

**Factors Affecting the Emergency Management and Treatment of Aggressive and Violent
Behaviour in a Mental Health Institution, Zimbabwe**

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Dedications

To Sandra, and to my late mother
To all the patients at Ingutsheni Central Hospital who were admitted in Khumalo ward at the
time of the study.

Abstract

Violence by inpatients against mental health personnel, fellow patients and people uninvolved in the patient's treatment is a common and universal problem requiring urgent attention. The current study sought to investigate factors that are important or considered important by health personnel in making crucial decisions about emergency interventions in aggressive and violent inpatients in a mental institution in Zimbabwe. In particular, the study was intended to address three major objectives namely to identify factors relevant in influencing mental health workers' wide range of interventions in response to inpatient aggressive behaviour and violent incidents; to establish the degree to which mental health workers recognise factors that influence their management and treatment of violent behaviours in emergency situations and to determine the weight of importance attached to each factor identified by mental health workers as being important in their management and treatment of aggressive and violent behaviours. By so doing, the study sought to lay foundations for the development of a checklist for mental health personnel on how to proceed in unexpected occurrence of aggressive and violent incidents in mental health wards. A quantitative descriptive research design was used in the current study. The data involved information collected from questionnaire surveys in the mental hospital's four purposively selected wards and direct observations in Khumalo ward. The health personnel were observed as they attempt to deal with aggressive and violent incidents in emergency. They also filled in questionnaires purposively distributed in the wards at a particular time. The data collected through the questionnaire and Management and Treatment Observation Table (MTOT) were analysed descriptively using SPSS version 15.00. Qualitative data from open-ended questions were entered into SPSS as string variables, thematically analysed and post coded. Results have shown that health workers tend to rely on the use of per rising need (PRN) injection and seclusion in the management and treatment of violent and aggressive patients. As a result, number of staff present and availability of drugs became the major factors in the management and treatment efforts. Equally critical factors were found to be perceived dangerousness of aggressor, patient diagnosis, history of violence, phase of patient illness, location violent behaviour takes place, and experience, age and motivation of health worker. In the management and treatment violent patients, the health personnel in Khumalo ward need to go beyond the confines of restraining, seclusion, and rapid tranquilisation (RT). Even though the medical approach of RT effectively stabilised violent patients in the short term, knowledge and practice of behaviour medication techniques will be an invaluable tool for the health personnel. A clear guideline on the identification of behaviour requiring emergency responses and how to proceed in case of such emergency is imperative. A check list will be an invaluable tool for use by health personnel on duty in case of the occurrence of a violent incident.

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Chapter One

Introduction

1.0: Background

Citing The International Council of Nurses' (ICN) 2006 report, Farrell, Bobrowski and Bobrowski (2006) noted that occupational violence is a major worldwide public health problem. Aggression and violence in mental health institutions has been seen as a threat to the safety and well-being of patients and staff members (Anderson & Bushman, 2002). Literature on mental illness considers aggression and violence as one of the primary reasons for admission to mental health institutions, with projections suggesting worldwide increase in admissions due to violence (Monahan & Steadman, 1994). Violence toward mental health personnel (workers) is considered common and an important issue; more than a third of psychiatrists have been assaulted by a patient at least once (Antonius et al., 2010). Monahan and Steadman (1994) identified exposure to aggressive or violent patients in wards as a particular problem for the nursing staff - affecting their psychological wellbeing and work performance.

Accordingly, aggressive or violent behaviour in psychopathological patients has become of a great concern and recognised by mental health clinicians as a significant problem associated with illness relapse, hospital recidivism and even poor outcomes in community-based treatment (Monahan & Steadman, 1994; Mullen, 1997). In a study by Carmel and Hunter (1989), results show that, in 1986, 121 members of staff sustained 135 injuries from patient violence in a state hospital in one of California's two primary forensic facilities. Even though serious violent acts

committed by individuals with mental illnesses are reported statistically rare events (Monahan, 1992), the risk of violence creates dilemmas in the clinical, legal and public domain.

More recent epidemiological studies in the United States of America show that individuals with severe psychopathology, such as bipolar disorder and schizophrenia, were at least twice likely to be assaultive compared to those people that do not have such mental illness. In absolute terms, the lifetime prevalence of violence among people with serious mental illness was 16%, as compared with 7% among people without mental illness (Swanson, Van Dorn, Monahan & Swartz, 2006). Although not all types of mental illness are associated with violence (for example anxiety disorders do not seem to increase the risk) and although most people with schizophrenia, major depression, or bipolar disorder do not commit assaultive acts, the presence of such a disorder is significantly associated with an increased risk of violence.

Lucas and Levert (2001) conducted an exploratory study to examine the extent to which exposure to violent or aggressive patients is a problem for mental health nursing staff in different institutions in South Africa. They found out that nursing staff working in the primarily involuntary, medium-term institutions experienced the most violence, while staff working in the medium-term voluntary institution experienced the least amount of violence. Nursing staff exposure to violence in South Africa was found to be at least as bad as that described in other international reports (Lucas & Levert, 2001). In part, high levels of burnout were found to be the consequence of inpatient violence.

Haller and Deluty (1988) reviewed literature on assaultive acts committed by mentally ill patients during hospital stay, contextual factors and patient characteristics associated with such assaults. They concluded that increased risk of assault is attributable to a variety of factors: (1) understaffed units; (2) deinstitutionalization; (3) an increasing number of readmissions and involuntary admissions (Bowers, Allan, Simpson, Jones, Van Der Merwe & Jeffery, 2009); (4) patients' right to refuse medication, often leading to an increase in patient/staff confrontations; (5) diverse mixtures of patients and; (6) patients being younger and more difficult to manage than in the past years.

1.1: Statement of the Problem

Literature provides evidence that inpatient violence and aggression against mental health personnel is a common and worldwide phenomenon (Rippon, 2000; Hunter & Camel, 1992), and that violence and aggression against healthcare staff has become an important issue in recent years (Krug, Dahlberg, Mercy, Zwi & Lozano, 2002). Hunter and Camel (1992) also noted that aggression and violence of mentally ill patients represents a serious threat to the safety of both patients and staff. Workplace violence is one of the most complicated and dangerous occupational hazards facing nurses working in today's health care environment. It has caused profound traumatic stress disorders on its victims (Rippon, 2000). Most victims of aggression tend to be staff members, particularly mental health nurses (May & Grubbs, 2002; Presley & Robinson, 2002). In a review of assaults by patients against staff, Erdos and Hughews (2001) reported that health workers are at an increased risk of experiencing work-related violence with a 5% to 48% chance of being physically assaulted by a patient during their careers.

