UNIVERSITY OF GHANA

SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

AGGRESSION AND VIOLENCE IN MENTAL HEALTH INPATIENT UNITS: A CASE STUDY AT THE ACCRA PSYCHIATRIC HOSPITAL.

BY

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THIS DISSERTATION SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE MASTER OF PUBLIC HEALTH DEGREE

MAY, 2019.

DECLARATION

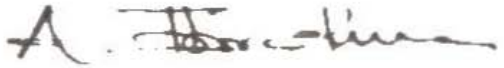
I hereby declare that apart from specific references which have been acknowledged this Research Proposal is my own work put together.

29th May, 2019

Signature Date

AngelaAdomaa Hanson Adjei-Sarpong

(Student)



28th MAY, 2019

Signature Date

Dr. Abdallah Ibrahim

(Supervisor)

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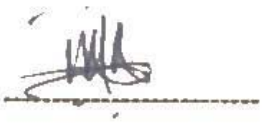

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28th MAY, 2019

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Dr. Abdallah Ibrahim

(Supervisor)

DEDICATION

This thesis is dedicated to the Almighty God for being the source of my strength throughout this course, to my husband Mr. Joseph B. Nsiah for his tremendous support and encouragement and to my entire family.

I also dedicate it to all health workers working in psychiatric units in Ghana.

ACKNOWLEDGMENT

First and foremost I thank the department of Health Policy Planning and Management.

I also thank my dear lecturers of School of Public Health, especially my able, dedicated and meticulous supervisor Dr. Ibrahim Abdallah, all of whom contributed immensely and in various ways towards achieving this great success.

May God bless you all.

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APH	Accra Psychiatric Hospital
VAPS	Violence and Aggression of Patients Scale

ABSTRACT

Background: The incidence of aggression and violence towards healthcare workers appear to be an everyday issue (Spencer et al., 2010). This is because, with patients who are mentally ill, there is always a cause for aggression and violence due to a combination of factors such as intense mental distress and personality, physical environment and behaviour and attitudes of healthcare workers. The study sought to achieve three objectives at the Accra Psychiatric Hospital: to examine the prevalence of aggression and violence, assessed the effect of aggression and violence on the output of inpatient health workers, as well as assessed the hospital's management response to aggression and violence.

Methods: The study adopted a quantitative approach. Purposive sampling method was used in selecting 100 health care workers. Similarly, the study reviewed hospital records on violence and aggression for the period 2012 to 2016. The dependent variable for the study was level of work output while aggression and violence was the independent variables. Stata 15.1 was used to process the data as well as a descriptive and inferential statistics in the analysis.

Results and Conclusion: The results of the study revealed that cases of aggression and violence were prevalent, especially in male patients than in female patients. On the effect of aggression and violence on work output, inpatient health workers identified experiences of being bitten, shouted at, kicked, hit and pushed by patients, and these subsequently led to anxiety, depression and extra workloads or duty after work. It was also revealed that inpatient health workers who had been shouted at, were likely to be productive than those who had ever been shouted at. This was the same case as inpatients that had never experienced violence. They were more likely to be productive than those who experienced violence. The hospital's management response to

aggression and violence by patients was through the use of medication, seclusion and negotiation.

Given these points, it may be said that issues of aggression and violence towards inpatient health workers were inevitable at the Accra Psychiatric Hospital. The study recommended that mental health institutions should employ more inpatients health workers to relieve the overburdening of already existing inpatient health workers ratio.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Every day, around the world, healthcare workers put in a lot of work to provide optimal care for patients within their healthcare facilities and legislative framework. Even so, health care workers are the main targets of violence and aggression from patients (Spencer, Stone & McMillan, 2010). Precisely, around the world, in the health care sector, one in two healthcare workers is a target of acts of aggression and violence, and nurses are three times vulnerable to acts of aggression and violence than other healthcare worker group (International Labor Organization, 2002).

In defining aggression and violence, Di Martino (2000) observes that there is no generally accepted definition due to the varying perceptions of what constitutes violent and aggressive behaviours in other cultures and social backgrounds. In other words, in some cultures and societies, the limits between acceptable and unacceptable aggressive and violent behaviours can be vague. Nonetheless, Di Martino (2000) defines aggression as the intent to cause harm. In other words, aggression is more or less a feeling of hostile behaviour or a threat of attack, while violence is actually the use of physical force injure or abuse another. From the perspective of mental health units, the incidence of aggression and violence towards healthcare workers appear to be an everyday issue (Spencer et al., 2010). This is because, with patients who are mentally ill, there is always a cause for aggression and violence due to a combination of intrinsic and extrinsic factors (Harwood, 2017). Some examples of the intrinsic factors include physical

symptoms or intense mental distress and personality, while some of the extrinsic factors include attitude and behaviour of healthcare workers and other people, physical environment of the health facility and restrictions with respect to the movement and actions of the patients in the health facility (Harwood, 2017).

Various studies have identified violence and aggression as a primary hazard in the work environment for mental health care practitioners (Whittington & Richter, 2006; Iozzino et al., 2015; Inoue, Tsukano, Muraoka, Kaneko &Okamura 2006; McCann, Baird &Muir-Cochrane 2014). A study done by Owen, Tarantello, Jones &Tennant (1998) in Sydney, Australia which was primarily aimed at predicting aggressive and violent behaviors, revealed an eight-level scale of violent and aggressive cases recorded by staff within a period of seven-month. Thus using the scale, among 1,289 violent cases 58% was serious. A prospective data from three adult acute psychiatric units in a general hospital and two units in a primary psychiatric hospital on violent cases was used. Similarly Middleby-Clements (2009) conducted a study which was aimed at examining the link between health professional attitudes and subsequent aggression by mental health inpatients. The study basically explored patient views on how staff manages aggression. The outcome of the study disclosed that patients reported that the interpersonal factors of mental health staff were important contributor to their aggression. Similarly, high staff rigidity was linked with low tolerance for patient aggression.

In Ghana, the stigma towards people with mental disorder is usually due to deep-rooted fears about aggression and violence (Drew et al., 2011). For this reason, using the Accra Psychiatric Hospital as a case study, this study examined the impact of aggression and violence on performance at the mental health inpatient unit.

1.2 Statement of the problem

In mental health units, particularly detained patients with symptoms of severe mental illness and personality issues especially in psychiatric intensive care, aggression and violence are very much common (Antonysamy, 2013). Even though violence and aggression are common, inpatient health workers, especially nurses working in mental health inpatient units should not deny it as an unavoidable part of their roles (Spencer, Stone & McMillan, 2010). This does not mean that detained patients with symptoms of mental illness are dangerous. Instead, adequate management, more precisely the knowledge and skill in managing violent and aggressive behaviour or potentially violent and aggressive patients may in fact help them get well and better, and lessen the need for restrictions whilst caring for the patients (Stone, 2009). But that is not entirely the case. In the last few years at the Accra Psychiatric Hospital, nurses have embarked on a several demonstrations to draw attention to the issue of lack of medication (Accra Psychiatric Hospital, 2014). The issue of lack of essential medication such as tranquilizers to sedate and calm aggressive and violent behaviours of patients always put the nurses at risk in the health facility. This situation, along with the issue of poor quality and quantity of feeding patients compound the already difficult working conditions of nurses at the hospital. This necessitates a need to undertake this research to find out about the prevalence of aggression and violence at the Accra Psychiatric Hospital, the effect of aggression and violence on the productivity of inpatient health workers at the facility (Accra Psychiatric Hospital), as well as the management response to acts of aggression and violence at the health facility (Accra Psychiatric Hospital).

1.3 Research questions

i. What is the prevalence of aggression and violence at Accra Psychiatric Hospital?

ii. What is the effect of aggression and violence on productivity of inpatient health workers at Accra Psychiatric Hospital?

iii. How is management response to aggression and violence at Accra Psychiatric Hospital?

