% had experienced at least 1 non-physical WPV event during the same period. However, there was no significant difference between any of the categories (χ^2 =9.41, df = 2, p = 0.052).

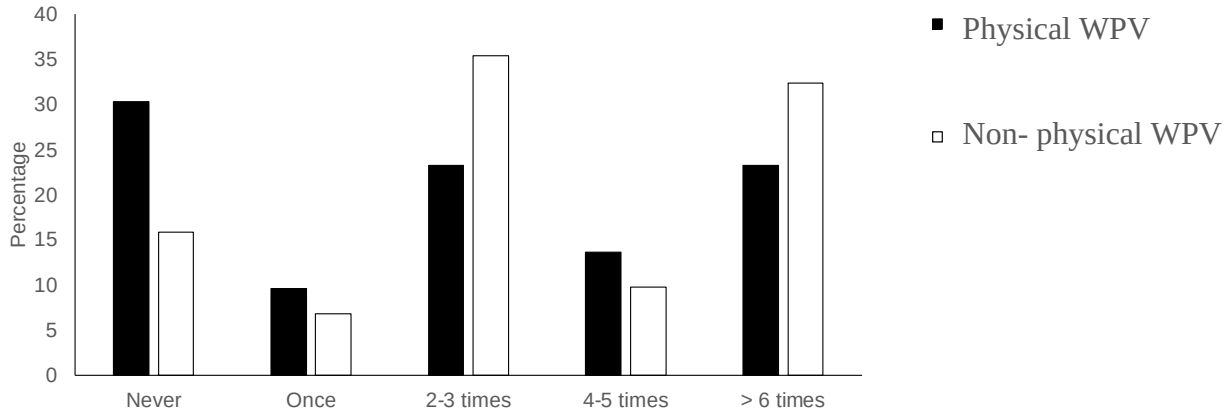


Figure 1: This illustrates the frequency of workplace violence (WPV) incidents, categorized into physical and non-physical forms, documented over a 12-month period.

The most reported types of physical WPV were pushing, spitting, kicking, and slapping, which were significantly more frequent than other types of physical WPV (χ^2 =67.52, df= 1, $p < 0.001$; binary posthoc tests, figure 2a). There were also reports of more severe violent crimes, such as shootings (1%) and stabbings (1%). Verbal abuse was the most common form of non-physical WPV, followed by threats and sexual harassment ($\chi^2 = 41.54$, df = 2, $p < 0.001$; binary posthoc tests, figure 2b). The majority of the physical and non-physical WPV incidents (48% and 44% respectively) were reported to have occurred during night shifts ($x^2 = 40.28$, df = 3, $p< 0.001$).

