

**SCHOOL OF PUBLIC HEALTH  
COLLEGE OF HEALTH SCIENCES  
UNIVERSITY OF GHANA**



**WORKPLACE VIOLENCE AGAINST HOSPITAL STAFF IN  
SELECTED HOSPITALS IN GREATER ACCRA REGION: A  
STUDY OF THE PREVALENCE AND RELATED FACTORS**

**BY**

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**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY  
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**DECLARATION**

I, Davida Wemoye Adusei, do hereby declare that this proposal is a result of my independent work under supervision. References to works by various authors and organisations have been duly acknowledged. This proposal has not been submitted for any degree program in this university or elsewhere.

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## **DEDICATION**

I dedicate this work to all family members my dad, Mr Humphrey B. Naboo who believed in education. Your unflinching support during my academic sojourn was worth it.

## ACKNOWLEDGEMENT

I am grateful to Jehovah God, for his support during this phase of my life, for the many blessings and mercies granted me up till this time.

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## ABSTRACT

Workplace violence is a globally recognised workplace hazard in the health sector however, there is a lack of research on the phenomenon in Ghana. Workplace violence includes physical and psychological violence and involves acts such as assault, threats, verbal and sexual abuse. These can all have deleterious effects on victims. Thus, this study sought to determine the prevalence and factors relating to violence perpetrated against hospital workers in the Greater Accra Regional Hospital and the University Hospital both in the Greater Accra Region. A cross-sectional study design using a self-administered questionnaire was conducted among 333 workers of different professional groups at the selected hospitals. The results showed that 44.4 % of respondents had experienced some form of workplace violence (both physical and psychological), with the most common type of psychological abuse being verbal (76.4%). Age, job category, years of experience and shifts worked were associated with the incidence of violence in the workplace. Results of the logistic regression showed that staff with > 20 years work experience have 19 (CI=1.55-225.86) times odds of experiencing violence compared to those with < 6 years work experience. Additionally, night shift staff have 5 times odds (CI= 0.45-2.26) of experiencing violence compared to staff that go for morning shifts. Patients were the most common perpetrators of both forms of violence (60% for physical violence and 39.3% for psychological violence). The findings indicate that workplace violence against hospital workers in Ghana exists, and hence there is the need for management interventions to safeguard hospital employees and provide a safer, more secure atmosphere for hospital staff.

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## LIST OF ABBREVIATIONS

AOR	- Adjusted Odds Ratio
BLS	- Bureau of Labour Statistics
CCOHS	- Canadian Centre for Occupational Health and Safety
COR	- Crude Odds Ratio
GARH	- Greater Accra Regional Hospital
GHS	- Ghana Health Service
NHIS	- National Health Insurance Scheme
OSHA	- Occupational Safety and Health Administration
QIP	- Quality Improvement Plan
SPSS	- Statistical Package for Social Sciences
UGH	- University Hospital Legon
WHO	- World Health Organisation
WPV	- Work Place Violence

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

Workplace violence (WPV) is fast becoming a worldwide occupational hazard of concern (Magnavita & Heponiemi, 2012). This is particularly so in the healthcare sector where reports indicate a rise in the proportion of workers who experience at least one physical or psychological violence incident (World Health Organisation, 2003). WPV involves harm to workers and is usually present in various forms. It can include physical assault and on rare occasions death. It also includes psychological abuse such as verbal threats or abuse (Occupational Safety and Health Administration, 2017).

The World Health Organization (WHO) global survey on workplace violence showed that in most countries, greater than 50% of health care workers reported experiencing at least one incident of physical or psychological violence in the previous year; 76% in Bulgaria; 67% in Australia; 61% in South Africa; 60% in health centres and 37% in hospitals in Portugal; 54% in Thailand; and 47% in Brazil (World Health Organisation, 2003). The Occupational Safety and Health Administration (OSHA) reported that nearly 2 million Americans are victims of workplace violence each year (OSHA, 2017).

A study in Ghana conducted among nurses indicated a prevalence of 52.7% (Boafo, Hancock, & Gringart, 2016).

WPV has many adverse effects including physical and psychological stress on victims as well as people wanting to quit their jobs as a result (Boafo, 2016; Gates et al., 2011). Additionally, it may cause absenteeism at work due to injuries and decreased work morale (Araujo & Sofield, 2011; Ferri et al., 2016). Although health care providers are increasingly worried about the high incidence of violence in the workplace owing

primarily to low rates of abuse reporting, there is little evidence to support this concern. This is particularly the case where most healthcare workers fail to report incidents of violence, accepting violence as a part of the job, thus making it difficult to correctly estimate the exact prevalence rate of violence against healthcare workers (Boafo & Hancock, 2017; Muzembo et al., 2015).

WPV within the hospital usually involves the patient, visitors, relatives and senior colleagues of the health worker (Cheung, Lee, & Yip, 2017). This may be caused by issues such as long waiting hours, misunderstandings between patients and health workers as well as poor organisational structures to address the issue of violence in the workplace (Gillespie et al., 2010).

The Bureau of Labour Statistics (BLS) information in the United States showed that most work-related assault accidents that needed days off work happened in the areas of health care and social services. Workplace attack statistics ranged from 23,540 to 25,630 per year in 2011 through 2013, with 70 to 74 percent in healthcare and social service settings. For health workers, attacks account for 10-11% of work-related injuries involving days off, compared with 3% among all staff in the private sector (OSHA, 2015).

To ameliorate the adverse effects of WPV and educate people on WPV, the United States of America has Guidelines developed for Preventing Workplace Violence against Healthcare and Social Service Workers (2015) by the Occupational Safety and Health Administration (OSHA) involving both management and employee effort to identify and control workplace hazards. Canada also has the Canadian Centre for Occupational Health and Safety (CCOHS), and has incorporated Prevention of WPV

in Healthcare into its Quality Improvement Plan(QIP) as a mandatory indicator of safety in Hospitals (Health Quality Ontario, 2018).

Ghana is yet to form any state agency to formulate policies on the implementation of preventative measures to curb WPV. This delay has been mostly attributed to a lack of research to back the claim. Studies examining WPV among healthcare providers will serve as important evidence to inform decisions on policy making as evidence is imperative (Boafo et al., 2016).

The aim of the study was to assess the prevalence of WPV against hospital staff, identify related factors and the perceived effects to enable policy making. The study was conducted among hospital staff in the Greater Accra Regional Hospital (Ridge Hospital) and the University Hospital, Legon both located in Accra. These facilities were selected based on convenience and their catchment areas. Ridge Hospital is a referral centre while the University hospital mostly caters to the health needs of University staff and students. Both facilities together serve a large proportion of the population in the capital.

## **1.2 Problem statement**

Studies across the globe show an increasing trend in WPV especially against health workers (Magnavita & Heponiemi, 2012).The healthcare sector is fraught with a lot of occupational hazards that are biological, chemical or ergonomic in nature. These hazard groups are well noted and researched but not much attention is given to the hazard posed by violence in the workplace (Wang et al., 2008).

Healthcare workers by virtue of their profession are prone to WPV in its various forms thus compromising their safety at work (Ferri et al., 2016). The 1992 Constitution of

Ghana Article 24(1) requires that all workers be protected by ensuring that they work under safe conditions devoid of any adverse effect on their health (National Legislative Bodies, 1993). This law encompasses health workers, who are noted to be among the high risk group for WPV (Department of Labor, Safety, & Administration, 2015). WPV contravenes this law as studies have shown that violence in the workplace has adverse health outcomes in affected workers which can be both physical and psychological in nature. Other effects of WPV are high employee turnover and subsequent shortage of staff in already overburdened health facilities (Araujo & Sofield, 2011; Gates, Gillespie, & Succop, 2011).

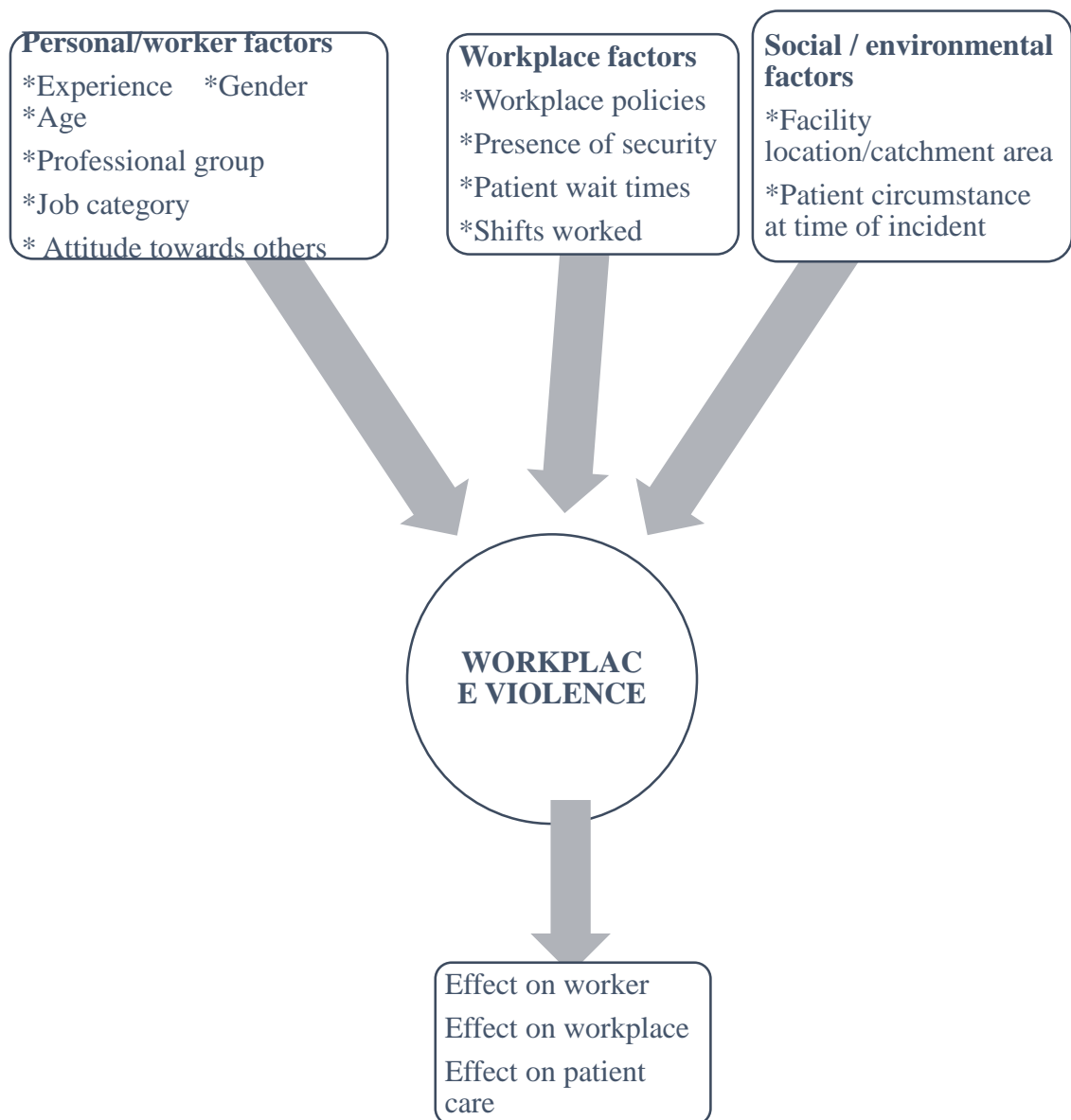
Violence in the workplace can affect any group of workers in healthcare facilities and not just clinical staff. All cadres of staff are necessary for the smooth running of health care systems (Muzembo et al., 2015). However, most studies only look at the prevalence of workplace violence among mostly clinical staff like doctors and nurses, especially those working in psychiatric and emergency departments in the general hospitals (Alyaemni & Alhudaithi, 2016; Yang et al., 2018).