1. 4Significance of the study

The study will highlight the prevalence, effect and how to manage the dynamics of aggression and violence at mental health facility and Hospital Authority response at the Accra Psychiatric Hospital. Thus, the findings of the study will help individuals, health workers and patients, and health institutions to be acquainted with the dynamics of aggression and violence in psychiatric impatient units. The study will further add to the already existing literature on this topic and also serve as a reference or baseline data for other students and researchers who wish to further research on this topic or other similar ones.

1.5 Objectives of the study

1.5.1 General objective

To examine the dynamics of aggression and violence at the Accra Psychiatric Hospital (APH)

1.5.2 Specific objectives of the study

i. To assess the prevalence of aggression and violence at Accra Psychiatric Hospital.

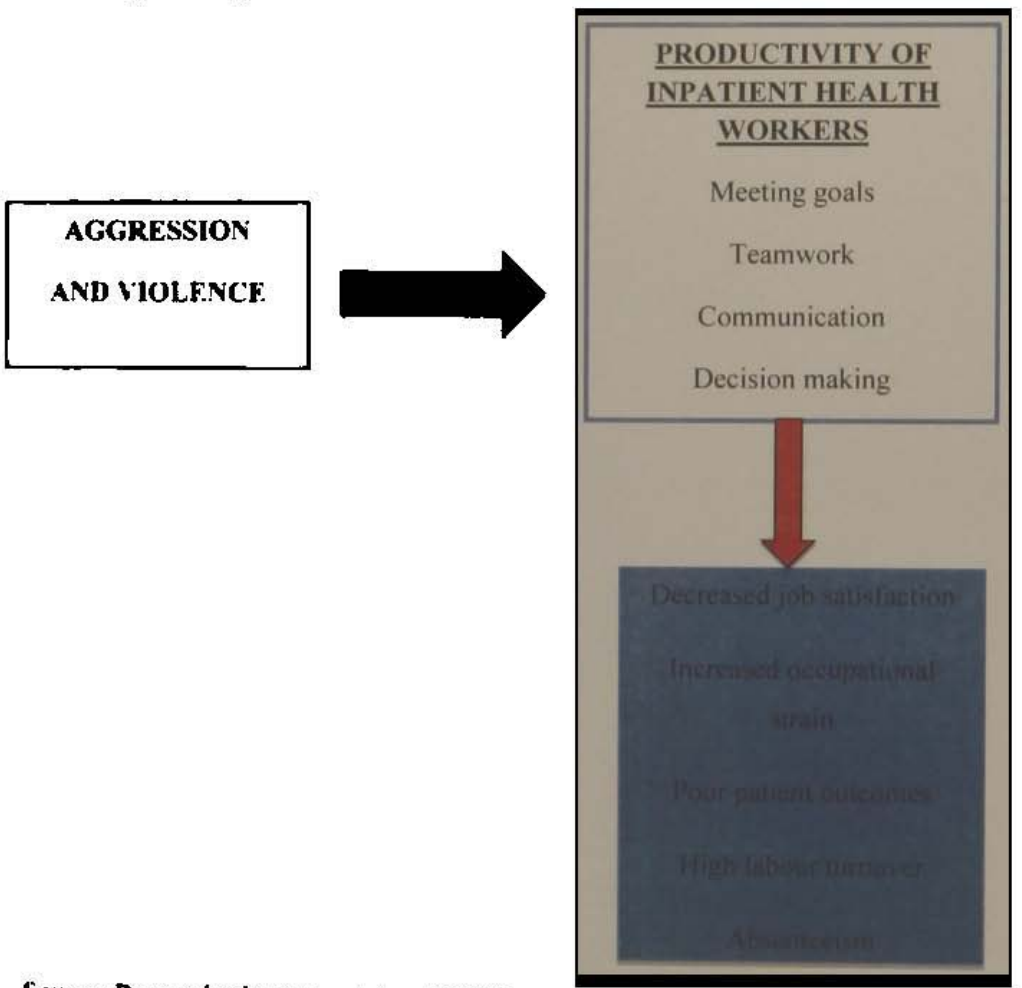
ii. To determine the effect of aggression and violence on productivity of inpatient health workers at Accra Psychiatric Hospital.

iii. To assess Hospital management's response to aggression and violence at Accra Psychiatric Hospital.

1.6 Conceptual Framework

A conceptual framework is an asset consisting of a wide range of thoughts as well as perceptions reviewed from related studies and presented in another subject of study (Reichel & Ramey, 1987). The illustration below therefore interprets the magnitude or effect of the independent variables on the dependent.

Figure 1: Conceptual framework indicating the effect of aggression and violence on the work output of inpatient health workers.



Source: Researcher's own construct (2019)

The above figure indicates how aggression and violence by patients with symptoms of mental illness and personality issues affect the work output and the attitudes of inpatient health workers. As shown in the figure above, the output of inpatient health workers, in terms of meeting goals, teamwork, communication, decision making and work habits are affected by the verbal and physical assault of patients with symptoms of mental illness and personality issues. Consequently, this results in decreased job satisfaction, increased occupational strain and poor patient outcomes on the part of inpatient health workers, high turnover of absenteeism, fractures and other physical injuries.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section is a review of related literature from books, peer-reviewed journals, and articles on aggression and violence in mental health units. The review focused on definition of aggression and violence, the prevalence of aggression and violence in psychiatric hospitals, the effect of aggression and violence on productivity of inpatient health workers at the psychiatric hospital, and the Hospital management response to aggression and violence at the psychiatric hospital.

2.2 Definition of aggression and violence

Aggression is generally defined as a behavior that aims to harm another individual (Bushman & Huesmann, 2010; DeWall, Anderson& Bushman, 2012). On the other hand, violence is referred to as an extreme form of aggression that leads to severe physical harm, for instance, serious injury or death as its objective (Bushman et al., 2010; Huesmann & Taylor, 2006). Thus, aggression can be seen as behaviors that include pushing at the low end of the spectrum and violence may include such extremes as murder at the upper limit of the spectrum. Consequently, all acts of violence could be considered examples of aggression, but not all aggressive acts can be recognized as examples of violence (Allen & Anderson, 2015).

Violence and aggression experienced by nurses working in mental health inpatient units was observed to be a general event (Eisenstark, Lam, McDermott, Quanbeck, Scott &Sokolov, 2007). It was reported by Eisenstark et al. (2007) that every year, about a quarter of the population of

nurses who work in the mental health public medical centers in the USA seriously get injured subject to violent incidences.

Hamrin, Iennaco and Olsen (2009) posited that psychological –environmental factors or the complex interaction of patients, staff and inpatient unit cultural influences result in the aggressive and violent nature of psychiatric patients. Also, it may be due to the inability of patients, especially elderly patients with dementia to effectively communicate their need (Duxbury, Pulsford, Hadi & Sykes, 2013). Other factors may include poor staff-to-patient interactions or the environment of care (Duxbury, Pulsford, Hadi& Sykes, 2013; Pulsford, Duxbury & Hadi, 2011). Moreover, overcrowding, lack of privacy, lack of activities, weak clinical leadership, denial of services, and restricting patients' freedom are some factors found to trigger aggression and violence (National Institute for Health and Clinical Excellence, 2011; Almvik, Rasmussen & Woods, 2006; Papadopoulos, Ross, Stewart, Dack, James & Bowers, 2012).

2.3 The prevalence of aggression and violence in Psychiatric Hospitals

Iozzino, Ferrari, Large, Nielssen and de Girolamo (2015) conducted a meta-analysis covering a period of twenty years (from 1995 to 2014) to assess the occurrence of violence in psychiatric hospitals in developed nations. The researchers revealed that out of the 23,972 inpatients involved in 35 studies, about 17% of the patients were found to have at least committed an act once. The pooled proportion of patients who committed at least one act of violence was 17%.The study findings also indicated a higher prevalence of inpatient violence committed by patients with schizophrenia, involuntary patients, and patients with alcohol use disorder. Furthermore, the study also recorded a higher proportion of male patients being violence as well (Iozzino et al.,

2015). The study further found that practically an act of violence may result from about one out of five patients who are admitted to the acute psychiatric unit.