Violent patients present a risk to themselves and others and require swift, safe and effective management (Pilowsky et al., 1992). In dealing with aggressive and violent patients, mental health workers can be confronted with an immediate threat to their own safety, the community and the patient. Mental health workers are not only a passive target of potential patient violence, but have to perform a wide range of management and treatment interventions to modulate the context and the interaction with potentially violent patients. Unfortunately, even if preventive strategies are implemented, aggressive and violent incidents will still occur in most acute mental hospital wards (Winship, 2006) and must be managed even in such urgent situation (Beck & Roy, 1996). As a result, mental health workers, nurses in particular, do not only have to manage the interactions within the therapeutic environment in order to create and maintain a safe living and learning environment for all patients (Fluttert, 2010), but also have to know how to effectively respond in emergency. Most research to date has examined the association between violence and mental illness (schizophrenia) in terms of relative risk (Monahan, Steadman, Silver, & Appelbaum, 2001; Monahan et al., 2000; Steadman et al., 2000). Surprisingly little work has focused on the more important issue of the health workers in mental hospitals responding to the occurrence of a violent incident. Effective emergency management and treatment would depend on various factors. Cognisance of the fact that a diverse literature on violence concentrate on prevalence, perpetrators, impact and prediction (Buchanan, 1999) of dangerousness, it was felt that there was great need to investigate factors that are important or considered so in making crucial decisions about emergency interventions in aggressive and violent inpatients.

1.2: Objectives

1. To identify factors relevant in influencing mental health workers' wide range of interventions in response to inpatient aggressive violent behaviours.
2. To establish the degree to which mental health workers recognise factors that influence their management and treatment of violent behaviours in emergency situations.
3. To determine the weight of importance attached to each factor identified by mental health workers as being important in their management and treatment of aggressive and violent behaviours.

1.3: Justification of the study

Despite the fact that literature has provided insight into the prevalence of aggression, causes (Volavka & Citrome, 2008), consequences (Delaney & Johnson 2008) perpetrators, prevention, prediction and characteristics of aggressive inpatients, such researches have done little on the factors affecting response to violent behaviour in emergency. The current study, among other things, aims to contribute to the development literature in Zimbabwe particularly in the management and treatment of aggressive and violent mental inpatients in emergency.

By bringing to the attention of the health providers those factors that influence their decisions to proceed in the unforeseeable occurrence of violent and aggressive behaviour, it contributes to the treatment of patients by highlighting factors affecting the emergency management and treatment of aggressive and violent patients. The study highlights how these factors affect health

personnel's (mental health workers') decisions about management and treatment options.

The research intends to lay down the necessary foundations for the development of a checklist that would guide health workers in their attempts to deal with emergency aggressive and violent incidences occurring in mental health wards. In that regard, the research contributes to efforts at reducing injuries to the health workers who constantly risk working with increasingly of violent patients.

By identifying factors that are and considered critical in the emergency treatment and management of aggressive and violent behaviour, it is hoped that these factors can be further investigated and inform the formation of a checklist to be used by health personnel in responding in cases of emergency.

The research is premised on the need to broaden the conception of mental health in Zimbabwean mental health institutions, and improve the practise of mental health workers. In a country where future developments in health care should be the resuscitation of prevention rather than cure, the research comes at the most opportune time. The researcher decided that the first step would be to identify, through the literature, factors recognised as being potentially relevant or important in the decisions about management and treatment protocols.

1.4: Conceptual Framework

The present section presents the conceptual framework for the study. Proposed by Nijman,

aCampo, Ravelli, and Merckelbach (1999), it is an explanatory model of aggressive behaviour that attempts to integrate patient, staff, and ward variables. In the proposed model, the patient's psychopathology and distorted cognitions are exacerbated by environmental and communication stressors found on wards in mental hospitals. The model emphasizes that repeated inpatient aggression may be the result of a vicious circle, whereby a patient's violent behaviour is often followed by an increase in stress on the patient caused by environmental or communication factors, heightening the risk of another outburst of violence. It provides an understanding of aggression and violence beyond the medical concept of mental health. In the management and treatment of aggressive and violent behaviours, it may be helpful for mental health workers to look beyond patient variables to consider situational variables (staff and ward).

The model suggests that three variables may interact to cause or exacerbate aggression. The three categories of variables believed to contribute to aggression are (a) patient, (b) ward, and (c) staff. Serious psychopathology is thought to be one of the major sources of inpatient aggression. Psychotic disorders, mania, personality disorders, substance abuse, and organic brain disease all have been found to be associated with impulsive behaviour (Tardiff, 1992). The core variable in the model, that is psychopathology, leads to the patient being admitted to a mental health ward. However, the model recognises that hospitalisation inevitably introduces new situational stress on the patient.

Nijman et al. (1999) observed that after admission to the ward, several environmental stressors come into play. Patients may have to be locked up for safety reasons and generally will have little privacy on the ward. On a crowded ward, patients can become over-stimulated due to ward

turmoil (MILMIS Project Group, 1995). Furthermore, patients may be exposed to therapies that may be too demanding. On the other hand, under-stimulation resulting from a lack of interesting activities may also lead to disruptive behaviour.

Several staff variables are also stressors. Problematic communication between staff members and patients may contribute to aggression (Whittington, Shuttleworth & Hill, 1996). Whittington et al. contended that patients may become frustrated and angry if they perceive that staff members are not accessible or if they encounter obstacles to obtaining information. Inconsistencies in limit setting may also fuel aggression.

At the centre of the model is the patient variable of cognitive stress (Nijman, Allertz, Merckelbach, Campo, & Ravelli, 1997). Patients' appraisal of the situation on the ward plays a key role in whether they will become aggressive. When patients are experiencing psychopathological symptoms, environmental and communication stressors may enhance their distorted cognitive interpretations of ward activities. For example, some patients may think that they are going to be locked up forever or they are being slowly poisoned with pills. As a result of such thinking, patients may interpret environmental and communication stressors as being extremely threatening. Tension and anxiety will build up and panic or aggressive behaviour may eventually occur.

The model suggests a number of management and treatment interventions for which procedures can be set up. Although no specific treatment for violence exists, several psychoactive drugs such as antipsychotics, lithium, antidepressants, sedatives, anxiolytics, anticonvulsants, and beta

blockers have been successfully prescribed in the treatment of aggression secondary to psychopathology (Corrigan et al., 1993). For the large majority of psychotic patients, the administration of antipsychotics with or without sedatives will reduce hallucinations and delusions, thereby reducing violence (Tardiff, 1992).

Normalisation of psychotic patients' cognitions will facilitate communication between staff and patients, reducing the need for further restrictive measures (Nijman et al., 1999). Unfortunately, no unequivocal strategy exists for preventing violence among patients with treatment-resistant schizophrenia, cluster B personality disorders, or impulse control disorders. In these cases, measures at the level of ward and staff variables should be carefully considered.

1.5: Focus of the Study

The area of focus for this study was;

1. Factors relevant and factors that influence mental health workers in making decisions about management and treatment of violent behaviour and incidents, their response to the eruption of violent behaviour in a mental health ward.
2. In the process, the research also attempted to determine mental health workers' behavioural responses to emergency situations presented by the eruption of violent incidents.