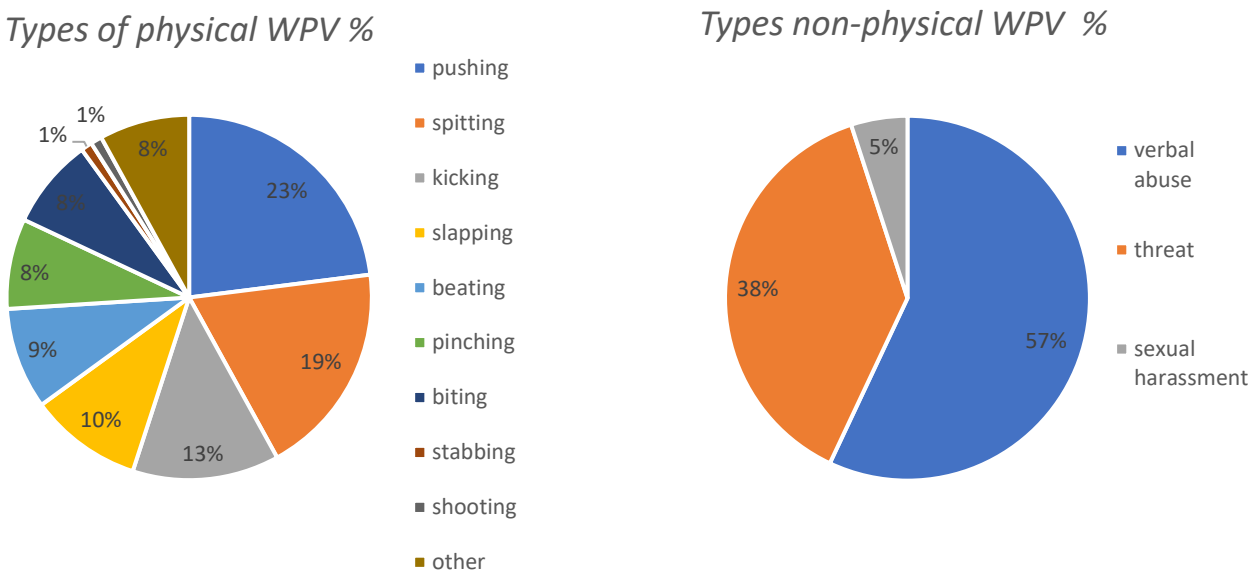
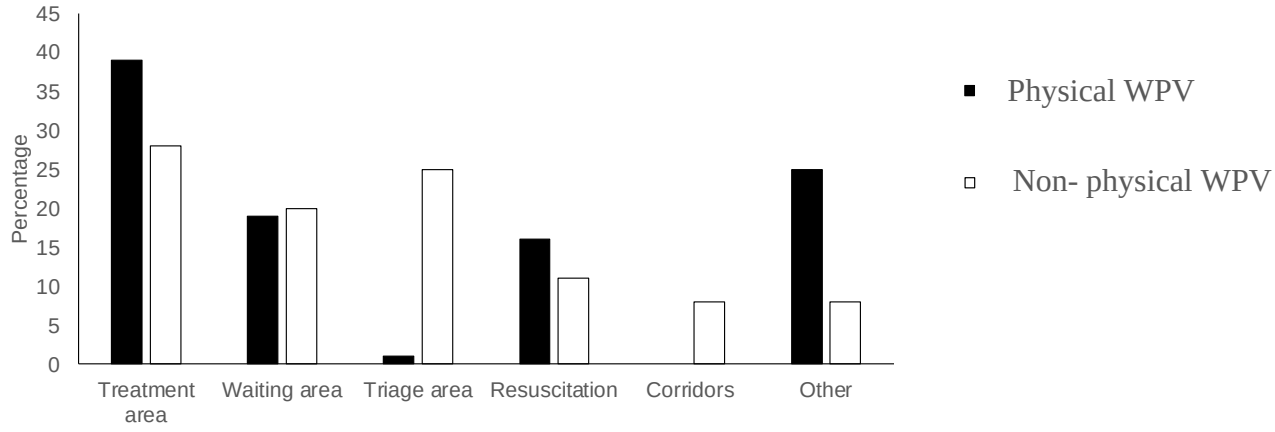


Figure 2a and 2b. Types of physical and non-physical WPV experienced over past 12 months.

In figure 3 the treatment and waiting areas were the most common locations for both types of WPV ($p<0.05$; binary posthoc tests). The triage area had a significantly higher occurrence of non-physical WPV compared to other areas ($p<0.05$; binary posthoc tests). There were a large portion that fell under the category of "other" and these largely consisted of the question being unanswered. A small number did indicate experiencing physical WPV in locations such as the "casualty floor", in the cubicles, outside and at the nurse's station. Notably, some experienced non-physical WPV telephonically. In terms of demographics, there were no significant differences between males or females in the occurrence or absence of physical (Fisher's exact test: $p = 1.000$) and non-physical (Fisher's exact test: $p = 1.000$) WPV. However, profession was found to be a significant predictor of experiencing physical WPV (Fisher's exact test: $p = 0.08$) with doctors having 2.4 times higher odds of experiencing physical WPV compared to nurses. Profession did not show significance in the occurrence of non-physical WPV (Fisher's exact test: $p = 0.145$).



Percentage occurrence of physical and non-physical WPV by location.

Figure 3: this presents the distribution of physical and non-physical WPV incidents by location within the ED over a 12-month period, depicted as a percentage of total occurrences.

Most recent incidents of physical WPV resulted in no treatment needed in 81% of participants, self-treatment for 13% and treatment for 6%. For non-physical incidents, 70% did not require treatment, 15% self-treated, 4% received treatment, and 4% needed treatment but did not receive it.

Patients were the main perpetrators of physical violence (66%) followed by visitors or relatives of the patient (28%). For non-physical WPV, the patient (47%) or the patient's visitor or relative (42%) were the main perpetrators, with some incidents involving co-workers (10%) ($p<0.05$; binary posthoc tests; figure 4).



Percentage occurrence of physical and non-physical WPV by perpetrator.