A study conducted by Schablonet al., (2012) involving health workers from 39 facilities on the prevalence and effects of aggressive assaults on employees in the German healthcare system revealed that78% of the total population of health workers understudied suffered verbal aggression whiles 56% experienced physical violence. The study observed that physical violence in inpatient geriatric care recorded the highest frequency. Also, it was found that younger workers compared to the older workers had a greater chance of being physically violated. The study concluded that violence committed against nurses as well as other healthcare personnel predominantly occurred.

Krüger and Rosema (2010) did a study on risk factors for violence among long-term psychiatric in-patients and comparednon-violent with violent patients. Data on violent incidents and other security breaches were collected for 262 long-term in-patients covering a period of six months from April 2007 to September 2007. The study results showed a prevalence of 16% of violence among the long-term patients. . The study found fighting among patients to be the most prevalent form of violence. The occurrence of violence among the long-term patients were observed to be due to a diagnosis of mental retardation; habitual verbal aggression; disorganized behaviour; first hospital admission before the age of 40 years; current accommodation in a closed ward; and being clinically evaluated as unsuitable for community placement.

Lepiešová et al., (2015) in a study assessed the experience of staff nurses from selected hospitals in all regions of Slovakia of inpatient aggression in their past year of practice. The study was a

quantitative cross-sectional study that included of a sample of 1,042 nurses from medical, surgical, and psychiatric wards, and emergency and intensive care units. The study used the self-reference instrument to gather data on the Violence and Aggression of Patients Scale (VAPS). It was found after analysis that 97.4% of nurses have been confronted with patient aggression. Also, the study observed that almost all the nurses understudied precisely about 96.8% suffered verbal aggression whiles 83.3% of the nurses experienced physical aggression. . The study revealed that patient aggression was predominantly committed against psychiatric unit and the intensive care ward unit nurses.

In Spencer et al (2010) study on violence and aggression in mental health inpatient units, it was found that the violence and aggression cases reported were directed at the nurses. Consequently, the study found 78% reported cases of violence and aggression directed at nurses. This percentage is above 50% which implies that nurses are experiencing violence and aggression every day. The study adopted a qualitative research design where literatures were reviewed.

Olupona, Virk, Ishola and Akerele (2017) also conducted a study on the aggression rate in acute inpatientpsychiatric unit. The study aimed at reporting on the aggression rate in acute inpatient adult psychiatric units. The study was conducted by retrospectively reviewing 63Electronic Medical Records on violent and aggressive incidents reported by the staff over a period of six months. The study revealed that about 73%of aggressive incidents were reported by the staff. Consequently, 39 (53%) were patient-on-patient whereas 16 (20%) were patient-on-staff.

Owen, Tarantello, Jones and Tennant (1998) study on violence and aggression in psychiatric units also found that a total of 1289 cases of violent incidents were recorded over a period of seven months in Sydney, Australia at a general hospital and two units in a primary psychiatric

hospital. The aim of the study was to predict the aggressive and violent behaviors and the frequency. Therefore the study gathered data on violent incidents prospectively.

2.4 The effect of aggression and violence on the inpatient health workers at the Psychiatric Hospital

Aggression and physical violence in psychiatric hospitals is a serious problem, not only due to the probable injury to patients and the health personnel, but also because of the counter therapeutic effects of both violence and measures to prevent violence (Whittington & Richter, 2006; Iozzino et al., 2015). The possible emotional effects of exposure to physical violence on health workers and other inpatients include fear, depression, anger, shock, anxiety and sleep disturbance (Iozzino et al., 2015). Schablon, et al. (2012) also reported that about a third of health workers feel seriously stressed by the violence experienced at the hospital.

d'Ettorre and Pellicani (2017) carried out a study to assess workplace violence toward mental healthcare personnel working in psychiatric wards. The study also sought to examine the effect of the violence on nurses. The study was a systematic review which revealed that violence against healthcare personnel may result in psychological illness if effective interventions are not put in place to prevent it.

Inoue et al., (2006) analysed the psychological impact of verbal abuse and violence by patients on nurses working in psychiatric hospitals. The authors found that aggression and violent attacks might not only cause somatic harms, but then could also have psychological effects with high rates of stress and other squealed for mental health personnel and for the hospital.

A related study conducted by Lantta, Anttila, Kontio, Adams and Välimäki (2016) on violent events, ward climate as well as ways of preventing violence among nurses working in the psychiatric wards also revealed that nurses end up becoming cynical from dealing with violence from patients, as such nurses well-being are impaired which in a long run makes nursing care complicated. The study was aimed at exploring nurses' experiences of violent events in the psychiatric wards, giving insights into the ward climates as well as examining suggestions for violence prevention in the ward. Thus the study adopted a descriptive exploratory design which included focus group and open ended questions in one of the Finnish hospital district.

Spencer et al., (2010) study on violence and aggression in mental health inpatient units also found that nurses become depressed, anxious and work in fear. This in a long run affects them psychologically. The study adopted a qualitative study design where literatures that are related to the study were reviewed.

Owen, Tarantello, Jones and Tennant (1998) study on violence and aggression in psychiatric units also found nurses are prone to experience psychological effect as a result of trauma from physical attacks from patients. The study aimed at predicting the aggressive and violent behaviors and the frequency. Thus the study gathered data on violent incidents prospectively.

2.5 Hospital Management's response to aggression and violence at the Psychiatric Hospital

It is the responsibility of all health care personnel who work in the mental health units or hospitals to manage aggression and its associated risk. There is the need, therefore for the aforementioned groups to learn about the procedure involved in reduce the prevalence of violence and aggression. In addition to that they are required to examine the chances of it occurring, note the measures to identify potential risk, find ways to control the risk through

implementing preemptive interventions and also review methods that are essential for reduction, as well as identify potential risk. (Daffern, Howells & Ogloff, 2007).

McCann, Baird and Muir-Cochrane (2014) assessed the attitudes of clinical staff toward the causes and management of aggression in acute old age psychiatry inpatient surroundings. The study observed that the staff had different views about whether patient aggression could be managed or prevented. The study found that the valuable approach for the management of aggression is the use of medication, also in challenging behavior negotiation could be effectively used; while seclusion and physical restraint were sometimes used more than necessary. Respondents however disagreed about whether the practice of secluding patients should be stopped.

Bock (2011) conducted a study on the attitudes of nurses towards the management of aggression and violence in four different psychiatric hospitals. It was observed that compared to trained personnel, personnel who are not trained in psychiatric nursing science are always found wanting in the management of aggressive and violent patients. The study indicated that these untrained nurses find it difficult to calm patients down; they do not understand the effect of the environment on a patient, and they feel that patients should control their feelings and also lack the perception of trained nurses on the management of aggression and violence at the psychiatric departments.

2.7 Conclusion and Gaps in Literature

In the review of the prevalence of aggression and violence in psychiatric hospitals, the results of the studies (Iozzino et al., 2015; Schablon et al., 2012; Kruger & Rosema, 2010; Lepiešová et al.,

2015; Spencer et al., 2010, Olupona et al., 2017; Owen et al., 1998) open new avenues for future research due to the gaps identified. For instance in the studies by Iozzion et al., (2015), as well as by Kruger and Rosema (2010), the focus was only on the prevalence of the acts of violence towards healthcare workers in psychiatric hospitals. While in the study by Olupona et al., (2017), the focus was only on acts of aggression towards health care workers in psychiatric hospitals. Furthermore, the results of the studies, particularly those conducted by Schablon et al., (2012) and Lepiešová et al., (2015) did not present how their sample population was selected for their respective studies. Also, the time frame of the study conducted by Owen et al., (1998) appeared to be out-of-date, hence the findings of their study may not be relevant to this current study.

Regarding the effect of aggression and violence on inpatient health workers in psychiatric hospitals, it appeared that with the exception of the studies conducted by Inoue et al., (2006) and d'Ettore and Pelliconi (2017), the use of qualitative research methods presented a strong case in the other studies (Lantta et al., 2016; Spencer et al., 2010; Owen et al., 1998). The downside of using a qualitative research approach was the inability to collect large amount of data.

