

**SCHOOL OF PUBLIC HEALTH
COLLEGE OF HEALTH SCIENCES
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**VIOLENCE AGAINST HEALTHCARE PROVIDERS IN THE TAMALE
METROPOLIS**

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DECLARATION

I, Samuel Opere Larbi, hereby declare that with exception of the references made to other people's work which I have duly acknowledged, this research work which is my original work has neither in whole nor in part been presented to the University or elsewhere for another degree.

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(PRINCIPAL INVESTIGATOR)

Signature.....

Date.....

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(SUPERVISOR)

Signature.....

Date.....

DEDICATION

I dedicate this work to my family. Thank you for your unflinching and unwavering support and contributions towards my personal and academic development.

ACKNOWLEDGEMENT

Special appreciation to my supervisor, Dr. Ernest Maya for his patience, contributions and immense support which came in varying forms such as corrections and making time to discuss important issues concerning this project work.

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ABSTRACT

Background

Violence in the healthcare environment is an underreported and a persistent issue that has been endured so long by healthcare providers. Violence against healthcare providers are increasing at an alarming rate around the world. Currently, little is known about violence against healthcare providers in Ghana, yet this information is essential to the success of effective healthcare delivery. The study sought to investigate the form of violence, victims, perpetrators and the way forward against these violence.

Methods

The study is a cross-sectional study which involved a total of 423 healthcare providers in three hospitals in the Tamale Metropolis; Tamale Teaching Hospital, Tamale Central Hospital and Tamale West Hospital. Healthcare providers completed questionnaires covering participants' demographics, their experience(s) with violence against them, and the perpetrators of such violence, the cause and the effects of the violence on them. Descriptive statistics was used to summarize continuous variables such as age while categorical variables will be summarized into frequencies and proportions. The main statistical software used for the data analysis collected was STATA version 15.

Results and Conclusion

Healthcare providers experienced high incidence of both physical and verbal violence on a daily basis. Relatives of patients/clients and the clients are mostly the perpetrators of these violence. Healthcare providers such as nurses, midwives and pharmacists are among healthcare providers who often experience frequent violence. Some of the healthcare providers got injured from the physical violence. In order to curb a majority of these violence, healthcare providers must be encouraged to report all cases against them whether

intentional or not and hospitals must also boost their security to protect healthcare providers.

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LIST OF ABBREVIATION

| | |
|-----|---------------------------|
| CI | Confidence Interval |
| HCP | Healthcare Provider |
| REF | Reference Variable |
| WHO | World Health Organization |
| OR | Odds Ratio |
| AOR | Adjusted Odds Ratio |

CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND OF THE STUDY

Violence is defined by the World Health Organization (WHO) to be “the intentional use of physical force or power, threatened or actual, against oneself, another person or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation”. (World Health Organization, 2011). There are mainly four types of violent acts, these are; physical violence, sexual violence, psychological violence and deprivation or neglect. (WHO, 2014).

Physical violence involves the use of physical force against another individual or group, resulting in physical, sexual or psychological damage. (Martino, 2002). According to WHO, sexual violence is another form of violence where a person is forcefully engaged in sexual activities against their will. Psychological violence is where a person uses fear, threats and intimidation to gain control of another person. Deprivation is a form of violence where a person has all the available and needed means to provide care for another person but intentionally does not.

There is growing concern worldwide about the increase in violence against healthcare providers as there are numerous scenes of violence against healthcare providers happening across the world on daily bases. (Steinman, 2003). Currently, there are increasing evidence that healthcare providers particularly nurses, are at such a high danger of exposure to violent workplace behaviors that have now been identified as a significant occupational hazard globally. (R. Rajbhandari, S. Subedi, 2015). On 20th November, 2006, a pharmacist in Shands Jacksonville Hospital was shot and killed. September 17th, 2010, a man who saw his sick mother’s condition to be hopeless shot his mother on her sick bed, shot the doctor treating the mother and finally shot himself in the Johns Hopkins Hospital

in America. A doctor was killed and another fatally injured at the Physicians Regional Medical Centre in Naples. (Hartley, 2011). A medical specialist in Brigham and Women's Hospital in Boston was shot and killed by a patient's relative all because the culprit felt the specialist could have done better to save his relatives life.(Phillips, 2016).

A cross-sectional study of violence in Hong Kong against 850 healthcare providers, reviewed that 44.6% had encountered violence against them a year prior to the study. (Cheung, Lee, & Yip, 2017). The research further showed that male nurses encountered more violence than their female colleagues. The prevalent form of violence against healthcare providers were verbal form which was represented by 39%, followed by physical violence which made up 23% of all the violence and sexual violence being 1% the least form of violence.

Recently, healthcare providers are more vulnerable to violence. Violence in the healthcare environment is underreported; occurring everywhere, and a persistent issue that has been endured and to a great extent disregarded. Violence against healthcare providers are increasing at an alarming rate around the world. The Joint Commission in America, a notable authorizing body for human services organizations, states that healthcare facilities once considered to be safe are presently registering high numbers of consistently increasing rates of violence. (Phillips, 2016).

The study seeks to find the most prevalent form of violence against Healthcare Providers in the Tamale Metropolis.

1.1 PROBLEM STATEMENT

Globally, violence against healthcare providers occurs every day and is increasing at an alarming rate. Between 2011 and 2013, as high as 24,000 cases of violence against healthcare providers occurred with as high as 75% of these cases happening in the

hospitals across America. (Phillips, 2016). Healthcare providers in Brazil encounter 6.4% physical violence, 40% verbal violence, 15% bullying against them and 5% racial discrimination. (Abreu & Cardoso, 2003). In Portugal, verbal violence against healthcare providers has been found to be 27%, with physical violence being 3%, discrimination being 8% and sexual violence being 1% with all these violence happening in the healthcare centers.(Programme, Violence, & Sector, 2003). A research in Thailand reviewed that healthcare providers encountered almost 50% of verbal abuse, 11% of physical violence, 2% were subjects of sexual violence with 91% of all these violence happening in the healthcare centers. (Martino, 2002). Also in Australia, a study reviewed that of 400 healthcare providers that took part in a study, the healthcare providers encountered 447 cases of verbal violence, 131 cases of threats, 80 cases of assault and 42 cases of bullying against them. (Mayhew, Chappell, Mayhew, & Chappell, 2003).

In Africa, a research that was conducted in Mozambique reviewed that healthcare providers experienced 6% of physical violence, 38% encountered verbal violence, 1% encountered sexual violence and 7% encountered racial discrimination. (Mondlane, 2003). Furthermore a study across hospitals in South Africa showed by Steinman, 2003, showed that healthcare providers faced as high as 60% of verbal abuse, 24% bullying, 27% racial abuse and 5% sexual violence. All these occurred in the government hospitals. (Steinman, 2003)

The sad reality of violence against healthcare providers is that it happens in any geographical location and in any type of health institution on daily bases. With the increase in violence against healthcare providers it seems that no healthcare provider is safe anymore even in the hospitals which were seen to be one of the safest institutions in the world. Violence against healthcare providers is prevalent in Ghana. (Boafo, 2016). In Ghana, Boafo. (2016), conducted a study in 12 hospitals across Ghana among nurses and

revealed that over 50% had encountered verbal abuse, almost 10% had encountered physical violence and 12% had encountered sexual violence against them. (Boafo, Hancock, & Gringart, 2016).

Prior to Boafo's study, there was no documented work on violence against healthcare providers in the country. Boafo's study sampled 592 certified nurses from 12 hospitals across Ghana but didn't include the other healthcare providers such as doctors, pharmacists, midwives, laboratory technicians. All these healthcare providers undoubtedly may be victims of such violence and will have encountered or seen violence at least once in their lives against them.

There is scarcity of data on violence against healthcare providers in Ghana because most violent cases are not being reported by a great number of the healthcare providers making it difficult for the hospital institutions to keep a statistical data on the issue. (Boafo, 2018). As such, making of national policies to fight these violence become difficult due to the lack of statistical evidence and researchers do not focus on the subject.

It is against this backdrop that this research is designed to investigate the violence that healthcare providers face in their line of work and assess the effects of these violence on healthcare providers; with special focus on how these violence are managed.

1.2 RESEARCH QUESTIONS

1. What is the incidence of physical and verbal violence against healthcare providers?
2. Which healthcare providers experience the most violence?
3. Who are the perpetrators of physical and verbal violence against healthcare providers?

4. What factors associated with physical and verbal violence against healthcare providers?

1.3 GENERAL OBJECTIVES

To examine the factors associated with violence against healthcare providers in the Tamale Metropolis.

1.4 SPECIFIC OBJECTIVES

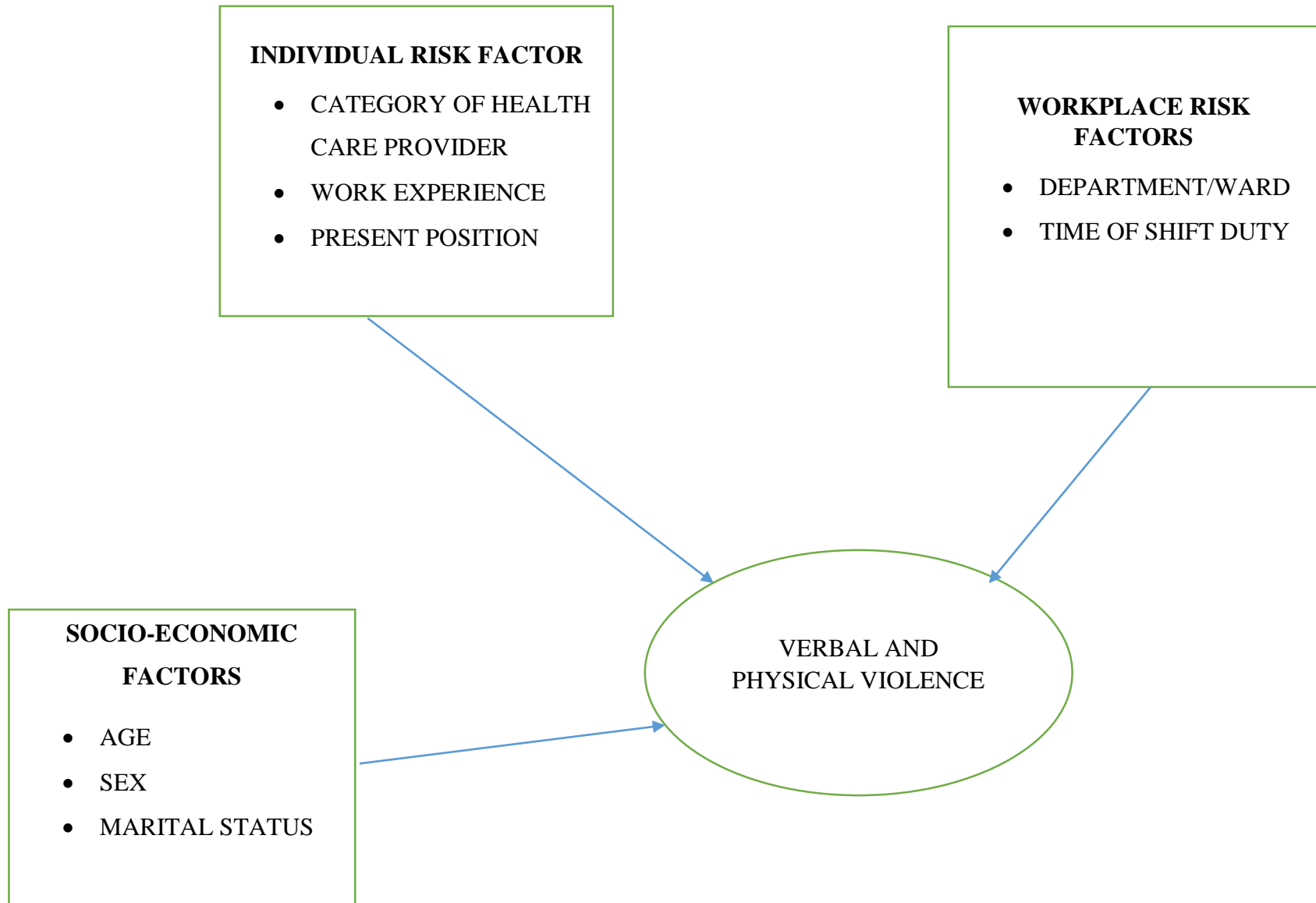
1. To estimate the prevalence of physical and verbal violence against healthcare providers.
2. To determine the category of healthcare providers who experience the most violence.
3. To determine the perpetrators of physical and verbal violence against healthcare providers.
4. To examine the factors associated with physical and verbal violence on healthcare providers.

