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INCIDENCE OF VIOLENT ATTACKS ON PSYCHIATRIC NURSES AND FACTORS THAT INFLUENCE THEM IN NEURO-PSYCHIATRIC HOSPITALS IN SOUTHWEST, NIGERIA

Temitope Elizabeth Opaleye and Joseph Oyeniyi Aina

Department of Mental Health Nursing, Babcock University, Ilisan-Remo, Nigeria

ABSTRACT: *Violent attack on psychiatric nurses is a serious act that has great impact on the individual and the society. Objective of this study was to determine the incidence of attacks and the factors influencing these attacks on nurses in the two Federal Neuro-psychiatric Hospitals in Southwest, Nigeria. The survey employed mixed method. Total enumeration of nurses whose name were found in the incidence books were used for data collection through interview between 2015 and 2020. Rate of occurrences of violent attack on nurses were more of physical violence; physical assault (81%) and physical threat (13%), while verbal abuse was (6%). Male patients at about 65% were involved in attacking nurses. Both nursing gender were at risk of attacked by the patients but male have higher incidence rate of about 55%. Patients' personal characteristics and environmental factors were responsible for these attacks. Using of violence assessment form will help early detection.*

KEYWORDS: Violent Attack, Psychiatric, Neuro-Psychiatric, Nurses, Hospitals, Nigeria

INTRODUCTION

A violent attack on psychiatric nurses is a serious act that has great impact on the individual nurse and other nurses in the society, and this may affect the society at large. Many nurses have experienced or suffered violence at one time or the other in the hand of patient but kept it to themselves so that they would not be seen as weakling, inexperienced or as an object of ridicule. The World Health Organization (WHO, 2016) reported that each year, more than a million people lose their lives, and many more suffer non-fatal injuries, as a result of interpersonal violence. The incidence of violence faced by workers in contact with people in distress is so common that it is often considered an inevitable part of the job. Health care workers especially nurses are the recipients of this situation (International Labour Organization, 2015).

Violent attack is a common phenomenon in the healthcare settings especially in psychiatric institutions. There is a wide variation in the rates at which violent attacks were reported in psychiatric wards (Lozzino, Ferrari, Large, Nielssen, & de Girolamo, 2017), though it is a common phenomenon. Violent attacks by patients against nurses in acute psychiatric wards have significant implications for both patients and the nurses (Stevenson, Jack, O'Mara & LeGris, 2015).

Violence against nurses in psychiatric in-patient wards has been described as a serious occupational issue (d'Ettorre & Pellicani, 2017). It was observed to be mostly endured and under-reported, despite being a global occurrence (Olashore, Frank Hatitchki & Ogunwobi, 2015). Violence in acute psychiatric wards affects the safety of patients, patients' relatives and

all healthcare workers in such settings. Nurses, being the closest to the patients are in close interaction with both patients and their relatives. Nurses are at risk of violent attacks (Niu, Kuo, Tsai, Kao, Traynor & Chou, 2019). Violence has been identified as a serious problem while violent attacks on nurses is ranked one of the worst occupational hazards just after police and firefighters on rates of injury and even death experienced on the job (American Nurses Association, 2015). Violence is found to be present in many work sectors. According to study of over 7,000 emergency care nurses in the United States (US) reported that 54% of this population had experienced physical violence or verbal abuse within a week showing the extent of occurrence of violent attack in health institutions (Phillip, 2016). This indicated that violent attack is not limited to psychiatric wards as nurses from other nursing specialization such as public and community health nurses also reported violent attacks from both psychiatric and non-psychiatric home visit which was reported from a study on Japanese nurses' experience (Fujimoto, et al. 2018). This also accounted for many physical injuries being reported weekly by emergency care nurses in spite of the fact that there were many cases that were under-reported of violence (WHO, 2018). According to the US National Institute for Occupational Health (NIOSH) (Hartley, & Webb, 2017), patients have been found to constitute 48% of them that assault nurses. The violent attacks are serious occurrences in psychiatric settings even though they have been underreported (Pekurinen, et al. 2017).

Violent attacks by patients against mental health nurses are universal with an increasing consequence on the nurses (Itzhaki, et al. 2018). The mental health nurses spend longer hours than other health professionals. According Cheung and Yip (2017) nurses receive a great deal of workplace violence and it is identified as a serious challenge especially by nurses working at inpatient wards.

According to Phillip (2016), predisposing factors associated with violent attacks vary and are consider to be patients' person and environment characteristic. These factors include gender, age, mode of admission, marital states and diagnosis. Lovell and Skellen (2017), said that such history as aggressive behavior, substance abuse, self-destructive behaviour and environmental factor in addition to factors related to violent attack against nurses

Assault on mental health nurses by patients is not limited to verbal abuse but includes physical threats with plans and eventual physical attacks on mental health nurses while on duty. Mental health nurses that encountered violent attacks do feel insecure, disturbed and sometimes often helpless in such instances. Much attention is needed to be directed towards patients' violent attacks in mental health setting, as the encounter seems to produce severe problem that needs not to be disregarded.

According to Ramacciati, Ceccagnoli, Addey and Rasero (2017), many studies on violence have focused on types of aggression, its nature, likely causes, victims as well as the risks involved. Physical and verbal aggression have also been found to be common types of violence experienced by nurses (Ferri, Silveri, Artoni, & Lorenzo, 2016). Pich, Kable, and Hazelton (2017), attributed causes of violence to the level of nurse's education, workplace structure and patient aggressiveness.

Violence in mental health care settings is daunting and stressful, as well as increasingly burdensome for professionals in low/middle income countries, specifically Africa (Oyelade & Ayandiran, 2018). Campbell (2017) reported that attacks on mental health staff increased above 25% within 5-years in England, from 33,620 to 42,692. Researchers also observed in an

extensive study of 38 countries, 93.5% of violent attacks on nurses in psychiatric settings were by patients (Jiao, et al. 2015).

Violence towards mental health nurses though not new in Nigeria except that many of these incidences are under-reported, while those reported and action taken were not documented nor published unlike in developed countries. The resultant effect of the violent attacks against health workers especially mental health nurses and sometimes among co-patients necessitated the need to determine the prevalence and factors influencing violent attacks on nurses in psychiatric hospitals.

Statement of the Problem

Violent attacks against healthcare workers in psychiatric settings are a serious occupational issue. Over 42,000 mental health workers with Mental Health Trust reported assault in 2016 and 2017 (Robinson & Grant, 2017). The consequences resulted in increased costs of healthcare services; reduced quality of care rendered by mental health workers especially nurses who have constant interaction with the patients (d'Ettorre & Pellicani, 2017). WHO (2019) reported that between 8 and 38 percent of healthcare workers suffer physical violence in the process of performing their job. Nurses in psychiatric settings are more exposed to patients' violent attacks than other mental healthcare workers (Olashore, et al. 2018). Over 80% of nurses in psychiatric hospitals had experienced patient attack at one point or the other during their careers. These experiences led to low morale, fear of attack, high job turnover, absence from duty and reduced productivity (Iozzino, et al. 2015). Rothärmel and Guillin (2017) also reported that 1 out of every 5 patients in psychiatric hospitals commit an act of physical violence during hospitalization. 67% of the 1534 respondents on study among Dutch mental health professionals reported one form of violent attack or the other in the past years (van Leeuwen & Harte, 2017). About Eighty-Seven percent of mental health nurses were reported to have experienced assault from patients in Heilongjiang Province of China (Zhao, et al. 2018). Workplace burn-out among mental health nurses have been associated with patients' violent attack (Yanga, Stone, Petrinia, & Morris, 2017). Patient violent attacks on mental health nurses have great consequences on the nurses as well as the psychiatric hospitals.

According to the U.S. Bureau of Labour Statistics (2018), 80 percent of nurses were reported to have been attacked within one year and healthcare workers were for about 70 percent of nonfatal violence at workplace requiring days of excused duties compared to other professionals.

The researcher was once slapped by a patient in a drug recovery unit when he was seriously agitating for cannabis and would not gain access to any, became unduly irritable and aggressive. Many a time, patients have been reported to shout at nurses, calling them unpalatable names. Apart from being a victim, the researcher had witnessed many assaults on colleagues; both nurses and other healthcare workers in mental healthcare settings. There was a situation in 2018 whereby a patient bit off the left ear lobe of a mental health nurse because he was not permitted to leave the ward. At another time, a patient hit a mental health nurse with an iron table that led to profuse bleeding in the nurse. Many of these assaults can be related to patient's personal and environmental factors. It is on these bases the researcher intended to look at the incidence of attacks and the factors influencing these attacks on nurses in the two neuro-psychiatric hospitals in Southwest, Nigeria.

Objective of the Study

The general objective of this study was to determine incidence of attacks and the factors influencing these attacks on nurses in the two neuro-psychiatric hospitals in Southwest, Nigeria. The specific objectives are to:

- Determine the rate of occurrence of patients' attacks on nurses;
- Identify the patients' personal factors likely to be responsible for these attacks on nurses;
- Determine the environmental factors responsible for these attacks on nurses;

Research Questions

1. What is the prevalence of occurrence of violent attacks on nurses?
2. What are the patients' personal factors that are responsible for these attacks on nurses?
3. What environmental factors are responsible for these attacks on nurses?

Justification for the Study

Psychiatric setting has been associated with violent behaviours often exhibited by the patients suffering from mental illness as a result of the disequilibrium in the cognitive and social ability of the patient. This state of disequilibrium is associated with some biological and psychological dysfunction such as increase secretion of acetylcholine which triggers muscle contraction and excitation of the central nervous system involved in wakefulness, anger and aggression personality resulting in violent behaviour due to mild irritation, frustration and often unconscious abnormal behaviour from psychotic features such as hallucination.

As a result of the Nurses being closer to the patient and often spent more hours with them, therefore at risk of violence and aggressiveness which may result in verbal abuse or physical assault. Therefore, the need to assess the incidence of violent attack on nurses and the factors influencing the attack.

Scope of the Study

This study was on the incidence of violent attacks on psychiatric nurses and the factors influence these attacks on them. It is limited to the two selected federal mental health institution in the Southwest; Neuro-psychiatric Hospitals, Aro and Yaba. Only those would have been attacked by patients between 2015 and 2020 would constitute the respondents of the study.

Significance of the Study

The findings of this study might be of great importance to nurses generally but specifically to those nurses who work in psychiatric institutions. It may help the nurses to understand the rate of occurrence and the likely factors responsible for violent attacks on mental health nurses. It will also help the institutions to be proactive against violent attacks on nurses and other health workers in psychiatric hospitals. This study will enhance assessment of patients/clients for risk of violence hence strategizing against occurrence and reduction of violent attacks on mental health nurses.

Operational Definition of Terms

Incidence: This is the number of violent attacks on nurses as documented between January 2015 and January 2020 in psychiatric hospitals in the southwest.

Violent Attack: This is the occurrence of physical and verbal assault on nurses while on duty at psychiatric hospitals in the southwest**.**

Nurses: Qualified psychiatric-mental health nurses, licensed to care for individual's diagnosed of psychiatric disorders.

Factors: The situations associated with patients in psychiatric hospitals leading to violent attacks; which are personal and environmental factors. Personal factors include biological causes such as diagnosis of psychotic problem, gender such as being male; other causes which includes, patients' wishes such as craving for drug, family insincerity; and environmental factors such as the ward environment being overcrowded; not well lit, organizational safety culture such as ward arrangement, security outfit, manpower supply and safe climate.

LITERATURES/THEORETICAL UNDERPIN

This chapter covers the relevant literatures that highlights the conceptual review on definitions of violence, types of violence, mental health nurses, factors influencing violence in mental health setting and implications of violent attacks. Empirical review, theoretical framework and its application, and summary of the literature review.

Conceptual Review

Violence is a critical state that is common wherever there is human existence, though not acceptable phenomena (Epstein, 2020). It is an identified public health challenge (Salami & Dada, 2016). According to WHO (2020), there is no mutual acceptable definition for violence but violence can be defined in regards to its occurrence and consequences. Violence is a major public health problem and the cause of harm and death of many people, hence, can be defined as the threatened or actual physical force by one person or group against another. It may be intentional or unintentional and could cause physical injury or death (Miller, 2019). The World Health Organization (2020) defines violence as "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation. When violence occurs at workplace or in the process of discharging one's legal core duty as professional, hence, the term workplace violence (WHO, 2020). This type of violence is applicable to violent attacks being experienced by healthcare workers generally in which psychiatric nurses are the most targeted victims. Workplace violence is the act or threat of violence, ranging from verbal abuse to physical assaults directed toward persons at work or on duty. (National Institute for Occupational Safety and Health, 2019). According to International Labour Organization, International Council of Nurses, World Health Organization and Public Services International defines Workplace Violence can be defined as "Incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit

challenge to their safety, well-being or health" (Pandey, Bhandari, & Dangal, 2018, p. 235). According to National Institute for Health and Care Excellence (NICE) (2015), violence is the use of physical force, verbal abuse, threat or intimidation, which can result in harm, hurt or injury to another person. Aggression is a hostile behaviour or threat of attack, both are part of a larger group of challenging behaviours: non-verbal, verbal or physical actions which make it difficult to deliver quality care, which most nurses reported to range from verbal aggression, sexual harassment, to physical attack (Yang, et al, 2018). This violence involves bullying while on duty and may involve threats to professional status, threats to personality of individual, isolation, occupational stress and destabilization. Health care professionals such as ambulance workers, nurses and those who have one on one contact are at risk of workplace violence. ILO (2018) concluded that any form of harassment at work with the aim of violating the dignity of the professional at work is a serious workplace violence.