With respect to reviews on hospital management response to acts of aggression and violence in health facilities, it appeared that the studies (McCann et al., 2014; Bock, 2011) using quantitative research methods present a strong case in terms of collecting data. However, the use of quantitative research methods implied that the healthcare workers were restricted to fixed alternatives. This meant that the healthcare workers were not afforded the opportunity to elaborate on their responses.

CHAPTER THREE

METHODS

3.1 Introduction

This chapter presents the various methods that were adopted to help achieve the objectives of the study. The chapter covers study design, study area, study population, variables, sample and sampling techniques, study tool, quality control, data collection stage, data entry and processing, data analysis, ethical consideration/issues, description of subjects involved in the study, potential risks/benefits compensation, privacy/confidentiality, compensation, data storage and usage, voluntary consent, conflict of interest, proposal and funding information, assumptions, limitations, plan of work, budget and budget justification

3.2 Study design

The study adopted a quantitative approach to address the objectives. Quantitative research is needed to describe more precisely the issues acknowledged by quantitative methods (Baker, 2003). Quantitative research approaches are also criticised for their deficiency in depth and insight as the responses on the questionnaires are often pre-coded (Flick, 2009). In spite of this, the strengths of quantitative research approaches allow the researcher to measure and analyse data, enable easier establishment of statistical relationship between an independent and dependent variable and also improve the objectivity of the research findings (Creswell, 2009). To add, the goal of quantitative research is to identify the numeric data or the extent of some phenomenon in the form of number or figure (Zikmund, 2003).

3.3 Study area

Accra Psychiatric Hospital (APH) was the first psychiatric hospital to be built in Ghana, and has undergone major expansion since 1904. The hospital is located in Adabraka, a town in the Accra Metropolitan district, a district of the Greater Accra Region of Ghana. The Hospital is directly opposite the Adabraka Polyclinic and adjacent the Holy Spirit Cathedral. Commissioned in 1906, the hospital currently houses about 1200 psychiatric patients even though it has a bed capacity of 600. The Accra Psychiatric Hospital offers in-patient and out-patient services, limited counselling and therapy, and clinical training for doctors, psychologists and psychiatric nurses (Accra Psychiatric Hospital, 2017).

3.4 Study population

The study population comprises of the health workers at the in-patient units of the hospital. Also the primary prevalence records of patients at the hospital were examined to determine the prevalence of aggression and violence at Accra Psychiatric Hospital.

3.5 Variables

Dependent: The dependent variable was level of work output (productivity) of inpatient health workers.

Independent: while aggression and violence were the independent variables.

3.6 Description of Variables:

Aggression: This is a feeling of anger or generally a behaviour that is threatening. For instance, from the perspectives of patients in mental health units, shouting, insults, stalking, throwing of objects and anger are examples of acts of aggression shown towards health care workers.

Violence: This is using physical force to actually hurt or harm another person. From the perspective of patients in mental health units, biting, sexual harassment, pushing, kicking and strangle-holding are examples of acts of violence shown towards healthcare workers.

Productivity: This is the measure of efficiency of the healthcare workers in mental health care unit of the Accra Psychiatric Hospital.

3.7 Sample and sampling techniques

Purposive sampling method was adopted in selecting the respondents for the study. A sample of 100 health care workers was considered. Similarly, the study reviewed hospital records on violence and aggression for the period 2012 to 2016 such as assault in the form of being beaten, bitten, kicked and pushed, insulted and threatened verbally.

3.8 Study tool

The main instruments used for the study was a questionnaire and a data extraction sheet. The questionnaire contained sections that focused on the bio data of the respondents and sections that dealt with the second and third objectives of the study. The record from the hospital was used to achieve the first objective of the study.

3.9 Quality control

Prior to administering the questionnaire, a research assistant with basic knowledge in the study as well as a data entry clerk was engaged and trained. On a regular basis, the research assistants also be monitored and supervised. On a daily basis before data entry, all completed data was validated or authorized. Also, only completed questionnaires were used. Prior to running the analysis, the data set was cleaned after the data entry process. The ensuing questions focused on the specific objectives

3.10 Data collection stage

Daily visits were made to the study site by principal investigator to make sure that there is strict adherence to the research guidelines. Thereafter, the researcher informed the selected respondents (health workers) about the study details. This was to give the respondents an idea of what to expect from the study. In answering the questionnaire, the respondents were asked to tick or answer appropriately in a list of predetermined questions. At the end of the data collection process, the respondents were thanked will be thanked for their time

3.11 Data entry and processing

The completed questionnaires were coded within 24 hours. Data was entered and cross checked for errors twice by using Microsoft Excel 2013 and then imported into Stata 15.1 which was used to process the data.

3.12 Data analysis

The questionnaires were coded and keyed into the database of the Stata 15.1 for processing. Also, data analysis was done using the descriptive statistics of percentages and frequencies, and inferential statistic of logistic regression. The results were then presented in tables and graphs. For the study, low morale, absenteeism, lateness to work/tardy were coded as dependent variable which was measure as high productivity or low productivity. Similarly, insults by patients, verbal threats and physical attack were coded as independent variables.

3.13 Ethical consideration/issues

Ghana Health Services Ethical Approval

Prior to the beginning of the study, ethical approval was sought from the Ghana Health Service Ethical Review Committee of the Research and Development Division.

Approval from study area

Permission and approval was sought from the hospital administration before data was collected.

3.14 Description of subjects involved in the study

The study populations were clients who visit the health facilities for treatment (Inpatients and outpatients).

3.15 Potential risks/benefits compensation

Both the study population and the society stand to benefit from the study. Study population will have knowledge of quality of health care at the hospital. Also examining the dynamics of aggression and violence in mental health impatient units can be used as a platform for sensitizing policymakers and opinion leaders. Subsequently, programs can be instituted to promote good health, education on the prevalence, impact and Hospital managements' response to aggression and violence in mental health impatient units. This can help reduce the prevalence of aggression and violence in mental health impatient units, and mental illness generally. Results of the study examining the dynamics of aggression and violence in mental health impatient units will help make informed decisions about the health of patients and improve upon care rendered to them, as well as reducing violence and aggression towards health care workers. This research poses minimum potential risk to the study population or society in the sense that some questions may be uncomfortable for the participants.

3.16 Privacy/confidentiality

The questionnaires were given to the respondents on a one on one basis. The processing of the data and analysis will be done as one unit to ensure that no questionnaire result can be traced to a particular respondent. The name of the participants does not appear in final report.

3.17 Compensation

No compensation was given to clients for participating in this research. Their inputs were however recognized and appreciated

3.18 Data storage and usage

Questionnaires were coded and kept under lock and key in a cupboard, and the key was kept by the principal investigator. Data collected was coded and entered within 24 hours of collection, and saved under a password known to only the principal investigator. Soft copy of data was stored on a CD-ROM and external hard drive as well. All data collected will be kept by the principal investigator for 3-4 years to allow for publication of research, after which questionnaires will be destroyed.

3.19 Written informed consent

Written informed consent was sought from study participants before data collected from them. Participation was absolutely voluntary. Respondents were given the opportunity to stop their participation in the study anytime they are tired or want to opt out of the study.

3.20 Conflict of interest

There is no conflict of interest associated with this work since it is solely for academic purpose.

3.21 Proposal and funding information

This research is self-financed by me.

3.22 Limitations

The review of the hospital records has its limitation as it is difficult to ascertain if the information was recorded appropriately.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents the results of the study. The demographic results are first presented followed by results to the specific objectives of the study.