1.5 JUSTIFICATION OF THE STUDY

Violence in health settings is a global problem. Studies about such violence against healthcare providers need to be conducted periodically as these violence are occurring at an alarming rate. An urgent study is thus needed to analyze the dimensions of violence against healthcare providers in Ghana.

Moreover, there are few studies in Ghana on violence against healthcare providers. Findings from this study will fill a knowledge gap and also complement awareness about this important health issue. Healthcare administrators and policy makers can use this research to address this issue of violence against healthcare providers.

1.6 CONCEPTUAL FRAMEWORK FOR VIOLENCE AGAINST HEALTHCARE PROVIDERS



1.7 NARRATIVE OF CONCEPTUAL FRAMEWORK

The conceptual framework seeks to describe factors and impacts that influence violence against healthcare providers. The violence against healthcare providers are influenced by various socio-economic factors.

Socio-economic factors such as the age, sex and marital status of the healthcare provider, have been proven to influence violence against healthcare providers.

Furthermore, individual factors such as the category of healthcare providers, the present position and the number of working experience were assessed for association with physical and verbal violence.

Workplace factors such as the departments of the healthcare provider and the category of healthcare providers make him or her prone to verbal and physical violence, Healthcare providers in the psychiatry ward are at a greater risk of experiencing physical violence.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

The World Health Organization (WHO) defines violence to be “the intentional use of physical force or power, threatened or actual, against oneself, another person or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation”(World Health Organization, 2011).

Violence is also described as occurrences in which staff are abused, endangered, attacked or otherwise subjected to offensive conduct in their work environments. (Martino, 2003).

A healthcare provider is a medical professional or a clinical social worker permitted by the State to practice and perform within the range of their practice as established by state law. (Berkeley, 2017). A healthcare provider encompasses all individuals involved in actions and activities aimed primarily at promoting health of people in their community. (The World Health Report, 2006). Healthcare providers include doctors, pharmacists, nurses, midwives and laboratory technicians. (Abdellah & Salama, 2017).

Violence do come in many forms against healthcare providers are categorized into four main types, these include; physical violence, sexual violence, psychological and deprivation. (WHO, 2014).

Physical violence involves the use of physical force against another individual or group, resulting in physical, sexual or psychological trauma. (Martino, 2002). It includes beating, kicking, slapping, stabbing, shooting, pushing, biting, and pinching. Sexual violence is defined as any act of sexual manifestation against someone without the unreserved consent of that individual. Psychological violence is a form of maltreatment that is depicted by

someone else who is subjected to or exposed to behavior that can result in severe mental trauma, including tension, endless misery or post-horrendous stress. Deprivation is a condition of recognizable and demonstrated hindrance of a person's fundamental human needs with respect to the society or country to which an individual belongs.

Verbal abuse can be defined as the intentional use of vulgar language that shames, look down or marks a lack of regard for the worth and dignity of a person. It generates fear, intimidation and rage in that person. (Boafo, Hancock, & Gringart, 2016). It is a major non-physical form of violence that healthcare providers do face almost every day in their lives from patients, patients' relatives and even colleagues of health.

Another characterization according to (Health, 2015), violence is divided into four groupings: 1. Intent, 2. Consumer-to-provider violence, 3. Violence from a qualified professional to another professional violence, and 4. Interpersonal relations. In health's research, the most widely recognized group of violence against the healthcare providers is the violence from a consumer or patient against a healthcare provider.

Violence against healthcare providers are mostly from the patients and their relatives or from any other person with a violent intent. Healthcare providers are exposed to three types of violence against them, they are; physical violence, verbal abuse and sexual harassment. (Anwar, El-shabrawy, Ewis, & Khalil, 2016).

The effects of these violence can be negative and linger in the memory of the healthcare providers involved. Violent incidents can affect the number of staff that report for work due to reduced job satisfaction resulting in absenteeism, low worker morale and fear of an unsafe workplace as an outcome (Hoskin, 2018).

2.1 PHYSICAL AND VERBAL VIOLENCE

Cross-sectional study was conducted among 107 doctors and 613 nurses in Macau by (Cheung et al., 2017). The findings of the study shows that more than half of the healthcare providers (57.2%) had been involved in at least one form of violence a year prior to the study. The forms of violence that are the most prevalently encountered were verbal violence (53.4%) and physical violence (16.1%). A South Taiwan study conducted among nurses showed that 53.9% of them were verbally abused and 12.7% have ever been involved in a physical violence prior to the study (Lin & Liu, 2005). In 2005, a study was done in Jamaica in which 832 healthcare providers participated, 38.6% in the previous year were subjected to verbal abuse and 7.7% to physical violence (Health, 2015). In Egypt, 8 hospitals across Cairo were selected for a study, the result showed that 27.2% of participants encountered physical violence and 72.9% experienced verbal violence. (Samir, Mohamed, Moustafa, & Saif, 2012). Also the results of a study that was conducted in Turkey in 2017, where nurses were grouped into two age categories accordingly showed that 1.1% older and experienced nurses experienced a proportion of physical violence and 25.5% verbal violence while the younger age group showed that 6.6% of the healthcare providers had encountered physical violence and 43.3% verbal abuse. (Cetinkaya, 2018).

2.2 HEALTHCARE PROVIDERS MOSTLY VIOLATED

A research by Philips, (2016), showed that although all healthcare providers encounter violence on a daily basis, a large majority of these violence were targeted at nurses and doctors. According to Philips, violence goes hand in hand with the time a healthcare provider is with the patient that is the more a healthcare provider works around a patient, the higher the probability of violence occurring. In that same research, nurses reported a 100% verbal violence against them and 82.1% of physical violence against them with

doctors reporting 75% of verbal violence, 21% of physical assault, 5% confrontations against them outside the hospital. Nurses across the world have been identified as the healthcare providers that experience the most cases of violence (Boafo et al., 2016). Naturally, it is doctors and nurses who experience disproportionately high risk of violence as they are the healthcare providers predominantly around the patients and also interact with the patients' relatives (Cheung et al., 2017). According to studies by Balamurugan, Treesa, & Nandakumar (2012) and Lin and Liu (2005), nurses were the category of healthcare providers who experience the most violence such as verbal and physical violence.

2.3 DEPARTMENT WITH THE HIGHEST INCIDENCE OF VIOLENCE

A research in America (Phillips, 2016) found that violence against healthcare providers occurs mostly in the psychiatry and the emergency units. It further reported that most perpetrators of such violence have common traits such as substance abuse, altered mental status such as dementia and delirium.

A study done in Taiwan showed that there was a high proportion of physical and verbal violence occurring in the psychiatry. (Hen, Wu, Ung, Hiu, & Ang, 2008). A study undertaken among Beni-Suef Governmental Hospitals on violence against healthcare providers in Egypt showed that most violence occur in medical wards. (Anwar et al., 2016). A research in South Taiwan indicated that nurses in the psychiatry ward experienced the most physical violence (Lin & Liu, 2005).

In 2009, a cross-sectional research was carried out among 416 randomly selected nurses in the departments of obstetrics and gynecology in eight hospitals in Cairo, Egypt showed a high rate of violence against nurses in the departments of obstetrics and gynecology in the hospitals studied, affecting a large majority of nurses. (Samir et al., 2012).

Healthcare providers in the emergency and the psychiatry ward had been identified to be among the ward that suffer the most violence. (Child & Menten, 2010)

2.4 HOW VIOLENCE COME ABOUT

According to (Baig et al., 2018) ,there are five major reasons healthcare providers experience violence. These are; failure to achieve the expectations of sick clients and their relatives , ineffective communication between the healthcare provider and the sick clients and their relatives, human error on the part of the healthcare providers, unexpected outcome such as death, and very poor healthcare delivery. More to the point, a study by Hartley, (2011), stated that the contributing factors for violence that healthcare providers experience results from a lack of communication between healthcare providers and patients and their relatives; poor security protocols in the various healthcare institutions; most of the staff are not educated on safety and how to protect themselves against violence and ineffective healthcare policies.

Furthermore, when patients are made to wait for a very long time before healthcare are rendered to them, they become frustrated and stressed, misunderstandings between clients and health workers, the time of working and unrestricted visitors access to the hospitals are major factors that contribute to violence against healthcare providers. (Alert, 2018). A research in the emergency departments in hospitals in America by Philips, (2016), showed that long waiting queues, low quality of food given to patients, overcrowding in the hospital wards, when patients relatives are given bad news such as death or a bad prognosis of a disease can eventually lead to violence against healthcare providers. A study by Cheung et al, (2017), stated that healthcare providers who were young, newly employed with low work experiences, time of shift duty, and anxiety increased the risk of violence such as verbal abuses.

The demographic location where hospitals are located has made healthcare providers find themselves in a very crucial impact of exposure to both physical and verbal abuses. Hospitals that are situated around localities with violent incidents mostly had healthcare providers suffering the effects. A study showed that majority of healthcare providers in the Northern and Greater Accra regions were physically and verbally abused at the workplace (Boafo et al., 2016). One major finding by Cheung et al, (2017), showed that, physicians and nurses working in the government sector were subjected to physical violence and verbal abuse than those working in the private sector. Healthcare workers in most government hospitals where the workload is bigger, very few professionals and inadequate hospital infrastructure most of the time do lead to frustrations, anger and stress on the part of the patients and their relatives and so they tend to use physical violence and verbal abuse as a tool to air their dissatisfaction. (Boafo et al., 2016).