There have been several reports of workplace violence against health workers in the country such as the attack on doctors at LEKMA hospital in 2011 and the more recent attack on the Chief Executive Officer of the Tamale Teaching Hospital in 2018. (“Police pick 4 suspects in Tamale hospital CEO attack - Graphic Online,” n.d.) (Ghana News Agency, 2011). These reports indicate that workplace violence can affect anyone in the healthcare facility at any time and poses a real challenge in our hospitals.

Despite the fact that WPV is being widely researched, there is a lack of research into the phenomenon among hospital workers in Ghana. This study purposes to determine the prevalence, related factors as well as the perceived effects that workplace violence

has on various cadres of hospital staff. It thus included both clinical and non-clinical staff. This will provide some data to serve as evidence for planning effective interventions for the protection of all hospital workers thus ensuring a safe work environment with no adverse effects on their health.

### 1.3 Conceptual framework



**Figure 1: Conceptual Framework Adapted from Ecological Occupational Health Model Of Workplace Assault (Levin, Hewitt, Misner, & Reynolds, 2003)**

This conceptual framework was adapted from the Ecological Occupational Health Model of Workplace Assault and slightly modified to fit the context of the study (Levin et al., 2003). This framework assumes that workplace violence is the result of multi-factorial risk factors (*Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers*, n.d.)

The framework is based on four variables. The independent variables are Personal factors, Workplace factors and Social /Environmental factors. The dependent variable is Workplace Violence. The outcome of the dependent variable has effects on all the players involved.

The Personal factor construct encompasses issues such as age, years of experience on the job, gender, professional group and job category. It also includes the attitude of the worker to work and towards the patients, relatives and colleagues (Levin et al., 2003).

The workplace factor construct includes the workplace policies on violence tolerance and reporting, shifts worked, the presence of security measures such as security cameras and mirrors as well as security personnel and patient wait times. It also includes the management policies on investigating WPV and the actions that can be taken against perpetrators (Levin et al., 2003).

The social or environmental factor incorporates the geographical area where the facility is located with regards to the catchment area and the patient's circumstance at the time of committing the act of violence against a worker (Levin et al., 2003).

Interventions should be targeted at the prevention of workplace violence by controlling the various factors and where violence has already occurred the target should be to reduce the effect on the worker, workplace and the patient.

#### **1.4 Justification of the study**

Human resource is a key aspect of any developing nation's health. Ghana, like most African nations, is plagued with a perennial shortage of various cadres of health workers (Okyere, Mwanri, & Ward, 2017). The adverse effects of workplace violence such as bad quality of care given and health workers' decision to abandon healthcare professions, have a major effect on the provision of healthcare services especially primary health care (Boafo, 2016). This, in turn, can adversely impact the overall population's accessibility of health services and cause health expenses to rise.

As of 2016, 40% of the population had enrolled with the National Health Insurance Scheme which granted opportunity to access health services. This puts a heavy strain on the limited government health facilities. Most of these clinics already have many issues, such as understaffing and frequent shortages of drugs and equipment, which leads to long patient wait times in a bid to receive health services (Alhassan, Nketiah-Amponsah, & Arhinful, 2016). WPV can further worsen this burden through increased employee turnover.

These are but a few of the adverse effects of WPV on health delivery systems. This study seeks to be a preliminary step in drawing attention to the presence and effects of WPV in Ghana's healthcare system.

Data collected on the prevalence and impact of WPV will serve as evidence for the Ministry of Health and other stakeholders to prioritise and make policies to curb WPV. These policies will ensure safety of staff and improve the human resource needs of the health sector. Making workers happy and safe will ensure maximum productivity and quality of healthcare will be assured. The worker is entitled by law to a safe workplace, policies when enacted can make this a reality.

### **1.5 Research Questions**

1. How prevalent is workplace violence against staff in the selected hospitals?
2. Who perpetrate the acts of violence at the workplace?
3. What are the factors relating to violence at the workplace?
4. What are the perceived effects of WPV on workers?

### **1.6 Objectives**

#### **1.6.1 General Objective**

To determine the prevalence and factors relating to workplace violence against hospital staff of the Greater Accra Regional Hospital and University of Ghana.

#### **1.6.2 Specific Objectives**

1. To determine how prevalent workplace violence is against staff of the selected hospitals.
2. To determine who perpetrate the acts of violence in the workplace.
3. To determine the factors related to workplace violence.
4. To determine the perceived effects of WPV on staff.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Workplace violence in the health sector

Workplace violence, an issue of utmost concern encompasses both physical and psychological or non-physical violence such as assaults, threats and verbal abuse at work. The health sector has diverse professional groups who work together to ensure that clients are given the best quality of care as possible. WPV has been hindering the achievement of this in the healthcare industry. It can affect all who work in the healthcare sector and not only clinical staff (Kitaneh & Hamdan, 2012).

WPV is of utmost concern to the healthcare industry. A study involving nurses in Sub-Saharan Africa showed reports of multiple forms of violence including physical assault experienced at work (Steinman, 2003). Studies done in Ethiopia also showed a rise in WPV especially among nurses with 60.2 % of those affected being victims of physical violence (Tadesse Tiruneh et al., 2016). A study done in Congo showed a WPV prevalence of 80.1% (Muzembo et al., 2015).

Violence in the workplace is defined as any act of violence directed at an employee at the workplace, which may cause some harm to the person. These may include use of various forces which may be physical or psychological in nature to exact the harm (NIOSH, 2016).

Physical force or aggression is described as a powerful, destructive, or aggressive conduct that may or may not be harmful. A threat has the potential risk of causing harm.

Verbal abuse is the deliberate use of language that degrades or suggests a lack of regard for an individual's inherent dignity that generates fear, bullying and rage in the person.

Sexual harassment is described as any unwanted, unrequited, and inappropriate sexual

behaviour that offends the individual concerned and causes the individual to be harassed, intimidated, or humiliated (Boafo et al., 2016; Magnavita & Heponiemi, 2012).

## **2.2 Types of Violence**

### **2.2.1 Classification based on force**

The WHO broadly classifies WPV by type of violence into two main groups based on the force or approach employed in inflicting harm. These are physical violence and psychological or non-physical violence.

1. Physical violence: this is violence involving the use of physical force to cause harm to the body or the mind. It incorporates acts like pinching, kicking, shoving or slapping. In extreme cases it can involve shooting or stabbing.

2. Psychological or Non-Physical violence: this is the use of power to intentionally intimidate or threaten and thus cause harm to the psychological, physical, spiritual and moral development of the victim. This includes verbal abuse, bullying, threats and harassment (“WHO | Background,” 2012).

### **2.2.2 Classification based on perpetrator**

Workplace violence can further be classified based on the perpetrator involved. The types are:

Type I (Criminal Intent): This occurs during the course of an activity which is criminal in nature such as a robbery. Usually the perpetrator does not have any legitimate relationship involving the employee or workplace.

Type II (Customer or Client): this refers to violence that occurs in the course of a service being provided. The person who perpetrates the act is usually the one receiving the service and becomes violent in the process.

Type III (Worker-on-Worker): The perpetrators are usually individuals who have previously worked or are currently working in that sector or workplace.

Type IV (Personal Relationship): The person who commits the act mostly knows the employee and has personal interactions with them. The person might be a relative of the employee or be intimately involved with the worker (NIOSH, 2013).

The commonly encountered types of violence are Types II and III, though any of the other types of violence can and do occur in the healthcare sector.

### **2.3 Prevalence of workplace violence**

The prevalence of WPV is reportedly high in many countries. However due to the different study methods used and different factors considered, it was difficult to compare these findings. Studies from Italy (Ferri et al., 2016), Iran (Teymourzadeh et al., 2014), Hong Kong (Cheung & Yip, 2017), Democratic Republic of Congo (Muzembo et al., 2015), Malawi (Banda, Mayers, & Duma, 2016), Saudi Arabia (Alyaemni & Alhudaithi, 2016), South Africa (Steinman, 2003) among others confirmed the high incidence of greater than 60%.

Most of the studies identified non-physical violence such as psychological violence as the most prevalent form of WPV experienced in the healthcare industry. Some cases of bullying especially by superiors were reported. Some cases of sexual assault were reported mostly among the female respondents (Muzembo et al., 2015).

The incidence of WPV was highest among workers in Psychiatric units, Geriatrics and in Emergency departments where patients are likely compromised by virtue of their pathologies. Though common in these settings, violence is mostly unintentional and most perpetrators are unaware of their actions. Violence in these sectors involve both physical and psychological abuse (Teymourzadeh et al., 2014).

Physical violence prevalence though not as high as that of psychological violence prominently featured in the emergency departments and psychiatric hospitals. This does not make workers in other departments less prone to other forms of violence. Health care service provision, though regarded as a noble profession is fraught with issues of WPV. This is on the ascendancy and not expected to decrease (Gillespie, Gates, & Berry, 2013).

#### **2.4 Perpetrators of violence in the health sector**

Muzembo et al (2015) noted in their study that patients were the perpetrators of verbal abuse or threats while their relatives were the perpetrators of physical abuse.