4.2 Demographic data of the respondent

Table 4.1: Demography

	Frequency	Percentage (%)
Age		
20-29 years	52	47.3
30-39 years	55	50.0
40-49 years	3	2.7
50-60 years	0	0.0
Total	110	100.0
Sex		
Male	20	18.2
Female	90	81.8
Total	110	100.0
Educational level		
Certificate	16	14.5
Diploma	62	56.4

Advanced Diploma	0	0.0
Degree	32	29.1
Total	110	100.0
Religion		
Christian	98	89.1
Islam	12	10.9
Traditionalist/ Spiritualist	0	0.0
Total	110	100.0
For how long have you been practicing		
1-4 years	67	60.9
5-9 years	34	30.9
10-14 years	9	8.2
15-19 years	0	0.0
20 years and above	0	0.0
Total	110	100.0

As shown in Table 4.1, 55 (50.0%) of the respondents were 30 to 39 years old, whilst 52 (47.3%) were 20 to 29 years and 3 (2.7%) were 40 to 49 years old.

Most 90 (81.8%) of the respondents were females and 20 (18.2%) were males.

Additionally, a little more than half 62 (56.4%) of the respondents had diploma. Also, 32 (29.1%) had degree and 16 (14.5%) had certificate.

Majority, 98 (89.0%) of the respondents were Christians and 12 (10.9%) were Moslems (Islam).

Finally, most 67 (60.9%) of the respondents stated that they have been practicing for 1 to 4 years. Whilst, 34 (30.9%) practiced for 5 to 9 years and 9 (8.2%) practiced for 10 to 14 years.

4.3 The prevalence of aggression and violence at Accra Psychiatric Hospital

Table 4.2: Form of aggression and frequency of occurrence at the hospital

	Responses		Percent of Cases
	N	Percent	
Biting	19	9.0%	18.6%
Hitting	59	28.1%	57.8%
Kicking	23	11.0%	22.5%
Shouting	87	41.4%	85.3%
Pushing	22	10.5%	21.6%
Total	**210**	**100.0%**	**205.9%**

Table 4.2 shows multiple response on the form of aggression that occurs frequently at the hospital. As indicated in Table 3, 87 (41.4%) of the respondents identified shouting as a form of aggression, this is followed by 59 (28.1%) hitting, 23 (11.0%) kicking, 22 (10.5%) pushing and biting 19 (9.0%).

Table 4.3 Experience of violent behavior

	Frequency	Percentage (%)
Do you experience violent behaviour at the hospital		
Yes	91	82.7
No	19	17.3
Total	110	100.0
How frequent do you experience violent behaviour at the hospital		
Frequently	28	25.5
Sometimes	68	61.8
Rarely	14	12.7
Total	110	100.0
Have you ever been sexually harassed in any way by a		

patient before		
Yes	20	18.2
No	90	81.8
Total	110	100.0
Has a patient physically attacked you before at the hospital		
Yes	46	41.8
No	64	58.2
Total	110	100.0

As indicated in Table 4.3, most 91 (82.7%) of the respondents stated that they experienced violent behaviour at the hospital and 19 (17.3%) they don't.

Most 68 (61.8%) of the respondents stated that they sometimes experience violent behaviours at the hospital, whilst 28 (25.5%) stated frequently and 14 (12.7%) said that they rarely do.

Additionally, most 90 (81.8%) of the respondents said that they had not been sexually harassed by a patient in the past and 20 (18.2%) agreed.

A little more than half 64 (58.2%) of the respondents stated that a patient had not attacked them physically in the past at the hospital and 46 (41.8%) said they had been attacked in the past.

4.4 Productivity (Work output) of inpatient health workers

Table 4.4 Work output of inpatient health workers

	Frequency	Percentage (%)
Do you report to work early		
Yes	97	88.2
No	13	11.8
Total	110	100.0
Are you able to meet your set goals at work		
Yes	80	72.7
No	30	27.3
Total	110	110.0
Have you ever been depressed due to aggression and violence at the hospital		
Yes	33	30.0
No	77	70.0
Total	110	100.0
Have you ever felt anxious due to aggression and violence at the hospital		
Yes	75	68.2
No	35	31.8
Total	110	100.0
Do you take an extra duty after work		
Yes	13	11.8
No	97	88.2
Total	110	100.0
How often do you absent yourself from work		
Often	0	0.0
Very often	0	0.0
Rarely	73	66.4
Not at all	37	33.6
Total	110	100.0

As shown in Table 4.4, most 97 (88.2%) of the respondents stated that they reported to work early and 13 (11.8%) said no.

Most 80 (72.7) of the respondents said they were able to meet their set goals at work and 30 (27.3) stated that they were not.

Additionally, 77 (70.0%) of the respondents stated that they were not depressed due to aggression and violence at the hospital and 33 (30.0%) stated yes.

Also, most 75 (68.2%) of the respondents said they felt anxious due to aggression and violence at the hospital and 35 (31.8%) said disagreed.

Out of 110 (100.0%) of the respondents, 97 (88.2%) said that they had been taken extra duty after work and 13 (11.8%) stated no.

Finally, when respondents were asked on how often they had absented themselves from work, 73 (66.4%) stated rarely and 37 (33.6%) stated not at all.

4.5The prevalence of aggression and violence at the Accra Psychiatric Hospital

This section analyses the prevalence of aggression and violence at the Accra Psychiatric Hospital using records from the hospital from a period of ten years. The report covers the male and female ward between 2008 and 2018. A total of 294 cases of aggression and violence were recorded at the Accra Psychiatric Hospital. Out of the total 294 cases, 156 were male staff and 138 were female staff.

The report revealed that there was prevalence of aggression and violence at the Accra Psychiatric Hospital. The aggression and violence recorded included the use of abusive words including threats, physical assaults on nurses as well as fellow patients like rape, beating of nurses or fellow patients as well as the use of objects to attack nurses and patients.

From the report it was revealed that in 2008, only two cases were recorded in the male ward whereas no case was recorded in the female ward. In the year 2009, nine cases were recorded in both the male and female ward. Consequently the year 2010 saw 18 cases in the male ward and

16 cases in the female ward. In the year 2011, 13 cases were recorded in the male ward and 11 in the female ward. The year 2012 saw one case in the male ward and 14 cases in the female ward whereas in the year 2013, nine cases were recorded in the male ward and five cases were recorded in the female ward. In 2014, 14 cases were recorded in the male ward and 13 cases in the female ward. Furthermore, 2015 had 29 cases in the male ward and 20 cases in the female ward. Consequently, in the year 2016, 22 cases were recorded in the male ward and 16 cases were recorded in the female ward. For the year 2017, 35 cases were recorded in the male ward and 26 cases in the female ward whereas in the year 2018, four cases were recorded in the male ward and eight cases were recorded in the female ward. Based on the report the total number of cases in the male ward record from 2008 to 2018 was 156 cases were in the female ward the total cases recorded was 138.

The report further revealed the highest incidents of violence and aggression reported by the hospital was in the year 2017 with 35 cases in the male ward and 26 cases in the female ward. On the other hand, the lowest incident was in the year 2008 with only two cases in the male ward and no case recorded in the female ward.

4.6 The effect of aggression and violence on the work output of inpatient health workers at Accra Psychiatric Hospital (Using Percentages and Frequencies).

Table 4.5 Aggression and violence behavior

	Frequency	Percentage (%)
Do you experience aggressive behavior at the hospital		
Yes	94	85.5
No	16	14.5
Total	110	100.0
How often do you experience aggression behavior at the hospital		
Frequently	27	24.5
Sometimes	64	58.2
Rarely	19	17.3
Total	110	100.0
Have you ever been bitten by a patient before		
Yes	8	7.3
No	102	92.7
Total	110	100.0
Have you ever been hit by a patient before		
Yes	39	35.5
No	71	64.5
Total	110	100.0
Have you ever been kicked by a patient before		
Yes	20	18.2
No	90	81.8
Total	110	100.0
Have you ever been shouted at by a patient before		
Yes	92	83.6
No	18	16.4
Total	110	100.0
Have you ever been pushed by a patient before		
Yes	40	36.4
No	70	63.6
Total	110	100.0

As indicated in Table 4.5 most 94 (85.5%) of the respondents stated that they had experienced aggression behavior at the hospital and 16 (14.5%) stated disagreed.