More to the point, Cheung et al, (2017) found that the ratios between healthcare providers and patients in private healthcare facilities is very small compared to public healthcare facilities. This is as a result of the National Health insurance packages, Patients will certainly be asked to pay heavier medical consultation and medication charges in private health facilities than public facilities and so patients will be seeking for a lower-cost healthcare in government facilities and so endure to be in long queues while waiting for treatment. (Cheung et al., 2017). Subconsciously all these factors such as overcrowding, fewer number of staff , and discontent with the quality of healthcare rendered to them in the public health sector predominantly makes some of the patients and the relatives anxious and violent which undoubtedly results in physical or non-physical forms of violence.

2.5 PERPETRATORS OF VIOLENCE

The main perpetrators of violence against healthcare workers were staff, visitors and patients. (Hartley, 2011). Healthcare providers are often subjected to violence from patients, relatives of the patients, fellow staff and other hospital superiors. (Rayan, Qurneh, Elayyan, & Baker, 2016). Male patients are known to be the main perpetrators of physical violence against healthcare providers, female patients and the relatives of the patients were known to be the main perpetrators of verbal abuse against healthcare providers. (Anwar et al., 2016).

Across the world, statistical figures show that countries like Bulgaria, South Africa, Thailand, Australia and Portugal, have patients being known to be the main perpetrators of physical violence. (Martino, 2002)

In Ghana, patients and their relatives have been known to be the main perpetrators of physical violence and verbal abuse against healthcare providers (Boafo, 2016). Violence against healthcare providers were found by Cheung et al. (2017) to be caused mostly by patients being treated in the hospitals. They constituted 36.6%, followed by the relatives of these patients which made up 17.5% and the least by colleagues (7.7%). Healthcare providers have been identified to be perpetrators of violence against their colleagues.

2.6 WHY UNDERREPORTING OF VIOLENCE?

Many healthcare workers never report cases of violence against them to appropriate offices due to fear of being considered weak and incompetent, fear of not being believed and unsupported hospital administration. (Hartley, 2011). Sadly, most healthcare providers feel violence against them is part of the job and so most of them feel reporting such acts will not yield any positive outcome. (Anwar et al., 2016). A research by Philips, (2016), shows that nurses and doctors in America do not report the incidents of violence against

them. According to Philips, upon further investigations, it was found that most of the healthcare providers do not know what really constitute violence as they feel violence caused by a mentally ill patient is as a result of psychosis. Most of them also feel violence is part of the job. According to Philips, (2016), till the mentality of “the patient is always right” is curbed from the hospital settings, most patients will continue to violate the healthcare providers. Nurses have been identified as not reporting non-physical violence against them. (Boafo et al., 2016). The reasons for this included the perception that such violence is either ' part of the work ' or ' not essential to report ' or ' no measures will be taken if recorded ' and ' not knowing where to report.

Consequently, most healthcare providers do not report these incidents against them because they see it to be part of their job. They view the violence as an occupational hazard. (Child & Menten, 2010).

2.7 THE HARMFUL EFFECTS OF VIOLENCE

The most common effect of violence against healthcare providers are anger, depression, humiliation and a feeling of helplessness. (Anwar et al., 2016). Violence against providers of healthcare has adverse impacts, such as poor patient treatment, very high turnover and absenteeism of healthcare providers, reduce team spirit among healthcare providers and low job satisfaction. (Rayan et al., 2016). All these were backed by a research by (Phillips, 2016) which showed a high rate of missed rates, very low job satisfaction, a feeling of insecurity. According to Philips, (2016), all these have resulted in some healthcare providers carrying arms on themselves for safety reasons.

2.8 THE WAY FORWARD

It is the right of every worker to feel safe in his or her work environment so as it is for healthcare providers too. The only way to help curb a majority of these violence against

healthcare providers is to encourage them to report all cases against them whether intentional or not. (Phillips, 2016). In Philips research, he stated managers of healthcare settings should work in collaboration with the healthcare providers to formulate approaches such as harsh legislature and hardening the healthcare infrastructure by the fixing of security cameras and hiring of guards to position them in the wards and all-round the hospitals.

It is recommended that mandatory in-service training for healthcare providers must be done on a regular basis to train all them on safety and preventive methods. Cheung et al, (2017), stated in their study that violence against healthcare providers occurs as a result of bad interaction between them and patients, lack of careful observation of patients, non-compliance healthcare providers with workplace violence preventive measures, and inexperienced evaluation of patient behaviors trigger violence acts among mentally ill patients.

A study by Boafo et al. (2016) found that the inability of hospital and hospital department heads to act on recorded instances of violence was partly the reason for the reluctance of healthcare providers to report violent occurrences. Boafo with his colleagues stated three ways that can curb the incidence of physical violence and verbal abuse. First there is the need for absolutely clear policies on these violence against healthcare providers. Presence of such policies, discourages perpetrators, as they become aware of the repercussions when they violate a healthcare provider verbally or physically. Second, the creation of awareness to the general public, by designing educational programs should be encouraged for both the patients and the general public about violence against healthcare providers. Numerous types of data dissemination techniques could be used to raise awareness of the negative impacts of this abuse and how it affects the whole community. Lastly, healthcare providers should also be urged to report any act of violence against them quickly, and such

reports should be looked into immediately so that all healthcare providers know that such reporting is essential and not pointless.

A study by (Alert, 2018) stated some steps that have been adopted by the joint commission to help fight violence against healthcare providers, they include: violence against healthcare providers must be clearly defined in every institution and systems for reporting cases of violence, including verbal abuse, must be set in place across the various institutions. Appropriate monitoring and support systems including psychological counseling must also be in place for healthcare providers negatively affected by such abuse. Finally, all staff must be educated in safety, de-escalation, self-defense as well as how to cope with aggressive perpetrators. (Hoskin, 2018).

CHAPTER THREE

METHODOLOGY STUDY METHOD

3.0 STUDY DESIGN

The design used for this study was cross-sectional. Quantitative study design was used to estimate the incidence of violence against healthcare providers.

3.1 STUDY AREA

The research was carried out in the Metropolis of Tamale. Tamale is the regional capital of the northern region of Ghana and is located in the middle of the northern region in latitudes $9^{\circ} 16' N$ and $9^{\circ} 34' N$ and $0^{\circ} 36' W$ and $0^{\circ} 57' W$. (Ghana Statistical Service, 2014). Tamale Metropolis is part of the twenty districts in the Northern Region of Ghana. (Abdul-Aziz, Munyai, & Nsowah-Nuamah, 2013). It is among the fastest growing cities in West Africa and the third largest city after Accra and Kumasi. (Otoo, Sebil, & Amponsah, 2014). It had a human population of about 257,556 as at 2015. (Ministry of Health, 2015). Now the human population stands at 263,979. (Centre for Health Information Management of the Policy, Planning, 2017). One hundred and twenty-five thousand and thirty-three (125,033) of the total population are females. (Ghana Statistical Service, 2014). The major ethnic group in the metropolis include Mamprusis, Gonjas, Dagaabas, Akans, Ewes with Dagombas being the majority. (Abeongo, 2018) The health facilities in the Metropolis offer both preventive and curative healthcare services. (Fuseini, 2016).

3.1.1 PROFILE OF THE HOSPITALS

Tamale Metropolis has three government hospitals; Tamale Teaching Hospital, Tamale West Hospital and the Tamale Central Hospital.

All three of the government hospitals were of choice for the study. These were the Tamale West hospital, Tamale Central Hospital and the Tamale Teaching hospital. The Tamale Teaching hospital is the only teaching hospital in the three regions of the upper part of Ghana. Referrals from all the various hospitals in the northern parts of the country come to the Tamale Teaching hospital. It receives the most referrals due to the availability of ultra-modern hospital machineries. The Tamale Teaching hospital has a bed capacity of over 400. (Abdul-Aziz, Muniyazaki, & Nsowah-Nuamah, 2013). It is a four-storey ultra-modern hospital structure that was built in 1974 and has all the wards in it including theatres and x-ray departments. (Abdul-Aziz et al., 2013).

Tamale West Hospital and Tamale Central Hospital are district hospitals. Tamale West hospital has a bed capacity of 180. (Konlan, Kombat, Wuffele, & Aarah-Bapuah, 2016). It can be located at the Lameshegu locality.

Tamale Central Hospital formally called the Old hospital was established in July 1928 and it also served formally as the Regional Hospital of the Northern Region, which was also a point of referral for the three upper regions until 1974, when the current Tamale Teaching Hospital was commissioned. (Awudu, 2018). The hospital has eleven departments. It can be located near the Tamale Police barracks.

The region has a total of 216 medical officers, 1,333 registered nurses, 211 midwives, 13 pharmacists and 2,735 enrolled nurses (Centre for Health Information Management of the Policy, Planning, 2017).

3.2 TARGET POPULATION

The target population for the research were doctors, nurses, midwives, pharmacists, laboratory technicians, ambulance personals, administrative personals (clericals) and the support staff (maintenance and security).

3.2.1 INCLUSION CRITERIA

The inclusion criteria for the research was as follows:

- Participants were healthcare providers in the hospital.
- Participants had at least 1 year working experience in the hospital.

3.2.2 EXCLUSION CRITERIA

- Healthcare providers who had not worked for at least one year.

3.3 SAMPLE SIZE CALCULATION

Consecutive sampling was used to select samples from the hospitals. The Cochran's (1963) sample size formula was used in calculating the required sample size to be used for this study. Below is the Cochran's formula;

$$n = \frac{z_{\alpha/2}^2 \times p(1-p)}{\epsilon^2}$$

Where n = the desired sample size

$z_{\alpha/2}$ = the critical value at 5% alpha level usually set at 95%;

p = estimated incidence of physical violence and verbal violence against healthcare workers from previous studies conducted by (Boafo et al., 2016) which was found to be 9.0% and 52.2% respectively.

ϵ = level of error expected which is 5%.

This yielded a minimum sample sizes of 130 and 383. Sample size for the verbally abused of 383 was used as it fully covered the 130 patients who were violated physically. Accounting for non-response from the same study yielded a sample size of 93.

$$93 + 383 = 476$$

Thus, a total of 476 participants were selected for the study.

3.4 STUDY VARIABLES

3.4.1 DEPENDENT VARIABLES

For this research, verbal violence and physical violence against healthcare workers were the dependent variables.

3.4.2 INDEPENDENT VARIABLES

The independent variables were the category of healthcare providers (Doctors, Nurses, Midwives, Pharmacists, Laboratory Technicians, Ambulance staff, Administrative staff and the Support staff), the ward or department of the healthcare workers, the years of working experience of the healthcare providers. Including the sociodemographic variables such as age, sex, marital status, and experience at work.

3.5 PRE-TESTING

The questionnaire were pre-tested by the principal investigator at the University of Ghana (Legon) Hospital which was not one of the study sites. The pre-testing was carried out after which necessary adjustments and corrections were made with the questionnaires.