Violence and other forms of abuse are most commonly understood as a pattern of behaviour intended to establish and maintain control over family, household members, intimate partners, colleagues, individuals or groups (Harwood, 2017). Violence and abuse are used to establish and maintain power and control over another person, and often reflect an imbalance of power between the victim and the abuser (Cheung & Yip, 2017).

Types of Violence

Generally, violence has been broadly categorized into three with further subcategorization according to the nature of the violence. According to WHO (2020) world violence report, types of violence depends on characteristics of those committing the violent act: self-directed violence; interpersonal violence; collective violence. This typology differentiates between the violence a person inflicts upon himself or herself, those inflicted by another individual or by a small group of individuals on another person, and violence inflicted by larger groups such as states, organized political groups, militia groups and terrorist organizations, on the populace.

Violence against mental health nurses fits into which is inflicted by another person. Most of the violence at workplace comprises verbal threats, assault such as stalking, physical assault, sexual harassment or rape (Phillips, 2016). The nature of violent acts, according to WHO report include physical, sexual and psychological. Fujimoto, et al. (2018) described physical violence as any act of aggression in which the patient deliberately and forcefully hits a care provider with any part of his or her body or with an object, intending to inflict either physical or psychological injury on the target.

Psychiatric-Mental Health Nursing

Psychiatric - mental health nursing is the "specialty concerned with the application of psychiatric principles and nursing care provided in caring for the mentally ill patient" (Santhini, 2019, p. 79). This is a field of study that specializes in the prevention and management of various psychotic disorders such as schizophrenia, anxiety disorder, mood disorders, substance abuse, Alzheimer's disease and other forms of dementia. Nurses in this area receive more training in psychological therapies, building a therapeutic alliance, dealing with challenging behavior, and the administration of psychiatric medication. The most important duty of a psychiatric nurse is to maintain a positive therapeutic relationship with patients in a clinical setting and assisting patients back to their pre-morbid state. The fundamental elements of mental health care revolve around the interpersonal relations and interactions established between professionals and clients. Caring for people with mental illness demands his or her

presence and strong a desire to be supportive. Understanding and empathy from psychiatric nurses reinforces a positive psychological balance for patients. Conveying an understanding is important because it provides patients with a sense of importance. The profession of nursing is well positioned to provide direct care in hospital and community settings for individuals with mental health challenges, with nurses contributing to mental health promotion, crisis management, and treatment across various health care environments (Canadian Nurses Association (CAN), 2020).

American Psychiatric Nurses Association (APNA, 2019) describes a Psychiatric-mental health nurse practitioner (PMHNP) as an advanced practice registered nurse trained to provide a wide range of mental health services to patients and families in a variety of settings. PMHNPs are licensed to diagnose, conduct therapy, and prescribe medications for patients who have psychiatric disorders, medical organic brain disorders or substance abuse problems. They are licensed to provide emergency psychiatric services, psychosocial and physical assessment of their patients, treatment plans, and manage patient care. They may also serve as consultants or as educators for families and staff.

Mental Health Disorders

Mental health disorders can be described as a combination of abnormal thoughts, perceptions, emotions, behaviour and relationships with others (WHO, 2017).WHO described mental health as a "state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community". Galderisi, Heinz, Kastrup, Beezhold, and Sartorius (2015, p. 231) described mental health as "a dynamic state of internal equilibrium which enables individuals to use their abilities in harmony with universal values of society. Basic cognitive and social skills; ability to recognize, express and modulate one's own emotions, as well as empathize with others". It is not just a mere absence of mental health; it is a moment of loss of touch with reality and incapacitation of optimal function. Anything that interrupts this state of equilibrium brings about disequilibrium which ends with a state of disorganization, distortion of thought and inability to engage in activities of daily living. As a result of this experience, an individual becomes mentally challenged or suffers from mental illness, which necessitates the need for assistance of psychiatric/mental health nurse who will use his or her skills of psychiatric /mental health nursing in managing the situation of mental illness.

Types of mental illness: For the purpose of this study, there is need to know the types of mental disorders that are prone to violent attack. Using Diagnostic and Statistical Manual-V (DSM-V) (Townsend & Morgan, 2017), mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological or developmental processes underlying functioning. Classification of mental illness based on DSM-V is divided into the following axis;

- Axis I: clinical disorders and other conditions
- Axis II: personality disorders
- Axis III: general medical conditions
- Axis IV: psychological and environmental problems
- Axis V: as global assessment of functional scale

Axis I: these are clinical disorders and other conditions that may be a focus of clinical attention, they are disorders usually first diagnosed in infancy, childhood or adolescence. Patients were admitted based on these conditions. The conditions include; schizophrenia and other psychotic disorders, mood disorders, substance-related disorders, childhood developmental conditions, delirium, dementia and amnestic and other cognitive disorders. Axis II is personality disorders; this axis may be responsible for disorders in Axis I include paranoid personality disorder, schizoid personality disorder, schizotypal personality disorder, antisocial personality disorder, borderline personality disorder, histrionic personality disorder, narcissistic personality disorder, avoidant personality disorder, dependent personality disorder, obsessive-compulsive personality disorder. Axis III is general medical conditions that might be related to mental disorder. These conditions might be occurring alongside mental illness; hypertension, diabetes, sickle cell anemia etc. Axis IV include both psychological and environmental problems that contribute significantly to aggravation or exacerbation of current disorder. For instance, marital disappointment, unemployment, death of loved one, inferno, war, separation, inappropriate job termination, failure, major loss, HIV/AIDS, cancer etc. Axis V described as global assessment of functional scale in which clinical judgement of patient's overall level of functioning is conducted during a particular time. This helps to assess the quality of functioning of an individual performance. The assessment is made on a scale of 0-100. It is usually low with patient reduced motivation or low-level performance. it can be used to detect risk for depression and suicide.

According to Fujimoto, et al. (2018) using international classification of diseases (ICD), the following are the psychiatric diagnoses of patients that prone to violet attacks;

F1: Mental and behavioural disorders due to psychoactive substance use

F2: Schizophrenia, schizotypal and delusional disorders)

F3: Mood (affective) disorders

F4: Neurotic, stress-related, and somatoform disorders

F5: Behavioural syndromes associated with physiological disturbances and physical factors

F6: Disorders of adult personality and behavior

Factors Influencing Violence in Mental Health Setting

According to Yang, et al. (2018), type of diagnosis, history of aggressive behaviour, male patient, node of admission and prolong hospitalization, substance abuse, patients personality, demographic characteristics such as age, gender, income, education, marital status, and environmental conditions were the associated factors to patient violent attacks on nurses in psychiatric settings. Sally (2014) defined these factors as influences; which were classified thus: Caregivers behaviour, which may impact reduction or aggravate the patient anger; Social factors such as alcohol and the use, withdrawal or craving for psychoactive substance, which was identified as the initial factor which potentiate violent attacks. Also mentioned as an influence in violent attacks; are frustration, marital and family separation, prolong hospitalization and failure to achieve awaited expectation. Nature of patient illness is also very important factor identified as influence of violent attacks. All these situations can be categorized under two broad headings; personal and environmental factors. Factors influencing violent attack is a multi-factorial as it occurs in psychiatric hospitals (Rotharmel & Gullin, 2017).

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Personal Factors Influencing Violent Attacks

According to Rotharmel and Gullin (2017) the patients' factors in the psychiatric setting that influence violent attacks on nurses are; history of psychosis being a major risk factor of violent attack by psychiatric patients. Also, other factors that have been recognized by researcher include: patients' gender; patient diagnosis; severity of the patient's symptom; history of previous violent attacks by the patient; history of substance use; involuntary admission; prolong hospitalization; patient's non-compliance to treatment and patients' environmental influence among others (Alkorashy, & Moalad, 2016). Male gender and diagnosis of schizophrenia are significant factors associated with patients' violent attack in psychiatric settings (Tonso, Prematunga, Norris, Williams, Sands, & Elsom, 2016) but male factor has been identified to be a strong factor influencing patients' violent attack (Yang, et al., 2018).

The intensity of thought disorders and presence of hallucinatory experience of psychiatric contribute greatly to patients' violent attack on the nurses. Most studies on patients' violent attack have attributed the diagnosis of schizophrenia to influencing patients' violence on nurses (Lovell & Skellen, 2017). Other diagnosis often reported include; mood disorders, particularly bipolar disorder. Age of onset of illness; young adults were more prone to violent behaviour compare to adults (Pandey, et al., 2018). Also, severity of the patients' symptom is another important patient's factor that is influencing violent attack on mental health workers. It is said to be more significant than age, gender or any other patients' socio-economic backgrounds (Rothärmel & Guillin, 2017).

History of violence has also been found to be influencing patients' violent attack on practitioners (Niu, et al., 2019). Successful act of violent attack by patient encourages the patients to make another attempt subsequent ((van Leeuwen, & Harte 2017). Again, use of substance of addiction is another key point that influences patients' action due to strong desire for more drugs (Ferrari, et al., 2016) and alteration in brain system functioning. This has been established in patients with severe mental illness (Lantta, Anttila, Kontio, Adams, & Välimäki, 2016) and it is being influenced by patient's lifestyle, gender being a male and other psychiatric symptom (Tonso, et al., 2016). Substance abuse is strongly influenced by severe psychotic in influencing violent attacks, being a male also aides' substance abuse (Pekurinen, et al., 2017).

Admission without patient consent has also been found to be a significant factor influencing patients attack. Involuntary admission predisposes aggression easily making psychiatric patients prone to violent attacks (d'Ettoire & Pellican, 2017). Also, patients that are already stabilized in treatment tend more towards aggressive behavior (Ferri, et al., 2016) because they may easily become irritable towards their environment or certain actions regarded as not palatable by them. Non- compliance with treatment regimen and poor insight of the patients' mental state can also contribute to patients' violent attacks on nurses.

Another identified factor influencing patients' violent attack is the length of hospitalization which is associated with prolong stay of hospitalization (Daniels, & Anadria, 2019) but studies revealed that such is inconsistent factor as violence occurs days immediately after admission in acute psychiatric wards (van Leeuwen, & Harte, 2017).

Also, important issue that can easily aggravate patients' violent attack is the inability of the patients to meet their goals. Patients become frustrated when their needs are not met or achieved hereby resorting to violent attacks.

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Environmental Factors Influencing Violent Attacks

The condition around the hospital setting is a strong determinant of violent attacks on nurses in psychiatric hospitals. This factor either induces violent or non-violent behaviour from the patients. Certain events in the environment can lead to patients' discomfort. Examples include: rowdiness, unpleasant noise, poor lighting, hunger, high temperature. Also, significant among these is the conveniences of the ward environment; poor ventilation, inadequate food quantity and quality. The hospital environment is concerned about the culture of safety in the organization and commitment to prevention of violence and life savings (Arnetz, Hamblin, Sudan, Arnetz, 2018). Every health institutions especially psychiatric hospital must design a safety culture with the mind of establishing fundamental values, norms and expectation that will protect health workers which have a correspondence expectation from the health workers that they perceive should be provided by the organization for their safety (Arnetz, et al., 2018)

The culture of safety in the environment is aimed at protecting both the patients and the health professionals. The perception of the health workers towards this culture of safety is referred to as safety climate (Isaak, Vashdi, Bar-Noy, Kostisky, Hirschmann, & Grinshpoon, 2017). The Ward Environment is a major area of safety that influences violent attacks and this includes; designs of the ward, well-lilted, spacious and conduciveness of the environment. Also, availability of equipment for personal safety of the health workers such as personal alarm phone, and other personal safety gadget (Arnetz, et al., 2018). Another Safety culture is adequate staffing. Staff-Patient Ratio is very important as staff strength plays a significant role in curbing patients' violent attacks. Training and retraining of nurses on early identification of signs of aggression and prevention of violent attacks. Poor interpersonal relationship among health workers, and demand on the job are associated to organizational factors that can influence patients' violent attacks on nurses (Guglielmetti, Gilardi, Licata, & De Luca, 2016).