Additionally, a little more than half 64 (58.2%) of the respondents stated that they sometimes experienced aggressive behavior at the hospital. On the other hand, 27 (24.5%) frequently experience aggressive behavior and 19 (17.3%) indicated that they rarely do.

Likewise, almost all 102 (92.7%) of the respondents stated that they had been bitten by a patient in the past and 8 (7.3%) said they have never been bitten by a patient.

Furthermore, most 71 (64.5%) of the respondents said that they had been hit in the past by a patient and 39 (35.5%) said they had never been hit by patient.

Additionally, most 90 (81.8%) of the respondents stated that they had been kicked by a patient in the past and 20 (18.2%) they had never been kicked by a patient.

Likewise, most 92 (83.6%) of the respondents said they had been shouted at by a patient in the past and 18 (16.4%) they had never been shouted at by a patient.

Finally, when respondents were asked if they had been pushed by a patient before, 70 (63.6%) said no and 40 (36.4%) said agreed.

4.7 The Effect of Aggression and Violence on the productivity Inpatient Health Workers at Accra Psychiatric Hospital (Using Binary Logistic Regression)aX .

4.7.1 Aggression Related Factors that Influence the Productivity of Inpatient Health Workers at Accra Psychiatric Hospital (APH)

Table 4.6 Percentage Distribution of Productivity by Characteristics of Respondents (n =110)

Characteristics	Number of Respondents	Productivity		Chi-square	P-value
		Low Productivity	High Productivity		
Experience Aggression Behavior				8.487	0.004
Yes	94	30.9%	69.1%		
No	16	68.8%	31.3%		
Frequency of Experience of Aggression Behavior				0.012	0.994
Frequently	27	37.0%	63.0%		
Sometimes	64	35.9%	64.1%		
Rarely	19	36%	63.6%		
Bitten By A Patient				0.005	0.945
Yes	8	37.5%	62.5%		
No	102	36.3%	63.7%		
Hit by A Patient				1.363	0.243
Yes	39	43.6%	56.4%		
No	71	32.4%	67.6%		
Kicked By a patient				1.364	0.243
Yes	20	25.0%	75.0%		
No	90	38.9%	61.1%		

Shouted At By A				11.959	0.001
Patient					
Yes	92	29.3%	70.7%		
No	18	72.2%	27.8%		
Pushed By A Patients				1.100	0.294
Yes	40	30.0%	70.0%		
No	70	40%	60%		

Source: (Field Data, 2018)

The table presents the Percentage distribution of productivity by characteristics (Aggression Related) of the respondents. Among the respondents who agreed they experienced aggressive behaviour at the hospital, most (69.1%) are highly productive whilst (30.9%) have low productivity. Also, most (68.8%) of the respondents who has never experienced aggressive behaviour at the hospital have low productivity whilst (31.3%) have high productivity. This relationship is statistically significant at 5% significance level with a P-value of 0.004

Also, Most (63.0%) of the respondents who frequently experienced aggressive behaviour were highly productive whilst (37.0%) have low productivity. Most (64.1%) of the respondents who sometime experienced aggressive behaviour have high productivity whilst (35.9%) have low productivity. Furthermore, most (63.6%) of the respondents who rarely experienced aggression behaviour equally have high productivity whilst (36.4%) have low productivity. This relationship is not statistically significant.

In addition, among the respondents who have ever been bitten by a patient, most (62.5%) have high productivity whilst (37.5%) have low productivity. Also, most (63.7%) of the respondents

who had never been bitten by a patient have high productivity whilst (36.3%) have low productivity. This relationship is not statistically significant.

Furthermore, a little more than half (56.4%) of the respondents who had ever been hit by a patient have high productivity whilst (43.6%) have low productivity. Also, most (67.6%) of the respondents who had never been hit by a patient have high productivity whilst (32.4%) have low productivity. This relationship is not statistically significant

Also, most (75.0%) of the respondents who had ever been kicked by a patient have high productivity whilst (25.0%) have low productivity. In addition, Most (61.1%) of the respondents who had never been kicked by a patient have high productivity whilst (38.9%) have low productivity. This relationship is not statistically significant

Also, most (70.7%) of the respondents who ever been shouted at by a patient have high productivity whilst (29.3%) have low productivity. In addition, most (72.2%) of the respondents who had never been shouted at by a patient have low productivity whilst (27.8%) have high productivity. This relationship is statistically significant at 5% significance level with a P-value of 0.001

Finally, Most (70.0%) of the respondents had ever been pushed by a patient have high productivity whilst (30.0%) have low productivity. Also, most (60.0%) of the respondents who had never been pushed a patient have high productivity whilst (40.0%) are have low productivity. This relationship is not statistically significant.

4.7.2 Logistic Regression (Aggression Related Factors and Inpatient Health Workers Productivity at Accra Psychiatric Hospital (APH))

Table4.7 logistic Regression (Aggression Related Factors and Inpatient Workers Productivity)

	Low Productivity Versus High Productivity			
	Odds Ratio	95% CI		P-value
Variables		Lower	Upper	
Experience of Aggressive Behavior				
Yes	1.00			
No	4.02	0.957	16.894	0.058
Frequent of Experience of Aggression				
Frequently	1.0			
Sometime	0.464	0.094	2.291	0.346
Rarely	0.492	0.122	1.980	0.318
Bitten				
Yes	1.00			
No	0.652	0.107	3.962	0.642
Hit				
Yes	1.00			
No	0.361	0.129	1.013	0.053
Kicked				
Yes	1.00			
No	2.016	0.549	7.396	0.290
Shouted At				
Yes	1.00			
No	5.114	1.325	19.740	0.018
Ever Pushed				
Yes	1.00			
No	1.593	0.560	4.528	0.382

Source: (Field Data, 2018)

The table presents the result of the logistic regression of the aggression related factors on the productivity of Inpatient health workers at Accra Psychiatric Hospital (APH)

The odds ratio of productivity of inpatient health workers who have not experience aggressive behavior at hospital as compared to those who have experienced aggressive behavior is 4.02, this implies that inpatient workers who have not experienced aggressive behavior are more likely to be productive than who have experienced aggressive behavior at Accra Psychiatric Hospital (APH). This relationship is statistically insignificant at 5% significance level but it is however significant at 10% significance level since the P-value of 0.058 greater than the 5% significant level but less than the 10% significant level.

Also, the odds ratio of productivity of inpatient health workers who had never been hit by a patient is 0.361 compared to a worker who had ever been hit by a patient, this implies that inpatient health workers who had never been hit by a patient are less likely to be productive than those who had ever been hit by a patient. This relationship is equally not statistically significant at 5% significance level but it is however significant at 10% significance level since the P-value of 0.058 greater than the 5% significant level but less than the 10% significant level.

Finally, the odds of productivity of inpatient health workers who had never been shouted at by a patients is 5.114 compared to an inpatient health workers who had ever been shouted at by a patient, this implies that inpatient health workers who had never been shouted at are more likely to be productivity than those who had ever been shouted at by patient. This relationship is statistically significant at 5% significant level since the P-value of 0.018 is less than the 5% significant level.

4.7.3 Violence Related Factors That Influence the Productivity of Inpatient Health Workers at Accra Psychiatric Hospital (APH)

Table 4.8 Percentage Distribution of Productivity by Characteristics of Respondents (Violent Behaviour)

		Productivity		
Characteristics	**Number of Respondent**	**Low Productivity**	**High Productivity**	**P-value**
Experience Violence Behaviour				0.00
Yes	91	28.6%	71.4%	
No	19	73.7%	26.3%	
Frequent of Experience of Violence Behaviour				0.061
Frequently	28	35.7%	64.3%	
Sometimes	68	30.9%	69.1%	
Rarely	14	64.3%	35.7%	
Sexual Harassment				0.889
Yes	20	35.0%	65.0%	
No	90	36.7%	63.3%	
Physically Attacked				0.057
Yes	46	26.1%	73.9%	
No	64	43.8%	56.3%	

Source: (Field Data, 2018)

Most (71.4%) of the respondents who experienced violence behaviour have high productivity whilst (28.6%) have low productivity. Also, most (73.7%) of the respondents who had never experienced violent behavior have low productivity whilst (26.3%) have high productivity. This relationship has a P-value of 0.00 which is statistically significant at 5% significance level.