3.6 DATA COLLECTION

The International Labor Organization (ILO), International Council of Nurses (ICN), World Health Organization (WHO), and the Public Services International's Health Sector Workplace Violence Questionnaire was adapted for the study. (ILO/ICN/WHO/PSI, 2003). The questionnaires covered the demographic background of respondents, knowledge of physical violence, and knowledge of verbal violence and opinions of healthcare providers about violence against them. This questionnaire was used in a number of research in various nations such as Iran, Jordan, Brazil, Lebanon, Portugal, Bulgaria

and Thailand and in some African nations including South Africa and Mozambique. (Boafo et al., 2016)

3.7 DATA ANALYSIS TECHNIQUES

All data was coded and saved on a research laptop which had limited access and was backed on iCloud, Google cloud and on an external hard disk drive. The main statistical software used for the data analysis collected was STATA version 15 and Microsoft Excel. Descriptive and Inferential statistics was used to determine the influences of knowledge of healthcare providers about violence against them. Descriptive statistics were used to analyze continuous variables such as age. Categorical data was analyzed into frequencies and proportions. A detailed descriptive analysis of data was used to analyze participants' workplace characteristics, the incidence and perpetrators of violence against healthcare providers. Chi-square test was used to test for the significant factors associated with committing physical and verbal violence. A logistic regression model was then used to test the association between the significant factors associated with violence against healthcare providers.

3.8 QUALITY CONTROL

For the purposes of the validity and reliability of data collection, the research assistants were trained on the ethics of data collection. During the training the research assistants was also introduced to the rational of the study, the selection of eligible participants for the study. Techniques for introducing themselves and establishing rapport to get good response from participants was explained to the full understanding of each research assistant.

3.9 ETHICAL ISSUES

Ethical clearance was taken from Ethics Review Committee of the Ghana Health Service before data was collected.

A consent form was given to each participant to enlighten them about the research being conducted. A signed consent was sought from every participant who partook in the research after the aim of the research had been explained to the participants before a questionnaire was issued out. Participants were assured of confidentiality and privacy. The filling of the questionnaire were carried out away from any crowded hospital areas. Participants were told that involvement in this research was entirely voluntary. As such, participants were free to withdraw from the research at any moment without a penalty and without giving a reason.

3.10 ANONYMITY AND CONFIDENTIALITY

Participants were fully assured that the information that was collected from this research project will be kept confidential as the names of those participating in the research will not be taken. They will be identified with numbers.

The data from this research was kept in a locked cabinet. Information about the participants that would make it possible to trace your identity will be excluded from any report we may publish.

The answered questionnaires were destroyed by burning them all by 31st July, 2019.

3.11 RISKS OF THE STUDY

The study was sensitive as some participants who had ever been involved in such violence remembered the violence and the experience they went through therefore participants who were overwhelmed by feelings and were unable to proceed were free to withdraw from the research with no penalty and without having to give any reason.

3.12 BENEFITS OF THE STUDY

There was no direct benefit to the participants for taking part in the research. However it was anticipated that the findings from the research will be used to help prepare a report on the nature of violence against healthcare providers in Ghana. These study reports will provide background data for designing suitable strategies to tackle violence in the hospitals nationally.

Participants were not provided any incentive for taking part in the research and they also did not have to pay anything to take part in the study. However, they were provided with pens for their time.

3.13 CONFLICT OF INTEREST

There were no conflict of interest on the part of the researcher. The data collected were purposely used for academics purposes. In further studies if there is a need for the data, it will be used.

CHAPTER FOUR

RESULTS

4.1 INTRODUCTION

This chapter presents the results obtained from the study. Healthcare providers who are certified and have had at least a year of working experience were interviewed using a structured questionnaire. The chapter discusses the work background of the healthcare providers, the physical and verbal violence against the healthcare providers.

4.2 HOSPITAL BACKGROUND OF RESPONDENTS

A total of 476 healthcare providers were selected and self-administered questionnaires were given out across the three hospitals in the Tamale Metropolis. Of the questionnaires issued, 423 were returned fully answered making a response rate of 89%. Tamale Teaching Hospital had the highest number of respondents of 223 respondents, 113 of the respondents were from Tamale Central Hospital with 87 respondents from the Tamale West Hospital.

4.3 SOCIO-DEMOGRAPHICS AND WORKPLACE CHARACTERISTICS OF RESPONDENTS

The socio-demographics and the workplace characteristics of the HCPs are shown in Table 4.1. The sample consisted of 423 HCPs.

Table 4.1: Socio-demographic characteristics of Respondents

| Variable | Frequency (n %) |
|--------------------------------|------------------------|
| Age Group | |
| 21-30 | 155(36.6) |
| 31-40 | 126(29.8) |
| 41-50 | 100(23.6) |
| 51-60 | 42(10.0) |
| Sex | |
| Male | 169(40.0) |
| Female | 254(60.0) |
| Marital Status | |
| Single | 169(40.0) |
| Married | 214(50.6) |
| Separated | 12(2.8) |
| Widow/Widower | 28(6.6) |
| Profession | |
| Doctor/Physician | 25(5.9) |
| Nurse | 191(45.2) |
| Midwife | 79(18.7) |
| Pharmacist | 41(9.7) |
| Ambulance | 11(2.6) |
| Administrational/Clerical | 28(6.6) |
| Technical staff | 36(8.5) |
| Support staff | 12(2.8) |
| Present Position | |
| Senior Staff | 216(51.1) |
| Junior Staff | 207(48.9) |
| Work Experience (Years) | |
| 1 to 10 | 255(60.3) |
| 11 to 20 | 115(27.2) |
| 21 to 30 | 46(10.9) |
| 31 to 40 | 7(1.6) |

| Department/Ward | |
|---------------------------------|----------|
| General Medical Ward | 88(20.8) |
| General Surgical Ward | 54(12.8) |
| Labour and Maternity Ward | 83(19.6) |
| Paediatric Ward | 34(8.0) |
| Psychiatric Ward | 25(5.9) |
| Emergency Ward | 53(12.5) |
| Specialized Ward | 38(9.0) |
| Technical Services (Laboratory) | 26(6.2) |
| Support services | 12(2.8) |
| Radiology (X-Ray) | 10(2.4) |

Majority, 155(36.6%) of the HCP were between the ages of 21-30 years, over a quarter, 126(29.8%) of the respondents were between the ages of 31-40 years, less than a quarter, 100(23.6%) of the HCP were in the age category of 41-50 years and 42(10%) were between 51-60 years.

In terms of the sex, more than half, 254 (60%) of the sample were females. A majority, 214(50.6%) of the respondents were married. In relation to the category of healthcare providers, the survey revealed that 191(45.2%) nurses formed the majority and the support personnel (maintenance and security) constituted the least category of healthcare providers.

More than half, 216 (51.1%) of the HCP were senior staff and 207(48.9%) were junior staff. A majority, 255 (60.3%) of the HCP had 1-10 years of work experience with 7 (1.6%) of the HCP having 31-40 years of work experience being the least.

The results presented in Table 1 showed that 88 (20.8%) of the respondents were HCP in the General Medical ward, 54 (12.8%) were from the general surgical ward, respondents from the labour and maternity ward were less than a fifth, 83 (19.6%), more than a tenth,

53 (12.5%) were respondents from the emergency ward. Paediatric ward, psychiatry ward, specialized ward, technical services, support services and radiology respondents were less than a tenth.

4.4 INCIDENCE OF PHYSICAL VIOLENCE

Regarding the type of attack in the 12 months preceding the survey, 90 (21.3%) respondents were physically attacked. Table 4.2 provides details of the physical violence.

Over the 12 months prior to the study, 147 (34.8%) of the respondents witnessed physical violence at the workplace while the remaining did not.

Table 4.2: Incidence, Sources and Distribution of Physical Violence

| Variable | Frequency(n) | Percentage (%) |
|---|---------------------|-----------------------|
| Description of Physical Violence | | |
| Physical violence with a weapon | 4 | 4.4 |
| Physical violence without a weapon | 86 | 95.6 |
| Typical Incidence of Violence at Workplace | | |
| Views physical violence as work hazard | 55 | 61.1 |
| Do not view physical violence as work hazard | 35 | 38.9 |
| Place of Physical Violence Incident | | |
| Inside health facility | 85 | 94.4 |
| outside health facility | 5 | 5.6 |
| Time Physical Violence Occurred | | |
| 8:00 AM-2:00 PM | 49 | 54.4 |
| 2:00 PM-8:00 PM | 17 | 18.9 |
| 8:00PM-8:00 AM | 24 | 26.7 |
| Could the Physical Violence Have Been Prevented | | |
| Feels physical violence could have been prevented | 62 | 68.9 |
| Do not feel the physical violence could have been prevented | 28 | 31.1 |
| Injury as a Result of Violent Incident | | |
| Violence results in injury | 24 | 26.7 |
| Violence did not result in injury | 66 | 73.3 |
| Require Formal Treatment for Injuries (N=24) | | |
| Took formal treatment after injuries from violence | 7 | 29.2 |
| Did not take formal treatment after injuries from violence | 17 | 70.8 |
| Perpetrators of Physical Violence | | |

| | | |
|---|----|------|
| Patient/client | 20 | 22 |
| Relatives of patient/client | 67 | 75 |
| Management | 1 | 1 |
| Staff member | 2 | 2 |
| Healthcare Providers Who Suffer Most Physical Violence | | |
| Doctor | | |
| Nurse | 2 | 2.2 |
| Midwife | 63 | 70.3 |
| Pharmacist | 7 | 7.7 |
| Ambulance | 4 | 4.4 |
| Administration/clerical | 4 | 4.4 |
| Technical staff | 1 | 1.1 |
| Support staff | 4 | 4.4 |
| | 5 | 5.5 |

4.5 INCIDENCE OF VERBAL ABUSE

With respect to verbal abuse, 249 (58.9%) participants reported to have been verbally abused in the last 12 months as shown in Table 4.3.

One hundred and seventy-eight (71.5%) of the healthcare providers verbally abused were of the view that the verbal abuse was typical and part of the healthcare work. Two hundred and forty (96.4%) of the abuse occurred in healthcare facilities with only 1 (0.4%) incident occurring in a patient's home and 8 (3.2%) occurring outside the health facility.

Table 4.3: Incidence, Sources and Distribution of Verbal Violence

| Variable | Frequency (n) | Percentage (%) |
|--|----------------------|-----------------------|
| Verbally Abused at Workplace in the Last 12 Months | | |
| Yes | 249 | 58.9 |
| No | 174 | 41.1 |
| Occurrence of Verbally Abused in the Last 12 Months | | |
| All the time | 36 | 14.5 |
| Sometimes | 144 | 57.8 |
| Once | 69 | 27.7 |
| Typical Incidence of Verbal Abuse as Part of Work | | |
| Views verbal abuse as a work hazard | 178 | 71.5 |
| Do not view verbal abuse as a work hazard | 71 | 28.5 |
| Place of Verbal Abuse | | |
| Inside Health institution/facility | 240 | 96.4 |
| At patient's/client's home | 1 | 0.4 |
| Outside (on way to work/health visit/home) | 8 | 3.2 |
| Verbal Abuse could have been Prevented | | |
| Feels the verbal abuse was preventable | 139 | 55.8 |
| Do not feel the verbal abuse was preventable | 110 | 44.2 |
| Perpetrators of Verbal Violence | | |
| Patient/client | 75 | 30.1 |

| | | |
|---|-----|------|
| Relatives of patient/client | 153 | 61.5 |
| Staff member | 14 | 5.6 |
| Management | 7 | 2.8 |
| Healthcare Providers who suffer the most | | |
| Verbal Violence | | |
| Doctor | 9 | 3.6 |
| Nurse | 120 | 48.2 |
| Midwife | 38 | 15.3 |
| Pharmacist | 26 | 10.4 |
| Ambulance | 8 | 3.3 |
| Administration | 14 | 5.6 |
| Technical staff | 23 | 9.2 |
| Support staff | 11 | 4.4 |

4.6 PERPETRATORS OF PHYSICAL AND VERBAL VIOLENCE

Of the 90 physical violence incidents, 67 (74.5%) were reported to be perpetrated by relatives of patient/client. Twenty (22.2%) were caused by patients, with management and staff member being 1(1.1%) and 2(2.2%) respectively as illustrated in Table 4.2.