Empirical Review

Mental health nurses as frontier of healthcare in psychiatric settings are frequently at risk of patients' violent attacks (APNA, 2020). The prevalence of violence against mental health workers is alarming. The study on prevalence and associated risk factors for workplace violence against Chinese nurses revealed prevalence of 65.8% violence among 15970 participants of the study (Shi, et al., 2016). 67% of the 1534 respondents were victims of at least one physical violent incident in the past five years. Yang, et al., (2018) reported that94.6% of nurses reported a high incidence of violent attacks within a year and this ranges from verbal aggression, sexual harassment, to physical attack. According to the Workplace Violence Survey Questionnaire developed by the International Labor Office, International Council of Nurses, World Health Organization, and Public Services International (US Department of labour, 2017), the rates of physical and psychological violence were 55.7% and 82.1%, respectively. Most perpetrators of the workplace violence were patients. Also, records indicate that patients were responsible for over three quarter of all violent attacks, and 45% of it, are major threats. Patients'relatives / visitors were responsible for majority of all assaults and perpetration of nearly a third of abuse on mental health workers (Olashore, et al., 2018). One out of five patients in mental health setting commits physical violence while hospitalized and violence attack on mental health nurses as part of the caregivers has negative consequences on the safety of the health workers (Iozzino et. al., 2015). Based on the study by d'Ettoire and Pellicani (2017), physical violence against mental health workers exists at 69.8 percent. A study of Sbrama Psychiatric Hospital (SPH) found that greater percentage of the staff

experienced physical violence in their lifetime (Olashore, et al., 2018). Verbal abuse is said to occur in 78.8% of cases, with 91.1% of the perpetrators being patients (Niu, et al., 2019).

According to d'ettoire and Pellican (2017) Schizophrenia, young age, alcohol use, drug misuse, a history of violence, hostile-dominant and interpersonal styles were found to be the predictors of patients' violence. Diagnosis of schizophrenia has been considered a strong factor predisposing violent attacks in most studies reviewed. Delusion and hallucination are contributory factors to thought disorder. Also, previous histories of violence are considered significant factor to be examined (Rotharmel & Guillin, 2017). According to Milcent (2018), Substance abuse was found to be a factor influencing violence in patients with severe mental illness. Social factors are said to have enhanced psychiatric symptoms in patients perpetrating violence attack on health workers (Iozzino, et al., 2015). Milcent (2018) also ascertained that perpetrators gender was often male. Yang, et al., (2018) also reported that being a male nurse placed nurses at significantly higher risk for violent attacks by the patient; usually male. Providing routine treatment, caring for male patients, and working the night shift increased the risk of sexual harassment at work.

Olashore, et al., (2018) in their study identified the following to be antecedent to violence from patients mostly ; attempt to calm patient (33.9 percent) , restraining aggressive patient (12.1 percent) , talking with patient (16.1 percent) , giving instructions to patient (8.9 percent), serving medications (0.8 percent), unprovoked (16.9 percent) while others are (9.7 percent), i.e. sample taking, serving food, feeding patients, bathing patients etc. 73% of mental health workers believed that violence could not be predicted while 38.5% said these acts could not be prevented.

According to Cai, Tang, Deng, Lv, Xu, Sylvia, and Pan (2019), health organizational settings and practice influence patients' violent attacks on nurses. Also, studies by Isaak, et al., (2017) suggested that poor interpersonal relationship, work-stress, safety climate and culture, perception of low quality of care can influence violence against nurses. American Psychiatrist Association (2020) reiterated that substance abuse, irritability and provocation such as heat and overcrowding from the ward environment may aggravate risk of aggression.

Fujimoto, et al., (2017) reported that caregivers suffered from some adverse effects such as injury, low morale, and high absentee levels.

It was reported by Niu, et al., (2019) that only 12% or less of the victims completed an incident or accident form, because of the belief that reporting such incidents was useless or unimportant.

Conceptual Framework

General Aggression Model (GAM): The General Aggression Model is a dynamic, sociocognitive, developmental model that includes situational, individual and biological variables that provide an integrative framework for specific theories of aggression (Gilbert, Daffern, & Anderson, 2017). According to Allen, Anderson and Bushman (2018) GAM is largely based on social learning and socio-cognitive theories developed over the past three decades by a large number of scholars from social, developmental, and personality psychology, that include; Bandura, 1973, 1977, 1983, 1986; Berkowitz, 1989, 1993; Dodge, 1980, 1986; Crick & Dodge, 1994; Huesmann, 1982, 1988, 1998; Mischel, 1973; Mischel & Shoda, 1995). It provides an integrative framework for the study of aggression. The focus was to develop GAM's integrative view by delineating how social behavior moves under the control of internal

self-regulating processes. Social behavior depends upon the individual's interpretation of events in the present environment, including the person's interpretation of those events, beliefs about typical ways of responding to such events, perceived competencies for responding in different ways, and expectations regarding likely outcomes (Warburton, & Anderson, 2015). Allen, Anderson and Bushman (2017) explained that GAM has two processes; the proximate and distance processes. The Proximal processes explain how a person is and situation factors influence cognitions, feelings, and arousal, which in turn affects appraisal and decision processes there by leading to influencing aggressive or nonaggressive behavioral outcomes. Distal processes of GAM detail how biological and persistent environmental factors can influence personality through changes in knowledge structures. According to Allen, et al., (2018) GAM focuses on the "person in the situation," called an episode, consisting of one cycle of an ongoing social interaction. The three main foci concern of the models are (1) person and situation inputs; (2) present internal state, consisting of the cognitive, affective, and arousal routes though which input variables have their impact; and (3) outcomes of the underlying appraisal and decision processes.

Inputs: the input level consists of two types of proximate causes. Situational causes are features of the present situation that increase (or inhibit) aggression-for example, factors such as an insult, an uncomfortable temperature, presence of a weapon, presence of one's religious leader.

Present internal state: individual causes include whatever the person brings to the current situation, factors such as attitudes, beliefs, and behavioral tendencies. This will interact with the person internal state, which is of most interest are cognition, affect, and individual arousal. Any given situation such as individual behaviour interacting with any or all of the three aspect of the present internal state can influence aggression.

Outcomes, which is the third stage, include several complex appraisal and decision processes which could be relatively automatic or heavily controlled decision. Results from the inputs enter into the appraisal and decision processes through their effects on present internal state.

According to Warburton and Anderson (2015), biological influences such as the amygdala in the brain structure and certain blood chemistry such as amines has been found to genetically influence violent behaviour in psychiatric patients. Alcohol can contribute to aggressive behavior by decreasing self-awareness and the ability to accurately perceive the outcome of an aggressive act. Also, low blood sugar levels aids aggressiveness. Male with high testosterone are vulnerable to aggressiveness that is enhanced by use of substance abuse. Psychologically, frustration as a result of inability to meet target or set-goals influences aggressive behavior but found not to be sufficient on its own (Warburton & Anderson, 2015). Environmental cues such as light, heat, working relationship, safety practices and security of the working area can increase the likelihood of aggression (Gilbert, et al, 2017).

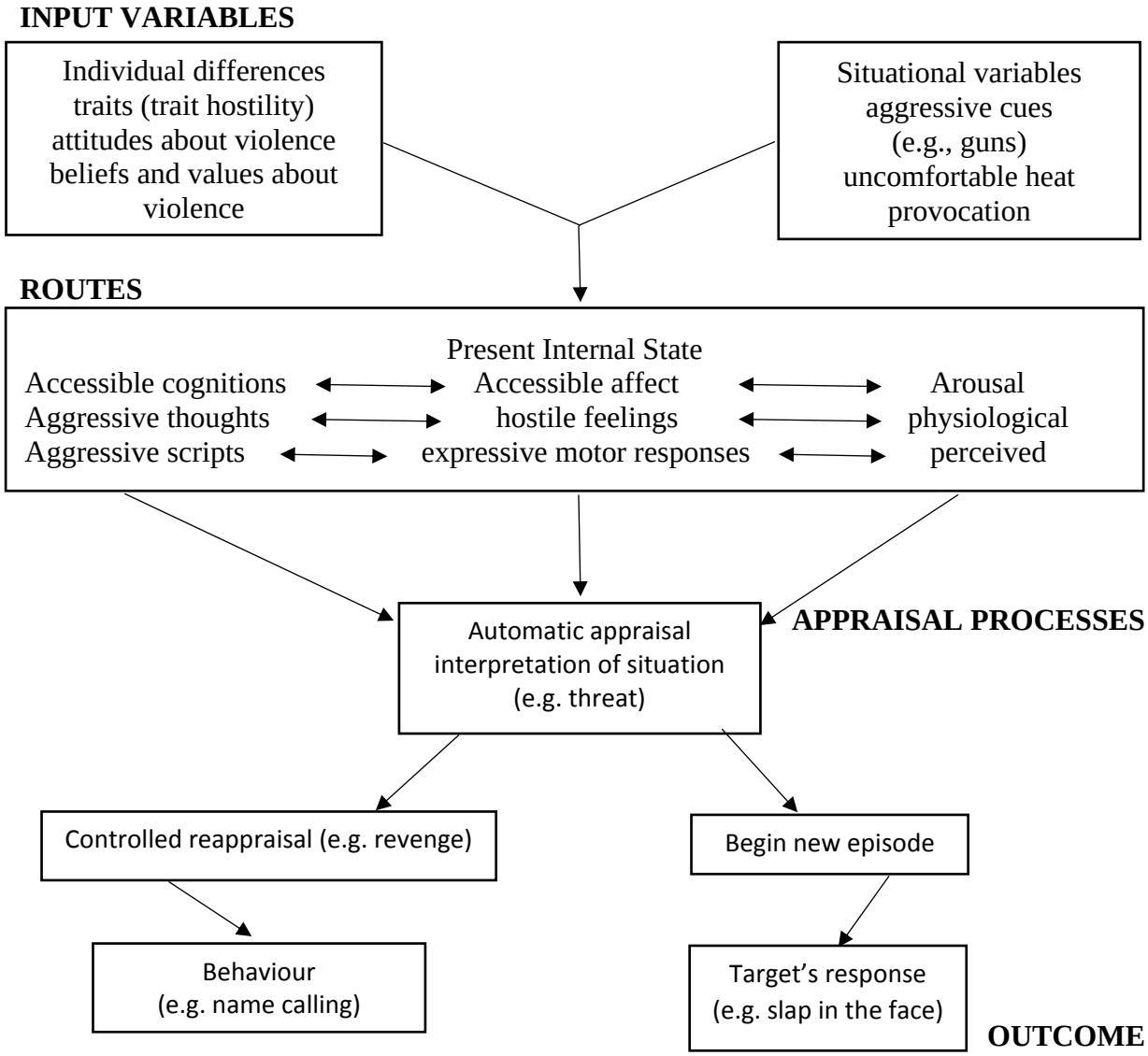

Figure 2.1: The General Aggression Model (GAM)

Source: Andersen et al. (2018).

Application of the General Aggression Model to the Study

GAM is a biosocial-cognitive model useful in the determination of factors likely to induce violence and or aggressive behaviour. The model identifies persons and situation surrounding them as the circumstances that influence individual feelings, thought and arousal, which is based on the social encounter asides from the biological and environmental modifier. Biological influence of aggression is also very significant as this is the patients' response to mental distortion, increase in amines, increase production of testosterone in male that makes them subjective to aggressive behaviour and can be aggravated by use of drug of addiction (substance abuse) that exposes the patients to easy irritability, anger abnormal and increase hyperactivity.

Another factor is Environmental modifier. This modifier includes the happenings, structures and systems of the health organization and this includes; the staff –strength, quality of care, the staff-gender, ward arrangements, interpersonal relationship and safety culture of the organization which has been found greatly to influence violent attacks. The biological and environmental modifiers culminate into individual personality. This personality is greatly influenced by the social activities surrounding the patients. The social encounters include the family involvement, patients' desire, wishes and those things the patients perceived to be beneficial to their personal existence or denied. Based on the patients' previous knowledge or exposure, the patient makes personal decision based on his or her appraisal of the circumstances, consequences notwithstanding. Subsequent to these interactions the patients decide to violently attack the nurses intentionally or unplanned through verbal abuse, physical threat or assault.

GAM has been found to guide research, provide suggestion for treatment of violent behaviour and understanding of violence reduction in workplace (Allen, Anderson, & Bushman, 2018). GAM is also fund useful in the study of domestic violence, media violence, interpersonal violence, pain and temperature effect (Gilbert, et al., 2017).