Also, Most (64.3%) of the respondents who frequently experiences violent behavior have high productivity whilst (35.7%) have low productivity. In addition, most (69.1%) of the respondents who sometimes experiences violent behavior have high productivity whilst (30.9%) have low productivity. Furthermore, most (64.3%) of the respondents who rarely experience violent behavior have low productivity whilst (35.7%) have high productivity. This relationship is statistically insignificant at 5% significance level since the P-value of 0.061 is greater than the 5% significance level.

Furthermore, most (65.0%) who had ever been sexually harassed have high productivity whilst (35.0%) have low productivity. Also, most (63.3%) of the respondents who had never been sexually harassed have high productivity whilst (36.7%) have low productivity. This relationship is statistically insignificant with a P-value of 0.889

Finally, most (73.9%) of the respondents who had ever been physically attacked have high productivity whilst (26.1%) have low productivity. Also, a little more than half (56.3%) of the respondents who had never been physically attacked have high productivity whilst (43.8%) have low productivity. This relationship is statistically insignificant at 5% significance level with a P-value of 0.057

4.7.4 Logistics Regression (Violent Related Factors and Productivity of Inpatient Workers at Accra Psychiatric Hospital)

Table 4.9 Logistic Regression (Violent Related Factor and Productivity of Inpatient Health Workers)

	Low Productivity Versus High Productivity			
		95% CI		P-values
Variables	**Odds Ratio**	**Lower**	**Upper**	
Experience Violence				
Yes	1.00			
No	5.640	1.639	19.405	0.006
Frequency of Violence				
Frequently	1.00			
Sometimes	1.225	0.259	5.797	0.798
Rarely	1.989	0.501	7.896	0.328
Sexual Harassment				
Yes	1.00			
No	0.919	0.291	2.906	0.886
Physical Attack				
Yes	1.00			
No	1.399	0.540	3.626	0.490

Source: (Field Data, 2018)

The table 4.9 presents the logistics regression output of violent related factors and their influence on the productivity of inpatient health worker.

The odds of productivity of inpatient health workers who do not experience violence as compared to those who experience violence is 5.640, this implies that inpatient health worker who do not experience violence are more likely to be productive than those who experience violence. This relationship is statistically significant at 5% significance level since the P-value of 0.006 is less than the 5% significance level.

4.8 Hospital management's response to aggression and violence

Table 10 Hospital management's response to aggression and violence

	Frequency	Percentage (%)
Do management respond effectively to aggression and violence behaviour at the hospital		
Yes	47	42.7
No	63	57.3
Total	110	100.0
Do management resort to medication to manage aggression and violence behaviour at the hospital		
Yes	82	74.5
No	28	25.5
Total	110	100.0
Do management use seclusion as a form of managing aggression and violence behaviour at the hospital		
Yes	96	87.3
No	14	12.7
Total	110	100.0
Do management negotiate with patients as a form of managing aggression and violence behavior at the hospital		
Yes	62	56.4
No	48	43.6
Total	110	100.0

As indicated in Table 10, a little more than half 63 (57.3%) of the respondents stated that management do not respond effectively to aggression and violence behavior at the hospital and 47 (42.7%) said yes.

Most, 82 (74.5%) of the respondents stated that management resort to medication to manage aggression and violence behavior at the hospital and 28 (25.5%) disagreed.

Also, 82 (74.5%) of the respondents said that management used seclusion as a form of managing aggression and violence behavior at the hospital and 14 (12.7%) said no.

Finally, 62 (56.4%) of the respondents said that management negotiate with patients as a form of managing aggression and violence behavior at the hospital and 48 (43.6%) said no.

What other measures are used to respond to aggression and violence behavior by management at the hospital

When respondents were asked about other measures that are used to respond to aggression and violent behaviour by the management at the hospital, some stated that by administering diazepam injection, by prescribing injections, administration of PRN medication (Diazepam, Chlorpromazine), by sedation, use of chemical medicine or communication. Others also stated by counselling at the psychologist (allowing patients to voice out all his/her problem), seclusion and separation if the aggression is at a result of provocation from a mate.

CHAPTER FIVE

DISCUSSIONS

5.1The prevalence of aggression and violence at Accra Psychiatric Hospital

Between the periods of 2008 and 2018, a total of 294 cases of aggression and violence were recorded at the Accra Psychiatric Hospital. Out of the total 294 cases, 156 were male staff and 138 were female staff. However, with the exception of the year 2012 (1 male and 14 females) and the year 2018 (4 males and 8 females), as well as the year 2009 where the same number of cases (9) were recorded in male and female staff, all the other years have seen more cases of aggression and violence in males than in females. Most (61) cases of aggression and violence was recorded in the year 2017. More specifically, the report revealed that there were 35 cases of aggression and violence in male staff, and 26 in female staff in the year 2017. The lowest cases of aggression and violence were recorded in the year 2008. Here, there were two (2) cases of aggression and violence, and they were all committed by males. In summary, the report revealed that cases of aggression and violence were more in males than in females. This is similar to the study by Iozzino et al., (2015) who revealed that compared to female patients, there were higher proportions of male patients who were aggressive and committed acts of violence.

5.2 The effect of aggression and violence on the work output of inpatient health workers at Accra Psychiatric Hospital.

Results obtained from the study showed that majority (85.5%) of the respondents had had experiences of aggressive and violent behaviours by patients. Though some of the respondents

cited being hit, kicked, shouted at, and pushed by a patient, most (92.7%) of them indicated being bitten as their experience of aggression and violence by a patient. With respect to the aggressive behaviour that occurred frequently, most (41.4%) of the respondents identified shouting even though there were other aggressive behaviours such as hitting, kicking, pushing and biting. In the case of violent behaviours, majority (82.7%) of the respondents indicated that they had experiences. Overall, it may be said that health workers at the Accra Psychiatric Hospital experienced aggressive and violent behaviours by patients. These findings were similar to the findings of the study carried out by Lantta et al., (2016) on nurses' experiences of violent events in psychiatric wards, which revealed insights into ward climates, as well as suggestions for violence prevention. The results of the study revealed that nurses experienced aggressive and violent behaviours such as shouting, kicking, pushing, slapping and biting.

The study also revealed that inpatients health workers who had never been shouted at by a mental health patients were more likely to be productive than those who has ever been shouted at. This may be because in patient health worker who experienced shouting would be frightened and lose control, and any time they were to attend to a mental health patient, the memory of ever been shouted at or the fear of being shouted would be provoked and this could seriously affect their productivity and the vice versa is true for those who had never experienced shouting, that is, they would have control and work effectively and efficiently which would increase their productivity. This was similar to the study conducted by Spencer et al., (2010), which identified fear as one of the many aftermaths of the acts of aggression and violence towards health care workers.

Also, the study revealed that nurses or inpatient health workers who never experienced violence of any form are more likely to be productive than those who has ever experienced violence. This

may be as a result of the fact that violence in nature impedes growth and development and productivity as well. That is when the health worker experience violence it can have a physical harm on them or it can have an emotion depression on them, in which ever way it would affect their productivity. Similar results were obtained by Lantta et al (2016) who conducted a study on the effects of violence on the performance of nurses and concluded that nurses become cynical on dealing with violence from patient and nurses' wellbeing could be affected and this could make nursing complicated.

5.3Hospital management's response to aggression and violence

On the response to aggressive and violent behaviours by patients, most (57.3%) of the respondents indicated that it was not effective though several response measures, including medication, seclusion and negotiation with patients were highlighted. In summary, though the hospital used seclusion, medication and negotiation with patients as ways of managing aggression and violence, they were not effective. The results are similar to the study conducted by McCann (2014) on the attitudes of clinical staff towards the causes and management of aggression in acute old age psychiatry inpatient surroundings. Findings from the study revealed medication, negotiation with patients and seclusion as the management response to aggression and violence by patients.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Introduction

This chapter concludes the study and as well as make recommendation for policy makers and further research.