The fact that some violence was by patients relatives or visitors implies that any interventions planned should incorporate such people in order to achieve a significant reduction in the incidence of workplace violence (Teymourzadeh et al., 2014).

Aggression on the part of patients was attributed to mental health issues and substance abuse, frustration over ailment or feeling ignored by healthcare workers. However most of the patient relatives who committed the act of violence were in normal health (Ferri et al., 2016).

Nurses were identified as the most exposed to WPV as they had lower levels of authority and responsibility yet had the most contact with patients though the other professions like doctors were also affected (Ferri et al., 2016).

Lateral or horizontal violence in the form of bullying by colleagues or supervisors were also reported in some studies. These findings were more common among nurses than the other healthcare professions (Cheung & Yip, 2017).

## **2.5 Factors influencing occurrence of workplace violence**

### **2.5.1 Worker Factors**

Worker factors noted were gender, age and years of work experience. Males were noted to report incidents of WPV more than their female counterparts though the females were more exposed. Younger workers with less work experience as well as those with a lower educational level were at a higher risk (Ferri et al., 2016).

Other studies done however showed that workers with long years of experience were more likely to experience violence as they are more often called to diffuse volatile patient encounters. This made them more prone despite the years of work experience as compared to their counterparts with less experience. Workers who were involved in direct care of patients were also at a higher risk of abuse. Most nurses noted that at the time of abuse they were engaged in some form of patient care (Gillespie et al., 2013).

By virtue of their profession, Doctors and Nurses were the most exposed to WPV and reported more cases than their counterparts in other professions in the healthcare sector (Magnavita & Heponiemi, 2012).

Factors such as work stress due to decreased number of staff attending to a large number of patients can cause WPV. Inefficiency on the part of staff due to stress will increase

their chance of falling victim to WPV. Another factor was the issue of a lack of cohesion between employees in a unit. Team work is essential to ensuring productivity and this is only possible when good interpersonal relationships exist. This lack of cohesion causes conflicts among workers and can result in WPV especially of a psychological nature (Arnetz et al., 2018).

### **2.5.2 Work / Organizational Factors**

Findings in a number of studies suggested under reporting of the incidence of WPV because there was no laid down procedure in most organisations for doing so. If there were any, management had failed to inform employees of the support policies for them. They thus felt the reports would not be acted upon by management hence unnecessary to report incidents (Teymourzadeh et al., 2014).

Shift work as well as few staff assigned to work resulted in WPV. Workers in the morning shifts were more prone because of the heavy patient load during such times. Others complained of lack of security in the environments in which they worked. Potential perpetrators who could have been prevented from carrying out the acts of violence were unrestrained and easily gained access to the facility (Tadesse Tiruneh et al., 2016).

Job control relates to work and organizational features such as the decision-making power of the employee, possibilities for participation, and possibilities to use abilities and expertise. Job control can affect work attitudes, health and well-being directly. High job control can be seen as a prospective survival mechanism that enables staff in distress to deal with challenging circumstances including the incidence of violence at work. Job control can offer additional freedom thus preventing certain duties that pose a high danger of violence. Employees with good control can take breaks from the job to enable

staff regulate emotional reactions more effectively and reassess job difficulties efficiently (Heponiemi et al., 2014).

### **2.5.3 Social/ Environmental factors**

The location of health care facilities has some impact on the prevalence of WPV. Facilities located in high crime zones or areas with poor socioeconomic backgrounds are more prone to being victims of WPV as compared to those in low crime areas which are mostly inhabited by working class citizens (Akwensivie, 2018; Owusu, 2010).

Due to the poor socioeconomic status, most people living in such vicinities are introduced to social vices and illicit drugs. This tends to make them more prone to committing acts of violence due to their living circumstances (Owusu, 2010; Owusu & Agyei-Mensah, 2011).

## **2.6 Effect of Workplace Violence**

### **2.6.1 Effect on Employer**

WPV puts a strain on insufficient healthcare systems, as many of the victims are migrating to other countries. WPV is a threat that might contribute to a decline in the number of workers and a lowering of the quality of patient care (Boafo, 2016).

A study by Heponiemi et.al. (2014) showed a positive correlation between the incidence of workplace violence and high employee turnover. There was also decreased satisfaction with the job tasks. Doctor turnover is a growing issue that threatens the healthcare sectors functioning on a global scale and can lead to lower productivity, lower quality of care, enhanced need for recruitment and training of fresh physicians. Attempts should be targeted at increasing control possibilities in order to mitigate the adverse impacts of workplace violence.

Absenteeism and days off due to WPV can put a financial burden on employers. This involves direct costs such as paying affected workers their due salaries and covering any medical expenses incurred as a result. Indirect costs include costs of lost productivity, efficiency and subsequently a damage of reputation resulting in loss of clients and prospective staff (Araujo & Sofield, 2011; Gates et al., 2011).

### **2.6.2 Effect on Victims**

Workplace violence affects those who fall victim in significant ways. These include mental stress, distress, poor sleep quality and low self-esteem than other workers. Other effects included poor work performance, demoralisation and fear as well as feelings of embarrassment (Banda et al., 2016).

WPV as a result of reduced employee control over work tasks was associated with an excessive amount of sick leave periods. It also accounted for poorer self-assessed health years down the line. The health effects included a high risk of heart diseases, physical and emotional stress, uncontrolled blood pressure and myocardial infarction (Heponiemi et al., 2014). Others reported symptoms of Post-Traumatic Stress Disorder, burn out and a sense of incompetency. Others reacted by trying to avoid patients altogether. A lack of respect for the duties performed by staff negatively impact their morale of s (Boafo, 2018).

### **2.6.3 Effect on patient care**

Workers who are victims are demoralised and suffer psychologically. These effects usually trickle down to affect quality of patient care adversely. Most victims do not have a high morale any longer. This can result in medication errors as well as misdiagnosis and poor treatment of patient needs. Increased exposure to WPV causes

job strain and can result in the staff being violent (Phillips, 2016; Teymourzadeh et al., 2014).

Few staff available at health care facilities will mean longer wait times and sub-standard care which can be detrimental to patient outcomes. This will eventually escalate the likelihood of the occurrence of adverse events. This can impair the health and cause a lot of suffering for patients and their relatives (Ferri et al., 2016).

## **2.7 Interventions for control of workplace violence**

The high prevalence of WPV has drawn significant attention to workplace violence and hence the need for policies in all organisations to significantly reduce its incidence. Some suggested interventions are the adoption of a zero-tolerance for violence policy in the healthcare sector. Policies for violence reporting should be made and reports acted on swiftly. Support should be given to victims and perpetrators. Training of workers at a higher risk to identify and act to prevent workplace violence should be mandatory (Banda et al., 2016).

A longitudinal research showed that physical violence and intimidation in the workplace were associated with lower work satisfaction and higher turnover intentions among Finnish doctors. Furthermore, possibilities to control one's work could reduce the rise in intentions of turnover arising from bullying. Employee control is important as a buffer of adverse psychosocial working settings. Targeting attempts to increase control possibilities could mitigate workplace violence's adverse impacts.

There is also a need for direct efforts to effectively reduce workplace violence. For instance, metal detectors, safety teams with dogs, cameras and security officers were suggested to enhance the safety of health care staff (Heponiemi et al., 2014).

## CHAPTER THREE

### METHODOLOGY

#### 3.1 Research Design

A cross-sectional study design based on descriptive variables was used for the study on workplace violence against hospital workers in the Greater Accra Regional hospital and the University Hospital, Legon using a self-administered questionnaire (Appendix 2).

#### 3.2 Study Areas

The Greater Accra Regional Hospital (Ridge) and the University Hospital were purposively chosen for this study. The facilities are both in the Greater Accra Region and serve people within different catchment areas. The clients in these catchment areas have different socio-economic backgrounds.

The University Hospital was originally established to cater for the health needs of the student population, staff and their dependents. Due to the growth around the University community over time, The Ministry of Health (MOH) readily accepted to assist the hospital yearly with drugs, supplies equipment and instruments to help meet the increased need. The Hospital thus readily offered its services to other people as there was no other hospital in the whole Legon vicinity. The hospital currently functions as a District Hospital with a wide catchment area including the whole University campus and surrounding neighbourhoods like Haatso, Kwabenya, East, West, North and South Legon, Ashongman among others. Studies have classified these areas as low crime areas mostly inhabited by people of good social standing such as the working class and retirees (Akwensivie, 2018).Based on the socio-economic background of clients from

these areas, it was expected that there would be a lower incidence of violence in the University Hospital.

As the Greater Accra Region Regional Hospital, its catchment area is the entire region with a population of approximately 4,283,322 residents. The immediate catchment area, however, includes the following suburbs: Adabraka, Maamobi, Osu, Accra New Town, La, Kanda, Airport Residential Area, Nima, Kotobaabi and Central Accra. The catchment areas comprises some Zongo communities such as Nima, Maamobi and parts of Accra New Town, Kotobaabi and Adabraka. These densely populated areas are home to low-income earners and are noted for having high violence rates as a result of the living conditions (Owusu, 2010). It was thus expected that the rates of violence would be high in the Greater Accra Regional Hospital.

### **3.3 Variables**

The dependent variable under study was workplace violence defined as any act of violence directed at an employee at the workplace, which may cause some harm to the person.

The independent variables were:

(1) Worker factors which are mainly composed of the sociodemographic features of the health worker. These include the gender, age, professional group, staff category, and years of work experience;

(2) Workplace factors such as the shifts worked, patient wait times and workplace policies on reporting, investigating and managing violence in the workplace;

(3) Social or environmental factors such as where the facility is located and the circumstance of the patient at time of act of violence;

(4) Perpetrators of Workplace violence such as patients, patient relatives and staff;

(5) Perceived effects of workplace violence

### **3.4 Study Population**

The study included all category of workers that are employed in the Greater Accra Regional Hospital and the University Hospital and have some routine contact with patients and their relatives. These workers included Nurses, Midwives, Doctors and Physician assistants, Laboratory staff (Biomedical scientists and laboratory technicians), Pharmacists (Pharmacists and dispensary technicians), Radiologists, Physiotherapists, Records and Administrative staff and Janitors or Orderlies.

#### **3.4.1 Inclusion Criteria**

Study population comprised all workers who have permanent or temporary employment at the selected hospitals for at least 1 year.

#### **3.4.2 Exclusion Criteria**

I excluded all workers who had worked for at least 1 year but were on leave during the study period. .