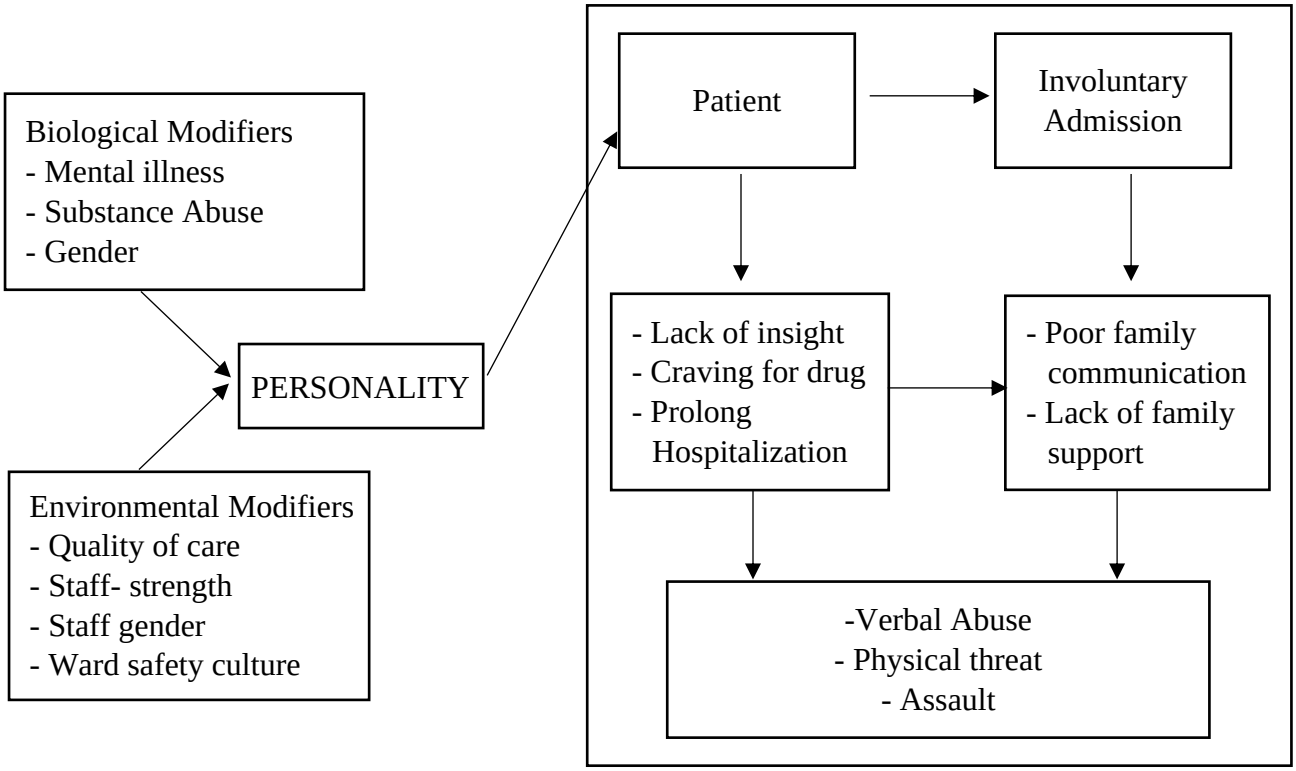

Figure 2.2 Application of General Aggression Model (GAM) to Patients' Violent Attack on Nurses

Source: Adapted by Opaleye (2020).

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METHODOLOGY

This chapter describes how the study was conducted in terms of the design, settings, population of study, sample determination and sampling technique. It also identifies instruments, data collection procedure, data analysis method and ethical consideration.

Research Design

The study is a descriptive research design, mixed method was employed, specifically qualitative and quantitative design concurrently. The method help to obtained detail information on the prevalence of violent attacks and those factors influencing the attacks on mental health nurses in the selected mental health institutions.

Study Settings

The settings for this study were the Federal Neuro-Psychiatric Hospitals at Abeokuta and Yaba, Lagos. The two institutions are the main hospitals where individuals with psychiatric-mental health disorders are treated. The following are the descriptions of each of the hospitals

Neuropsychiatric Hospital, Aro, Abeokuta

Neuropsychiatric Hospital (NPH) Aro started at the current annex, Lantoro in 1944 as an asylum for the mentally ill soldiers returning to Nigeria at the end of Second World War. It was established by the British colonialists under the leadership of Mr. Leonard. The present site of the hospital was established in 1954 at the instance of Professor Adeoye Lambo and was formally referred to as Aro Mental Hospital.

The hospital has a total bed capacity of 526 (Aro and Lantoro Annex) for the care of both acutely and chronically ill individuals with mental disorders. The Neuropsychiatric hospital is the foremost specialist mental health institution in the country. It is located within Abeokuta North Local Government Area in Ogun State. The Local Government area shares boundaries with Imeko-Afon Local government, and Abeokuta South Local government.

The Hospital has sixteen (16) acute wards, four (4) units and one National Health Insurance and Community Clinic. For the purpose of nursing management, the wards were categorized into male and female wards. Each ward consists of fourteen nurses working over two different shifts per day. Bed occupancy is twenty-eight per ward amounting to the nurse-patient ratio usually 1:10 per shift, sometimes with the ward manager who also doubles as administrative head of the ward or units.

Other health workers usually on duty with nurses are health attendants and support staff like porters and cleaners, sometimes psychiatrist, social workers and clinical psychologist who comes visiting the patients; though they are not part of this study. The total mental health nurse's population in NPH|, Aro were three hundred and four (304) as at the time of conducting the study.

Federal Neuropsychiatric Hospital, Yaba Lagos State

Federal Neuropsychiatric Hospital, Yaba was established on the 31st October, 1907 as an asylum under the British Colonial rule. It was formerly called Yaba Mental Hospital and headed by a Medical Director. The hospital is located at a central point on the Lagos Mainland

with boundaries with the Nigeria Railway, Lagos International Market, Nigeria Medical Council and The Lagos Presbyterian Church. The hospital has an extension is located at Oshodi in Lagos.

The hospital has passed through different stages of reformation. It is fully equipped with professionals in the field of psychiatry with nurses, doctors, pharmacist, social workers, clinical psychologist and occupational therapist. The hospital offers preventive, curative and training services in the field of psychiatry. It is also a high employer of mental health workers including nurses with professional skills in the management of the mentally ill.

Federal Neuropsychiatric Hospital, Yaba (FNPHY), has eighteen (18) acute wards. Thirteen (13) of them are at Yaba and five (5) are at Oshodi Annex. Each ward consists of between twenty and twenty-eight bedded. Each ward has between sixteen nurses working over two different shifts per day. Bed occupancy is twenty-five patients per ward, the number of mental health nurses per shift usually is 2-3, making the nurse-patient ratio to be 1:10 per shift, sometimes with or without the ward manager. The total mental health population has at the time of conducting this study were three hundred and eleven (311).

The Study Population

The population for this study were practicing psychiatric/mental health nurses in the Southwest of Nigeria, while the target population are the mental health nurses that have been attacked previously as found in the incidence reports book of each ward, both in Neuropsychiatric Hospitals, Abeokuta and Federal Neuropsychiatric Hospital Yaba, Lagos, South West, Nigeria.

Inclusion Criteria

Incidence records of violent attacks involving psychiatric-mental health nurses in all wards and units of Neuropsychiatric Hospital, Abeokuta and Federal Neuropsychiatric Hospital, Yaba Lagos between January 2015 and January, 2020.

Fourteen names were found in the available incidence books of NPH, Aro, and Ten (10) for FNPH, Yaba, Lagos.

Exclusion Criteria

1. Records of incidence that are not violence-related.
2. Incidence records that do not involve nurses.

Sample Size Determination

Purposive sampling was employed in the study. Total enumeration of the nurses whose name were found in the incidence record books were included in the study.

Instrumentation

Two instruments were developed to guide the researcher in the collection of information for the study. The first is a self-developed table structured by the researcher to collate information from the incidence record books on the prevalence of violent attack on nurses in the two selected psychiatric hospitals. They include the gender, the diagnosis of the patients, and event

preceding the attack. Also, in the table are the column for the nurses whose being attacked for their gender, type of violence, date and time of occurrence if recorded.

The second, is an interview protocol, which guided interview section with nurses whose names appear on the incidence record book.

Validity and Reliability of the Instrument

Content validity measuring the appropriateness of the content was in congruent with the objectives of the study as was observed by the researcher's supervisor. The researcher ensured consistency in research approaches through checking of transcripts to avoid mistakes during transcription. Also, the researcher ensured that there was not a drift in the definition of codes nor shift in the meaning of the codes during the process of coding. This was ensured through comparison of data with the codes coupled with writing memos about the codes and their definitions. Truthfulness of the data was maintained; they were documented without falsification of record.

Procedure for Data Collection

After the appropriate approval has been gotten from the selected hospitals health research committee, the researcher visited each of the heads of nursing department of the two institutions at separate time for self-introduction and sought their consent before entering the wards. Thereafter, each of the wards were visited, the researcher met with the ward managers and other nursing officers.

After self-introduction, the researcher requested to see the ward incidence record book of each wards and units, same made available but most of the wards and units could not locate the ward incidence record book. Some wards could only locate recent copy and those available were scanty while few wards had their records updated. One of the hospitals merged other hospital incidences ward incidence and dominant in the incidence book were other events rather than patients' violent attacks on nurses. Required information were extracted from these incidence record books with assistance of four (4) research assistants from each institution.

Out of thirty-two cases reported in the incidence record books, twenty-four (24) mental health nurses name were found documented. The nurses were contacted via phone as most of them were not on duty while by chance few were within the hospital premises as at the time of collating information from the incidence record book. Appointment was reached with each of the mental health nurses at different times for interview and same was conducted by the researcher as agreed with each of the concerned mental health nurses but three nurses could not meet up with the appointment due to unforeseen circumstances, one in NPH, Aro and two at Neuro-psychiatric hospital, Yaba.

For the convenience of the mental health nurses, fifteen to eighteen minutes was spent in interactions as a means of interviewing with each of the nurses on prevalence and factors responsible for violent attacks by psychiatric patients on mental health nurses.

Two weeks and three days were used to collect the data at Neuro-Psychiatric Hospital, Aro and eight (8) days were spent collecting data at Federal Neuro-Psychiatric Hospital, Yaba.

Method of Data Analysis

The data gathered from the interview of the nurses violently attacked by patient while on duty were analyzed through the use of qualitative data analysis software, ATLAS.ti, version 8 while Statistical Package for Social Science (SPSS) software was used to determine the prevalence of the violent attacks from the data recorded in the incidence records. ATLAS.ti is beneficial for formation of themes, memos, comments, links, visualization through word cloud and creating networks, among others.

The data analysis involved three stages, which includes preparation stage, organizing stage and reporting stage.

Preparation Stage: The audio taped interview of the interview was transcribed using verbatim transcription. The data generated from interview and records was imported into the qualitative data analysis software for reading and coding. The unit of analysis selected were relevant to the research objectives and research questions. The researcher read through the transcripts in their entirety and thoroughly in other for complete immersion of the data collected.

Organizing Phase: This phase includes the process of open coding, creating categories and abstraction. The data was coded by tagging key words within the transcripts in line with research objectives while code assigned was labeled and categorized. Codes were reviewed to eliminate redundancy and overlap which serves as the initial basis of themes formation. Codes were grouped into themes to represent a common idea. The themes were interpreted in line with research objectives which form basis for explaining the findings of the study. The most frequently occurring response with emphasis from the respondents based on the categorization formed the theme of data, that is the voice of participant with highest pitch, meaning, re-occurring regularity developed within categories or cutting across categories (Oyelade, 2016).

Reporting Phase: The results of the analysis, through the use of the data analysis software were visualized through network. The visualization of the data forms the basis of reporting. The findings were reported in line with the objectives of the study.

Ethical Considerations

Babcock University Health Research Ethics Committee ethical clearance was obtained along letter of introduction from the School of Nursing, Babcock University to the Health Research Ethics Committee of the two study settings that is Neuropsychiatric Hospital, Aro, Abeokuta and Federal Neuropsychiatric Hospital, Yaba, Lagos. Ethical clearance certificate requesting permission was

granted to carry out study in the two institutions. Informed consent was sought and same signed accordingly. The Anonymity and confidentiality of the participants were guaranteed.

RESULTS / FINDINGS

This chapter presents the data analyzed, results and discussion of findings in sequence of research questions raised in chapter one.