6.2 Conclusion

The study aimed at examining the prevalence of aggression and violence at Accra Psychiatric Hospital; the effect of aggression and violence on the work output of inpatient health workers at Accra Psychiatric Hospital; as well as the management response to aggression and violence at Accra Psychiatric Hospital.

From the study, cases of aggression and violence are prevalent in male patients than in female patients. On the effect of aggression and violence on work output, inpatient health workers identified experiences acts of aggression and violence in the form of being bitten, shouted at, kicked, hit and pushed by patients, and these subsequently lead to anxiety, depression and extra workloads or duty after work. It was also revealed that inpatient health workers who had never been shouted are more likely to be productive than those who had ever been shouted at, also patient who had never experienced violence were more likely to be productive than those who had ever experienced violence. however, the inpatient health workers indicate that the prevalence of aggression and violence by patients do not have any significant effect on their ability to report to work early, achieve set goals at work or being absent from work.

With respect to the management response to aggression and violence by patients, the inpatient health workers identify agree to the use of three measures, including medication, seclusion and negotiation. However, they (inpatient health workers) indicate that these measures are not effective.

6.3 Recommendation

1. The results revealed that inpatient health workers are burdened with work duties due to aggression and violence by patients. To this end, the study suggests health institutions should bring in new tools, and employ more inpatients health workers to relieve the overburdening of already existing inpatient health workers.
2. From the study, it was revealed that inpatient health workers experienced several forms of aggression and violence by patients such as biting, shouting, kicking, hitting and pushing and to some extent shouting at the inpatients health worker and other violent activities affect their productivity to reduce the prevalence of these physical attacks and aggressive behaviours and to increase the productivity of inpatient health workers, the study recommends that, health institution should organize de-escalation training programs for the inpatient health workers. The training should focus more on competent interactions respecting patients' perspectives such as listening, distracting and re-focusing the patient on something positive, using humour, giving choices and setting limits.
3. The study recommends that future studies should include more inpatient health workers, as well as other hospitals to help make a better generalisation of the study findings.

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APPENDICES

APPENDIX 1:

QUESTIONNAIRE

I am a student from the University of Ghana undertaking a research project in Partial Fulfillment of the Requirements for a Masters Degree in Public. Please you are assured that information given for this project will remain confidential and will be used only for academic purposes. Indicate your choice by ticking appropriately and feel free to comment where necessary.

Section A: Demographic data.

Q#	QUESTION	ANSWER	CODE
1.	Age	a) 20-29 years [ ] b) 30-39 years [ ] c) 40-49 years [ ] d) 50-60 years [ ]	AGE
2.	Sex	a) Male [ ] b) Female [ ]	GENDER
3.	Educational Level	a) Certificate [ ] b) Diploma [ ] c) Advanced Diploma [ ] d) Degree [ ]	EDUCA

		e) Other (Please specify)..... f)	
4.	Religion	a) Christian [ ] b) Islam [ ] c) Traditionalist/Spiritualist [ ] d) Other [ ]	RELIG
5.	For how long have you been practicing?	a) 1-4 years [ ] b) 5-9 years [ ] c) 10-14 years [ ] d) 15-19 years [ ] e) 20 years or more [ ]	LENPRACT

Section B: Aggression and violent behaviour

Q#	QUESTION	ANSWER	CODE
	Aggression		
6.	Do you experience aggression behaviour at the hospital?	a) Yes [ ] b) No [ ]	DABAV
7.	How often do you experience aggression behaviour at the hospital?	a) Frequently [ ] b) Sometimes [ ] c) Rarely [ ]	OFTABH

8.	What form of aggression occurs frequently at the hospital? *(Tick more than one if possible)*	a) Biting [ ] b) Hitting [ ] c) Kicking [ ] d) Shouting [ ] e) Pushing [ ]	FORMAGR
9.	Have you ever been bitten by a patient before?	a) Yes [ ] b) No [ ]	HBTEN
10.	Have you ever been hit by a patient before?	a) Yes [ ] b) No [ ]	HBNT
11.	Have you ever been kicked by a patient before?	a) Yes [ ] b) No [ ]	HYEBK
12.	Have you ever been shouted at by a patient before?	a) Yes [ ] b) No [ ]	HYSPB
13.	Have you ever been pushed by a patient before?	a) Yes [ ] b) No [ ]	HBPB

Q#	QUESTION	ANSWER	CODE
	Violence		
14.	Do you experience violent behaviour at the hospital?	a) Yes [ ] b) No [ ]	DYEVB

15.	How frequent do you experience violent behaviours at the hospital?	a) Frequently [ ] b) Sometimes [ ] c) Rarely [ ]	HFDVB
16.	Have you ever been sexually harassed in any way by a patient before?	a) Yes [ ] b) No [ ]	HSHP
17.	Has a patient physically attacked you before at the hospital?	a) Yes [ ] b) No [ ]	HPPAB

Section C: work output of inpatient health workers.

Q#	QUESTION	ANSWER	CODE
18	Do you report to work early?	a) Yes [ ] b) No [ ]	DYRWE
19	Are you able to meet you set goals at work?	a) Yes [ ] b) No [ ]	AYBMG
20	Have you ever been depressed due to aggression and violence at the hospital?	a) Yes [ ] b) No [ ]	HYEBD
21	Have you ever felt anxious due to aggression and violence at the hospital?	a) Yes [ ] b) No [ ]	HYEAV

22.	Do you take on extra duty after work?	a) Yes [ ] b) No [ ]	DYTED
23.	How often do you absent yourself from work	c) Often d) Very often e) Rarely f) Not at all	HODAW

Section D: Hospital management's response to aggression and violence

Q#	QUESTION	ANSWER	CODE
24.	Do management respond effectively to aggression and violence behaviour at the hospital?	a) Yes [ ] b) No [ ]	DMREB
25.	Do management resort to medication to manage aggression and violence behaviour at the hospital?	a) Yes [ ] b) No [ ]	DMRM
26.	Do management use seclusion as a form of managing aggression and violence behaviour at the hospital?	a) Yes [ ] b) No [ ]	DMUSM
27.	Do management negotiate with patients as a form of managing aggression and violent behaviour at the hospital?	a) Yes [ ] b) No [ ]	DMNP
28.	What other measures are used to respond to aggression and violent behaviour by management at the hospital?	Please state.....	

Thank you

APPENDIX 2:

CONSENT FORM

Purpose of the study

I am AngelaAdomaa Hanson Adjei-Sarpong of University of Ghana Public Health School. This questionnaire is for a survey to acquire data for my MPH research on the topic: "Aggression And Violence In Mental Health Inpatient Units: A Case Study At The Accra Psychiatric Hospital". The study has been approved by the Ethical Review Committee of Ghana Health Service.Information obtained would be used for purely academic purposes and treated with absolute confidentiality. Please tick as appropriate. Thank you for your time.

Privacy/ Confidentiality

Also to ensure anonymity and confidentiality, respondents will not be required to write their names

Data Storage and Usage

The questionnaire used by the study will be under the care of the principal investigator. The hard copy will be coded into the data base of statistical software. The hard copy of the data will be under lock whiles the soft copy will be saved on a computer under a password known only to the principal investigator. A back up of the soft copy will also be kept on a pen drive and kept under lock by the principal investigator.

Voluntary Withdrawal

Participation in this study is strictly voluntary. Thus, you are at liberty to withdraw from the study at any time. However, your answers are greatly needed to help this research meet its objectives.

Compensation

There will be no pressure on individuals to participate as respondents and no incentives will be provided to respondents.

Please do you have any questions you wish to ask about the study? Yes/No

If yes, please, indicate below

.....

.....

If you have any questions later please, contact AngelaAdomaaHansonAdjei-Sarpong(+233) 244707487.

I agree to participate.

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Signature Date

Signature Page

AngelaAdomaa Hanson Adjei-Sarpong

(STUDENT)

.....

.....

(SUPERVISOR)

.....