1.6: Definition of Terms

To ensure the reader understands what is meant by the terms and concepts that are used in the current research, key concepts or terms referred to are herein defined (Parahoo, 2006). As review of literature will demonstrate, aggression and violence are an extremely diffuse phenomenon (Abderhalden, Needham, Dassen, Halfens, Haug, Fischer, 2008) that defining them becomes a matter of judgment. It is evident from the literature in the area of patient aggression that there are differences in the conceptualisation and definition of aggression and associated terms, such as assault and violence (Maguire & Ryan, 2007). Maguire and Ryan also noted that studies of inpatient aggression and violence are hard to compare because of the differing definitions of aggression and violence, and the variety of settings in which the studies have taken place ranging from general hospitals to mental hospitals to forensic. The following is an attempt at providing working definitions for key terms. In defining these terms, the researcher moved from the fairly simple to the complex; that is, starting with aggression, then moving on to violence and then finally an attempt at an all-encompassing working definition.

1.6.1: Inpatient Aggression

In the current study, aggression was defined as unacceptable behaviour (verbal aggression and physical aggression) by an inpatient against mental health worker (s), against fellow inpatients, and any other person in the ward such as visitors. Aggression towards oneself (self-mutilation, suicidal gestures or acts) is included in the definition. Salient is that aggressive behaviour is directed toward the goal of harming or injuring another living being (or the environment), who

can be motivated to avoid such treatment.

1.6.2: Inpatient Violence

Inpatient violence is herein conceived as episodes of unwanted physical or sexual contact. It is the use of physical force by an inpatient (s) against mental health worker (s), against self, other inpatient (s), and the environment that results in physical, sexual or psychological harm and damage to the environment (Siann, 1985).

For a number of reasons, the researcher acknowledges a definition that restricts ‘violence’ to interpersonal physical acts to be appropriate. First, if there is a underlying association between mental illness and violence, it should be most easily noticed in its most acute manifestations. Second, the incidence of physical violence can be determined more reliably, therefore, is likely to be more consistently defined and reported from study to study.

Nonetheless, the current approach also conceived of patient violence as including verbal and nonverbal threats in addition to sexual and physical assaults. Literature demonstrates that patient threats are frequent events of serious concern (Woods & Ashley, 2007; Hubschmidt, 1996), and seem to suggest that some verbal threats produce as much psychological distress for staff victims as is done by some physical assaults. The current study therefore considered threats by mentally ill patients of great concern.

1.6.3: Violence and Aggressive Behaviour

Some studies refer to the term violence and some refer to the term aggression as including both physical and verbal attacks (Chen, Hwu, & Williams, 2005). As Irwin (2006) and Maguire and Ryan (2007) highlighted, inconsistencies in the definition and measurement prevent researchers and managers from gaining a truly accurate perception of the prevalence of patient aggression.

The definition of violence by Olweus (1999) as use of physical force or as aggressive behaviour where the actor or perpetrator uses his or her own body as an object (including a weapon) to inflict injury or discomfort upon an individual is of particular interest here. Apparent in the definition is an overlap between violence and aggression. The term violence was used quite loosely throughout the literature (Haller & Deluty, 1988) to refer to a wide range of behaviours including acts involving physical assault, physical threats, verbal threats, psychological or emotional abuse, damage to property, suicide, and self-harm.

If violence is to include verbal, psychological and physical abuse, it then becomes hard to distinguish violence from physical aggression, or simply aggression. In order to minimise any potential confusion the present study used together or interchangeably, the terms aggression and violence. This operational definition includes both physical and verbal attacks of a threatened or actual nature. Sometimes the terms were used with synonyms such as:

- Violent behaviour (s)
- Aggressive behaviour (s).

While the use of violence in this way allows for an all encompassing definition for the study, using it thus, imprecisely, can have the effect of confounding the research (Haller & Deluty, 1988). However, since the present study was not intended to identify what constitute impatience violence but to observe how health personnel response to violent incidents, it was hoped that such a definition would not have a direct effect on the range of incidents to be observed in the selected the wards.

1.6.3: Mental Health Workers

In the current research study, the phrase ‘mental health workers’ was used interchangeably with such phrases as:

- Health personnel.
- Behaviour modifying agents.

1.6.4: Psychiatry

The phrase mental health was preferred in place of psychiatry for the reason that this work is inclined more to the behavioural domain than the medical and that the phrase was found to provide a clear picture of the place of study which is Ingutsheni Central Hospital.

1.7: Methodological Issues

As already noted, one of the difficulties in studying violence and aggression is that they are not

easy to define (Royal College of Nursing, 2003). How violence is defined varies greatly and reported rates differ, depending on the levels of violence measured. According to Walsh, Buchanan, and Fahy (2002), studies that include threats as well as physical contact record higher rates than those that include contact alone. Walsh et al. also noted that it is virtually impossible to find violence defined in the same way in any two studies by different researchers. While such observations highlight the need for the development of a standardised, validated, reliable and acceptable rating instrument that could be adopted across studies, the current study adopted an all encompassing definition of aggression and violence.

Literature on prevalence of violence indicates that measurement of violence has relied upon different single sources of information such as self-report, informant, case notes, and official records (Walsh et al., 2002). All sources are accused of inherent limitations. As Elliott, Huizinga and Morse (1986) noted, self-report methods consistently produced a higher frequency of violence than official records. On the other hand, retrospective designs have been noted to produce problems with recall of distant events (Walsh et al., 2002). Informants, who are often nominated by patients, may not be the most suitable people to provide information or be aware of incidents. Case notes are of limited usefulness because they are often incomplete.

The use of multiple combined measures for violence highlighted the limitations of the majority of previous studies that relied on a single source (Steadman et al., 1998). Although the current study did not use such multiple measures such as agency records, self-report and collateral informants to collect information on management and treatment of aggression and violence, it however triangulated research methods and data collection tools. In addition to administering a

survey questionnaire, data was also collected through observation in appropriately selected ward.

According to Walsh et al. (2002), research on schizophrenia and violence has been affected by selection bias whenever there is identification of individual patient for a study. The authors also noted that this bias is associated with an observed relationship between schizophrenia and violence. Closely related to selection bias is the location of recruitment which was found to be a crucial factor. As Robins and Reiger (1991) noted, research on violence and mental illness is dominated by data on hospitalized or discharged patients, whilst most individuals with mental disorder are not hospitalised. Though not necessarily meant to overcome the problem of selection bias, the current research completely avoided target patients themselves as participants.

This study targeted the health workers as respondents and participants for the survey and observations respectively. The study adopted a descriptive research design, constituting predominantly of quantitative data. Details of the methodology are covered in chapter three.

1.8: Thesis Synopsis

Chapter one is the introduction to the thesis. It provides a review of the statement of the problem which forms the background to the current research. The chapter also gives the objectives, justification and scope of the current study. This chapter also looks at the methodological issues, limitations of the current study and lastly the thesis synopsis.

Chapter two contains a review of available literature, and in particular, a review of violence and

mental illness. Attention is given on factors in the management and treatment of violent behaviour in mental institutions. The chapter also examines the effects of inpatient aggressive and violent behaviour on, particularly, the mental health staff.