Figure 4: portrays the distribution of physical and non-physical WPV incidents based on the type of perpetrator over a 12-month timeframe.

Respondents cited unstable psychiatric patients or those under the influence of drugs or alcohol as some of the most common reasons for WPV (table 1). Patients with mental illness were more likely to commit physical WPV, while individuals who experienced long wait times and felt their needs were not being met were more likely to commit non-physical WPV. (x^2=23.05, df=10, p=0.011; binary posthoc tests).

Perceived cause of WPV	*Physical* WPV *n (%)*	*Non-physical* WPV *n (%)*	*P value*
Mental health/psychiatric patient	91(35%)	48(16%)	<0.001
Influence of alcohol or drugs	65(25%)	61(20%)	0.722
Waiting too long to receive services	30(11%)	68(22%)	<0.001
Failure to meet the desires of the patient or his companions	17(6%)	40(13%)	0.002
Fear/stress	12(5%)	20(6%)	0.157
Lack of tools to prevent an attack on workers	12(5%)	16(5%)	0.450

Table 1. The perceived reasons for the physical and non-physical WPV.

Participants took no action in response to non-physical WPV more often than physical WPV (χ^2 =21.20, df=9, p=0.012; binary posthoc tests, Table 2). The majority of victims of physical WPV reported the incident to a senior colleague and defended themselves, while the majority of victims of non-physical WPV informed a non-senior colleague.

Response to WPV	*Physical* WPV *n (%)*	*Non-physical* WPV *n (%)*	*P value*
Took no action	52(23%)	65(29%)	0.229
Told the person to stop	43(19%)	52(24%)	0.356
Reported it to a senior colleague	48(22%)	1(0.5%)	<0.001
Told a colleague	4(2%)	49(22%)	<0.001
Tried to pretend that it never happened	24(11%)	22(10%)	0.768
Tried to defend myself physically	22(10%)	2(1%)	<0.001
Told family/friends	17(8%)	20(9%)	0.622

Table 2. Responses by participants to physical and non-physical WPV.

Respondents were asked to rate the presence of post-traumatic stress disorder (PTSD) symptoms on Likert scales after experiencing WPV. The results fell into three categories of being affected "quite a bit", "a little bit" and "not at all". The majority of participants (50% physical WPV, 43% non-physical WPV) were not affected at all by repeated disturbing memories or thoughts of the incident, while 29% for physical and 33% for non-physical reported being quite a bit affected ($p<0.05$; binary posthoc tests, figure 6). There were no significant differences between physical and non-physical WPV between categories. (x^2=1.91 df=2, p=0.384). Most victims of physical and non-physical WPV were "quite a bit vigilant", 70% and 56% respectively ($p<0.001$; binary post hoc tests). Non-physical WPV victims had

significantly less heightened vigilance compared to physical WPV victims (13% vs. 17%) (x^2=10.89, df=2, p=0.004). No significant differences were found between physical and non-physical WPV in terms of avoidance behaviour (x^2 = 1.14, df = 2, p =0.567). For both types of WPV, 36% (physical) and 34% (non-physical) reported “quite a lot” of avoidance, while 38% (physical) and 42% (non-physical) reported none at all (p>0.05; binary posthoc tests). More respondents (51% and 52%) of physical and non-physical types of WPV reported that life was quite a bit of an effort, compared to 35% and 31% respectively who were “not at all” affected (p<0.05; binary posthoc tests). There were no significant differences between the physical and non-physical WPV groups (x2 = 0.86, df = 2, p =0.650).

In the context of healthcare, WPV has been found to have direct consequences on patient care. The data indicates that healthcare professionals, in response to WPV, tend to limit their interactions with abusive patients by 42%, and their responsiveness to the needs of such patients decreases by 34%. These statistics, derived from our study, illuminate the tangible impact of WPV on patient care. The majority of victims of WPV, 90% for physical WPV and 93% for non-physical WPV, did not report the violent incidents that were perpetrated against them. Of all victims, 59% reported unclear reporting procedures and 90% reported not receiving training or educational programs from the hospital on how to prevent, deal with or report workplace violence. Reasons for not reporting included considering the incident unimportant (37%), uncertainty about who to report to (34%), fear of consequences (10%) and feeling ashamed (4%).