### **3.5 Sampling**

#### **3.5.1 Sample Size Calculation**

This was done using Yamane formula for populations less than 10000 (Yamane, 1973).

A Confidence Interval of 95% and a  $p$ -value of 0.05 were assumed.

$$n = \frac{N}{1+N(e)^2}$$

Where:

n = Sample size

N= Population size N=1568

e= margin of error, for this study the margin of error was 5%, so e=0.05

$$\begin{aligned} \text{Substituting values in the formula} &= \frac{1568}{1+1568(0.05)^2} \\ &= 318.6 \\ &= 319 \text{ people} \end{aligned}$$

The minimum sample size was 319 people.

University hospital population= 416

Greater Accra Regional hospital population=1152

Total population Under Study=1568

$$\text{Sample for University Hospital} = \frac{416}{1568} * 319 = 84.6 = 85 \text{ people}$$

$$\text{Sample size for Regional Hospital} = \frac{1152}{1568} * 319 = 234.3 = 235 \text{ people}$$

### 3.5.2 Sample Size Distribution

Proportionate sampling was utilised in apportioning sample sizes to each hospital based on the total worker population as at the time of the study. The two institutions were treated as different strata based on information provided by the management of both hospitals.

Staff who were present at the time of survey and agreed to participate in the survey were included. Management of both facilities listed the staff according to professional groups. Staff of the various professional groups were approached and after consent was given, these were recruited for the study. This method helped to cater for the professional groups that had very few workers. Efforts were made to include the various cadres of workers in both facilities by going to all departments and offices in both facilities.

### **3.6 Data Collection**

To ensure reliability and validity of the study tool, the questionnaire was assessed by my academic supervisor. Twenty of the questionnaires were then pretested in Adabraka Polyclinic to ensure clarity and suitability. This facility was chosen because it had features that were similar to the two selected hospitals. The necessary corrections were made to ensure that the questionnaire was not unnecessarily long and set out to measure what it purported to in clear concise language. This data was not included in the study.

A three day training session was organised for two data collectors to assist in the research. The components of the research tool were explained to them. They were also trained on proper research etiquette including tips on facility entry procedures and how to uphold ethical principles.

Data was collected from 10th to 30th June 2019 using the trained research assistants. During their lunch break or before commencement of their shifts, the questionnaires were distributed to the participants who had agreed to partake and duly signed a consent form to that effect. This was done after a meeting with their respective unit heads to seek permission for the study and provide information on the importance of the study

and the participants required. The unit heads subsequently relayed the information to their staff and granted permission to engage the staff.

The questionnaire distribution was performed by the investigator and two research assistants. Questionnaires were picked up on the next working day. The duration for distribution and collection of completed questionnaires was three weeks for both facilities.

### **3.7 Questionnaire**

A questionnaire was developed for data collection by modifying some aspects of the Workplace violence questionnaire developed by the WHO and other stakeholders in the health care industry (WHO, 2003) and the Violent Incident form (Arnetz, 1998). It was designed to meet local needs and be easy for respondents to understand. The questionnaire was in English and was self-administered. The questionnaire was organised into 4 sections: Personal and workplace data, Physical workplace violence, psychological workplace violence and employer violence management. The various sections worked in tandem to meet the various objectives of the study as outlined below.

#### **3.7.1 Prevalence of violence meted out to hospital staff**

The questionnaire had different sections each dealing with a particular type of violence. WPV was defined as an experience of any form of violence. The second section in the questionnaires had questions related to the incidence of Physical violence. Psychological violence could be reported based on the various types such as verbal or sexual abuse, bullying and threats. Respondents could report multiple forms of WPV and types of psychological violence if experienced.

### **3.7.2 Factors relating to workplace violence**

Respondents gave basic demographic information such as gender and age as well as years of work experience. Under the various sections on the types of violence experienced were questions on the perceived cause of the incident. The respondents answered questions about the reason for the incidence. The respondents answered questions on what organisational measures are needed to ensure their security in the facilities where they work.

### **3.7.3 The Perpetrators of workplace violence**

Respondents answered questions on who the perpetrator was for each incident of WPV experienced. They also answered questions on the state of the perpetrator of violence. This gives an indication of what preceded the incident.

### **3.7.4 The Perceived effects of workplace violence**

Respondents answered questions on the perceived physical and psychological effects of the WPV experienced. They answered questions on whether they sustained any injuries or if they had any fears as a result of the experience of WPV.

## **3.8 Data analysis**

Data was collected, coded and entered into SPSS. The data was cleaned and incomplete questionnaires excluded from the dataset. The clean dataset was saved in a format readable by STATA and then imported into STATA version 15 for Analysis. Numeric codes were assigned to the various variables in the closed questions.

Analysis of the dataset was done mainly using descriptive statistics. Frequencies and percentages were calculated. Chi square was used to check for any associations between demographic features (age, gender, shifts worked, professional group, staff category

and years of experience) and the incidence of workplace violence. Simple Logistic regression was used to test for the strength of associations. Findings were considered significant if the p-value was less than 0.05, at a 95% confidence interval. Results were presented using graphs and tables.

### **3.9 Ethical Issues**

#### **3.9.1 Ethical Approval**

Ethical approval was sought from the Ethical Review Committee of the Ghana Health Service (GHS-ERC 021/04/19) and the Noguchi Memorial Institute for Medical Research (NMIMR-IRB CPN 063/18-19). This was because the hospitals each had their preferred ethical approval system. The approval was sought after the principal investigator was introduced by the School of Public Health to the various facilities via letters. Medical Directors of both facilities granted permission for the start of data collection after evidence of Ethical approval were presented to them.

#### **3.9.2 Consent**

All respondents were given a consent form to sign before questionnaires were given out for filling. These consent forms were signed to indicate willingness to be included in the study.

Prior to the issuance of the consent forms, respondents had the purpose of the study, the benefits and potential risks among other things explained fully to them. Respondents who had questions had their issues addressed.

The Potential risks involved was that some of the participants would have to recall disturbing episodes of WPV experienced. For those who had difficulty dealing with

such painful memories, a Clinical Psychologist was available in both facilities to help them cope.

Though there was no direct benefit, results from the studies would help in policy formulation to protect all workers in the health sector.

Respondents were not compensated for their participation. There was also no form of coercion in the form of financial incentives used. Participants were given the choice of deciding to participate or withdrawing anywhere along the line without any recourse.

### **3.9.3 Confidentiality and Privacy**

Information obtained is confidential. Questionnaires were coded and no names taken. Questionnaires were left with respondents so they could complete it at their own pace without compromising work. This also allowed them some privacy while filling the forms. Information was available only to the Principal Investigator and Co-investigator. The completed questionnaires were stored under lock and the keys only available to the Principal Investigator.

## CHAPTER FOUR

### RESULTS

#### **4.1 Personal and work information of respondents**

The study comprised of 333 participants with 210 females (61.9%) and 123 males (36.9%). Majority of the respondents were less than 30 years (206, 61.9%), worked less than 6 years (222, 66.7%) and worked the morning shifts (237, 70.3%). Nurses and midwives were 155(46.5%) and formed the majority professional group. Permanent staff were 162 (48.6%) and temporary/casual staff were 118(35.4%). The respondents from Greater Accra Regional Hospital were 233 (70%) while those from University Hospital were 100 (30%).

**Table 1: Personal and work information of respondents**

<b>Characteristic</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Age</b>		
18-29	206	61.9
30-39	87	26.1
40-49	18	5.4
50-59	20	6.0
Greater than 60	2	0.6
<b>Gender</b>		
Male	123	36.9
Female	210	63.1
<b>Years of Work Experience</b>		
1-5	222	66.7
6-10	64	19.2
11-15	20	6.0
16-20	12	3.6
Greater than 20	15	4.5
<b>Worker Category</b>		
Permanent staff	162	48.6
Temporary/Casual staff	118	35.4
Other	53	15.9
<b>Professional Group</b>		
Doctor	33	9.9
Physician Assistant	12	3.6
Nurse	107	32.1
Midwife	48	14.4
Pharmacists	13	3.9
Lab / Radiology staff	54	16.2
Administrative Staff	6	1.8
Records Staff	26	7.8
Security	4	1.2
Orderlies/Janitors	11	3.3
Others	19	5.7
<b>Shifts worked</b>		
Morning	234	70.3
Afternoon	48	14.4
Night	19	5.7
All shifts	32	9.6
<b>Institution</b>		
GARH	100	30.0
University Hospital	233	70.0

#### 4.2 Prevalence of workplace violence

The study found the prevalence of workplace violence to be 44.4% among the sampled population. This represents all those who experienced any or both of the two main forms (Physical and Psychological Violence) of workplace violence within the past year. The respondents who experienced both forms of violence within the past year were 27 accounting for 8.1% of the population, while 8 experienced only physical violence (2.4%) and 113 experienced only psychological violence (33.9%). Overall, 140 persons (42%) reported ever experiencing psychological violence while 35 persons (10.5%) reported having experienced physical violence within the past year. The most prevalent type of psychological abuse was verbal abuse reported by 107 persons (32.1%). Other forms reported were threats (20, 6%), bullying (7, 2.1%) and sexual harassment (6, 1.8%).