Chapter three is a detailed look at the methodology used in the present study. The chapter presents the research design, respondents, sampling methods, procedure, instruments, data analysis and ethical issues in the study. Limitations of the study are constituent of chapter three as well. But first, the researcher presented a background outlook of the Ingutsheni Central Hospital, and a justification of institutional sampling used.

Chapter four is a presentation of the results of the research according to the objectives of the study. Relevant factors that are considered important in the management and treatment of inpatient aggressive behaviour in a mental hospital are herein identified and quantified. Factors are ranked according to importance and familiarity with health workers (behaviour modifying agents) in the selected wards.

Chapter five contains a discussion of the results presented in chapter four, recommendations and limitations of the study. The genesis of chapter five is dedicated to a discussion on the dominant approach used in the ward, which is the medical approach to mental health. Key aspects of the data covered in chapter five include highlights of the problems observably encountered by mental health workers in defining and noting of behaviours as requiring urgent intervention, and a discussion on the factors in the management and treatment of violent and aggressive behaviours.

1.9: Chapter Summary

The preceding section is the introductory chapter to the current thesis. It is a review of the statement of the problem acting as the basis to this research. The chapter has also provided the research objectives, justification and scope of the current study. Lastly, it has also looked at the methodological issues of the current study and the thesis synopsis. The next chapter (Chapter Two) reviews literature relevant to the conception of the study.

Chapter Two

Literature Review

2.0: Introduction

The current researcher recognizes that literature review is a vital component of any research project and forms “the foundation of the research proper” (Hart, 1998; 26). Review of the literature on the management and treatment of aggressive and violent inpatients preceded the submission of the research proposal to help the researcher clarify the objectives of the study, provide context to the research, identify any gaps in the current knowledge and develop the research design (Pickard, 2007). The literature was also later revised in line with the findings emanating from Ingutsheni Central hospital. First is the presentation of the review of literature on violence and mental illness. Included in this chapter are the effects of inpatient aggressive and violent behaviour on particularly the mental health staff. Basing on literature on prediction of violence in psychopathological patients, the chapter identified factors that can be considered potentially critical in the management and treatment of inpatient aggressive and violent behaviour in emergency. A conscious attempt was made to examine appropriate literature on patient aggression in psychiatric populations in Africa.

2.1: Violence and Aggression

Citrome and Volavka (2002) define violence as behaviour that is destructive by an individual against another person or things. Anderson and Bushman (2002) view aggression in both its physical and verbal forms. Both aggression and violence should be committed by one person and

directed against self, other people, objects, and with the aim of causing harm and damage. O'Connell, Young, Brooks, Hutchings and Lofthouse (2000) reported that the definition of violence from the perspective of nurses include verbal and physical aspects of patient hostilities.

2.1.1: Violence and Aggression in Patients with Mental illness

The text revision version of the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV-TR) presents disorder that have the potential for aggression and violence (APA, 2000). According to Hughes (1996), aggression can be the result of both internal and external factors that create a measurable activation in the autonomic nervous system. This activation can become evident through symptoms such as the clenching of fists or jaw, pacing, slamming doors, hitting palms of hands with wrists, or being easily startled. Hughes reported that approximately 17% of visits to psychiatric emergency service settings are homicidal in origin and an additional 5% involve both suicide and homicide.

Violence is also associated with many mental disorders or conditions. Examples include intoxication, paranoid personality disorder, antisocial personality disorder, narcissistic personality disorder, and borderline personality disorder. Additional risk factors have also been identified which may lead to violent behaviour. Such risk factors may include prior arrests, presence of hallucinations, delusions, or other neurological impairment, being uneducated, unmarried, poor or male (Hillard & Zitek, 2004). Other risk factors for violence include a high intelligence quotient and having a vast knowledge of mental disorders (Hillard & Zitek, 2004). Mental health professionals complete violence risk assessments to determine both security

measures and treatments for the patient (Hillard & Zitek, 2004).

2.1.2: Mental Illness and Violence

According to Monahan (1992) mental illness has been related with aggression and violence throughout history and in all known cultures. The author noted that until recently, however, the opinion among mental health workers has been that mentally ill people are not necessarily more violent as compared to the ordinary population, especially when extrinsic factors, such as demographic variables, are taken into account.

Before the 1990s there was little reliable evidence to either refute or substantiate the long belief that an association exists between violence and mental illness (Dolan & Dyle, 2000). The authors reported that studies done prior to that time attempted to establish and quantify associations between rates of mental illness among convicted criminals or pre-trial detainees with those in the general population. The studies were criticised on a number of methodological grounds, including the use of inappropriate comparison groups (Craig, 1982), and that other risk factors for violent behaviour such as low male income, may be over-represented in those diagnosed with a mental illness.

Monahan, Steadman and Silver (2001) reported a modest association between mental illness and violence. Studies conducted after the period of deinstitutionalization have shown an increased rate of physical violence among mentally ill patients after controlling for possible confounding variables (Swanson, Holzer, Ganju & Jono, 1990; Link, Andrews & Cullen, 1992; Torrey, 1994;

Hodgins, Mednick, Brennan, Schulsinger & Engberg, 1996). In his review of studies on violence and mental illness, Monahan (1992) concluded that there appears to be a relationship between mental disorder and violent behaviour.

Swanson et al. (1990) administered the Diagnostic Interview Schedule (DIS) to a representative sample of community dwelling adults who were part of the Epidemiological Catchment Area (ECA) survey. Their main findings were that individuals who met DIS criteria for a mental disorder were more likely to engage in violent behaviour than participants who did not meet these criteria.

In a research carried out in Indiana, Matejkowski, Cullen and Solomon (2008) looked at the records of 518 prisoners convicted of homicide. Of these prisoners, roughly 10 % constituted of individuals diagnosed with disorders such as schizophrenia, bipolar and drug abuse. Approximately 8% had been diagnosed with major depressive disorder. The interesting point to note is that the study by Indiana et al constituted merely of sentenced individuals. This means that the study excluded very critical groups of individuals such as ones not guilty by reason of insanity even though they had committed homicides. Thus, instead of being sent to jail, these individuals were sent to some mental hospital (Indiana et al., 2008). The authors' 10.2% could therefore, have be an underestimate.

In a Canadian study, Bland and Orn (1986) reported a relationship between family violence and mental illness. More than half of their respondents (55%) with a psychiatric diagnosis reported involvement in violent behaviour compared to 15.5% of those with no diagnosis. Individuals with diagnosis of antisocial personality disorder, major depression, and/or alcohol abuse/dependence were 6.5 times more likely to be involved in violence than those without a disorder. In addition, the risk of violence increased among those diagnosed with concurrent psychiatric and substance abuse disorders. In the study, 80-93% of the respondents diagnosed with antisocial personality and/or depression and who abused alcohol were involved in violence.