Preliminary Analysis

Table 4.1: Violent Attacks on Nurses between 2015 and 2019

Type of Attacks	Neuropsychiatric Hospital, Aro	Federal-Neuropsychiatric Hospital, Yaba	Total	Percentage
Physical Assault	**18**	**8**	**26**	**81.2**
% within Hospital	**81.8%**	**80.0%**	**81.3%**	
Physical Threat	**4**	**0**	**4**	**12.5**
% within Hospital	**18.2%**	**0.0%**	**12.5%**	
Verbal Abuse	**0**	**2**	**2**	**06.3**
% within Hospital	**0.0%**	**20.0%**	**6.3%**	
Total	**22**	**10**	**32**	**100**
	68.8%	**31.3%**	**100.0%**	
100.0%	**100.0%**	**100.0%**		

Table 4.2: Distribution of Wards/Unit

Wards/Unit	Neuropsychiatric Hospital, Aro		Federal-Neuropsychiatric Hospital, Yaba	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Male wards	10	45.5	4	44.5
Female wards	7	32.0	1	11.1
Male Rehabilitation	1	04.5	2	22.2
Assessment/Emergency Unit	4	18.0	2	22.2
Total	**22**	**100.0**	**9**	**100.0**

Table 4.3: Distribution of Attackers by Gender

Gender	Neuropsychiatric Hospital, Aro		Federal-Neuropsychiatric Hospital, Yaba	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Male	13	59.1	6	66.7
Female	09	40.9	3	33.3
Total	**22**	**100**	**9**	**100**

Table 4.4: Distribution of Nurses Attacked

Nurses Attacked	Neuropsychiatric Hospital, Aro		Federal-Neuropsychiatric Hospital, Yaba	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Male	13	59.1	4	44.4
Female	09	40.9	5	55.6
Total	**22**	**100**	**9**	**100**

Research Question 1: What is the rate of occurrence of violent attacks on nurses?

Table 4.1 reveals that Neuropsychiatric hospital Aro had about 82% incidence of physical assault, and 18% of physical threat and no report of verbal abuse documented. But, Federal Neuropsychiatric Hospital, Yaba, had 20% incidence of verbal abuse, 80% of physical assault and no physical threat was documented in the incidence record books. This implies physical assault is more prevailing in Aro hospital (68.8%) than Yaba hospital (31.3%), for physical threat, none was documented at Yaba hospital and same for verbal abuse at Aro hospital. Generally, the rate of occurrence of physical assault was about 81%, less than 13% of physical threat and 6% of verbal abuse.

Table 4.2 revealed that male wards had highest percentage of occurrence of violent attacks at 45.5% and 40.0% Aro and Yaba respectively. Female wards were next with 32% at Aro while female wards, Male Rehabilitation Ward and Assessment/Emergency Unit at Yaba shared the same ratio of 20% each and Male rehabilitation ward in Aro had the least occurrence of less than 5%.

Table 4.3 also indicated that male patients were more involved in attacking nurses than the female nurses at both hospitals at the rate of 59.1% and 70% at Aro and Yaba respectively. Averagely about 65% of male patients attacked nurses than the female patients.

From Table 4.4. Male nurses were mostly attacked at 59.1% in Aro while in Yaba, both genders shared equal percentage of risk of being attacked at 50% each.

African Journal of Health, Nursing and Midwifery
ISSN: 2689-9418
Volume 3, Issue 4, 2020 (pp. 65-102)

Research Question 2: What are the patients' factors responsible for violence attacks on nurses?

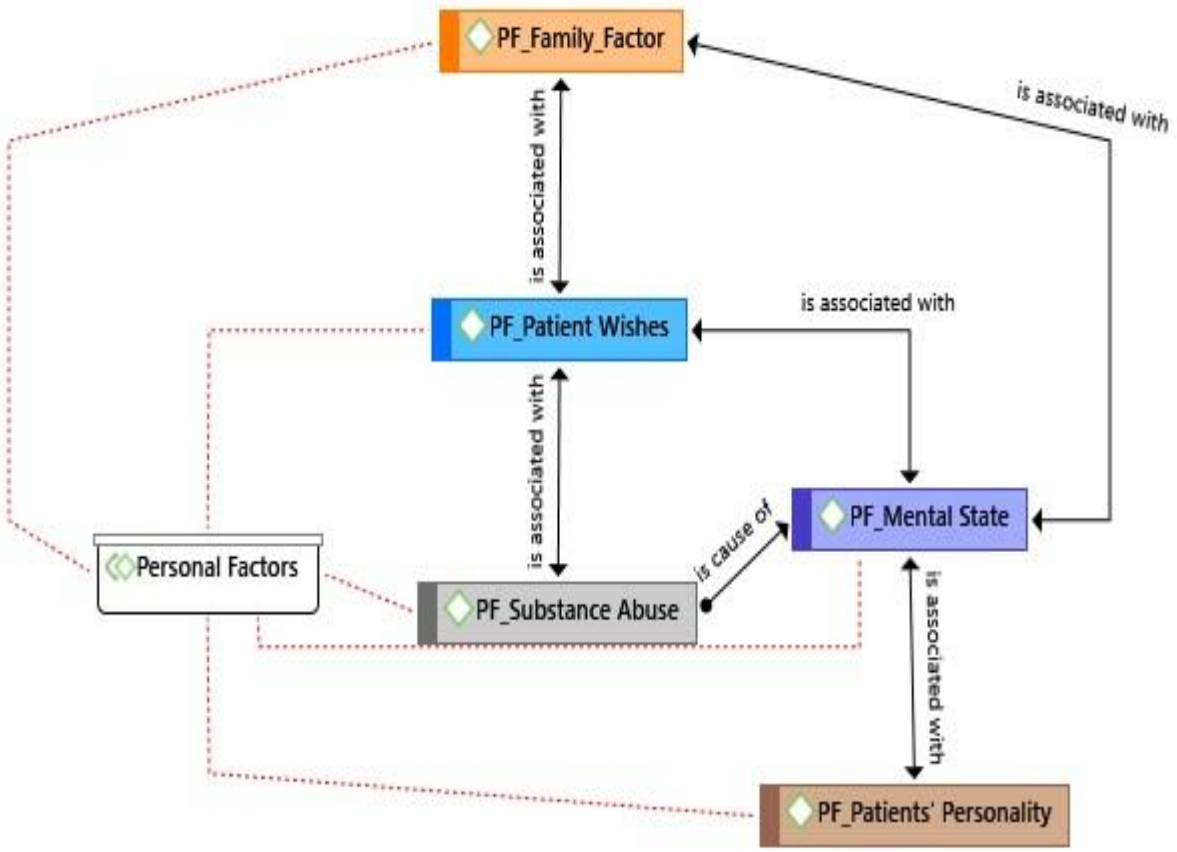

Figure 1: Patients' Factor and Violence Attack on Nursing Staff

From the analysis of the data gathered from the interview of the nursing staff, both from NPH, Aro and FNPH, Yaba, as shown in Figure 1above, five (5) themes emerged as factors that influence patients' behaviour in unleashing violence attack on nursing staff. The themes; Mental State, Patients' Personality, Substance Abuse, Patient wishes and Family Factor.

African Journal of Health, Nursing and Midwifery
ISSN: 2689-9418
Volume 3, Issue 4, 2020 (pp. 65-102)
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Theme 1: Patients' Mental State

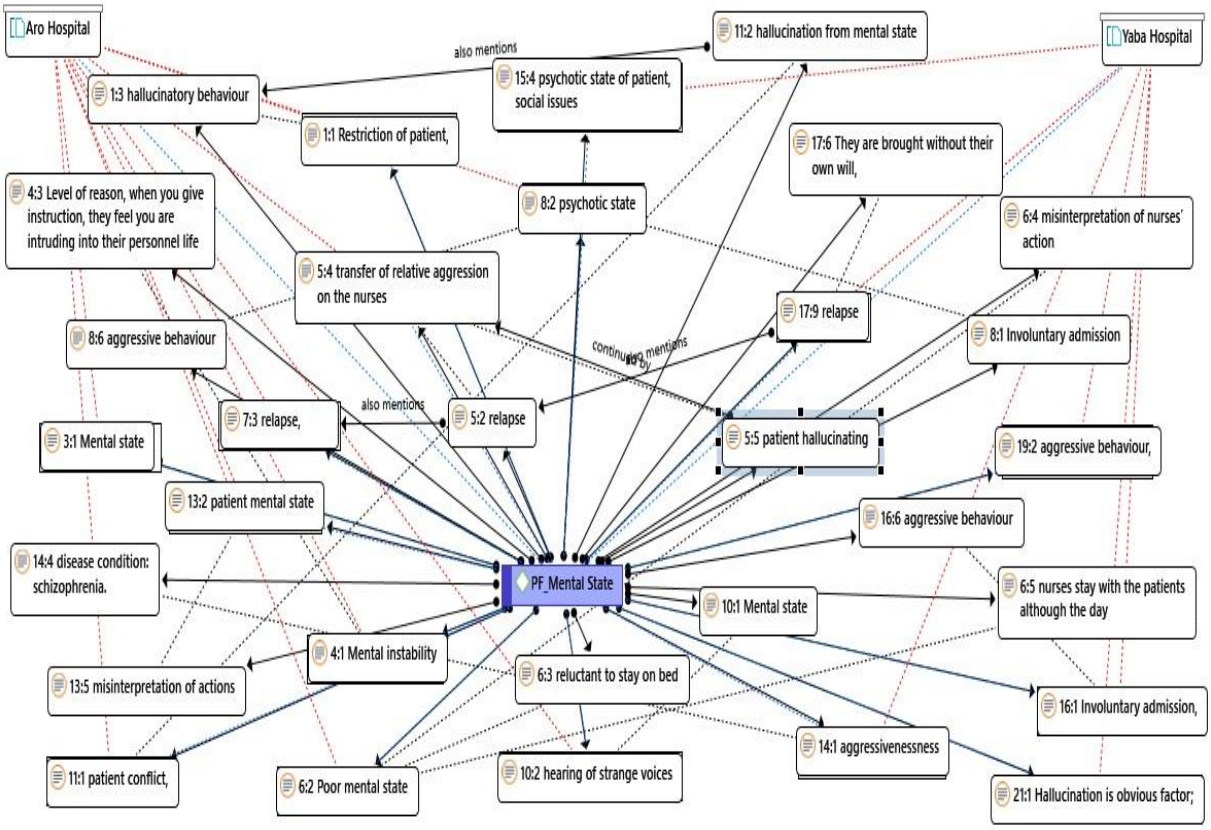

Figure 2: Patients' Mental State as Influence of Violent Attack on Nursing Staff

Human actions are most times traceable to their mental status. From Figure 2, participants from both NPH, Aro and FNPH, Yaba identified "*mental state*" as the reason for violent attack on nursing staff by the patients. Reports from both institutions identified aggressive behaviour, involuntary admission, relapse and hallucination as factors being responsible for patient mental state influencing violent attacks. Other participants from NPH, Aro further buttressed it as "*psychotic state of patients*". It was also reported in both institutions as the "*misinterpretation of nurse's action*". "*Diagnosis of disease such as schizophrenia", "transfer of aggression from patient relatives and reluctant to stay on bed*" as part of factors corroborated with patient mental state.