With respect to verbal violence, 153 (61.5%) of the perpetrators were relatives of patients/clients, 75 (30.1%) of the verbal violence were caused by patient/client, 14 (5.6%) staff members were the perpetrators of verbal abuse and 7 (2.8%) of the verbal violence by management of the hospital facilities as shown in Table 4.3.

4.7 HEALTHCARE PROVIDERS WHO EXPERIENCE THE MOST VIOLENCE

Results from Table 4.2 shows that nurses suffered the most physical violence 63(70.3%), followed by midwives 7(7.7%), with support staff (maintenance and security) suffering 5(5.5%) of physical violence. Pharmacists, Ambulance and Technical staff all suffered equal proportion of physical violence 4(4.4%) with doctors 2(2.2%) and administration/Clerical 1(1.1%) suffering the least violence.

With regards to verbal violence, 120(48.2) of the respondents who responded to have experienced verbal violence in the past 12 months were nurses, 38(15.3%) were midwives, 26(10.4%) of the respondents were pharmacists with 8(3.3%) of ambulance staff suffering the least verbal violence as shown in Table 4.3.

4.8 FACTORS ASSOCIATED WITH PHYSICAL VIOLENCE

The study further assessed the association between workplace factors such as the category of healthcare providers, present position, work experience and the ward or department of the healthcare providers and the socio-demographic factors associated with physical violence.

The results show statistically significant association between the sex, category and department of the healthcare provider and the physical violence with a p-value of $P < 0.001$ as shown in Table 4.4.

Table 4 4: Socio-demographic factors associated with Physical Violence

| Variable | EXPERIENCED PHYSICAL VIOLENCE | | Chi Square | P- Value |
|--------------------------------|-------------------------------|-------------|------------|---------------------|
| | Yes n (%) | No n (%) | | |
| Age Group | | | 6.4582 | P<0.091 |
| 21-30 | 26(16.8) | 129(83.2) | | |
| 31-40 | 35(27.8) | 91(72.2) | | |
| 41-50 | 23(23.0) | 77(77.0) | | |
| 51-60 | 6(14.3) | 36(85.7) | | |
| Sex | | | 13.3124 | P<0.001** |
| Male | 51(30.2) | 118(69.8) | | |
| Female | 39(15.4) | 215(84.7) | | |
| Marital Status | | | 7.5195 | P<0.057 |
| Single | 26(15.4) | 143(84.6) | | |
| Married | 57(26.6) | 157(73.4) | | |
| Separated | 2(16.7) | 10(83.3) | | |
| Widow/Widower | 5(17.7) | 23(82.1) | | |
| Profession | | | 40.7155 | P<0.001** |
| Doctor/Physician | 2(8.0) | 23(92.0) | | |
| Nurse | 63(33.0) | 128(67.0) | | |
| Midwife | 7(8.9) | 72(91.1) | | |
| Pharmacist | 4(9.8) | 37(90.2) | | |
| Ambulance | 4(36.4) | 7(63.6) | | |
| Administrational/Clerical | 1(3.6) | 27(96.4) | | |
| Technical staff | 4(11.1) | 32(88.9) | | |
| Support staff | 5(41.7) | 7(58.3) | | |
| Present Position | | | 0.0614 | P<0.804 |
| Senior Staff | 47(21.8) | 169(78.2) | | |
| Junior Staff | 43(20.8) | 164(79.2) | | |
| Work Experience (Years) | | | 4.4723 | P<0.215 |
| 1 to 10 | 56(22.0) | 199(78.0) | | |
| 11 to 20 | 28(24.3) | 87(75.7) | | |
| 21 to 30 | 6(13.0) | 40(87.0) | | |
| 31 to 40 | 0(0) | 7(100.0) | | |
| Department/Ward | | | 104.4809 | P<0.001** |
| General Medical Ward | 24(27.3) | 64(72.7) | | |
| General Surgical Ward | 5(9.3) | 49(90.7) | | |
| Labour and Maternity Ward | 8(9.6) | 75(90.4) | | |
| Paediatric Ward | 0(0) | 34(100.0) | | |
| Psychiatric Ward | 19(76.0) | 6(24.0) | | |

| | | |
|--------------------|----------|-----------|
| Emergency Ward | 25(47.2) | 28(52.8) |
| Specialized Ward | 0(0) | 38(100.0) |
| Technical Services | 2(7.7) | 24(92.3) |
| Support services | 5(41.7) | 7(58.3) |
| Radiology | 2(20.0) | 8(80.0) |

Criterion level: 0.05, (*p<0.05, **p<0.001)

A logistic regression model was used to determine how the statistically significant variables predicts the outcome variable of physical violence. The results showed that females have 0.43 times less chance of being attacked as compared to being a male [(AOR=0.43, CI: 0.34-1.17), p<0.001]. Consequently, a nurse's chance of experiencing physical violence is 8.24 times more likely than a doctor [(AOR=8.24, CI: 1.72-39.43), p<0.008] and a support staff is 9.20 times more likely to experience physical violence than a doctor. [(AOR=9.20), CI: 1.32-64.21), p<0.025]. Also, a healthcare provider in a surgical ward has 0.20 less chance of being attacked physically [(AOR=0.20, CI: 0.07-0.59), p<0.003] while being in a psychiatry ward increases the chance of being physically attacked by 5.73 times than being a medical ward [(AOR=5.73, CI: 1.96-16.81), P<0.001].

Table 4.5: A Logistic Regression Model for the Physical Violence

| PHYSICAL VIOLENCE | Unadjusted | | | | Adjusted | | | |
|--------------------------------|------------|--------------|-------------------------|-------|------------|--------------|-------------------------|-------|
| | Odds Ratio | P- Value | 95% Confidence Interval | | Odds Ratio | P- Value | 95% Confidence Interval | |
| Sex | | | | | | | | |
| Male(ref) | 1 | | | | | | | |
| Female | 0.43 | 0.000 | 0.26 | 0.67 | 0.63 | 0.141 | 0.34 | 1.17 |
| Profession | | | | | | | | |
| Doctor(ref) | 1 | | | | | | | |
| Nurse | 5.66 | 0.021 | 1.29 | 24.77 | 8.24 | 0.008 | 1.72 | 39.43 |
| Midwife | 1.12 | 0.894 | 0.22 | 5.76 | - | - | - | - |
| Pharmacist | 1.24 | 0.810 | 0.21 | 7.34 | 2.35 | 0.377 | 0.35 | 15.69 |
| Ambulance | 6.57 | 0.052 | 0.99 | 43.78 | 3.50 | 0.227 | 0.46 | 26.66 |
| Administrational/Clerical | 0.43 | 0.497 | 0.04 | 5.01 | - | - | - | - |
| Technical Staff | 1.44 | 0.689 | 0.24 | 8.52 | 3.04 | 0.0323 | 0.34 | 27.64 |
| Support Staff | 8.21 | 0.025 | 1.30 | 51.99 | 9.20 | 0.025 | 1.32 | 64.21 |
| Department/Ward | | | | | | | | |
| General Medical Ward (ref) | 1 | | | | | | | |
| General Surgical Ward | 0.27 | 0.014 | 0.10 | 0.76 | 0.20 | 0.003 | 0.07 | 0.59 |
| Labour and Maternity Ward | 0.28 | 0.004 | 0.12 | 0.68 | - | - | - | - |
| Paediatric Ward | - | - | - | - | - | - | - | - |
| Psychiatric Ward | 8.44 | 0.001 | 3.01 | 23.67 | 5.73 | 0.001 | 1.96 | 16.81 |
| Emergency Ward | 2.38 | 0.017 | 1.16 | 4.87 | 2.13 | 0.069 | 0.94 | 4.84 |
| Specialized Ward | - | - | - | - | - | - | - | - |
| Technical Services | 0.22 | 0.052 | 0.05 | 1.01 | 0.31 | 0.277 | 0.04 | 2.58 |
| Support Services | 1.90 | 0.308 | 0.55 | 6.58 | - | - | - | - |
| Radiology | 0.67 | 0.624 | 0.13 | 3.66 | - | - | - | - |
| Ref- reference variable | | | | | | | | |

4.9 FACTORS ASSOCIATED WITH VERBAL VIOLENCE

The study also assessed the association between workplace factors and socio-demographic factors and verbal violence.

Table 4.6: Socio-demographic factors associated with verbal violence

| Variable | EXPERIENCED VERBAL VIOLENCE | | Chi Square | P-Value |
|---------------------------|-----------------------------------|---------------|------------|--------------------|
| | YES n (%) | NO n (%) | | |
| Age Group | | | 15.1876 | P<0.002* |
| 21-30 | 92(59.4) | 63(40.7) | | |
| 31-40 | 88(69.8) | 38(30.2) | | |
| 41-50 | 53(53.0) | 47(47.0) | | |
| 51-60 | 16(38.1) | 26(61.9) | | |
| Sex | | | 3.6865 | P<0.055 |
| Male | 109(64.5) | 60(35.5) | | |
| Female | 140(55.1) | 114(44.9) | | |
| Marital Status | | | 7.8301 | P<0.050 |
| Single | 110(65.1) | 59(34.9) | | |
| Married | 122(57.0) | 92(43.0) | | |
| Separated | 6(50.0) | 6(50.0) | | |
| Widow/Widower | 11(39.3) | 17(60.7) | | |
| Profession | | | 18.2557 | P<0.011* |
| Doctor/Physician | 9(36.0) | 16(64.0) | | |
| Nurse | 120(62.8) | 71(37.2) | | |
| Midwife | 38(48.1) | 41(51.9) | | |
| Pharmacist | 26(63.4) | 15(36.6) | | |
| Ambulance | 8(72.7) | 3(27.3) | | |
| Administrational/Clerical | 14(50.0) | 14(50.0) | | |
| Technical staff | 23(63.9) | 13(8.3) | | |

| | | | | |
|--------------------------------|-----------|----------|---------|---------------------|
| Support staff | 11(91.7) | 1(8.3) | | |
| Present Position | | | 1.4772 | P<0.224 |
| Senior Staff | 121(56.0) | 95(44.0) | | |
| Junior Staff | 128(61.8) | 79(38.2) | | |
| Work Experience (Years) | | | 18.5575 | P<0.001** |
| 1 to 10 | 167(65.5) | 88(34.5) | | |
| 11 to 20 | 63(54.8) | 52(45.2) | | |
| 21 to 30 | 18(39.1) | 28(60.9) | | |
| 31 to 40 | 1(14.3) | 6(85.7) | | |
| Department/Ward | | | 27.5481 | P<0.001** |
| General Medical Ward | 55(62.5) | 33(37.5) | | |
| General Surgical Ward | 31(57.4) | 23(42.6) | | |
| Labour and Maternity Ward | 40(48.2) | 43(51.8) | | |
| Paediatric Ward | 13(38.2) | 21(61.8) | | |
| Psychiatric Ward | 21(84.0) | 4(16.0) | | |
| Emergency Ward | 37(69.8) | 16(30.2) | | |
| Specialized Ward | 18(47.4) | 20(52.6) | | |
| Technical Services | 16(61.5) | 10(38.5) | | |
| Support services | 11(91.7) | 1(8.3) | | |
| Radiology | 7(70.0) | 3(30.0) | | |

Criterion level: 0.05, (*p<0.05, **p<0.001)

On verbal violence, age group, category of healthcare providers, work experience and the department/ward proved to be statistically significant with a p-value of P<0.02, P<0.011, P<0.01 and P<0.001 respectively as shown in Table 4.6.