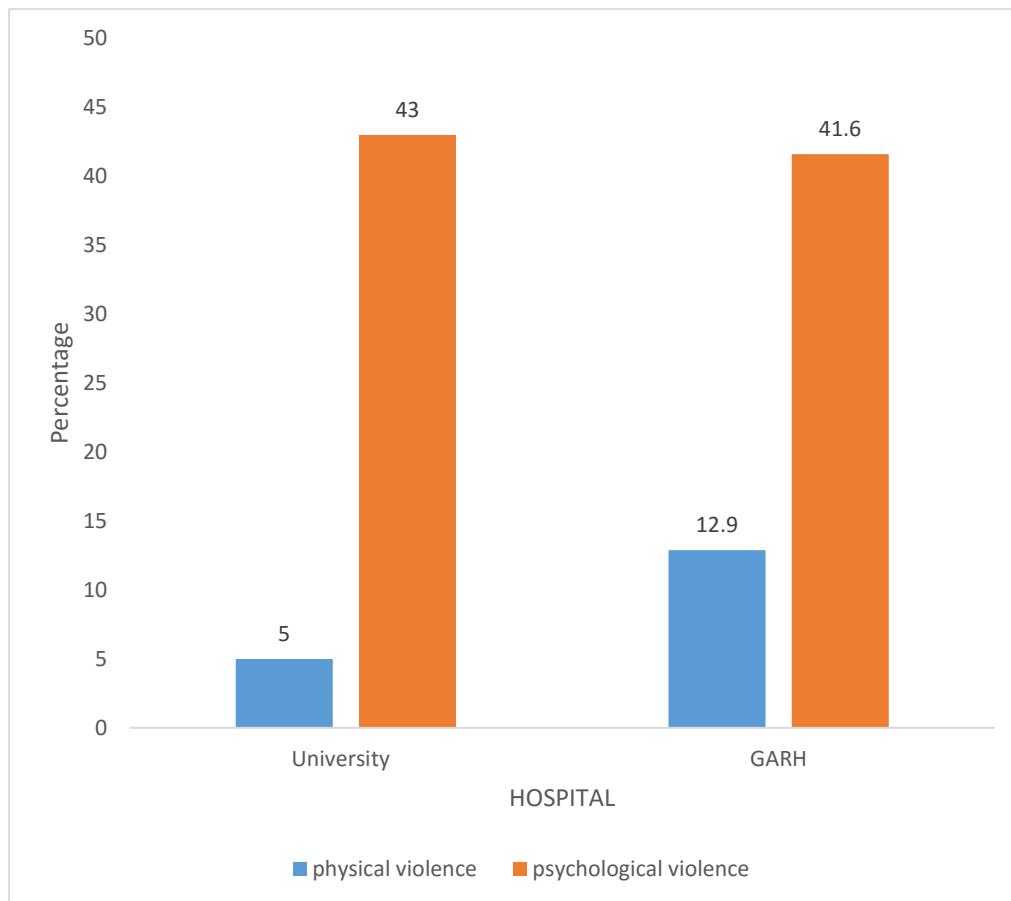
**Table 2: Prevalence of workplace violence**

<b>Variables</b>	<b>Response</b>	<b>Number</b>	<b>Percentage (%)</b>
<b>Workplace violence</b>	Yes	148	44.4
	No	185	55.6
<b>Physical assault</b>	Yes	35	10.5
	No	298	89.5
<b>Psychological abuse</b>	Yes	140	42.0
	No	193	58.0
<b>Both forms experienced</b>	Yes	27	8.1
	No	306	91.9
<b>Type of psychological abuse</b>	Verbal abuse	107	32.1
	Bullying	7	2.1
	Sexual Harassment	6	1.8
	Threats	20	6.0
	None of above	193	58.0

#### 4.2.1 Prevalence of forms of workplace violence in the study areas

The University hospital had 5 workers (5%) reporting an experience of physical workplace violence as opposed to 30 (12.9%) hospital staff of the Greater Accra Regional Hospital.

With regards to psychological violence, 43 staff (43%) from the University Hospital and 97 staff (41.6%) from the Greater Accra Regional Hospital reported experiencing this in the past year.



**Figure 2: Prevalence of the forms of WPV in selected hospitals**

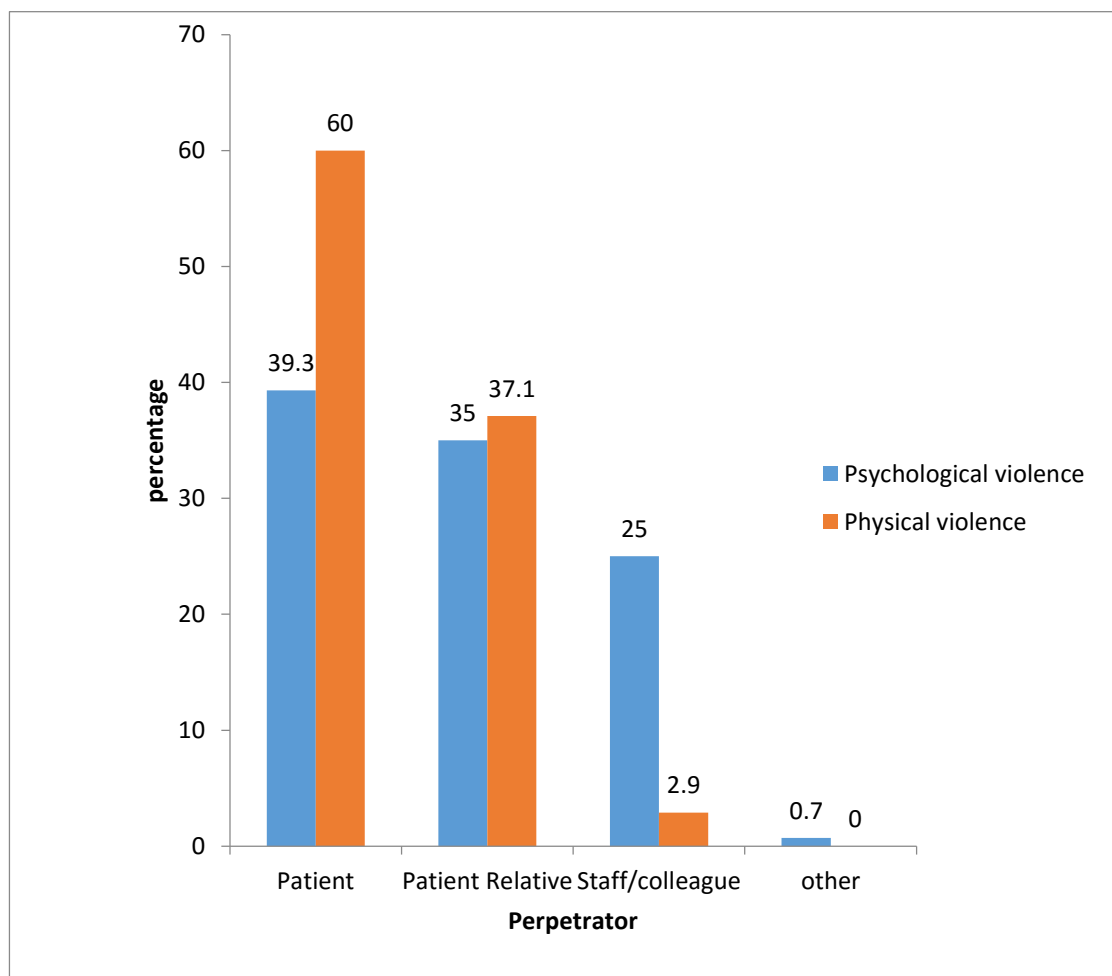
### 4.3 Perpetrators of WPV

#### 4.3.1 Perpetrators of the forms of WPV

The perpetrators of the two main forms of violence were assessed and presented in a bar chart.

The chart shows that patients are the most common perpetrators of both forms of violence, followed by patient relatives and staff/colleagues. The other perpetrator of psychological abuse was an Uber driver who had brought a client to the hospital.

Staff were involved more with psychological than physical violence.



**Figure 3: Perpetrators of forms of workplace violence**

#### 4.3.2 Perpetrators of the types of psychological violence

The perpetrators of the various types of psychological workplace violence revealed that verbal abuse is perpetrated by patients (49, 45.8%), patient relatives (42, 39.3%), staff/colleagues (15, 14%) and an Uber driver (1, 0.9%). Sexual harassment experienced was perpetrated by a patients' relative (1, 16.7%) and most often by staff/colleague (5, 83.3%). Bullying and threats were also mostly perpetrated by staff/colleagues.

**Table 3: Perpetrators of the types of psychological violence**

Type of abuse	Verbal abuse		Sexual Harassment		Bullying		Threats	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Patient</b>	49	45.8	0	0	1	14.3	5	25
<b>Patients' relative</b>	42	39.3	1	16.7	1	14.3	5	25
<b>Staff/Colleague</b>	15	14.0	5	83.3	5	71.4	10	50
<b>Uber driver</b>	1	0.9	0	0	0	0	0	0
<b>Total</b>	107	100	6	100	7	100	20	100

#### 4.3.3 Physical and psychological state of perpetrator, reasons for violence and actions taken against perpetrators

When Patients were perpetrators of physical or psychological violence, it was detected that they were mostly impaired. As perpetrators of physical violence, 13 out of 21 (61.9%) patients were impaired with 8(38.1%) in pain, 3(14.3%) under influence of drugs or alcohol and 2(9.5%) mentally ill. The other groups of perpetrators well mostly well (Appendix 3, table 1).

An enquiry into the perceived state of the perpetrators showed that with regards to physical violence, 17 (48.6%) were well, 8(22.9%) were in pain, 6 (17.1%) were under the influence of alcohol or drugs and 3 (8.6%) were mentally ill. A similar finding was present among the perpetrators of psychological violence with 92 (65.8%) reportedly well, 19 (13.6%) in pain, 17 (12.1%) under influence of alcohol or drugs and 10 (7.1%) mentally ill.

The perceived reasons for the physical assaults experienced were that perpetrators felt the waiting time was long (12, 34.3%), staff was rude (8, 22.9%), person was in pain (7, 20%) and person was mentally ill (6, 17.1%). Other (2, 5.7%) reasons given include persons wanting to be given preferential treatment though not warranted. The perceived reasons for perpetrators of psychological violence was also mainly due to long patient wait times (73, 52.1%). Other reasons (22, 15.7%) were perpetrators did not want to follow protocols, complaints about high bills after accessing healthcare and superiors abusing the power they have.

Actions against perpetrators of physical violence included 3 (8.6%) incidents where persons were handed to the police, 13 (37.1%) perpetrators were given a verbal warning while 19 (54.3%) had no action taken against them. For psychological violence, majority (95, 70.7%) had no action taken against them. Other (5, 3.6%) actions included mediations by management to resolve the issue.

**Table 4: Physical and psychological state of perpetrators, reasons for violence and actions taken against perpetrators**

	Physical Violence		Psychological Violence	
	Number	Percent	Number	Percent
<b>State of Perpetrator</b>				
Under influence of alcohol/drugs	6	17.1	17	12.1
In pain	8	22.9	19	13.6
Mentally ill	3	8.6	10	7.1
Well	18	51.5	92	65.8
Other	-	-	2	1.4
<b>Reason for violence</b>				
Staff was rude	8	22.9	22	15.7
Mentally ill person	6	17.1	8	5.7
Person in pain	7	20.0	15	10.7
Long wait time	12	34.3	73	52.1
Other	2	5.7	22	15.7
<b>Action against Perpetrator</b>				
Handed to Police	3	8.6	-	-
Verbal warning	13	37.1	36	25.7
No action taken	19	54.3	95	70.7
Other	-	-	5	3.6
<b>Total</b>	<b>35</b>	<b>100</b>	<b>140</b>	<b>100</b>

#### 4.4 Factors relating to workplace violence

##### 4.4.1. Personal and work factors associated with incidence of workplace violence

Bivariate analysis of the two forms of violence showed a significant difference between physical and psychological violence in this study hence both forms were analysed independent of each other.