African Journal of Health, Nursing and Midwifery
ISSN: 2689-9418
Volume 3, Issue 4, 2020 (pp. 65-102)
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Theme 2: Substance Abuse

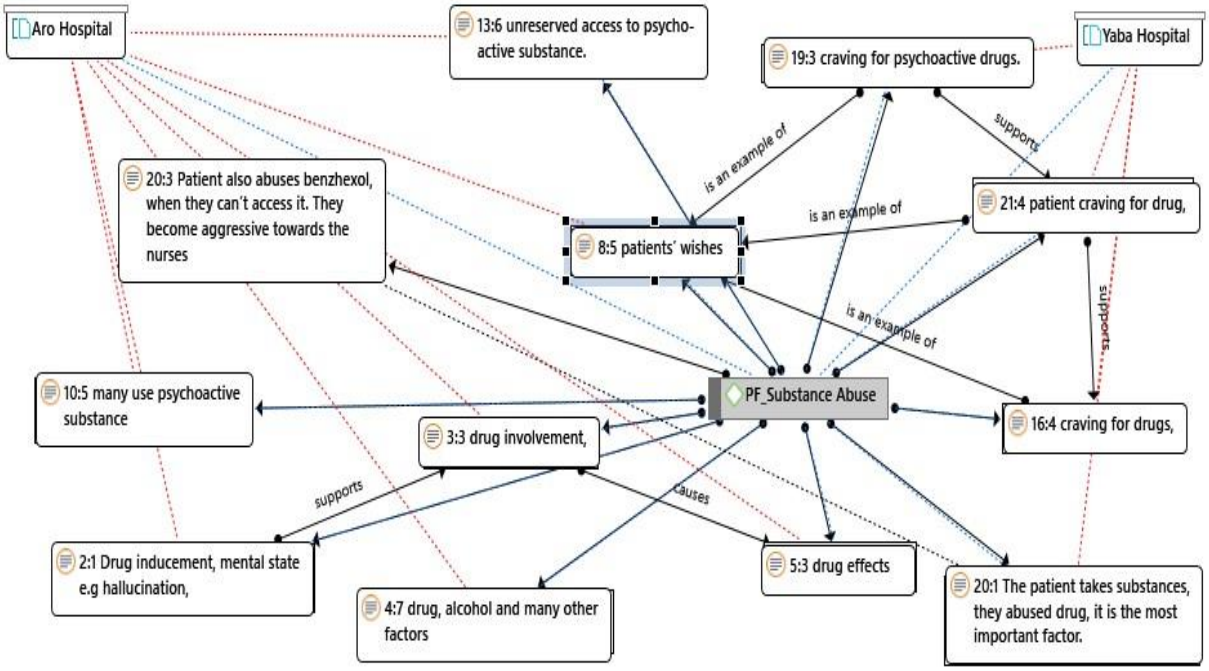

Figure 3: Substance Abuse as Influence of Violent Attack on Nursing Staff

Substance use was another theme that emerged as the factor that influences the patients to carry out attack on the Nursing staff who see to patients care them from both institutions. The participants from both institutions also reported the use of psychoactive substance. A participant from Yaba emphasized, "*The patient takes substances, they abuse drug, and it is the most important factor",* this was corroborated by a participant from Aro, and *"many uses psychoactive substance".*

Some patients could abuse substance uncontrollably premised on lack of self-control as described by a respondent from Aro as "*unreserved access to psycho-active substance*", and two participants from Yaba indicated *"craving for drugs"* while other participants added *"craving for psychoactive drugs".*

Examples of such substance being abused was outlined by some participants from Aro as "*drug, alcohol and many other factors*" while it was said that *'Patients also abused Benzhexol, when they can't access it. They become aggressive towards the nurses"* On the outcome of the substance being abused, a participant emphasized that there is "*drug effect"*. In fact, it was revealed that the substance abuse does have an adverse effect on the "mental state" like causing "*hallucination"*.

African Journal of Health, Nursing and Midwifery
ISSN: 2689-9418
Volume 3, Issue 4, 2020 (pp. 65-102)

Theme 3: Family Factor

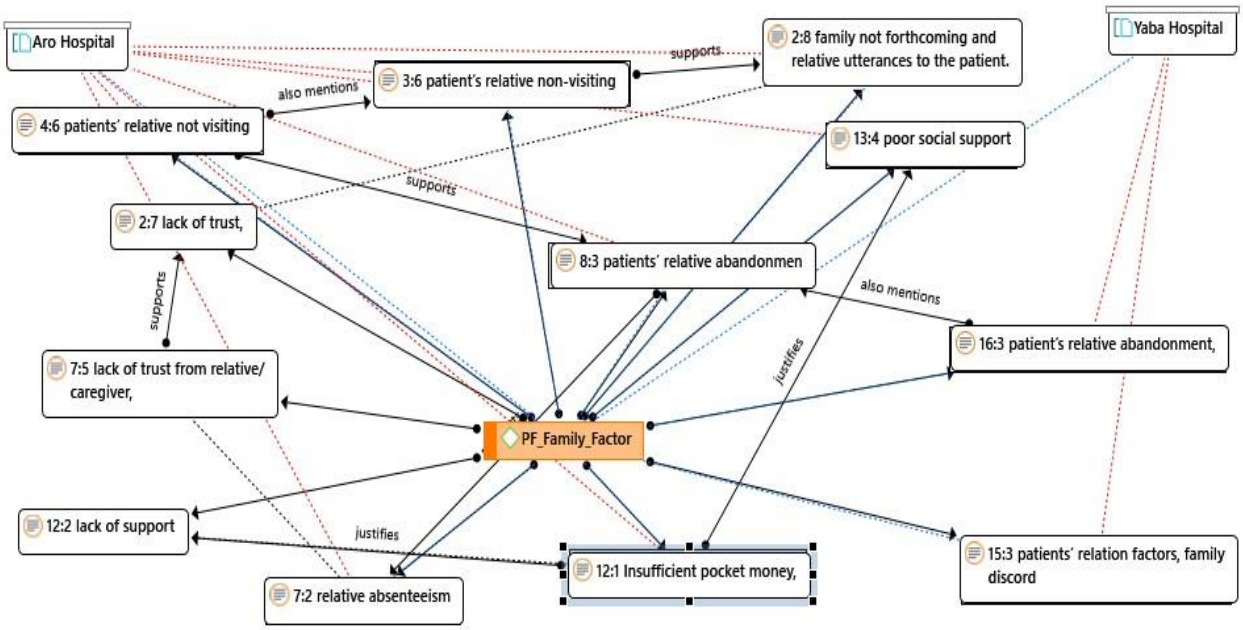

Figure 4: Family Factor as Influence of Violent Attack on Nursing Staff

Respondents from both institutions identified family factor as a theme contributing to patient violent attack on nurses. It was reported from both institutions that patient relatives do abandon their wards. "*Patient's relative non-visiting*", *"relative absenteeism",* and *"patients' relative abandonment"* as shared by the participants.

From NPH, Aro, not getting family support was found as another factor. A participant expressed "*lack of support*" as a factor. A factor that was expanded by another participant as financial support, as an example of those things not readily available to patients as it was quoted *"insufficient pocket money*" which was also reported from Yaba. Another form of support reported from Aro was "*poor social support*" and "*Lack of trust"* and specifically "*lack of trust from relative"* was a family variable that can influence patients' behaviour.

African Journal of Health, Nursing and Midwifery
ISSN: 2689-9418
Volume 3, Issue 4, 2020 (pp. 65-102)
www.abjournals.org

Theme 4: Patient Wishes

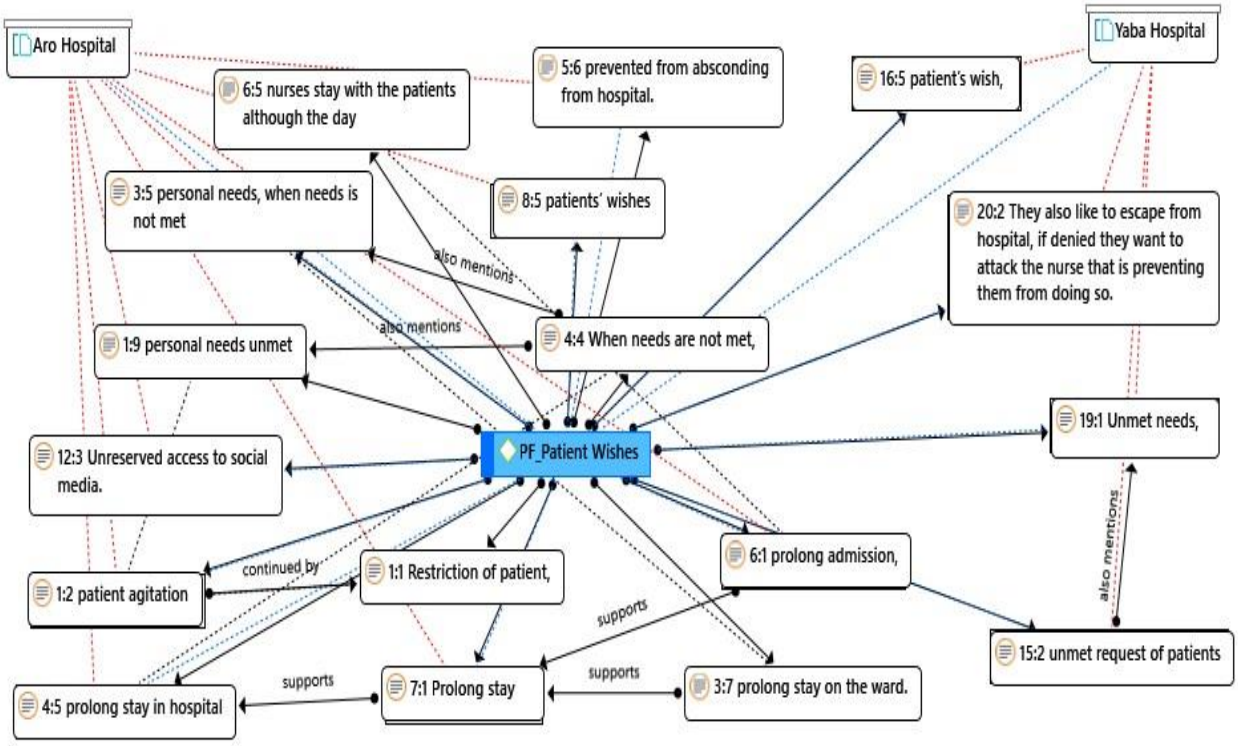

Figure 5: Patient' Wishes as Influence of Violent Attack on Nursing Staff

"Patient wishes" emerged as another theme which formed the factor that influences patients' violent attacks on nursing staff from both institutions. Every human being is bound to have wishes but the problem occurs when those wishes are not worth it or have adverse effects. The wish of the patients was found to be a factor. Three participants from NPH, Aro indicated "*patient wishes"* while another used the word *"patients' agitation".* A participant specified an example of those wishes *"Unreserved access to social media".* Patients don't want to be controlled but want to be left alone. There is tendency for them to be aggressive and resort to attacking nurses if they are restricted. Another two participants from FNPH, Yaba indicated that when patients' requests are not being met, they can become violent. Two participants from NPH, Aro specified when patients *"personal needs are not met,"* it can influence them to be violent against the nnursing staff. Another participant from FNPH, Yaba shed more light on the patients' unmet needs "*They also like to escape from hospital, if denied, they want to attack the nurse that is preventing them from doing so"*. Responses from both institutions revealed that prolong stay in the hospital as against the wish of the patient may influence violent attack. In this perspective, participants from the two institutions expressed *"prolong stay on the ward" and "prolong stay in hospital"* while others affirmed same view but referred to it as, *"prolong admission".* Another aspect of theme has connection directly with the Nursing staff as expressed by a participants from NPH, Aro "*nurses stay with the patients all through the day",*

such phenomenon was considered to cause "*Restriction of patient*" or the patients are "*prevented from absconding from hospital*" as expressed by other participants from NPH, Aro.

Theme 5: Patients' Personality

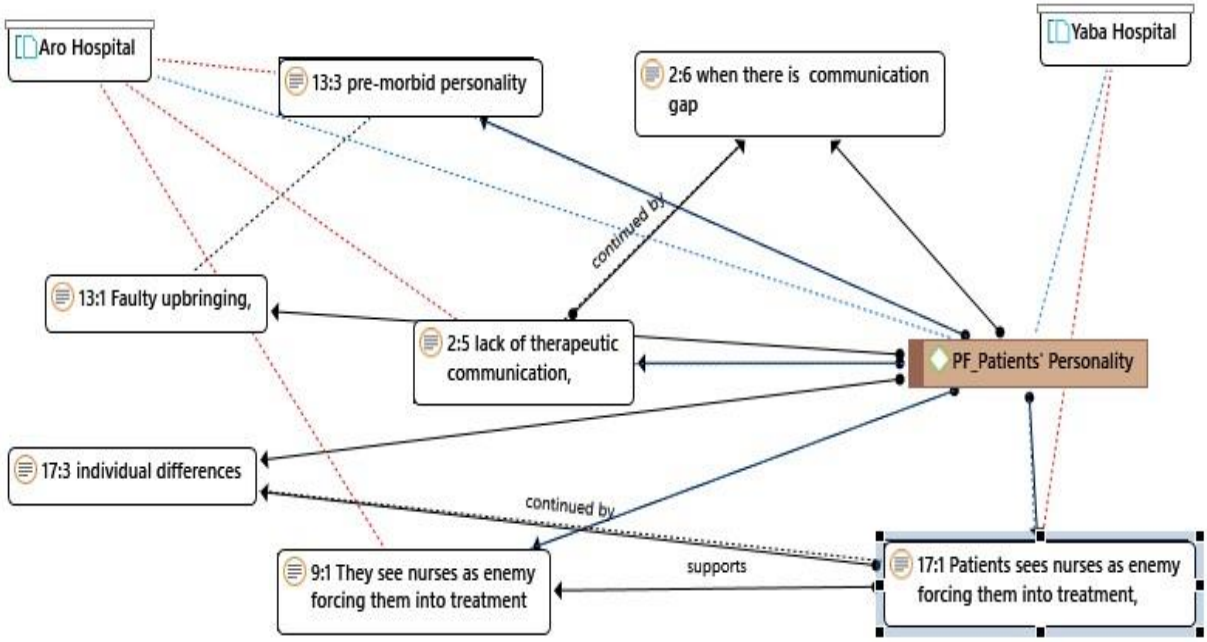

Figure 6: Patients' Personality as influence of violent attack on nursing staff

Another theme identified as part of patient factors influencing violent attack is patients' personality. Both institutions reported that patients see nurses as enemy forcing them into treatment. NPH, Aro also reported individual differences, faulty upbringing, patient pre-morbid personality and communication challenge as factors. Two participants emphasised on this point as they were of the view *that "when there is communication gap"* and specifically *"lack of therapeutic communication",* patient can attack nursing staff on this wise.