DISCUSSION

The issue of workplace violence is a prevalent and pressing concern in both developed and developing countries, as increasing violence in the community often spills over into the ED. (18) The issue is far worse in developing countries where care and resources are more limited, the health systems are underdeveloped, and patients encounter understaffed units and frustrated staff. (13,18) Our study revealed that exposure to violence in the ED is distressingly common with 70% of health care workers (HCWs) having experienced physical violence and 84% non-physical violence. The numbers in our study are higher than those in

the South African government-published study by Steinman published in 2003, (19) where 61.9% of respondents had experienced all forms of violence in a 12-month period. Other studies (conducted in Africa and Western Cape province, South Africa) indicated that 54% of nurses in public hospitals and 100% of trauma and emergency nurses were exposed to WPV. (13,20) It can be reasonably concluded that the studies yield similar results due to the shared context of high community violence near the healthcare facilities. This high prevalence of violence is likely to be experienced acutely in the ED, where healthcare workers are at an increased risk of being exposed to violent incidents.

In our study, the most prevalent forms of physical violence experienced were pushing, spitting and kicking. Interestingly, these results are in line with a study conducted in Iran, (21) which similarly reported a high incidence of pushing (59.9%) and kicking (36.2%), but also higher rates of punching (32.7%). Similarities between the studies could possibly be explained by these types of violence being relatively easy to execute, and to violence being prevalent across different cultures. Our study also highlighted a high prevalence of psychological WPV, including verbal abuse (57%), verbal threats (38%), and sexual harassment (5%). These findings are consistent with a previous study conducted in South Africa, (19) which reported incidents of verbal abuse (49.5%), bullying/threats (20.4%), and sexual harassment (4.6%).

The ED is recognised as a high-risk environment for WPV due to the nature of the often-threatening patients under the influence of drugs and alcohol, as well as the average patient's normal feelings of anxiety, frustration and helplessness. (7,18) Several studies (18-21) have identified patients or family members as the perpetrators of violence in the ED in line with our study where the main perpetrators of WPV were patients, followed by their family or visitors. It can be reasonably inferred that patients and their families often become perpetrators of violence in the healthcare environment due to the inherently stressful and challenging nature of this setting. A much smaller group of co-workers were also perpetrators. There are numerous reasons for WPV and each event that occurs has a huge impact on employees.

Workplace violence can have significant consequences for both the individual and society as a whole. A review of the literature estimated that WPV accounts for 30% of the total societal cost within the emergency medicine community, which encompasses financial burdens, healthcare expenses, legal fees, and the broader impact on mental health, well-being, and confidence within this professional field. (13) In addition to physical injuries, WPV can also have significant psychological effects, including fear, dread, constant apprehension, inadequacy and guilt. (1) At its most extreme, WPV can lead to PTSD, although even less severe incidents can leave ED workers never feeling safe at work. (18) The effects of both physical and psychological violence can be interlaced, with physical violence leading to psychological effects and vice versa. (19) In our study, 66% of participants were "very worried" or "quite worried" about violence in their workplace which is comparable to 65% in a study by Teymourzadeh et al. (22) According to Gates, (18) non-physical WPV has considerable effects and has the potential to be just as disturbing as physical WPV. In some cases, non-physical violence may be more insidious and difficult to detect and may occur over an extended amount of time before it is recognised and even an isolated incident can be just as jarring. In a South African based study by Steinman (19) based on health care workers (HCWs) in the ED, 75% of participants showed features of PTSD with symptoms persisting 5 years post the incident in 65% of participants. Our study showed a range of 35-70% for the presence of PTSD symptoms. The unfortunate characteristic of the ED is that violence is expected by staff and thus incidents are tolerated. (18,20)

The consequences of workplace violence are more far reaching than the psychological effects on the victim as they can also have a negative impact on patient care. In our study, victims of violence reported spending less time with the abusive patients which could compromise patient care. With regards to healthcare, WPV contributed to absenteeism, decreased productivity and clinical errors as reported in other studies. (13,23) Despite the potentially devastating effects of WPV, reporting of incidents remains low. Underreporting of WPV is a major challenge in addressing the issue. Previous studies have identified several reasons why victims may not report incidents of WPV, including a belief that complaints will not result in consequences for the aggressor and the perceived futility of reporting verbal abuse due to its high frequency. (2,18) This lack of reporting makes it difficult to accurately determine the true extent of WPV and hinders efforts to implement effective solutions. (1) In some

countries the seriousness of WPV has finally been recognised and in India WPV against health workers is punishable by 7 years of jailtime. (24)