Table 4.7: A Logistic Regression Model for the Physical Violence against Healthcare workers

| VERBAL VIOLENCE | Unadjusted | | | | Adjusted | | | |
|--------------------------------|------------|--------------|-------------------------|--------|------------|--------------|-------------------------|--------|
| | Odds Ratio | P-Value | 95% Confidence Interval | | Odds Ratio | P-Value | 95% Confidence Interval | |
| Age | | | | | | | | |
| 21-30(ref) | 1 | | | | | | | |
| 31-40 | 1.59 | 0.069 | 0.96 | 2.61 | 2.01 | 0.017 | 1.13 | 3.57 |
| 41-50 | 0.77 | 0.318 | 0.47 | 1.28 | 1.97 | 0.146 | 0.79 | 4.89 |
| 51-60 | 0.42 | 0.016 | 0.25 | 0.85 | 2.37 | 0.251 | 0.54 | 10.36 |
| Profession | | | | | | | | |
| Doctor(ref) | 1 | | | | | | | |
| Nurse | 3.00 | 0.013 | 1.26 | 7.16 | 3.99 | 0.004 | 1.56 | 10.19 |
| Midwife | 1.65 | 0.292 | 0.65 | 4.17 | 2.73 | 0.328 | 0.36 | 20.47 |
| Pharmacist | 3.08 | 0.033 | 1.09 | 8.67 | 4.90 | 0.007 | 1.6 | 15.49 |
| Ambulance | 4.74 | 0.050 | 1.00 | 22.52 | 4.40 | 0.092 | 0.78 | 24.73 |
| Administrational/Clerical | 1.78 | 0.306 | 0.59 | 5.35 | 2.31 | 0.182 | 0.67 | 7.90 |
| Technical Staff | 3.15 | 0.035 | 1.09 | 9.10 | 3.94 | 0.102 | 0.76 | 20.39 |
| Support Staff | 19.56 | 0.008 | 2.15 | 177.20 | 17.66 | 0.014 | 1.79 | 174.48 |
| Work Experience (Years) | | | | | | | | |
| 1 to 10 (ref) | 1 | | | | | | | |
| 11 to 20 | 0.64 | 0.050 | 0.41 | 1.00 | 0.46 | 0.047 | 0.21 | 0.99 |
| 21 to 30 | 0.34 | 0.001 | 0.18 | 0.65 | 0.19 | 0.015 | 0.05 | 0.72 |
| 31 to 40 | 0.09 | 0.025 | 0.01 | 0.74 | 0.04 | 0.015 | 0.00 | 0.54 |
| Department/Ward | | | | | | | | |
| General Medical Ward(ref) | 1 | | | | | | | |
| General Surgical Ward | 0.81 | 0.547 | 0.41 | 1.61 | 0.60 | 0.175 | 0.29 | 1.26 |
| Labour and Maternity Ward | 0.56 | 0.061 | 0.30 | 1.03 | 0.65 | 0.646 | 0.11 | 3.99 |
| Paediatric Ward | 0.37 | 0.017 | 0.16 | 0.84 | 0.32 | 0.009 | 0.14 | 0.76 |
| Psychiatric Ward | 3.15 | 0.051 | 0.99 | 9.98 | 2.31 | 0.174 | 0.69 | 7.70 |
| Emergency Ward | 1.38 | 0.378 | 0.67 | 2.87 | 1.13 | 0.772 | 0.50 | 2.57 |
| Specialized Ward | 0.54 | 0.116 | 0.25 | 1.17 | 0.35 | 0.025 | 0.14 | 0.88 |
| Technical Services | 0.96 | 0.929 | 0.39 | 2.36 | 0.60 | 0.524 | 0.12 | 2.91 |
| Support Services | 6.60 | 0.077 | 0.81 | 53.47 | - | - | - | - |
| Radiology | 1.4 | 0.642 | 0.34 | 5.79 | - | - | - | - |

A logistic regression model was used to determine how a combination of the statistically significant variables predicts the outcome variable of verbal violence as shown in table 4.7. The results showed that a healthcare provider within the ages of 31-40 years were 2.01 times more likely of being verbally abused compared to 20-30 years old [(AOR=2.01,

CI:1.13-3.57), $p<0.017$]. Moreover, a nurse were 3.99 times more likely of experiencing verbal abuse than a doctor [(AOR=3.99, CI: 1.56-10.19), $p<0.004$], a pharmacist is 4.90 times more likely of being verbally abused [(AOR=4.90, CI: 1.6-15.49, $P<0.007$)] and a support staff is 17.66 times more like to be verbally abused compared to a doctor [(AOR=17.66, CI: 1.79-174.48), $p<0.007$].

Consequently, HCPs who had 31-40 years of working experience were 0.04 less likely of being abused [(AOR=0.04, CI: 0.00-0.54), $p<0.015$], HCPs with 21-30 years of work experience had 0.19 times less chance [(AOR=0.19, CI: 0.05-0.72), $p<0.015$] and 11-20 years had 0.46 reduced chance of being verbally abused [(AOR=0.46, CI: 0.21-0.99), $p<0.015$] than those with 1-10 years of working experience.

HCPs in the paediatric ward are 0.32 times less likely of being verbally abused [(AOR=0.32, CI: 0.14-0.76), $p<0.009$] and HCPs in the specialized wards had 0.35 times odds of experiencing verbal abuse [(AOR=0.35, CI: 0.14-0.88), $p<0.025$].

CHAPTER FIVE

DISCUSSION

This chapter discusses the main findings of the study conducted to examine violence against healthcare providers in the Tamale Metropolitan Area in the Northern Region of Ghana. It compares the findings from this study to that of other researchers and the possible reasons for the differences in findings.

It is the right of every worker to feel safe in his or her work environment so should it be for healthcare providers too. However, healthcare providers experience physical and verbal violence against them on a daily basis. Some of these violence results in injuries and other psychological consequences. Relatives of patients/clients and the clients are mostly the perpetrators of these violence. Healthcare categories such as nurses, midwives and pharmacists are among healthcare providers who often experience frequent violence. The only way to help curb a majority of these violence against healthcare providers is to encourage them to report all cases against them whether intentional or not.

It was found that the incidence of physical violence among healthcare providers was 21.3%. This may be due to a relatively high level of violence in the Tamale Metropolis in general (Otoo et al., 2014). In Tamale, due to the low literacy rate, most people tend to express their anger and resentment if their opinions and thoughts differ from others (Otoo et al., 2014). The incidence of verbal abuse was almost 59%. This shows that healthcare providers suffer verbal violence more than physical violence. This current study is congruent with studies by Cheung et al. (2017), Lin and Liu (2005), Health (2015), Centinkaya (2018) and Samir, Mohamed, Moustafa, and Saif (2012).

Physical violence was predominantly frequent among the 31-40 years age group followed by the 21-30 years age group with the 51-60 year age group experiencing the least

physical violence. Also, healthcare providers who were between the ages of 21 to 30 years had encountered the most verbal abuse within the past 12 months. The 31-40 age group followed next with predominantly high prevalence ratio. The older age groups experienced the least verbal abuse. This findings could be as a result of the respect that is given to the elderly in the Ghanaian society, where it was seen as a taboo to insult an elderly person (Boafo, 2018). In the Ghanaian society, older people are given respect and seen as people who are wiser than younger people. This makes it easier for a younger healthcare provider to be verbally abused than for an older person.

From the study, it shows that nurses were the category of healthcare providers who experience the most violence both physically and verbally. The major findings in this study was the proportion of violence against the pharmacists, support staff and doctors as they were also victims of physical and verbal violence. Administrative staff suffered the least physical violence and ambulance personnel experienced the least verbal violence. The study corroborates previous studies [Philips (2016), Boafo et al (2016), Cheung et al 2016, Balamurugan, Treesa and Nandakumar (2012) by and Lin and Liu (2005)].

With regards to the years of working experience, healthcare providers who had worked for less than a decade experienced the most physical violence, followed by the 11-20 years of work experience. It was not surprising to see no act of physical violence against the 31-40 years age group. Senior staffs and healthcare providers who had over 20 years of working experience had suffered less verbal abuse as compared to the junior staff who had less than 20 years of working experience. A lot of verbal abuse was experienced by healthcare providers who were within the 1-10 years age group. This could be due to the fact that the older healthcare providers due to their work experience know how to interact with the patients and their relatives than the younger healthcare providers. A study by Hen, Wu and Ung (2008) showed that work experience in the health profession is a protective factor.

Further study by Samir, Mohamed, Moustafa and Saif (2012) stated that the more experienced a healthcare provider is, the less chance of violence the healthcare provider will face.

The outcome of this study suggest a higher physical violence incidence as compared to other studies by Abreu and Cordoso, (2003), Martino, (2002) , Boafo, Hancock and Gringart, (2016) but corroborates with a study by Cheung, Lee and Yip, (2017 among healthcare providers in Macau.

A large proportion of the physical violence occurred inside the health facility according to this present study. This study is congruent with a study by Philips (2016) in America, which showed that a lot of physical violence occurs in the healthcare facilities across several countries in the world. The study further found that majority of healthcare providers were also verbally abused in the hospital facilities, with only a few of these incidents occurring in a patient's home and outside the health facility. Some of the healthcare providers were concerned about the opinion that the verbal abuse against them could have been prevented. A study by Boafo (2018), indicated that this feelings was due to the disrespect from the verbal abuse and a taint on their dignity which made them dissatisfied with their work. Consequently, more than half of the healthcare providers saw the verbal abuse to be a work hazard and as part of the healthcare and did not see the verbal abuse against them as an important issue. This results corroborates a study by Anwar et al (2016).