African Journal of Health, Nursing and Midwifery
ISSN: 2689-9418
Volume 3, Issue 4, 2020 (pp. 65-102)

Research Question 3: What are the environmental factors responsible for violent attacks on nurses?

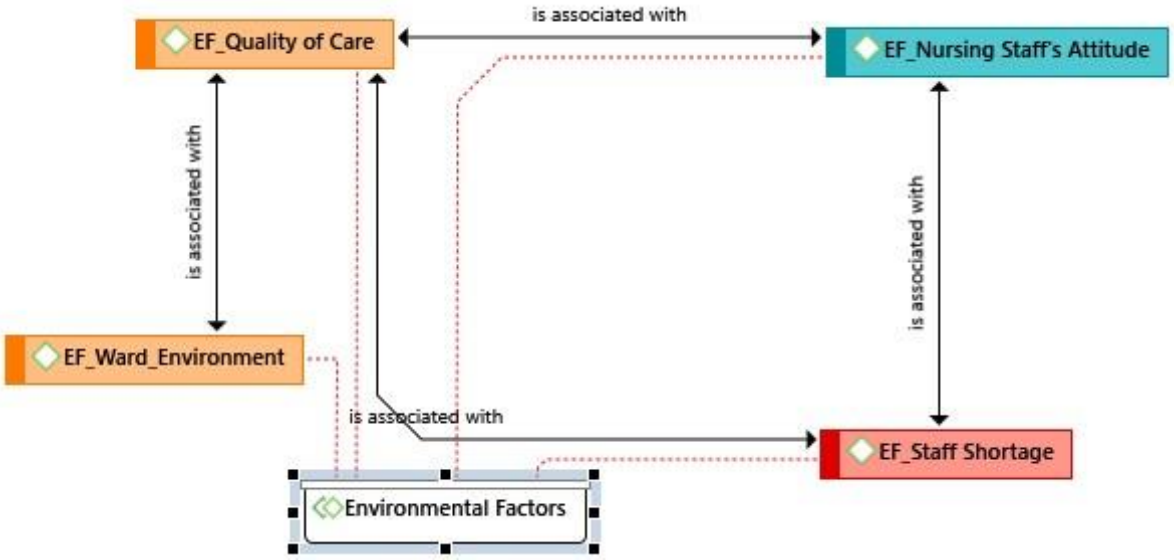

Figure 7: Environmental Factors Influencing Violent Attacks on Nurses

Four themes emerged from the results of analysis of the research question. The themes were: wards environment, quality of care, nursing staff attitude, and staff shortage. It was also shown that staff shortage is associated with staff attitude and quality of care; quality of care factor is associated with wards. The content of each factor is therefore presented below:

Theme 1: Ward Environment

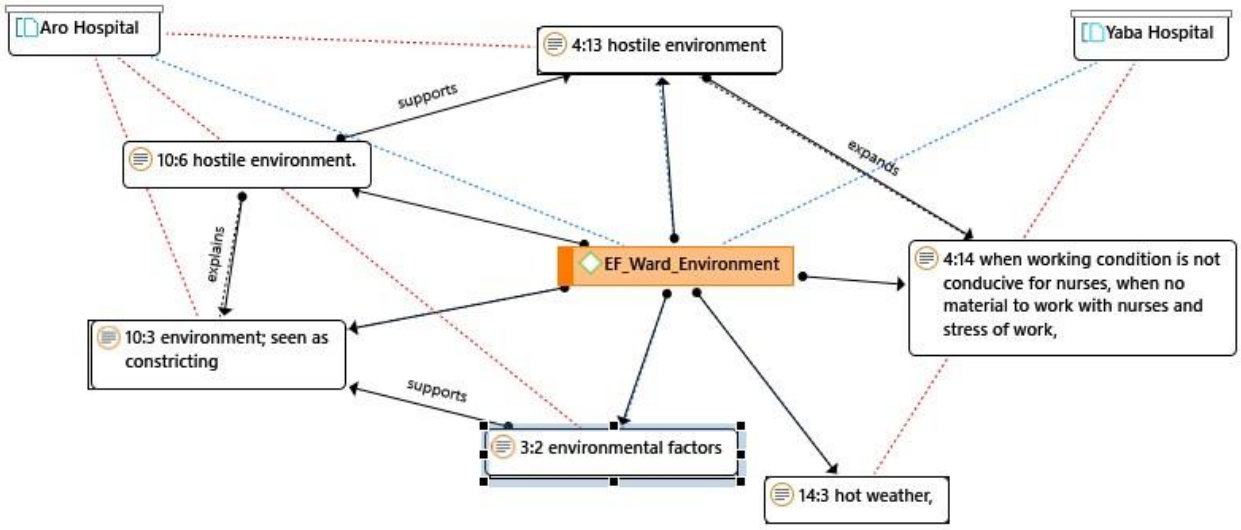

Figure 8: Ward Environment as an Influence of Patient's Violent Attack on Nurses

Reports from both NPH, Aro and FNPH, Yaba revealed hostile environment as a ward condition contributing to environmental factor influencing violent attacks on nurses. NPH, Aro reported an *environment seen as constricting*, while FNPH, Yaba reported *when condition is not conducive., and hot weather.*

Theme 2: Quality of Care

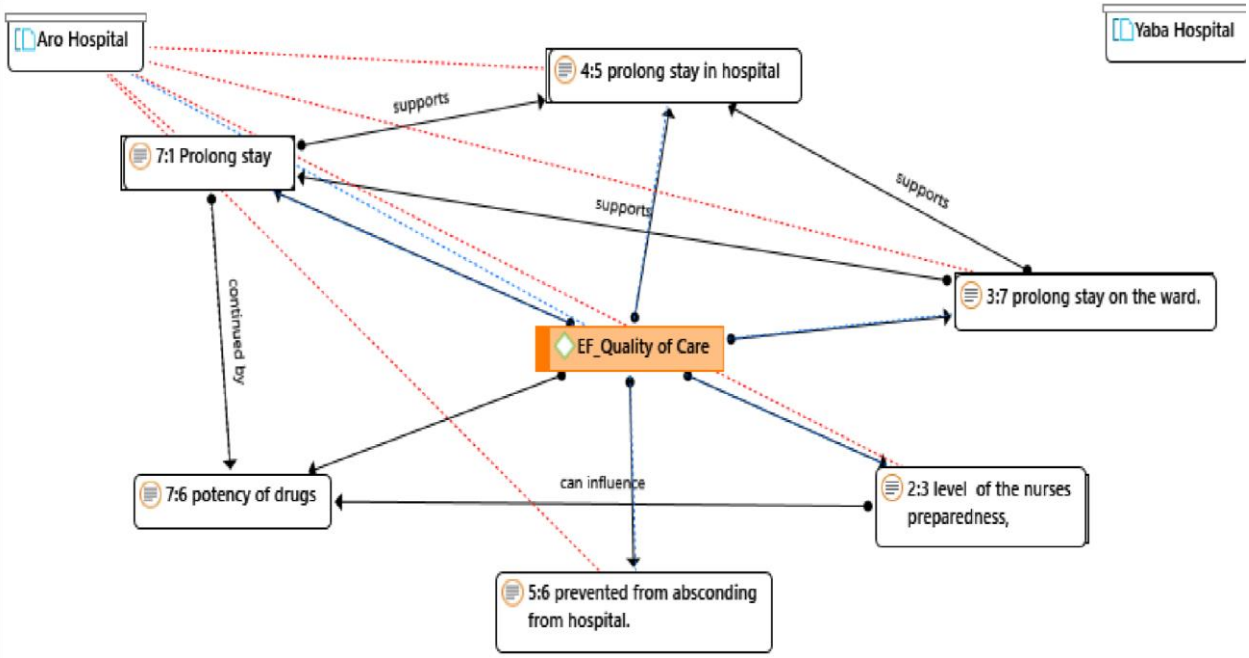

Figure 9: Quality of Care as a Factor Influencing Patient's Violent Attack on Nurses

It was only from NPH, Aro that was report on quality of care as a theme for environmental factor influencing patient's violent attacks on nurses. The nature of care being given to the patient is very important while anything short of this may pose a challenge. A participant was of the opinion that the "*level of the nurses' preparedness*" is a factor. This may affect the quality of care being given to the patient. In the same vein, a participant was of the view that "*potency of drugs*" is a challenge.

African Journal of Health, Nursing and Midwifery
ISSN: 2689-9418
Volume 3, Issue 4, 2020 (pp. 65-102)
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Theme 3: Nursing Staff Attitude

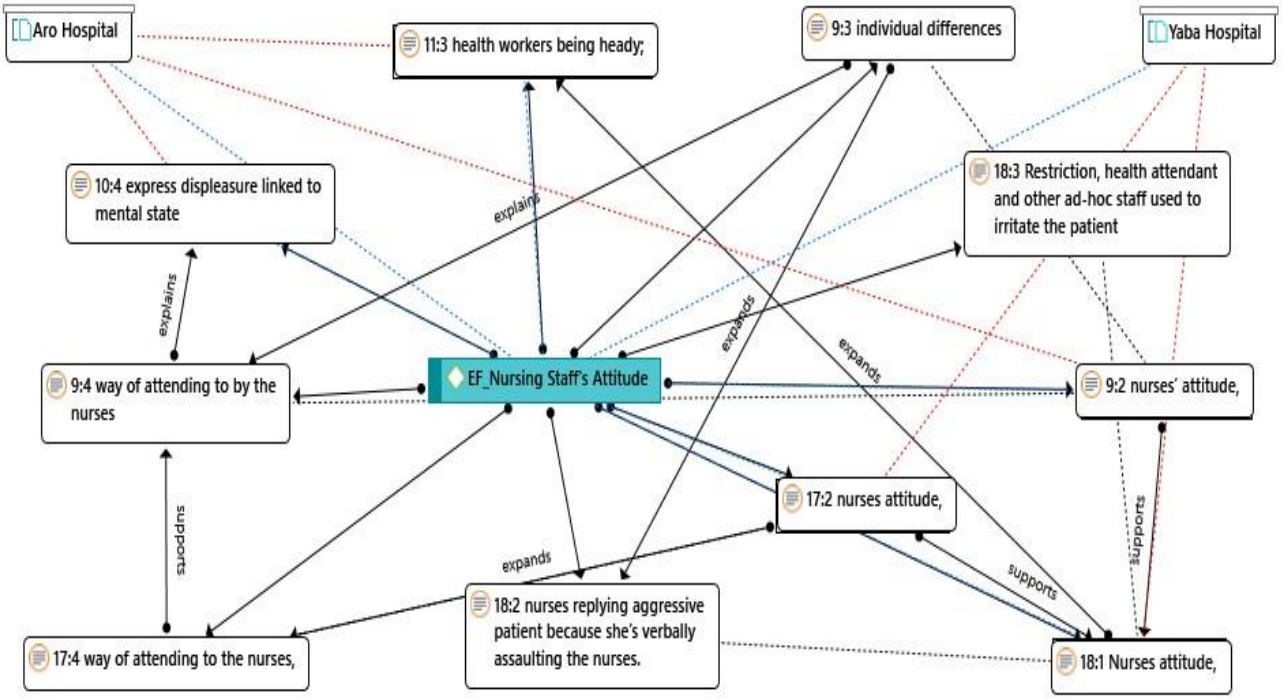

Figure 10: Nursing Staff Attitude as an Environmental Factor Influencing Violent Attack on Nurses

Another theme found under environmental factors is Nursing Staff Attitude. From NPH, Aro, it was reported that nurses being heady towards the patient, their way of attending to patient, nurses replying aggressive patient because of verbal assault, displeasure expressed by the nursing attitude and individual differences were environmental factors influencing violent attacks on nurses. Reports from FNPH, Yaba indicated that nurse's attitude, patient restriction, and irritation from other healthcare workers do irritate the patient.