Citrome and Volavka (2002) reported an association between the presence of a mental disorder and aggressive/violent behaviour, even though most psychopathological individuals may not be violent. Citrome and Volavka were able to identify potential causes of violent behaviour in psychopathological individuals. These include the presence of co-morbid substance abuse, underlying personality characteristics such as antisocial personality and the environment. The environment, for example unstable hospital situation, as one of the factors was found to be linked with violent behaviour (Citrome & Volavka, 2002).

Debate still exists in the literature about the possible causative role of mental illness in violence (Marzuk, 1996). Videbeck (2006) noted that pointed to the possibility that the media could have greatly contributed to the public's mistaken thinking that most psychopathological individuals are violent and therefore reason enough to be feared. Elsewhere, episodes of aggression and violence are observed to happen in all clinical diagnostic categories and therefore not peculiar to

individuals diagnosed with a psychiatric disorder (Harris & Rice, 1997). According to American Psychiatric Association (APA) (2000), schizophrenic individuals, for instance, were not found to be more dangerous than people found in the general public.

2.1.3: Violent Behaviour: A Consequence of Severe Mental-illness Treatment Failure

A perusal of the literature provides younger age and male sex as the most important demographic predictors of violence by mental patients (Torrey, 1994). Substance abuse and past history of violence are also considered the main clinical predictors of violent behaviour. In a study of violence in male patients with schizophrenia in South Africa, Koen et al. (2004) confirm use of cannabis and alcohol a major predictor of violence in schizophrenic male individuals. The same results are reported by Swanson et al. (1990) who noted that epidemiological studies conducted in the general population have shown that violent behaviour is associated with younger males with low socioeconomic status, substance abuse problems and a history of violence. According to Torrey, the 3rd main clinical predictor of patient violence is a combination of severe mental illness and nonadherence to medication.

Severely mentally ill individuals taking their medication were found not to be more dangerous than the general population (Steadman et al., 1998). In a study of violence and mental illness in the three-site MacArthur Foundation Study of violence and mental illness, Steadman et al. reported that discharged psychiatric patients without substance abuse had approximately the same incidence of violent behaviour as other individuals living in the same neighbourhoods. These patients were being followed closely for a year and most were taking their medications.

Unfortunately, the study excluded patients with the most violent past histories.

Nonetheless, Sosowsky (1980) found out that severely mentally ill individuals that are not adhering to their treatment are more likely to be violent than the general population. It seems now generally accepted that people with schizophrenia are considerably more dangerous than the general population though the percentage of violence in the society attributable to them is not significantly large. However, comorbid substance abuse has been found to drastically increase the risk in such individuals (Buchaman & Fahy, 2001).

2.2: Diagnoses Associated with Aggression and Violence

2.2.1: Aggressive and Violent Behaviour in Patients with Substance Use

Some of the violent behaviour occurring among mentally ill patients is attributable to comorbidity with substance abuse. Aggressive and violent behaviour in patients can be precipitated by alcohol, cocaine, phencyclidine (PCP), or amphetamine intoxication (Citrome & Volavka, 2002).

Substance dependence, abuse, intoxication, and withdrawal often involve several substances used simultaneously or sequentially (APA, 2000). Substance abuse may have a cumulative impact on the brain, affecting course and treatment response, and further complicating the course of psychiatric disorders with significant treatment implications, such as lower rates of remission and poor response to the prescribed medication (Suppes & Dennehy, 2005). Swanson, Borum,

Swartz, and Monahan (1996) reported that substance abuse was associated with greater risk of adult-lifetime violence among persons with severe mental illness. Swanson et al. (1996) reported that of the combination of substance abuse problems and medication non-compliance was significantly associated with serious violent behaviour. Swartz, Swanson, Hiday, Borum, Wagner and Burns (1998) reported that of the combination of substance abuse problems and medication non-compliance was significantly associated with serious violent behaviour.

Citrome et al. (2000) observed that withdrawal from substances can lead to aggressive behaviour, sometimes in relation to goal-directed drug-seeking behaviour and other times in relation to paranoia and extreme anxiety. Substance use disorders have been proven to vastly increase the risk of a violent incident. Holcomb and Ahr (1988) found that patients with alcohol or drug use had more arrests over their lifetime than patients with schizophrenia, personality disorders, or affective disorders. Eronen, Hakola, and Tiihonen (1996) discovered that the combination of alcoholism and antisocial personality disorder increased the odds of women committing homicide 40 to 50 fold, while the diagnosis of schizophrenia increased the risk only 5 to 6 fold. Steadman et al. (1998) determined that patients with concomitant mental illness and substance abuse were 73 percent more likely to be aggressive than were nonsubstance abusers, with or without mental illness. Patients with primary diagnoses of substance use disorders and personality disorders were 240 percent more likely to commit violent acts than mentally ill patients without substance abuse issues (Steadman et al., 1998).

Intoxication or withdrawal from various substances of abuse, including alcohol, sedatives, cocaine, amphetamines, and opiates, can promote violent behaviours, with or without comorbid

mental illness (Lindquist & Allebeck, 1989). In a study of 59 psychiatric inpatients, Blomhoff, Seim, and Friis (1990) determined that abuse of non-alcoholic psychoactive substances was one of only three significant demographic and clinical variables differentiating the violent group from the non-violent group.

Swanson et al. (1996) noted that substance abuse was by far the most prevalent diagnosis among survey respondents reporting past violent acts. Substance abuse was present in 42% of violent responders and in only five percent of non-violent responders. In addition, female substance abusers were equally as violent as male substance abusers. In this study, substance abusers also demonstrated a greater propensity to assault more than one victim and to use a weapon during a violent incident. Of those who acknowledged alcoholism, 25 % reported a history of violence. Over and above these acute factors, chronic alcoholism is more predictive of violence than is immediate alcohol use (Petit, 2005).

2.2.2: Other Disorders

Mental disorders associated with violence are wide-ranging, and can include psychotic disorders, affective disorders, personality disorders, conduct and oppositional defiant disorders, delirium and dementia, dissociative and posttraumatic stress disorders, intermittent explosive disorder, sexual sadism, and premenstrual dysphoric disorder (Petit, 2005). In a prospective study on recently discharged patients, Steadman et al. (1998) indicated that the one-year prevalence rates for violent incidents was 18% for major mental illness without co-occurring substance abuse, 31% for major mental illness with comorbid substance abuse, and 43% for personality-

disordered patients with comorbid substance abuse.

2.2.2.1: Aggressive and Violent Behaviour in Patients with Schizophrenia

In a long-term study of schizophrenic patients, substance abuse increased conviction rates for violent crimes 16-fold among the schizophrenic group, and 30% of male subjects with both schizophrenia and substance abuse had been convicted of a violent crime (Wallace, Mullen, & Burgess, 2004). Swanson et al. (1990) found that the rate of violence among those with a mental illness was twice that of those without a mental illness, but violence was not more prevalent in persons with schizophrenia than among those with other disorders. The study noted that 92% of schizophrenic patients were not violent by their own report. Swanson points out that the rate of violence increased linearly with the number of diagnoses, and they concluded that major mental illness was one risk factor for violence, among many others (Swanson et al., 1990).