It is crucial to recognise that reporting WPV to governing and administrative organizations and possible escalation to legal action is imperative to decrease future violent incidents. (25) In our study, a higher percentage of participants did not report both physical (90%) and non-physical (93%) violence perpetrated against them compared to two retrospective studies based in Australia by Lyneham (26) and Merfield (27) where 70% of HCWs did not report both types of violence. This may be explained by cultural and societal differences between South Africa and Australia and that organisational structures in South Africa may not prioritise the reporting and management of WPV to the same extent as Australia. Furthermore, a majority of HCWs in our study (60%) cited that there were not enough policies in place, and this is a known cause of "gross underreporting" according to the Association of American Medical Colleges. (14) The existing systems and instructions in place for reporting violence are often ambiguous, and time-consuming. (25) The reporting behaviour of our participants revealed that 37% deemed the incident too unimportant to report and 34% did not know to whom to report the incident. This is similar to a study by Enam (28) based in Iran, where 36.9% deemed the violence experienced insignificant, but when it came to reporting, only 15.4% did not know how to report. Fear of retaliation at work (10%) was another reason given by our participants for not reporting. In a study by Steinman (19) conducted in South Africa, even witnesses (4.1%) of physical WPV who reported the incident were disciplined for their reporting, and victims of verbal, bullying, sexual and racial abuse feared negative consequences from reporting the incident (18%, 24%, 17% and 25% respectively). This highlights the pervasive blame culture in the medical field which is driven by fear and criticism.

The prevention of WPV is imperative in ensuring the safety and well-being of HCWs. To this end, various security measures such as trained security guards, (19) security cameras with monitors, alarm system and emergency contacts have been proposed in the literature. (14,24) However, in our study 52% of the participants reported the absence of such measures in their workplace, indicating the need for their implementation. It is easy to conclude that increasing security is the only option. However, possibly the most important deterrent, mentioned in the

literature, is providing workers with training on de-escalation of the violent patient, (14) identifying high risk patients who exhibit features of imminent violence and good leadership that supports employees and that doesn't tolerate violence in any form. (25) These strategies have been emphasized as mandatory by the International Labour Office (29) underscoring the responsibility of employers in ensuring safety of their staff. Based on the findings in our study, other strategies to prevent WPV would include making the ED a less hostile environment: by reducing waiting times, overcrowding, improving efficiency and throughput, increase staffing to improve communication to reduce the stress on patients, their relatives and the HCWs themselves. In our study, however, 90% of the participants reported not receiving any training on the prevention and management of violence highlighting the need for heightened emphasis on training and education.

Limitations to study

A potential limitation of this study is the exclusion of students and those in training, which may have resulted in a missed opportunity to capture a significant number of participants who may be more vulnerable to victimization due to their relative lack of seniority. Furthermore, the use of self-reported questionnaires is associated with several inherent limitations, including recall bias, where participants may not accurately recall events within the preceding 12-month period, and non-response bias, where some staff members may have been unwilling to participate in the study.

Conclusion

The results of our study highlight the significant prevalence of workplace violence among healthcare workers in public hospitals in Gauteng, particularly from patients with mental health issues, those under the influence of drugs and alcohol, and those frustrated with long waiting times. The perpetrators of violence are mainly patients, their family members, or visitors. Despite the high incidence of WPV, there is a lack of reporting among the majority of healthcare workers, mainly due to the lack of reporting policies and perceived lack of consequences for the perpetrators. This poses a significant challenge to the management of public hospitals in Gauteng, as it makes it difficult to accurately determine the magnitude of the problem and take appropriate action. Employers have a responsibility to provide a safe

working environment for their employees, and it is concerning that violence in any form still exists in hospitals. Therefore, it is necessary for healthcare institutions and governmental agencies to implement and enforce comprehensive reporting policies and provide adequate training to employees to prevent and manage workplace violence. Only by doing so can we effectively address this critical issue and ensure the safety and well-being of healthcare workers in public hospitals.

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Appendix A: Guidelines for authors for submissible article

WITS JOURNAL OF CLINICAL MEDICINE

Instructions for Authors

The Wits Journal of Clinical Medicine aims to provide peer-reviewed publication of original articles, reviews, opinion papers, case and meeting reports dealing with all facets of Clinical Medicine practice and research. All articles will be independently peer-reviewed. Material accepted for publication is done on the undertaking that it has not been submitted for publication anywhere else.