Results of the Chi-square analysis showed significant association ( $p < 0.05$ ) among socio-demographic factors (participants' age, job category and experience), shift worked and physical/ psychological violence (Table 5). Interestingly, there was no

difference between incidence of WPV meted out to males and females. There was also no difference in the incidence of WPV meted out to the different professional groups. Physical violence was associated with the place of work ( $p=0.032$ ) but psychological violence was not ( $p=0.817$ ).

**Table 5: Relationship of forms of work place violence to socio-demographic factors, place and time of work (shift period)**

Variable	Physical violence				Psychological violence			
	N	%	$\chi^2$	p-value	N	%	$\chi^2$	p-value
<b>Age</b>			10.08	<b>0.039*</b>			20.89	<b>&lt; 0.001*</b>
18 – 29	14	40.00			68	48.57		
30-39	15	42.86			51	36.43		
40-49	4	11.43			10	7.14		
50-59	2	5.71			11	7.86		
> 60	0	0.00			0	0.00		
<b>Gender</b>			0.16	0.691			1.17	0.278
Male	14	40			47	33.57		
Female	21	60			93	66.43		
<b>Profession</b>			17.92	0.056			18.05	0.054
Doctor	1	2.86			13	9.29		
Physician Assistant	4	11.43			7	5.00		
Nurse	12	34.29			46	32.86		
Midwives	7	20.00			24	17.14		
Pharm	0	0.00			7	5.00		
Lab/radiologist	3	8.57			17	12.14		
Administrative staff	0	0.00			3	2.14		
Records	3	8.57			7	5.00		
Orderlies/janitors	3	8.57			7	5.00		
Security	1	2.86			4	2.86		
Others	1	2.86			5	3.57		
<b>Job category</b>			12.79	<b>0.002*</b>			17.83	<b>&lt; 0.001*</b>
Permanent	27	77.14			86	61.43		
Temporary/casual	5	14.29			33	23.57		
Other	3	8.57			21	15.00		
<b>Experience</b>			12.65	<b>0.013*</b>			21.78	<b>&lt; 0.001*</b>
1-5	17	48.57			74	52.86		
6-10	12	34.29			39	27.86		
11-15	5	14.29			10	7.14		
16-20	0	0			8	5.71		
Greater than 20	1	2.86			9	6.43		
<b>Shift period</b>			12.92	<b>0.005*</b>			12.00	<b>0.007*</b>
Morning	18	51.43			91	65		
Afternoon	8	22.86			19	13.57		
Night	6	17.14			15	10.71		
All shift	3	8.57			15	10.71		
<b>Place of work</b>			4.61	<b>0.032*</b>			0.054	0.817
GARH	30	85.7			97	69.3		
University Hosp	5	14.3			43	30.7		

“N” represents =number, “%” represents percentage, and “ $\chi^2$ ” represent Chi-squared

Results of the logistic regression showed that staff with > 20 years work experience have 19 (CI=1.55-225.86,  $p=0.021$ ) times odds of experiencing violence compared to those with < 6 years work experience (Table 6). Additionally, night shift staff have 5 times odds (CI= 0.45-2.26,  $p=0.015$ ) of experiencing violence compared to staff that go for morning shift.

**Table 6: Association among work place violence and sociodemographic factors and shift worked**

Variable	Workplace violence		COR	95% CI	<i>p</i> -value	AOR	95% CI	<i>p</i> -value
	Yes	No						
<b>Age</b>								
< 30 (Ref)								
30 – 39	56	31	3.43	2.03-5.80	<b>&lt;0.001*</b>	1.93	0.95 -3.93	0.068
40 – 49	10	8	2.38	0.90-6.39	0.081	1.32	0.42 - 4.20	0.638
50 – 59	11	9	2.32	0.92-5.87	0.074	0.20	0.02 -1.74	0.143
<b>Job category</b>								
Permanent (Ref)								
Temporary/casual	35	83	0.33	0.20-0.54	<b>&lt;0.001*</b>	0.58	0.31 -1.06	0.078
Other	22	31	0.55	0.30-1.04	0.065	0.99	0.48 -2.06	0.983
<b>Experience</b>								
<6 (Ref)								
6-10	42	22	3.46	1.93-6.20	<b>&lt;0.001*</b>	1.88	0.86 - 4.11	0.113
11-15	10	10	1.81	0.72-4.54	0.205	1.14	0.36 -3.67	0.832
16-20	8	4	3.62	1.06-12.4	<b>0.041*</b>	4.36	0.71 -27.00	0.113
> 20	9	6	2.72	0.93-7.91	0.067	18.71	1.55 -225.86	<b>0.021*</b>
<b>Shifts</b>								
Morning (Ref)								
Afternoon	21	27	1.10	0.59-2.06	0.769	1.03	0.53-2.00	0.936
Night	15	4	5.30	1.71-16.45	<b>0.004*</b>	4.54	1.34-15.37	<b>0.015*</b>
All shift	15	17	1.25	0.60-2.62	0.561	1.01	0.45 -2.26	0.982

“COR” represents Crude Odds Ratio, “AOR” represents Adjusted Odds Ratio and “CI” represents Confidence Interval \*represents statistically significant results.

#### 4.4.2 Incident reporting, investigation and action taken

Victims of both forms of violence often did not report the incidence. With regard to physical violence only 10 victims (28.6%) reported the incidence while 57 (40.7%) victims of psychological violence reported the incident. Of the victims of psychological violence who reported, only 16 (11.4%) had the incident investigated.

In most of the cases, no action was taken against the perpetrators of psychological violence (99, 70.7%) and physical violence (19, 54.3%). In some cases, the perpetrators were given verbal warnings.

**Table 7: Incident reporting, investigation and actions taken**

Variable	Response	Psychological Violence		Physical Violence	
		Number	Percent	Number	Percent
<b>Incident reported</b>	Yes	57	40.7	10	28.6
	No	83	59.3	25	71.4
<b>Was incident investigated?</b>	Yes	16	11.4	5	14.3
	No	124	88.6	30	85.7
<b>Reason for not reporting</b> Psychological violence N=83 Physical violence N=25	Not important	45	54.2	11	44.0
	Felt ashamed	6	7.2	2	8.0
	Useless	28	33.7	9	36.0
	Didn't know who to report to	1	1.2	3	12.0
<b>Action taken against perpetrator</b>	Afraid of negative consequence	3	3.6	-	-
	No action	99	70.7	19	54.3
	Verbal warning	36	25.7	13	37.1
	Handed to police	-	-	3	8.6
	Other	5	3.6	-	-

#### 4.4.3 Worker perceived reasons for workplace violence

The main reason perceived by workers as the trigger for both physical (286, 85.9%) and psychological (273, 82%) forms of WPV was long waiting time for access to service. The second most common reason was lack of proper security at the hospital (266, 79.9%). Other reasons given were inadequate staff numbers and a lack of staff training on WPV.

**Table 8: Worker perceived reasons for workplace violence**

Variable	Response	Psychological Violence		Physical Violence	
		Number	Percent	Number	Percentage
Long waiting time	Yes	273	82.0	286	85.9
	No	60	18.0	47	14.1
Lack of proper security	Yes	266	79.9	266	79.9
	No	67	20.1	67	79.9
Persons just angry	Yes	199	59.8	181	54.3
	No	134	40.2	152	45.7
Lack of Staff training on WPV	Yes	92	27.6	92	27.6
	No	241	72.4	241	72.4
Persons Frustrated with the Health Care System	Yes	241	72.4	21.8	65.5
	No	92	27.6	115	34.6
Lack of adequate staff	Yes	95	28.5	95	28.5
	No	238	71.5	238	71.5

#### 4.5 Perceived effects of workplace violence

Physical violence experienced resulted in injury for 3 workers (8.6%) while the rest reported experiencing psychological effects.

For the psychological form of WPV, 42 victims (30%) had disturbing images or memories of the incident while 43 (30.7%) do not want to talk about the incident. Others reported being alert since the incident (16, 11.4%), not feeling happy or appreciated (21, 15%) and 18(12.9%) workers reported no effects.

**Table 9: Perceived Effects of workplace violence**

	<b>Physical violence</b>		<b>Psychological violence</b>	
	Number	Percent	Number	Percent
<b>Perceived effects</b>				
Injured	3	8.6	-	-
Disturbing images	2	5.7	42	30.0
Don't like to talk about it	7	20.0	43	30.7
Being alert since then	25	42.9	16	11.4
Don't feel happy	6	17.1	21	15.0
No effect	2	5.7	18	12.9
<b>Total</b>	<b>35</b>	<b>100</b>	<b>140</b>	<b>100</b>

## CHAPTER FIVE

### DISCUSSION

#### 5.1 Prevalence of workplace violence

In this study, I found that the overall prevalence of violence experienced by health workers was 44.4%, with 42% experiencing Psychological violence while 10.5% experienced Physical violence in the past year. A similar study conducted by Boafo et al. (2016) among nurses in 5 regions of Ghana showed a slightly lower incidence of physical violence (9%) compared to my finding (10.5%). The difference between these two studies may be due to the fact that this study included other professionals and was not limited to nurses and midwives only. These other professionals are also prone to physical violence due to their interactions with persons who might be in pain or mentally unstable. They might also be burdened with providing services to a large number of clients using limited resources. The overwhelming client numbers can result in slowing of the work process thus increasing patient anxiety from long wait times, leading to aggression. However, my results were contrary to similar studies in Palestine (Kitaneh & Hamdan, 2012), Taiwan (Chen et al., 2008), Iran (Teymourzadeh et al., 2014) and Turkey (Baran et al., 2015) where prevalence rate of physical violence ranged from 12% to 21%. The differences between studies may be due to the fact that the two hospitals used in my study did not have a Psychiatric or a Geriatric (old age care) unit while these other studies included these units. Studies have shown that physical violence is often due to some mental ailment or substance abuse and hence more prevalent in Psychiatric and geriatric units (Ferri et al., 2016; Magnavita & Heponiemi, 2012; Yang et al., 2018).