Researchers have shown that a schizophrenia diagnosis is overrepresented among patients on admission (Shader, Jackson, Hartmatz & Appelbaum, 1977; Fottrell, 1980). Nonetheless, the percentage of inpatients with schizophrenia who are involved in aggressive episodes varies from 9% to 45% (Shader et al., 1977). The incidents of violence among inpatients with schizophrenia has been related to levels of aggression and anxiety at referral (Blomhoff et al., 1990), violence during previous admissions, positive symptoms (Yesavage & Brizer, 1989), paranoid subtype (Rossi et al., 1986), nonparanoid subtype (Shader et al., 1977), hospital environment factors (Armond, 1982; (James, Fineberg, Shah, & Priest, 1990) neurological impairment lack of treatment compliance (Calcedo, 1994), and neuroleptic levels.

According to APA (2000), many studies have reported that subgroups of individuals diagnosed with schizophrenia have a higher incidence of assault and violent behaviour. Studies of violent behaviour of schizophrenic patients found that positive psychotic symptoms increased the risk for both serious and minor violence (for example, simple assault without injury or weapon use) (Swanson, Swartz, & Vandom, 2006). In this particular study by Swanson et al., the positive symptoms associated with serious violence risk included hostility, suspiciousness, persecutory delusion, hallucinatory behaviour, grandiosity, and excitement.

Citrome and Volavka (2002) asserted that patients with schizophrenia living in the community usually would not fall into the persistently violent category, but they may present acutely with aggressive and violent behaviour. This may be due to acute decompensation secondary to covert or overt non-compliance with psychotropic medication therapy. Decompensation also may be due to a failure of the current medication regimen. Expected clinical features would be a worsening of psychotic symptoms and possible command hallucinations, although the importance of the latter in violent behaviour is in dispute.

2.2.2.2: Aggressive and Violent Behaviour in Patients with other Psychotic Disorders

Approximately 20% of psychotic patients are motivated into violence directly by their delusions or hallucinations (Taylor, 1985). Junginger (1990) found out that compliance with command hallucinations increase if that hallucination involved a familiar voice and was associated with a delusion. Patients who experience persecutory delusions may attack pre-emptively, believing that they are protecting themselves. Mentally ill patients with threatening, paranoid delusions are

twice as likely to become aggressive compared with nonparanoid psychotic patients (Buckley, Noffsinger, & Smith et al., 2003).

Link, Andrews and Cullen (1992) proposed that specific types of paranoid delusions made a violent response more likely. Their concept of “threat/control-override” delusions includes patient beliefs that people are seeking to harm them and that outside forces are in control of their minds. The authors showed that increases in the number and intensity of such delusions were associated with increases in violent behaviour (Link, Stueve & Phelan, 1998). Other studies, however, have found this to be less significant when controlling for factors such as substance abuse and non-adherence with treatment (Appelbaum, Robbins & Monahan, 2000).

2.2.2.3: Violent and Aggressive and A Diagnosis of Antisocial Personality Disorders

According to APA (2000) persistent infringement of the rights of other people beginning in childhood and continuing into adulthood forms the fundamental attribute of antisocial personality disorder. When dealing with Individuals diagnosed with personality disorders health personnel are repeatedly faced with problems arising from impulsiveness, suicidal and aggressive behaviour (Timpey & Davidson, 1998). Literature also shows that personality disorders may exist together with other mental illnesses, and may be present even if the full disorder cannot be diagnosed.

Pervasive distrust of other people is the key features of a paranoid personality disorder (Citrome et al., 2002). Citrome et al. noted that patients with paranoid personality disorder interpret the

motives of other people as malicious. As a result of this disorder, patients are said to be quick to counterattack and react with anger to perceived insults (APA, 2000).

2.2.2.4: Violent Behaviour and A diagnosis of Bipolar Disorder

Individuals with mania attempt to control the environment by invading personal space; their behaviours are often intrusive and inappropriate (Cornwell, 2006). Apart from feelings of euphoria, grandiosity, and power, additional symptoms of mania include excessive irritability, aggressive behaviour, impulsiveness, poor judgment, distractibility, and reckless behaviour (Suppes & Dennehy, 2005). Suppes and Dennehy (2005) claim that child abuse, spouse abuse, or other violent behaviour may occur during severe manic episodes or during those with psychotic features. Other associated problems include school truancy, school failure, occupational failure, divorce, or episodic antisocial behaviour. Bipolar disorder often is associated with alcohol and other substance use disorders in many individuals (APA, 2000). The manic state has been associated with violent behaviour among male psychiatric inpatients diagnosed with bipolar disorder (Citrome et al., 2002).

2.2.2.5: Aggressive and Violent Behaviour in Patients with Post-Traumatic Stress Disorder

Posttraumatic stress disorder (PTSD) is associated with anger, hostility, and violence, although the presence of co-morbid conditions, such as mood disorders and substance abuse disorders, may be confounding factors (APA, 2000). These confounding factors of co-morbid conditions were controlled for in a study of 27 outpatients who were Vietnam War veterans with PTSD and

15 controls who were Vietnam War combat veterans without PTSD (Citrome et al., 2002). Subjects with PTSD scored significantly higher than subjects without PTSD on measures of hostility and violence. Among 222,620 Army and Marine Iraq veterans, 35% sought treatment in the year after returning home, many for PTSD (Hoge, Auchterlonie, & Milliken, 2006). Other common aspects of PTSD in association with interpersonal stressors are childhood sexual and/or physical abuse and domestic battering (APA, 2000).

The essential feature of PTSD is the development of characteristic symptoms following exposure to an extreme traumatic stressor (APA, 2000). Individuals with PTSD may describe painful guilt feelings about surviving when others did not survive or about the things they had to do to survive. The following associated constellation of symptoms may occur: impaired affect modulation; self-destructive and impulsive behaviour; dissociative symptoms; somatic complaints; feelings of ineffectiveness, shame and despair. Additional symptoms include feelings of being permanently damaged; a loss of previously sustained beliefs; hostility; social withdrawal; feeling constantly threatened; impaired relationships with others and a change from the individual's previous personality characteristics (APA, 2000).

2.2.2.6: Aggressive and Violent Behaviour in Patients with Dementia

People with dementia often exhibit behaviours that are frustrating, embarrassing, and sometimes even dangerous to the caregiver and others. These may include angry outbursts, agitation, aggression, wandering, and inappropriate sexual behaviour (Rabins, 2007). The multiple cognitive impairments of dementia often are associated with anxiety, mood and sleep

disturbance, and delusions, especially those involving themes of persecution. Hallucinations can occur in all sensory modalities, but visual hallucinations are most common (APA, 2000). Patients with dementia can be emotionally liable or prone to poor impulse control. Although some may appear frail, serious injury to self and others can result from a rage reaction to a perceived threat. Usually, a history of cognitive decline clarifies the diagnosis, but this history may not always be available in an emergency department (Citrome et al., 2002).