In the current study, the emergency ward was the department/ward of the hospital facilities where physical violence was experienced the most. This study is in concordance with studies by Philips (2016), Hen et al. (2008) and Anwar, El-shabrawy, Ewis, and Khalil (2016) but contrary to a study by Lin and Liu (2005) whose study stated that psychiatry

ward experienced the most physical violence. With verbal abuse, it was predominantly high in the general medical wards, maternity wards and the emergency wards. This study is similar to Samir et al. 2012 and Anwar et al. 2016 but disagrees with studies by Philips (2016) and Hen et al (2008).

Consequently, the outcome of this study showed that a lower proportion of healthcare providers are attacked with weapons (physical violence), the result from this study is in keeping to a study by Hen et al (2008) in Taiwan. The proportion of healthcare providers who got injured from the physical attacks in this study were low. This study corroborates with a study by Boafo (2017) who found that approximately 21% of healthcare providers got injured. In that same study, his results showed that a large majority of the healthcare providers who got injured did not seek formal treatments for their injuries. This is similar to this present study.

Female healthcare providers suffered majority of verbal abuse than their male colleagues. This could be due to the fact that males are seen as the authority figure in the family and in Ghanaian society and so they are revered more than females according to Boafo (2018).

Results further showed that married healthcare providers were the category of healthcare providers who were frequently abused verbally than their colleagues who were single, separated and widows/widowers. This finding is contrary to that of Boafo (2018) whose study found out that, married healthcare providers were the least verbally abused due to the sense of responsibility that is associated with being married in the Ghanaian society.

Relatives of patients have been identified to be the group of people who are responsible for physical violence against healthcare providers. The patient/clients, the management/supervisor and others (colleague or staff member) were also perpetrators of physical violence according to this current study. This is consistent with studies by Boafo

(2016), Rayan, Qurneh, Elayyan and Baker (2016) and Samir, Mohamed, Moustafa and Saif (2012) but contrary with a study by Martino (2002) which stated that patients were the main perpetrators of physical violence.

Also, the main perpetrators for the verbal abuse were the relatives of the patients. Results from this research showed that the patients/clients, the staff members and the management/supervisor were also perpetrators of verbal abuse. The outcome of the research is similar to a research by Cheung et al (2017), Samir et al (2012) and Boafo (2012). Boafo (2016) suggested that overcrowding in government hospitals, insufficient staff and bad infrastructure are some of the main reasons leading to frustration and discontent among patients and their relatives. This in turn increases their predisposition to expressing their frustration and discontent through verbal abuse.

According to a study by Baig et al. (2018), there are five major reasons perpetrators of both physical and verbal abuse against healthcare providers. These included; failure of healthcare providers to meet the expectations of sick clients and their relatives, ineffective communication between the healthcare provider and the sick clients and their relatives, human error on the part of healthcare providers, unexpected outcome such as death, and very poor healthcare delivery. Also, another study by Hartley (2011) suggests that the contributing factors for violence against healthcare workers are the poor security protocols in the various healthcare institutions as most of the staff are not educated on safety and how to protect themselves against violence and ineffective healthcare policies.

Additionally, when patients are made to wait for a very long time before being attended to, they become frustrated and stressed, misunderstandings between patients and healthcare providers, the time of working shift and unrestricted visitors access to the hospitals are major factors that contribute to violence against healthcare providers (Albert, 2018).

According to Philips (2016), overcrowding in the hospital wards and when the relatives of patients are given bad news such as death or a bad prognosis of a disease can eventually lead to violence against healthcare providers.

Also, Health (2005) stated that high level of stress on the patients and their relatives makes them vent out their frustration and abuses on the healthcare providers. The lack of good security measures also was a factor. The movement of visitors in the hospital facility has to be controlled. Visitors must only be allowed to see their relatives during visit hours. Due to the inadequate number of security personnel in the hospital facilities, healthcare providers are not fully protected. Gaps in the legislation systems where perpetrators are not punished and the long time it takes for a trial demoralizes healthcare providers to pursue prosecution against the perpetrators.

The findings of the current study showed a positive association between the sex, the category of healthcare provider and the department/ ward of the healthcare provider and physical violence. This means that the sex of a healthcare provider makes him or her vulnerable to being abused physically. Also the category of a healthcare provider made the person vulnerable to physical violence. That is to say, being a nurse or a support staff (maintenance or security) makes the healthcare provider prone to more physical violence than being a doctor. This is because in the Ghanaian setting, respect is given to doctors. A patient's relative will physically attack other healthcare providers easily than a doctor. Bofo (2018). Consequently, the ward or department a healthcare provider finds himself or herself was also a factor for them to be physically abused. The results showed that a healthcare provider in the emergency ward or in a general medical ward suffers more physical violence than those in other wards.

Also, a positive association was found between age, the category of healthcare providers, working experience and the department and ward in the health facility and verbal violence. The results show that the age category of a healthcare provider makes him or her vulnerable to being verbally abused. Moreover, the category of the healthcare provider makes the person prone to encounter verbal violence. As this is due to the fact that in Ghana, patients and their relatives tend to respect doctors more than other healthcare providers and so verbal violence against them is predominantly low as compared to others (Boafo, 2018).

The years of working experience is also a factor of verbal abuse. This study shows that healthcare providers who were older and had worked for many years, experienced less verbal abuse compared to the younger ones. This was because of the respect and reverence given to older and matured people than to the youth in the Ghanaian society. Also it is seen to be a taboo to insult an elderly. The general medical wards, the labor and maternity wards and emergency wards were predominantly the wards that healthcare providers were abused the most. Being a healthcare provider in these wards makes one vulnerable to being abused verbally.

5.1 LIMITATION TO THE STUDY

The limitation of the study is that it involved healthcare providers working in the three public hospitals in the Tamale Metropolis. Its findings may not be applicable to healthcare providers in other regions of Ghana and private hospitals.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

The findings of this study shows that healthcare providers suffer more verbal violence than physical violence. Patient relatives were the most perpetrators of both physical and verbal violence against healthcare providers. Nurses were the category of healthcare providers that suffered the most violence both physical and verbal violence. Sex, category and department of the healthcare providers expose them to physical violence. Age, profession, work experience and department or ward of healthcare providers were risk factors associated with verbal violence.

6.2 RECOMMENDATION

First, violence against healthcare providers must be clearly defined in every institution and systems for reporting cases of violence, put in place in all health facilities. Hospitals authorities must have clear reporting protocols where healthcare providers who experience any form of violence can report to.

Also, healthcare providers should be encouraged by the hospital authorities to report all forms of violence against them to the authorities. Reports of violence by healthcare providers must be acted upon by the hospital authorities and the necessary support provided. Appropriate monitoring and support systems including counseling must also be in place for healthcare providers to assess when they experience violence.

Moreover, healthcare providers must be trained to ways and how to protect their selves in cases of physical violence. Healthcare providers should further be trained on how they can be tolerant towards bad attitudes of patients and their relatives in cases of verbal violence.

Finally, it is important that hospital authorities ensures that security is boosted at the various government hospitals. More security personnel can be employed and deployed into the various wards to help protect healthcare providers from being attacked or abused. Staff must be educated on safety, de-escalation, self-defense measures as well as how to cope with aggressive patients.

REFERENCES

- Abdellah, R. F., & Salama, K. M. (2017). Prevalence and risk factors of workplace violence against healthcareworkers in emergency department in Ismailia, Egypt. *Pan African Medical Journal*. <https://doi.org/10.11604/pamj.2017.26.21.10837>
- Abdul-Aziz, A., Munyakazi, L., & Nsowah-Nuamah, N. (2013). Modeling length of stay in hospital using generalized linear models: A case study at Tamale Teaching Hospital. *American International Journal of Contemporary Research*, 3(1), 148–157.
- Abeongo, H. K. (2018). FACTORS INFLUENCING SECONDARY INFERTILITY AMONG WOMEN IN THE TAMALE METROPOLIS IN THE NORTHERN REGION OF GHANA.
- Abreu, D., & Cardoso, S. (2003). Workplace Violence in the Health Sector Country Case Study – Brazil.
- Alert, S. E. (2018). SEA_59_Workplace_violence, (59).
- Anwar, M. M., El-shabrawy, E. M., Ewis, A. A., & Khalil, D. M. (2016). Patterns , Prevalence and Impact of Violence against HealthcareWorkers in Beni-Suef Governmental Hospitals, 34(4), 69–83.
- Ardayfio-schandorf, E. (2005). Violence against women : The Ghanaian case, 11–14.
- Awudu, L. (2018). OCCUPATIONAL HEALTH AND SAFETY PRACTICES AMONG HEALTHCARE WORKERS IN SOME SELECTED HOSPITALS IN TAMALE METROPOLIS.
- Baig, L. A., Shaikh, S., Polkowski, M., Ali, S. K., Jamali, S., Mazharullah, L., ... Arif, S. (2018). Violence Against HealthcareProviders: A Mixed-Methods Study from Karachi, Pakistan. *Journal of Emergency Medicine*, 54(4), 558-566.e2. <https://doi.org/10.1016/j.jemermed.2017.12.047>
- Balamurugan, G., Treesa, T., & Nandakumar, P. (2012). Patients ' violence towards nurses : A questionnaire survey, 1(1), 1–7.
- Boafo, I. M. (2016). Ghanaian nurses' emigration intentions: The role of workplace violence. *International Journal of Africa Nursing Sciences*, 5, 29–35. <https://doi.org/10.1016/j.ijans.2016.11.001>
- Boafo, I. M. (2018). The effects of workplace respect and violence on nurses' job satisfaction in Ghana: A cross-sectional survey. *Human Resources for Health*, 16(1), 1–10. <https://doi.org/10.1186/s12960-018-0269-9>

- Boafo, I. M., Hancock, P., & Gringart, E. (2016). Sources, incidence and effects of non-physical workplace violence against nurses in Ghana. *Nursing Open*, 3(2), 99–109. <https://doi.org/10.1002/nop2.43>
- Centre for Health Information Management of the Policy, Planning, M. and E.-G. H. S. (2017). The Health Sector in Ghana: Facts and Figures 2017, 1–50. <https://doi.org/10.1596/978-0-8213-9599-8>
- Cetinkaya, F. (2018). Evaluation of the Violence Experienced by Nurses of Different Generations and their Strategies for Coping with the Stress Resulting from Violence, 11(3), 1756–1762.
- Cheung, T., Lee, P. H., & Yip, P. S. F. (2017). Workplace violence toward physicians and nurses: Prevalence and correlates in Macau. *International Journal of Environmental Research and Public Health*, 14(8), 1–15. <https://doi.org/10.3390/ijerph14080879>
- Child, R. J. H., & Mentis, J. C. (2010). Violence Against Women : The Phenomenon of Workplace Violence Against Nurses, (1999), 89–95. <https://doi.org/10.3109/01612840903267638>
- Fuseini, R. (2016). AN ASSESSMENT OF CHILD HEALTH PROGRAMMES IN THE TAMALE.
- Ghana Statistical Service. (2014). Tamale metropolis. *District Analytical Report: Tamale Metropolis*, x.
- Hartley, D. (2011). Workplace Violence in the Healthcare Setting. *NIOSH: Workplace Safety and Health*. Retrieved from <http://www.medscape.com/viewarticle/749441>
- Hen, W. C., Wu, H. H., Ung, S. K., Hiu, H. C., & Ang, J. W. (2008). Prevalence and Determinants of Workplace Violence of Healthcare Workers in a Psychiatric Hospital in Taiwan, 288–293.
- Hoskin, C. M. (2018). From Verbal Insults to Death : The Reality of Workplace Violence in Healthcare, (September 2017).
- Konlan, K. D., Kombat, J. M., Wuffele, M. G., & Aarah-Bapuah, M. (2016). Knowledge and attitudes of midwives on the use of the partogram: a study among midwives in the Tamale Metropolis. *Maternal Health, Neonatology and Perinatology*, 2(1), 2. <https://doi.org/10.1186/s40748-016-0030-0>
- Lin, Y., & Liu, H. (2005). The impact of workplace violence on nurses in South Taiwan, 42, 773–778. <https://doi.org/10.1016/j.ijnurstu.2004.11.010>
- Martino. (2003). Relationship of Work Stress and Workplace Violence in the Health Sector. *Geneva: ILO/ICN/WHO/PSI Joint Programme on Workplace Violence in the*