Comparing data from the two hospitals involved in the study showed that the GARH had a physical violence prevalence of 12.9% while University hospital had 5%.

Prevalence of psychological violence was 43% for University hospital and 41.6% for GARH. The Zongo communities within the catchment area of GARH such as Nima, Maamobi and Accra New Town are noted to have high violence rates (Owusu, 2010) explaining the high physical violence rate compared to that of University hospital which serves a mostly elitist community (Akwensivie, 2018). The prevalence of psychological violence was higher for University hospital compared to GARH. This could be due to the belief that people with high educational levels tend to employ dialogue rather than physical force in getting their message across to others. This action can constitute verbal abuse if the victim feels threatened by the words used.

The prevalence of psychological violence in this research was similar to the results of a study conducted in Hong Kong which reported a psychological violence rate of 44.6% (Cheung & Yip, 2017). However findings from majority of the studies reviewed with regards to Psychological violence were much higher when compared to the findings of this study. Most of these studies reported an incidence of psychological workplace violence rates of greater than 50% (Abed, Morris, & Sobers-Grannum, 2016; Banda et al., 2016; Boafo & Hancock, 2017; Kitaneh & Hamdan, 2012; Muzembo et al., 2015; Teymourzadeh et al., 2014). The lower prevalence from this study may be explained by the fact that worker perception of WPV may be biased and many may not deem it necessary to recall incidents of psychological violence. Another reason could be that many of the respondents were not reporting the incidents as they felt it was not important and that nothing will be done even if incidents are reported. These sentiments might have led to the belief that this study is just another exercise in futility.

The most prevalent form of psychological abuse experienced was verbal abuse with a prevalence of 76.4% among the victims of psychological abuse. This finding was consistent and presented a common theme in the literature reviewed. This draws

attention to the issue of verbal abuse as a common form of abuse with harmful effects on its victims(Boafo & Hancock, 2017). Other forms of abuse reported were sexual abuse and threats. The fact that these were experienced by some respondents albeit few requires some form of intervention or policy to curb its escalation to disparaging levels.

## **5.2 Perpetrators of violence in the health sector**

An assessment of the perpetrators of both forms of violence showed that patients were mostly the culprits and for this research they accounted for 60% of all physical assaults and 39.3% of Psychological abuse. These findings were closely contested by patient relatives who contributed to 37.1% of physical abuse and 35% of psychological abuse. This finding contrasts the results of some studies both local and international that suggests that majority of violent acts against health workers were carried out by patient relatives rather than the patients (Abodunrin et al.,2014 ; Boafo & Hancock, 2017; Kitaneh & Hamdan, 2012). There was some consistency with results of the study done in the Democratic Republic of Congo which also found patients more likely to be the perpetrators compared to their relatives (Muzembo et al., 2015).The findings can be explained by the fact that many of the acts of physical violence and psychological violence perpetrated by patients usually occurred while they were in an impaired state. Patients were said to be in pain, mentally ill or under the influence of alcohol or medication. Thus the state of the patients likely accounted for them being the most common perpetrators. Relatives of patients as perpetrators of any form of violence were usually well and mostly concerned about rude staff and long wait times.

The main worker perceived reason for both psychological and physical violence was long patient wait times. Long wait times to access services can cause frustration with the healthcare system. This irritation experienced by clients and their relatives can result

in violence. These reasons are genuine since the health service in Ghana is under resourced and yet has to cater for large number of patients especially due to the inception of the National Health Insurance Scheme. This increased burden has resulted in provision of poor services which frustrates clients and their relatives (Alhassan et al., 2016).

Another concern was the number of staff perpetrating psychological violence. Staff or colleagues accounted for 25% of all acts of psychological violence. They were the main perpetrators for acts of bullying, threats and sexual harassment. This causes a lack of cohesion leading to poor team work in ensuring seamless service provision to clients. This lack of productivity as a result will further expose workers to WPV from clients who are not satisfied with the service given. Sexual harassment incidents reported were most often perpetrated by staff/colleagues (83.3%) while the rest were by a patient's relative. None of the respondents who suffered this type of abuse reported the incident citing reasons such as "I was afraid of negative consequences", "It is useless" and "I did not know who to report to". These reasons strongly suggests that the perpetrators were in higher positions and thus the victims would not be favourably heard even if they reported the act. This reason is corroborated by the results of a study by Bofo et al. (2016) which showed doctors or senior staff were mainly the perpetrators of sexual harassment against female nurses.

Perpetrators most often had no actions taken against them, this can make more people see reporting of workplace violence as useless since they will be little or no consequence to the perpetrator. The lack of action against perpetrators could be due to the fact that reported incidents were rarely investigated to ensure appropriate action sanctions.

### **5.3 Factors relating to violence in the workplace**

The various factors tested for as risk factors in this study included mostly the sociodemographic characteristics of respondents such as age, gender, profession, job category, years of work experience place of work and shifts worked. Literature from previous studies indicate that age is a risk factor for the experience of violence against health care workers (Ferri et al., 2016). Results of this study indicated that age was statistically significant as a factor for violence on chi-square testing. However analysis done using logistic regression showed no strong association between age and WPV.

Years of work experience was statistically significant for the incidence of WPV and had a strong association on logistic regression analysis. The results suggested that workers with more than 20 years of work experience were 19 times more likely to experience WPV compared to their counterparts with less than 6 years of work experience. This finding could be explained by the fact that workers with this number of years of work experience are relatively older and thus tend to work slowly. That pace might be misinterpreted by others as deliberate and can cause clients and their relatives to wait long hours for service. The younger workers with less than 6 years of work experience are now learning to develop skills on the job hence tend to be more meticulous in their work resulting in fewer conflicts with service users (Tiruneh et al., 2016). More experienced workers are also usually the ones called to diffuse tense situations in the workplace and may end up bearing the brunt of the angry persons.

Another statistically significant finding using multivariate logistic regression was the shifts worked. There were three different shift systems in both facilities, morning, afternoon and night shifts. Staff are either assigned a specific shift or made to intermittently work all the different shifts. The results showed that those working the night shifts are 5 times more likely to experience WPV compared to their colleagues

working the morning shift. Most often, morning shifts are busy sessions compared to the night thus more staff are assigned to morning shifts and only a few assigned to night shifts. When few staff are assigned and any get indisposed, their colleagues will have to work the shift alone often without adequate security measures making them prone to becoming victims of WPV. At night, there is also laxity in the security measures present in most facilities thus making it a dangerous shift with regards to incidence of WPV(Gillespie et al., 2010; Kitaneh & Hamdan, 2012).

Lack of security at the workplace was perceived by workers to be a leading reason for the incidence of WPV. While quite a number of security men are usually present in their numbers for morning sessions, this is rarely the case for the other shifts. The security personnel are mostly stationed at the main entry points with virtually none present inside the wards and departments. This exposes the workers in these units as there is no security presence to deter the perpetrators.

Surprisingly, in this study there was no difference in the violence meted out to females and males. This is in contrast to the findings in other studies where female gender was associated with a higher incidence of violence in the workplace.

#### **5.4 Perceived effects of workplace violence**

Some of the victims of physical abuse reported some injuries. This affected 8.6% of the victims of physical abuse. However none of these three were given time off work. Other effects reported by victims included mostly psychological effects such as being more alert, not wanting to talk about the incident , having disturbing images or memories and not feeling appreciated at work. These findings are similar to the effects reported in some studies(Boafo, 2018; Ferri et al., 2016). These perceived effects may be due to the lack of action taken against perpetrators. Thus staff who are victims perceive that

they are on their own and must learn to deal with the situation as best as they can. They thus tend to internalise their feelings, with some being more alert and trying to avoid any contentions with clients, their relatives or other staff. Those who find it difficult to deal with the situation tend to change jobs. Others just go through the motions of work mechanically as they are not happy. These ones are usually more prone to making mistakes that will affect client care. WPV is known to result in effects on both the worker, employee and client. Psychological effects though mostly experienced by the victims can directly or indirectly affect both employer and clients. The employer may be affected by having to pay for psychological counselling of affected staff. This can also affect productivity due to reduced efficiency on the part of abused staff. Patients might be affected by not getting the requisite care owing to low morale of staff affected by workplace violence (Longo & Phillips, 2016; Teymourzadeh et al., 2014).

### **5.5 Limitations of the study**

Only 2 hospitals were used in the study, this affects the ability to generalise research findings to the whole region. In order to include the various professional groups present in the hospital, workers who were at post at the various units and agreed to participate were included. This form of data collection also helped to include the professional groups that had very few workers in their category. Participants had to recall experiences that occurred in the past year. This recall bias has the potential of distorting the data obtained.

## CHAPTER SIX

### CONCLUSION AND RECOMMENDATIONS

#### 6.1 Conclusion

Workplace violence is an occupational hazard present in hospitals. The prevalence of WPV was 44.4%. The most common form of psychological abuse was verbal abuse however sexual abuse was also reported. The perpetrators of WPV were most often patients and their relatives. Years of experience and shift worked were associated with WPV. Victims reported both physical and psychological effects as a result of the violence experienced. Most incidents were not reported because many felt it was not important or that it was useless to do so. The few incidents reported were not investigated and in most cases no action was taken against perpetrators.

#### 6.2 Recommendations

Management should institute measures to shorten patient wait times. This can be done by scheduling appointments prior to visits and increasing staff numbers.

Security measures should be improved at the hospitals especially at night. Closed circuit cameras should be installed and monitored. These should be visible to serve as deterrents.

Violence Control training programs should be instituted in the hospitals. These should include topics on effects of WPV and ethical responsibilities towards clients to help reduce violence at work.

There should be further research into violence at the workplace perpetrated by staff or colleagues. This should focus on bullying and sexual harassment.

Incidents when reported should be promptly investigated and feedback sent to the victims informing them of the actions taken against perpetrators.

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## APPENDICES

### **Appendix 1 Information sheet and consent form**

**UNIVERSITY OF GHANA SCHOOL OF PUBLIC HEALTH**

#### **PARTICIPANTS INFORMATION SHEET**

This Information Sheet provides information about the research for participants to make an informed decision of whether to participate in the study or not. It outlines the nature of the research, what the research involves, risks, benefits, compensation.

#### **TITLE OF STUDY**

**Workplace Violence against Hospital Staff in selected Hospitals in the Greater Accra Region; A study of the Prevalence, Causes and Impact**

#### **INTRODUCTION**

My name is **Davida Wemoye Adusei**, a student pursuing a Master of Science in Occupational Medicine at the University of Ghana. I am the principal investigator, my email address is [dauidanaboo@gmail.com](mailto:dauidanaboo@gmail.com). My telephone number is 020-9085595.