2.2.2.7: Impulse-Control Disorders (Not Specified)

Presentation with behaviours involving impulse control not described in the previous discussion is categorised as impulse-control disorders not elsewhere classified. Intermittent explosive disorder is one of these disorders, featuring several discrete episodes of failure to resist aggressive impulses that result in serious assault or destruction of property grossly out of proportion to precipitating psychosocial stressors. The individual with this disorder may describe the aggressive episodes as "spells" or "attacks" in which the explosive behaviour is preceded by a sense of tension or arousal and is followed immediately by a sense of relief. Later, the individual may feel upset, remorseful, regretful, or embarrassed about the aggressive behaviour (APA, 2000). Coccaro (2006) reported that intermittent explosive disorder is far more prevalent than previously thought (4%-6% lifetime; 1%-2% current); it occurs in families and has a substantial genetic component.

2.3: Health Workers' Responses to Violent Incidents

The present section provides a review of the general nature of mental health personnel's responses to aggressive and violent incidents. Crichton (1997) commented on the dearth of literature concerning staff responses to violence by psychiatric inpatients.

A study was conducted with nurses from low-, medium-, and maximum-secure settings. This study found out that the particular nurses' responses to violent incidents are influenced by containment of unsafe behaviour, treatment of underlying pathology, and moral censure (Crichton, 1997). Crichton concludes that clinical policies and guidelines must recognise the influence of moral judgements, and introduce systems that ensure the reasonableness of them through education, staff support, and supervision.

Differences in intervention of choice have been found to be influenced by staff characteristics. Haber, Fagan-Pryor and Allen (1997) examined whether nursing assistants and registered nurses would choose similar interventions for a range of aggressive and violent behaviours directed towards self, others, or property. According to Wright, Gray, Parkes and Gournay (2002), nurses were found to respond to situations in a non-stereotyped fashion, choosing different methods according to the seriousness of the behaviour exhibited by the patient. However, it was found that nursing assistants identified more threatening behaviours as requiring physical intervention. Level of education and training may therefore influence the choice of intervention, although work experience and experience of assault may also play a part.

Gudjonsson et al (2000) examined the factors associated with the management of violent incidents on a medium secure unit. It was discovered that the use of PRN medication and physical restraint were influenced by the severity of the incident (although the assessment of severity may be a post-hoc judgement, influenced by the intervention chosen). PRN medication was more likely to be given if the victim of the assault was a nurse rather than a fellow patient.

2.3.1: Use of De-escalation Techniques

Wright et al. (2002) commended that the primary means by which violence should be prevented in inpatient settings is by therapeutically addressing the clinical features of mental disorder which are associated with violence. The authors noted that even though, in spite of this, it is likely that on some occasions violent behaviour will occur, it tends to occur as part of a progressive process from relative calm through increasing levels of agitation. If violence is thus viewed as the result of an ongoing interaction between the aggressor, the potential victim, and the situation in which these actors are brought together, then this sequence may be prevented by de-escalation techniques before it progresses into actual violence (Paterson & Leadbetter, 1999b).

Early de-escalation includes reacting and responding to patients manifesting even minor signs of irritability and uneasiness by carefully listening to what the patient is experiencing. Paterson and Leadbetter (1999b) suggested that distracting activities may also help defusing the situation, such as taking a walk with the patient or engaging the patient in some kind of social activity. If the patient already shows signs of becoming increasingly agitated, de-escalation may include

removing the patient from the conflict situation, using a calm voice when listening and 'talking down' the patient, setting limits to unacceptable behaviour and using negotiation techniques that may prevent the aggression process to further escalate (Lowe, 1992). Lowe (1992) used a combination of semi-structured interviews and participant observation to investigate how nurses intervened when confronted with challenging behaviour. The process included giving positive and confirming messages, personal control (on the nurse's part), staff honesty, providing face-saving alternatives, limit-setting, facilitating emotional expression, allowing time for calming.

Wright et al. (2002) recommended that knowledge of the patient's history and presenting complaint is likely to inform health personnel of likely trigger factors, which may be avoided, or the patient may be helped to resolve the issues which lend these trigger factors their potency. These writers observed that, if anger or anxiety plays a role in increasing the patient's anxiety, then appropriate therapeutic measures may be incorporated into the patient's treatment plan, or anger or fear may be directly addressed if they are playing a role in a particular situation. Access to weapons may be controlled by monitoring the care environment and ensuring that objects which may be used for this purpose are not available, and security measures can be employed to restrict access to sharp cutlery and to prevent weapons either being brought in or manufactured (Wright et al., 2002). Knowledge of the characteristics of victimized patients and staff can be used to inform decisions about the appropriate placement of patients as well as the allocation of primary nurses to particular patients and staff training and supervision.

Consideration of what motivation underlies aggressive behaviour may also usefully inform the choice of de-escalation strategies. Maier (1996) distinguishes between threats that are part of an

escalating process (hot threats) and those which are part of a controlling process (cold threats). Maier recommended that de-escalation strategies aimed at reducing arousal are more likely to be an effective response to hot threats.

A model presented by Paterson and Leadbetter (1999b), entitled CALM (Crisis Aggression Limitation and Management), is stage-specific, and starts and finishes before and after the occurrence of an incident, with suggested interventions being tailored to the characteristics of each phase. Pre-incident interventions are rooted in the development and implementation of policies, protocols, drills, support networks, risk assessments, and working practices. The CALM model recognises that an incident may not progress through the assault cycle in a progressive fashion, and that its successful use depends upon the ability of staff to correctly identify and appropriately respond to the stage that an incident has reached (Wright et al., 2002).

2.3.2: Physical restraint

Wright et al. (2002) noted that while the prevention of violence through sound and effective clinical management and fair, respectful treatment of patients must be the primary consideration, and while the use of non-physical strategies for the de-escalation of potentially violent situations is to be preferred, there are occasions where physical restraint is the only means available to gain safe control of a situation. This is so in spite of the fact that concerns about the adequacy of the training in physical management of violence available to nurses has been expressed for a long time (Bridges, Duane & Speight, 1981).

Methods of intervening involving physical restraint were criticized for their use of unfeasibly large numbers of staff, increasing the risk of injury to both staff and inmates, and often made the retrieval of good relationships between inmates and staff very difficult. In response to the controversy surrounding physical restraint, Control and Restraint (C&R) was developed in 1981 in the Prison Service in order to meet the needs of staff in intervening in situations which might involve the risk of self-injury or harm to others, or which might escalate, cause serious damage, or compromise security (Gournay, Ward, Thornicroft & Wright, 1998).

2.3.3: Pharmacological Intervention in Situations of Emergency

Violent psychotic patients pose significant management and treatment problems for mental health workers in emergency. With the advent of rapid tranquilization (RT), clinicians were offered a safe, effective method for controlling such patients, and possibly eliminating the need for restraints or seclusion rooms (Macpherson, Dix & Morgan, 2005). The pharmacological management of violence and aggression has become a common and substantial clinical dilemma in the emergency psychiatric situation. While RT is regarded as a major treatment innovation in psychiatry, non-psychiatrists are reluctant or unaware of the uses of antipsychotic medication as it pertains to RT. The same view is shared by Murphy (2002) who noted that though medication is used to restrict patient's freedom of movement or for emergency control of behaviour, it is not a standard treatment for the patient's medical or psychiatric condition.