Theme 4: Shortage of Staff

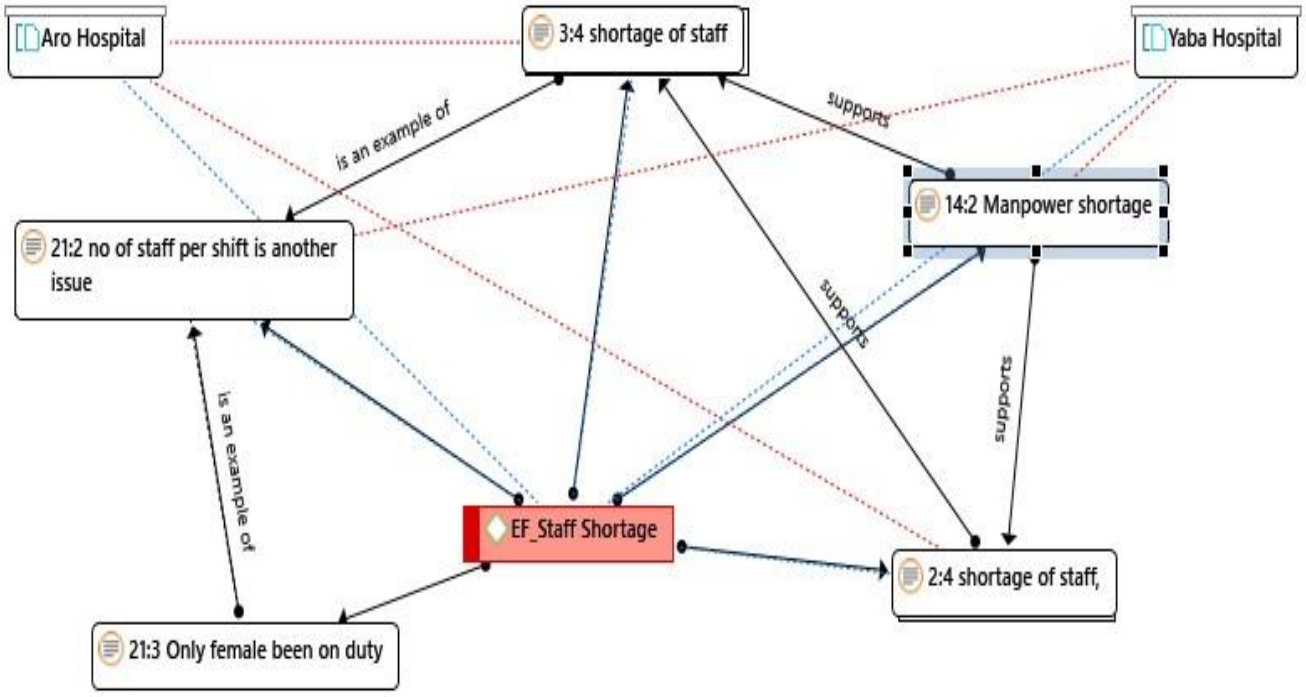

Figure 11: Shortage of Staff as an Environmental Factor Influencing Patient Violent Attacks on Nurses

From figure 11, NPH, Aro reported number of staffs on per shift and being only female on duty influences violent attacks on nurses, while FNPH, Yaba reported that manpower shortage is an influencing factor.

DISCUSSION

Nurses in psychiatric hospitals had described patients' violent attacks as a form of aggressive behaviour exhibited by the patients which was associated with their mental state. The information obtained from the hospital's incidence books reported that the nurses encountered more physical violence in form of physical threat and assault from their patients. About 94% of the nurses' encountered physical violence in form of threat and assault while 6% reported to had suffered from verbal abuse. There was less report of verbal abuse from the incidence book as compared to the study conducted by Shi, et al. (2017) that nurses do suffers physical and verbal violence than sexual assault while Ferri, et al., (2016) reported that nurses usually experience more of physical violence from patients with psychiatric disorders. It was indicated that verbal abuse was not often reported. Male patients involved more in violent attacks as male wards had highest incidence rate but low report of violence in male rehabilitation wards. Also, male nurses were being faced with violent attacked from patients' than female nurses.

Certain factors were reported by the nurses to influence patients' violent attacks on nurses; strong among the classification is patients' personal factors. The patient personal factors described to be influencing violent attack on nurses broadly includes patients' mental state, patients' personality, substance abuse, patient wishes and family factor. It was reported that patients' mental state may be associated with hallucination which may delude patient of reality. Patients' diagnosis often schizophrenia is also in relation to patients' mental state which could influence violent attacks on nurses. These confirms the report of d'ettoire and Pellican (2017) & Milcent (2018); that diagnosis of schizophrenia, substance abuse, were predicators of patient's violence as well as Rothermel and Guillin (2017) confirming that hallucination is a significant factor in predicting patients' violent attack. Previous studies also established that substance abuse enhances severe mental illness in patient carrying out violent attack. The findings revealed strong relationship between hallucination and patient mental health status in inducing the situation for which decision to carry out an act of violence on nurses is based. Supporting situation includes patients' premorbid personality and admission of patients against his or her will. Patients' personal factor influencing violent attacks on nurses especially when the mental illness is severe with diagnosis of schizophrenia and patient having aggressive behavior as part of patients' premorbid personality (Andre, et al. 2018).

Psychoactive drugs and alcohol were regarded as the most important substance use that influences patients' violent attacks on nurses, especially, when they are craving for the drug of addiction and could not access the drugs; they become aggressive towards the nurses. It was reported that unreserved access to psychoactive drugs makes patient to lack self-control for aggressiveness resulting in action that could be damaging Benzhexol being antidote to extrapyramidal side-effects was reported to be alternative drug of addiction and is non-availability makes patient to be more aggressive toward nurses while on admission. The use of psychoactive drugs was also attributed to hallucinatory behaviour due to its biological effect of altering the neuronal system and changes in the brain structure especially with schizophrenia and substance use (Allen, et al., 2018).

Family as a social unit is a key factor in the development and existence of any individual. An individual, in sick role, requires the family support to provide succour and meet his necessary needs for quick recovery. But some psychiatric patients were denied of this support while some experienced abandonment and failure of relative visits makes patients become aggressive towards the nurses' who spend most times with them. Patients' lack of pocket money or insufficient fund for daily upkeeps while in the ward is a significant factor reported to influence violence in the patients. Another important factor is the failure of the patients to have their wishes met. When patients desire is not met or thwarted, they felt frustrated and turned violently against nurses, especially desire for drugs of addiction, wishing to access social media or attempt to escape from the hospital settings is denied, patients tend to attack the nurses preventing them from having their ways. Patients with aggressive personality will become easily irritated and often lack trust in nurses especially when there is no therapeutic communication between them or they see nurses as enemy forcing them in to treatment without their will.

One major factor that nurses reported to be influencing patient violent attack is patient's complaint of being admitted without their consent, which could be attributed to their mental state adjudged to be detrimental to self or the society. The plan to treat patient is usually with the patients' family / relative consent. Patients often resist this despite their ill- health and nurses are often the target of the attack. Also, when patients spent longer period on admission,

they often felt is the handiwork of the nurses and in returns assault the nurse at work. Often than not, reoccurrence of mental illness especially with successful violent act makes patient attempt violence subsequently, hence, relapse has been identified as another patients' factor influencing violent attacks on nurses.

Environmental factor is an important factor in the organization where care is being rendered is very essential in nursing care activities, most especially for mental health nurses. The attitude of the nurses, quality of care, ward environment and staff- shortage have been identified as relevant factors that do influence violent attack by patients on nurses. Shortage of nursing staff can induce unnecessary reactions from the nurse due to increase of workload which the patients might misinterpreted and in revenge become aggressive towards the nurses. The nurses' personality and type of care given can either induce or prevent violent behavior from the patient. Aggressive behaviour from the nurses can also induce aggression from the patients. Inadequate number of staff on duty again is an avenue for a patient who has pre-planned intentional violent act to fulfil his/ her desire and having only female nurses on duty with aggressive patients or patients with pre- planned act makes it easy to achieve task for violent attack.

The quality of care given to patients' psychotic disorder determines how soon they would recover from the psychotic disorder. The level of nurses' preparation in the care of the mentally ill patient but Arnetz, Hamblin, Sudan and Arnetz (2018) reported low work efficiency as a risk factor for physical violence. Oyelade (2016), from her study on management of aggression, emphasized on the level of nurses' education as professional mental health nurse, in-service training, continuous education and training on understanding, management and prevention of violence at workplace as factors needed to enhance quality of care.

Nurses identified potency of drug as a factor that can affect the quality of care rendered given the patients' more capability due to their mental state in attacking the nurses. Psychotropic reducing the patient hyperactivity and aggressiveness. If other factors are ruled out and the patient is not doing well especially still manifesting psychotic feature such as hallucination, the efficacy of the drug potency might be queried as it might induce patient violent attacks due to chronicity of the illness. The ward arrangement in term of space resulting in overcrowdings of the ward, heat and lightening was also reported to influence patients' violent attack on nurses. Arnetz, et al., (2018) corroborated the findings that poor ventilation climate serves as risk factor for verbal and physical violence.

Non-availability of needed resources to work with as reported by the nurses may also expose the nurses to danger of the ward environment which is referred to as safety culture of the organization. This study revealed that lack of personal security gadget, absent of crisis intervention team to provide security guard for the nurses also encourages violent attacks to unprotected nurses at work. APNA (2020) agreed that limited resources and reduction in staff strength influence violent attacks. In alignment with Niu, et al., (2019) the major strategies adopted in Taiwan to prevent patients' violence attack were security measures, patient's protocol, and training of staff on management and prevention of violence.

Another environmental factor identified was hostile working environment, where no healthy interpersonal and interprofessional collaboration exists same was ascertained by Arnetz, et al. (2018) that interpersonal conflict was a risk factor for verbal violence, Niu, et al. (2019) agreed that lack of therapeutic environment influences patients' violent attack.

Nursing staff attitude was described as a causal factor for aggressive behaviour. A positive attitude can favourably influence others while a negative attitude can adversely influence others. The nurses emphasized nurses' attitude as an environmental factor which could make the patients to violently react by attacking the nursing staff. Personality of the nursing staff has been identified as individual differences that can trigger violent reaction among the patients being treated to attack nurses. This nurses' differences reflected in the manner of approach and care to the patients. Nurses are expected to be empathic in their care and no need for being heady that may trigger violent behaviour in the patient which may result in attacking the nursing staff. Mental health nurses must understand the psychiatric patients and care for them with tender love and self-disclosure to avert violence.

Human resources are very important in any organization, staff shortage is another environmental factor identified could influence patients' violent attack. The number of staff available per shift could determine the effectiveness of the working staff. Manpower shortage has been reported as another environmental factors. Two nurses and sometimes both being female has been reported to influence patients' violent attack (Ferri, Silvestri, Artoni, & Lorenzo, 2016). Shortage of staff has reported to increase workload resulting I stress and burnout for the nursing staff.

Implication to Research and Practice

Violence in psychiatric setting is detrimental, high level sensitivity to its existence is very pertinent. This study has revealed the importance of nursing attitude and effective collaboration among health workers in order to prevent violent attack on mental health nurses. Mental health nurses must be very accurate and versatile with identifying factors influencing violent attacks from patient and within the system, effort should be made to avert or prevent it occurrence. Hospitals management should ensure organizational safe culture that will enhance mental health nursing practice, promote quick recovery of patients and prevent harm of the nurses in particular and healthcare workers generally.

CONCLUSIONS

The study focuses on the incidence and factors influencing violent attack on nurses in psychiatric hospitals. From the findings, it was established that violent attacks are being perpetrated by the patient on mental health nurses. Physical violence was often documented compared to verbal abuse. Both genders were at risk of being attack by the patient which was often perpetrated by male patient. Under the two main factors classified to has influenced patients' violent attack on nurses; patients' factors stand out prominently with the following being responsible for influencing the attack thus; hallucination, involuntary admission, mental state, patient wishes and unmet needs, patients' personality, prolong admission, relapse, substance abuse and lack of family support. The second main influencing factor is environmental factor, which identified ward environment, nursing attitude, quality of care, shortage of staff and hostile working environment. The ward environment that is overcrowded, not conducive for living with poor lighting system and hostility also enhances patients' violent behaviour. Manpower shortage apart from influencing patients' violent attack also increase workload and job burnout. Absence of security equipment and crisis intervention team. Violent attack on nurses at work is detrimental and increases workload.

Further Research

Based on the limited available data compared to violent attack expressed by the nurses during the study necessitated the need for further studies on prevalence of violent attacks in psychiatric settings among health workers. Also, there would be need for study on the Nurses' attitude and prevention of patients' violence in psychiatric hospitals.

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