#### **BACKGROUND AND PURPOSE OF RESEARCH**

Workplace Violence in the healthcare sector is fast becoming an issue of global concern.

The purpose of the study is to assess the prevalence, causal factors and impact of workplace violence against hospital staff. This is to help draw attention to workplace violence in the health sector and enable action to help victims cope and to prevent its further occurrence in the hospital environment.

This study is solely for academic purposes as a requirement for the program of study.

I warmly entreat you to partake in this academic study.

## **NATURE OF RESEARCH**

This is a descriptive cross-sectional study involving 300 health workers of all categories drawn from the Greater Accra Regional Hospital (Ridge) and the University Hospital Legon, both in the Greater Accra Region.

## **PARTICIPANTS INVOLVEMENT**

- **Duration /what is involved:** Participants will be expected to complete a self-administered questionnaire. There are questions on the type of violence experienced, if any, the perpetrator and the impact it had on the worker as well as the steps that can be taken to reduce the incidence of workplace violence. You can report on both types of violence if you experienced either types of violence. This will take 15 minutes or less.
- **Potential Risks:** You may have to recall episodes of physical or psychological violence experienced in the workplace. This might cause some uncomfortable and unpleasant memories of the traumatic experience. A clinical psychologist is available in both facilities to help you deal with the situation if needed.
- **Benefits:** You will directly benefit by getting an opportunity to talk about your experience. Your valuable information given will also serve as a basis for the introduction of policies against workplace violence by helping to identify potential causes of workplace violence and thus make the workplace safe.
- **Compensation:** No monetary compensation will be given for participation however your help is greatly appreciated.

- **Confidentiality:** To the best of our ability, we will protect information about you. Your name will not be used in any reports. All questionnaires will be coded using serial numbers. No names are required on the questionnaire.
- **Voluntary participation/withdrawal:** Participation is voluntary and you have the right to decline to participate or withdraw from the study at any time without penalty and without having to give any reasons.
- **Outcome and Feedback:** All data gathered will be analyzed and a copy of the study submitted to the Administration and Public Health Departments of the institutions.
- **Funding information:** This study is solely funded by the principal investigator.
- **Sharing of participants Information/Data:** The data will be stored on a computer accessible only to the principal investigator and supervisor, Dr Paul Botwe of the School of Public Health.
- **Provision of Information and Consent for participant:** A copy of the Information sheet and Consent form will be given to you after it has been signed or thumb-printed to keep.

**Who to Contact for Further Clarification/Questions:**

If you have any further questions or information relevant to this research, you may contact:

Davida Wemoye Adusei E-mail: [davidanaboo@gmail.com](mailto:davidanaboo@gmail.com) Phone: 0209085595

Or Madam Hannah Frimpong GHS-ERC Administrator, Email:

Hannah.Frimpong@ghsmail.org

Phone Numbers: 0243235225 or 0507041223

CONSENT FORM FOR HOSPITAL STAFF

STUDY TITLE: WORKPLACE VIOLENCE AGAINST HOSPITAL STAFF IN  
SELECTED HOSPITALS IN THE GREATER ACCRA REGION; A STUDY OF  
THE PREVALENCE, CAUSES AND IMPACT

PARTICIPANTS' STATEMENT

I acknowledge that I have read the purpose and contents of the Participants' Information Sheet and that all questions have been thoroughly explained to me in a language I understand (English). I fully understand the contents and any potential implications as well as my right to change my mind (i.e. withdraw from the research) even after I have signed this form.

I voluntarily agree to be part of this research.

Name or Initials of Participant..... ID CODE.....

Participants' Signature .....

Date: .....

INVESTIGATOR'S STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participant have been addressed.

Researcher's Name: Davida Wemoye Adusei

Signature .....

Date.....



- b) Temporary/Casual staff
  - c) Other.....
5. How many **years** have you worked in the health sector?
- a) 1-5
  - b) 6-10
  - c) 11-15
  - d)16-20
  - e) greater than 20
6. Which shift do you usually do?    a) morning    b) afternoon    c) night
7. How many patients on average do you attend to on a normal shift? .....

**B. PHYSICAL WORKPLACE VIOLENCE**

Physical violence refers to the use of physical force against another person or group, which results in physical harm, sexual or psychological harm. It can include beating, kicking, slapping, stabbing, shooting, pushing, biting, and/or pinching, among others.

8. In the last 12 months, have you ever been physically abused at work?
- a) yes    b) no

**If you answered no, skip to question 21**

9. If yes, who attacked you?
- a) patient
  - b) Patients relative
  - c) staff/colleague
  - d) Other .....
10. What was the state of the person who attacked you?
- a) Person was under influence of alcohol or drugs
  - b) Person was in pain
  - c) Person was not of sound mind
  - d) Person was well

- e) Other.....
11. Did you report the incident?  
a) Yes b) No
12. If you did not report or tell about the incident to others, why not?  
a) It was not important  
b) Felt ashamed  
c) Felt guilty  
d) Afraid of negative consequences  
e) Useless  
f) Did not know who to report to
13. What was the reason for the assault?  
a) Person said I was rude  
b) Person was mentally ill  
c) Person was in pain  
d) Person felt (s)he had waited too long for care  
e) Other (please specify) .....
14. Were you injured to require dressing or some formal management?  
a) Yes b) No
15. Were you given time off after the incident?  
a)Yes b) no
16. If yes, how many days off work were you given? a) 1 day b) 2-3  
days c) 4-7 days d) more than 1 week
17. Was the incident ever investigated? a) yes b) no
18. If yes, by whom? a) Management b) the police c) other.....
19. What action was taken against the attacker?

- a) Given verbal warning
- b) No action taken
- c) handed to police
- d) Other.....

20. How has the incidence affected you? Do you have any of the feelings listed?

- a) Made me sick for days.
- b) Disturbing images or memories
- c) Don't like to talk about it
- d) Being super careful or alert since then
- e) Don't feel happy or appreciated at work since then
- f) Other.....

21. In your opinion, what are the **three most important contributing factors** to **physical violence** in your work setting? (tick any three)

- a) Long waiting times
- b) mentally unstable persons
- c) patients or relatives who are just angry for no reason
- d) persons not understanding their condition
- e) Persons frustrated with the health care system
- f) Other.....  
.....

**C. PSYCHOLOGICAL VIOLENCE (NON-PHYSICAL ABUSE)**

Psychological violence is defined as: Intentional use of power, including threat of physical force, against another person or group that can result in harm to physical, mental, spiritual, moral or social development.

Psychological violence includes verbal abuse, bullying/mobbing, harassment, and threats.

22. In the past 12 months, have you experienced any form of psychological violence?      a) yes                      b)no

23. If yes, what form of psychological violence did you experience? (you can choose more than 1)

a) verbal abuse      b) sexual harassment      c) bullying                      d) threats

24. Who abused you?

a) patient                      b) patients relative                      c) staff/colleague  
d) other

25. What was the state of the person who attacked you?

a) Person was under influence of alcohol or drugs  
b) Person was in pain  
c) Person was not of sound mind  
d) Person was well  
e) other

26. How did you respond?

a) Talked back                      b) took no action  
c) Told my supervisor                      d) reported to the police                      e) told a  
colleague

27. If you did not report or tell about the incident to others, why not?

- a) It was not important
- b) Felt ashamed
- c) Felt guilty
- d) afraid of negative consequences
- e) It would be useless
- f) did not know who to report to

28. What was the reason for the assault?

- a) person said I was rude
- b) person was mentally ill
- c) person was in pain
- d) person felt (s)he had waited too long for care
- e) other (please specify) .....

29. Was the incident ever investigated? a) yes b) no

30. If yes, by whom?

- a) Management
- b) the police
- c) other.....

31. What action was taken against the abuser?

- a) given verbal warning
- b) no action taken
- c) handed to police
- d) other.....

32. How has the incidence affected you? Do you have any of the feelings listed?

- a) Disturbing or scary images or memories,
- b) Don't like to talk about it
- c) Being super careful or alert since then
- d) Don't feel happy at work since then
- e) Feel like changing jobs or quitting
- f) Other .....

33. In your opinion, what are the **three most important contributing factors** to

**psychological (non-physical) violence** in your work setting?

- a) long patient waiting times
- b) mentally unstable persons
- c) persons who come in already angry

- d) persons who don't understand their conditions
- e) persons frustrated with the healthcare system
- f) other.....

**EMPLOYER VIOLENCE MANAGEMENT MEASURES**

34. What 3 most important measures to deal with workplace violence should exist in your workplace?

- a) Security measures (e.g. guards, alarms, portable telephones)
- b) Improved surroundings (e.g. lighting, noise, heat, access to food, cleanliness, privacy)
- c) Restricted public access at gates or entrances
- d) Patient screening (to record and be aware of previous aggressive behaviour)
- e) Patient protocols (e.g. control and restraint procedures, transport, medication, activities programming, access to information)
- f) Restricted exchange of money at the workplace (e.g. patient fees)
- g) Increased staff numbers
- h) Check in procedures for staff (e.g. attendance and time books)
- i) Special equipment or clothing (e.g. uniform or absence of uniform)
- j) Changed shifts or rotas (i.e. working times)
- k) Reduced periods of working alone
- l) Training on relevant topics (e.g. workplace violence, coping strategies, communication skills, conflict resolution, self-defence)
- m) Investment in human resource development (training for career advancement, retreats, rewards for achievement, promotion of healthy environment)
- n) Other:\_\_\_\_\_

**Appendix 3: Perpetrator and their state at time of incident**

State of perpetrator	PHYSICAL VIOLENCE PERPETRATOR				PSYCHOLOGICAL VIOLENCE PERPETRATOR				
	Patient	Patients	Staff	Total	Patient	Patient	Staff	Other	Total
	relative				relative				
Under Influence Of Alcohol /Drugs	3	3	0	6	8	7	2	0	17
In Pain	8	0	0	8	12	5	2	0	19
Mentally Ill	2	1	0	3	4	5	1	0	10
Well	8	9	1	18	30	31	30	0	92
Other	0	0	0	0	1	1	0	0	2
<b>Total</b>	<b>20</b>	<b>13</b>	<b>1</b>	<b>35</b>	<b>55</b>	<b>49</b>	<b>35</b>	<b>1</b>	<b>140</b>