SUBMISSIONS

All submissions should follow the style of the Journal and be clear and concise. The word count, including references, should not exceed 5000 words. Email to: rita.kruger@wits.ac.za

ARTICLE STRUCTURE

All articles should have a title page and include the following: a short descriptive title, authors surname and first name, email address for each author, a full postal address, telephone number, fax and email address for the corresponding author. The corresponding author should be identified with an asterix. All contributors will require an ORCiD which should also be submitted as an alphanumeric string. Please register at www.orcid.org if you don't have one already. The Editors may at a later date request validation authorisation for this publication.

THE TEXT

Please submit all text in Times New Roman, 12 point with 1.5 spacing in English (UK or South African). Text must be submitted as a Word document.

Tables and figures placement must be indicated in the text as part of the sentence example, see Table 1, or in parentheses (see Table 1). All tables and figures must include a descriptive heading with appropriate attribution and permissions indicated. Figures and tables must be submitted separately from the Word document with the following file-naming convention (Lead author surname Fig.1.jpg) eg (Manga Fig. 2.jpg). Submit each figure electronically as a high resolution JPEG (at least 300 dpi). All tables and graphs (containing original data or which are not archival in nature) will be redrawn to suit the house style. Please ensure that all elements are included especially legends, scale indicators and all axes.

REFERENCES

References should be numbered in the order of appearance in the text (in parentheses after punctuation) and be presented according to Vancouver styling.

For articles:

Author A, Author B, Author XYZ. Title of article. Journal title abbreviated Year; volume: xx-zz.

Leurs R, Church MK, Taglialatela M. H_1-antihistamines: inverse agonism, anti-inflammatory actions and cardiac effects. Clin Exp Allergy. 2002; 32(4):489-498.

List first 5 authors. If more than 5 authors list the first three and add et al.

For chapters in edited books:

Author A, Author BC. Title of the book chapter. In: Editor E, Editor FG, ed. Title of the book, X edn. Location: Publisher, year: xxx-zzz.

Glennon RA, Dukat M. Serotonin receptors and drugs affecting serotonergic neurotransmission. In: Williams DA, Lemke TL, editors. Foye's principles of medicinal chemistry. 5th ed. Philadelphia: Lippincott Williams & Wilkins; 2002.

For authored books:

Author A, Author B, Author C. Title. Edition. Location: Publisher; Year.

Rang HP, Dale MM, Ritter JM, Moore PK. Pharmacology. 5th ed. Edinburgh: Churchill Livingstone; 2003.

For all other reference queries eg datasets, websites and social media please consult the Vancouver style guide. When submitting articles to the Journal please try to adhere to the conventions outlined above as closely as possible.

STRUCTURE

The **abstract** (250 words) should outline the main purpose of the study, the key methods, the main results and conclusion.

The **Introduction** provides a background to the study and should be sufficient to permit non-specialists to understand the framework of the work. Include a well-defined statement regarding the purpose of the study. The methods: provide a description of the study design, all procedures, techniques and statistical analyses. The results: stipulate the study findings and ensure to cross-reference figures and tables. The discussion should elicit an interpretation of the study set against the background of current knowledge of the field and provide definitive conclusions.

Reviews will comprise a title page as above; an abstract (250 words), providing the setting of the review, any key messages and conclusions drawn. The body should be presented with headings and subheadings and lead to summary with conclusions to end. A few (2-5) key statements could be itemised in separate box. Acknowledgements, references, tables and figures must be as detailed above.

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Appendix B: Ethics approval

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

R14/49 Dr Lerato Kobe

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M200568 MED20-01-067

NAME: (Principal Investigator)	Dr Lerato Kobe
DEPARTMENT:	Emergency Medicine Tambo Memorial Hospital, Thelle Mogoerane Hospital, Charlotte Maxeke Johannesburg Academic Hospital Chris Hani Baragwanath Academic Hospital
PROJECT TITLE:	The experiences and impact of abuse on doctors and nurses working in the emergency departments in hospitals in Gauteng
DATE CONSIDERED:	29/05/2020
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Dr Patricia Saffy and Dr Alison Bentley
APPROVED BY:	Dr C Penny, Chairperson, HREC (Medical)
DATE OF APPROVAL:	14/09/2020