- Health Sector*, World Health Organization.
<https://doi.org/10.1080/00420988420080521>
- Martino, V. (2002). Workplace violence in the health sector. Country case studies Brazil, Bulgaria, Lebanon, Portugal, South Africa, Thailand and an additional Australian, 1–42. <https://doi.org/10.1016/j.ejca.2014.10.030>
- Mayhew, C., Chappell, D., Mayhew, C., & Chappell, D. (2003). contents THE OCCUPATIONAL VIOLENCE EXPERIENCES OF 400 AUSTRALIAN HEALTH WORKERS : AN EXPLORATORY STUDY, 19(6).
- Ministry of Health, G. (2015). The Health Sector in Ghana: Facts and Figures. *Ministry of Health*, 1–50. <https://doi.org/10.1596/978-0-8213-9599-8>
- Mondlane, U. E. (2003). VIOLENCE AGAINST HEALTH PERSONNEL IN SOME HEALTHCAREUNITS IN MAPUTO CITY.
- Otoo, D., Sebil, C., & Amponsah, S. K. (2014). MATHEMATICAL MODELING OF DOMESTIC VIOLENCE AND ITS TRENDS , CASE STUDY TAMALE METROPOLIS , GHANA Contribution / Originality, 4(8), 436–447.
- Phillips, J. P. (2016). Workplace Violence against HealthcareWorkers in the United States. *New England Journal of Medicine*, 374(17), 1661–1669. <https://doi.org/10.1056/NEJMra1501998>
- Programme, J., Violence, W., & Sector, H. (2003). Workplace Violence in the Health Sector Workplace Violence in the Health Sector Portuguese Case Studies.
- R. Rajbhandari, S. Subedi, H. K. (2015). Workplace Violence against Health Workers : A Cross-Sectional Study from International Journal of Health Sciences and Research Workplace Violence against Health Workers : A Cross-Sectional Study from, (March).
- Rayan, A., Qurneh, A., Elayyan, R., & Baker, O. (2016). Developing a Policy for Workplace Violence against Nurses and HealthcareProfessionals in Jordan : A Plan of Action, 4(2), 47–55. <https://doi.org/10.12691/ajphr-4-2-2>
- Samir, N., Mohamed, R., Moustafa, E., & Saif, H. A. (2012). Nurses ’ attitudes and reactions to workplace violence in obstetrics and gynaecology departments in Cairo hospitals, 18(3), 198–204.
- Steinman, S. (2003). Workplace Violence in the Health Sector, country case study: South Africa. *Ilo/ Icn / Who / Psi*, 12, 14–16. [https://doi.org/10.1016/S0002-8703\(27\)90209-9](https://doi.org/10.1016/S0002-8703(27)90209-9)

The World Health Report. (2006). Health Workers: *The World Health Report 2006*.

UC Berkeley. (2017). Who is considered a Healthcare Provider/Practitioner? | Human Resources. *Human Resources: Frequently Asked Questions*. Retrieved from <https://hr.berkeley.edu/node/3777>

WHO. (2014). WHO condemns rising violence against health care workers. *Who*. Retrieved from <http://www.who.int/hac/events/HCWviolence/en/>

World Health Organization. (2011). WHO | Definition and typology of violence. *Who*.

APPENDICES

APPENDIX A – INFORMATION SHEET

STUDY TITLE: VIOLENCE AGAINST HEALTHCARE PROVIDERS IN THE TAMALE METROPOLIS

INTRODUCITON: I am Samuel Opare Larbi, a student at the University of Ghana. School of Public Health offering Masters in Public Health. I am conducting a research on the topic “Violence against Healthcare Providers in the Tamale Metropolis” in partial fulfillment of the award of a Master of Public Health degree. My contact details are as follows;

Address: P.O.BOX 277, TECHIMAN

Mobile: 0242380063

E-mail: samueloparelarbi@gmail.com

Location: University of Ghana Campus

BACKGROUND AND PURPOSE OF RESEARCH: The purpose of this study is to determine violence against healthcare providers in the Tamale Metropolitan

NATURE OF RESEARCH: The study seek to estimate the prevalence of physical and verbal violence against healthcare providers, also to determine the category of healthcare providers who experience the most violence, to determine the perpetrators of physical and verbal violence against healthcare providers and to determine the factors associated with physical and verbal violence on healthcare providers in the Tamale Metropolis. This study will take place at the Tamale Teaching hospital, Tamale West Hospital and Tamale Central Hospital where four hundred and forty six (476) healthcare providers will be used in the study.

PARTICIPANTS INVOLVEMENT: Participants will be required to fill a short questionnaire, which will not take more than ten (10) minutes of their time. All the participants can read or write as they are health professionals and so they can fill the questionnaires on their own.

BENEFITS: The study will help put measures in place to combat the issue violence against healthcare providers in Ghana. Participants may benefit directly and indirectly from the study, as they will gain a better understanding on violence and the institutions in place to contact when they encounter such violence.

COST: In this study, no cost will be incurred since the study will be conducted out of the free will of the healthcare providers.

COMPENSATION: Participants who partake in the study will be given a small token after the interview is completed as a form of appreciation.

CONFIDENTIALITY: Code numbers will be used for the participants and not their personal names and the data collected will be kept under lock and key and used solely for the purpose of research.

VOLUNTARY PARTICIPATION/WITHDRAWAL: Participation is voluntary and participants have the right to decline to participate and also withdraw from the study at any time without penalty and without having to give any reasons.

OUTCOME AND FEEDBACK: The data collected will be analyzed and interpreted for the purpose of the research. After which the data collected will be discarded a few months after the study is entirely completed. The results of the study will be published in journals and social media platforms to allow everyone the opportunity to know the finding and to be used as existing literature for future research.

FUNDING INFORMATION: The Principal Investigator solely funds this study.

SHARING OF PARTICIPANTS INFORMATION/DATA: Participants are reassured that the data collected will not be shared with any individual or organization and will be used solely for research purposes by the Principal Investigator.

PROVISION OF INFORMATION & CONSENT FOR PARTICIPANTS: A copy of the Information sheet and consent form will be given to you after it has been signed or thumb-printed to keep.

For further clarifications or questions, kindly contact the following;

Mr. Samuel Opare Larbi Dr. Ernest Maya Ms. Hannah Frimpong

Prin. Investigator

Supervisor

GHS-ERC Administrator

0242380063

UG, Legon

0243235225

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INFORMED CONSENT FORM

STUDY TITLE:

Violence against Healthcare Providers in the Tamale Metropolis

PARTICIPANTS INFORMATION

I acknowledge that I have read the purpose and contents of the participants' Information Sheet read and the purpose has been satisfactorily explained to me in a language that I fully understand the contents and any potential implications as well as my right to change my mind (thus, withdraw from the study) even after I have signed/thumb printed this form.

I voluntarily agree to be part of this research.

Respondent Name/Initials.....

Signature/thumbprint/Mark.....

Date.....

INVESTIGATOR STATEMENT AND SIGNATURE

I certify that, the details of this study at large have been thoroughly explained to the participant and all questions and clarifications raised were duly attended to.

Researcher Name.....

Signature..... Date.....

APPENDIX B: QUESTIONNAIRE

QUESTIONNAIRE

Please complete the questionnaire by either ticking boxes or writing in the spaces provided.

If you don't know how to answer one question, just go on to the next one.

PERSONAL AND WORKPLACE DATA

1. What is your age at last birthday.....

2. Are you: Male Female

3. What is your marital status? Single Married Separated /Divorced
Widow/Widower

4. Which category best describes your present professional group: Doctor/Physician
 Nurse

Midwife Pharmacist Ambulance Administration/Clerical Technical
staff (laboratory/sterilization) Support staff (kitchen/maintenance, security)

Other, please specify: _____

5. Which category best describes your present position? Senior Staff Junior Staff

Other, please specify: _____

6. How many years of work experience in the health sector do you presently have?

7. Where do you spend most of your time (more than 50%) in the hospital on your main job?

General medicine General surgery Labor ward Pediatric ward

Psychiatric

Emergency Operating room Intensive care Specialized unit (e.g. Eye unit,
ENT unit,

Radiology) Technical services (laboratory, sterilization) Support services
(kitchen, maintenance)

PHYSICAL WORKPLACE VIOLENCE

PLEASE NOTE: 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.

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

Yes, please answer questions 1.1. - 1.15.

No, if NO, please go to question 2

1.1. If yes, please think of the last time that you were physically attacked in your place of work.

How would you describe this incident?

Physical violence without a weapon Physical violence with a weapon

1.2. Do you consider this to be a typical incident of violence in your workplace?

Yes No

1.3. Who attacked you? Patient/client Relatives of patient/client Staff member

Management / supervisor Other, please specify: _____

1.4. Where did the incident take place?

Inside health institution or facility At patient's/client's home Outside (on way to work / health visit / home)

1.5. At which time did it happen? 08.00am- 2.00pm. 2.00pm– 8.00pm. 8.00pm. – 8.00am

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

Yes No

1.8. Were you injured as a result of the violent incident?

Yes No; if NO, please go to question 1.9.

1.8.1. IF YES, did you require formal treatment for the injuries?

Yes No

2.0 In the last 12 months, have you witnessed incidents of physical violence in your workplace?

Yes No; if NO, please go to question 3.0

3.0 Have you reported an incident of workplace violence in the last 12 months? (Witnessed or

Experienced) Yes No

VERBAL ABUSE

1.0 In the last 12 months, have you been verbally abused in your workplace?

Yes No

2.0 How often have you been verbally abused in the last 12 months?

All the time Sometimes Once

3.0 Please think of the last time you were verbally abused in your place of work. Who verbally abused you?

Patient/client Relatives of patient/client Staff member Management / supervisor

External colleague/worker General public Other:

4.0 Do you consider this to be a typical incident of verbal abuse in your workplace?

Yes No

5.0 Where did the verbal abuse take place?

Inside health institution or facility At patient's/client's home Outside (on way to

work/health visit/home) Other: _____

8.0 Do you think the incident could have been prevented? Yes No

APPENDIX C: APPROVAL LETTERS