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

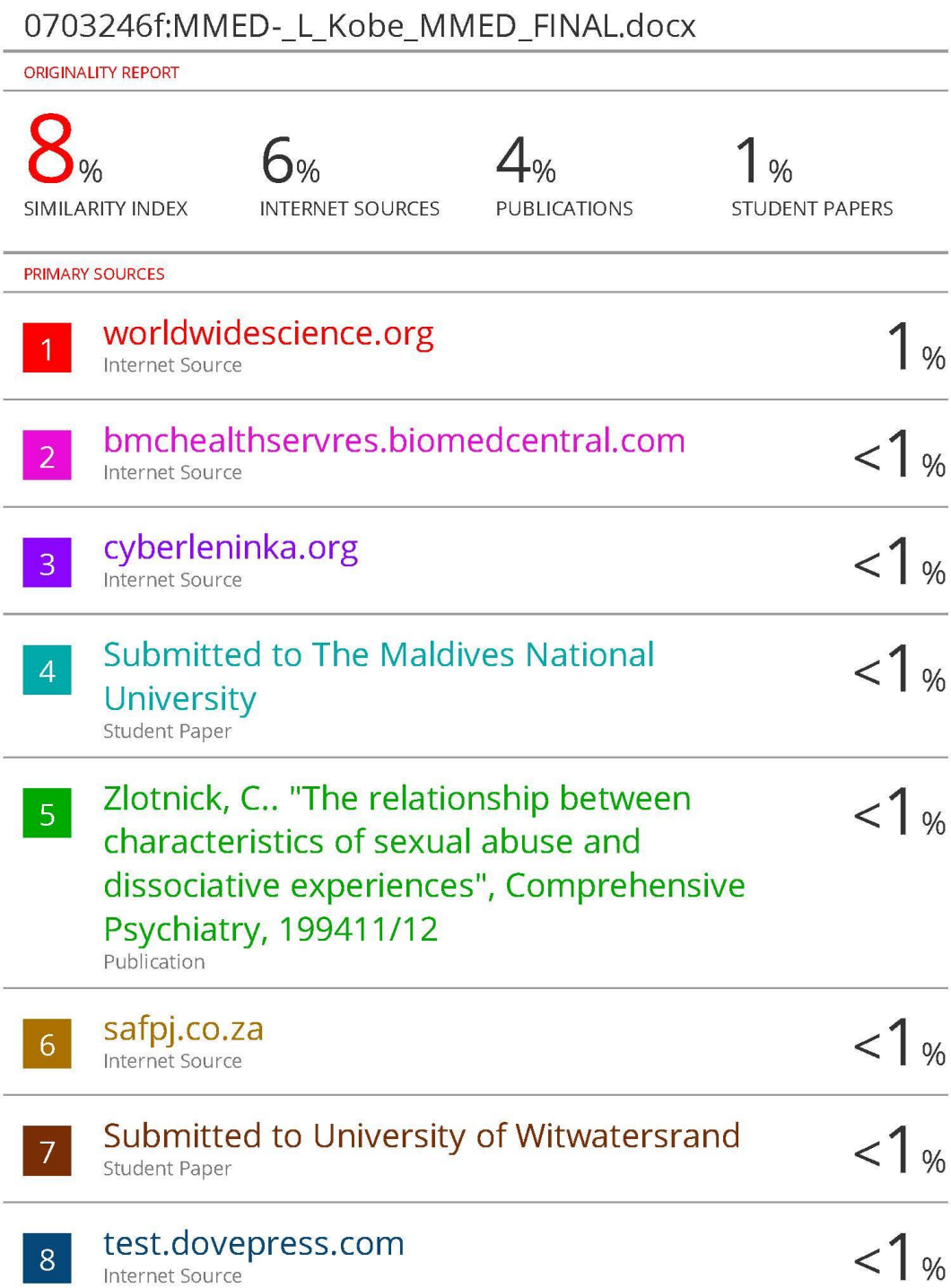
To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary in Room 301, Third floor, Faculty of Health Sciences, Phillip Tobias Building, 29 Princess of Wales Terrace, Parktown, 2193, University of the Witwatersrand. I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. In this case, the study was initially reviewed May and will therefore be due in the month of May each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical).

Principal Investigator Signature

30/09/2020
Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Appendix C: Turn-it-in report summary



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ORIGINALITY REPORT

8%	6%	4%	1%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	worldwidescience.org Internet Source	1%
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