In emergency pharmacological intervention, the immediate goal seems to become that of sedation and not behavioural control. According to Hughes (1999) the rapid remission of psychosis, although desirable, is not a realistic goal either as the anti-psychotic action of

neuroleptic medication takes an average of 1–3 weeks to produce effects. Holmes, Simmons and Pilowsky (2001) found no evidence that the giving of high loading doses of neuroleptic medication, the past practice of rapid neuroleptisation, offers any advantage over standard doses, and that side effects are significantly greater.

Studies have shown that the use of rapid tranquillisation was significantly associated with the use of physical restraint and the use of seclusion (Brown, Chhina & Dye, 2009). Veltkamp, Nijman, Stolker, Frigge, Dries and Bowers (2008) referred to both involuntary medication and seclusion as coercive methods that should be used according to patient preference where possible. The authors decried lack of research in the area despite evidence that coercion continues to be used frequently (Omérov, Edman & Wistedt, 2002). Their views are also expressed in other writings (Stolker, Nijman & Zwanikken, 2006; Soliday, 1985).

2.3.4: Seclusion

The seclusion of violent patients as a means of containment has a long history dating back to two thousand years (Mason, 1994). Its use has stirred up debate in the literature. Brown and Tooke (1992) noted that various studies have described seclusion as a violation of basic human rights, a necessary means of controlling violence and a treatment modality.

Evidence in the literature on seclusion suggests that it has no agreed definition, for example, Morison and Lehane (1995) pointed out that in some institutions the term 'seclusion' refers to cases where patients ask to be placed in isolation. In other cases, seclusion appears to be synonymous with time out (a specific behavioural intervention based upon learning theory

principles), and in others, it refers to the enforced isolation of a patient in a locked room provided for this purpose. The Royal College of Psychiatrists (1982) defines seclusion as containment of a patient alone in a room or other enclosed area from which the patient has no means of egress. The Royal College of Nursing (1979) states that seclusion is an emergency intervention whose use is governed by agreed standards of management and practice. The Mental Health Act 1983 code of practice (Department of Health/Welsh Office, 1999) describes the sole purpose of seclusion as the containment of severely disturbed behaviour which is likely to cause harm to others, and is to be used as a last resort and for the shortest possible time.

There is little agreement between studies regarding the characteristics of the secluded patient, or the reasons for seclusion. Angold (1989) commented upon the broad agreement between studies regarding the characteristics of the secluded patient, who is typified as young, violent, male, and psychotic. Brown and Tooke (1992), while noting that young psychotic patients were more likely to be secluded than older patients and those with a non-psychotic diagnosis, found no evidence of gender bias, and that most investigators had found that non-violent behaviour was the most frequent precursor of seclusion. Brown and Tooke (1992) also note considerable variability in the frequency of use of seclusion in different facilities, which suggests a lack of accepted standards governing its use, and raises the question that some units which use seclusion frequently may be using it inappropriately. However, in a study conducted in Weskoppies hospital in Pretoria to investigate long-term patients most likely to be perpetrators of violence, Krüger and Rosema (2010) found that, compared to nonviolent patient, violent patients were considerably more likely to be secluded.

High seclusion rates appear to be associated with withholding medication during observation and assessment (Soloff, Gutheil, & Wexler, 1985), low staffing levels or a higher proportion of female, inexperienced, or unqualified staff on duty (Ramchandani, Akhtar, & Helfrich, 1981; Morrison & Lehane, 1995), and unspecified facility effects (Way & Banks, 1990). Templeton, Gray and Topping (1998) found that the overall use of seclusion in an acute psychiatric unit fell by 66% after changes concerning interventions prior to seclusion, seclusion plans, and the recording of seclusion use were introduced. While staffing levels and experience and patient case mix were not controlled, there were no major changes in medication or nursing policies during the study period.

The effects of seclusion on patients, and patients' attitudes towards it, have also been studied. The use of seclusion has been widely criticised as inhumane, and because of its custodial and demeaning nature, although it remains widely practised. Wadeson and Carpenter (1976) found a dramatic degree of negative affect and frightening delusional material associated with seclusion derived from patients' reactions to it derived from art therapy productions which, despite the uncontrolled research methodology, bear notice.

The issue of how seclusion practice can be improved has also been considered. Patients have suggested that more staff contact during seclusion, and the elimination of the use of force and stigmatising conditions, more comfortable and unlocked seclusion rooms, being allowed to wear their own clothes, and the removal of mechanical restraints would be helpful (Hammill, 1987; Heyman, 1987; Tooke & Brown, 1992).

Researchers (Convertino, Pinto, & Fiester, 1980; Ramchandani et al., 1981; Richardson, 1987) have called for the adoption of clear, explicit, and rational criteria for seclusion in an attempt to make its use less arbitrary. Staff training in specific skills (such as verbal and recreational skills, 'time out', and nonreinforcement techniques) has also been recommended with the aim of identifying and diffusing tension before violence or other maladaptive behaviours occur, thereby reducing the need for seclusion or other coercive methods (Myers, 1990). Increased contact time with patients, discussing with patients the problems that led to seclusion and consideration of more adaptive coping strategies for future use have also been suggested (Russell, Hodgekinson, Hillis, 1985).

Where the use of seclusion is unavoidable, researchers have proposed more staff interaction and therapeutic interventions during seclusion, (Richardson, 1987), shorter duration of seclusion (with a maximum limit) with close and continual reassessment to ensure the earliest possible release (Convertino et al., 1980), as well as providing clear explanations to the patient as to why he or she has been secluded, for how long it will continue, and the necessary conditions for release (Hammill, 1987; Soliday, 1985). Continued assessment and monitoring of the secluded patient's condition is especially important if the patient has been sedated (Prins, Backer-Holst, Francis, & Keitch, 1993)). In common with the suggestions made by patients noted above, it has also been suggested that seclusion rooms be made more comfortable so as to reduce a punitive atmosphere (Jensen, 1985).

Debriefing with patients following seclusion, and more dialogue between staff and patients concerning seclusion and its use during ward and other meetings have also been suggested

(Schwab & Lahmeyer, 1979; Hammill, 1987; Richardson, 1987; Soliday, 1985; Tooke & Brown, 1992).

It can be concluded that seclusion is not a treatment in itself, but is rather a means of providing an intensive treatment environment, in which medication and tiring were the most important therapeutic modalities (Mattson & Sacks, 1978). Brown and Tooke (1992) concluded that no systematic or controlled evaluation studies had been conducted at that time, which compared seclusion to other strategies for preventing violence and injury, maintaining a therapeutic milieu, or benefiting the secluded patient.

Seclusion remains an intervention that is still widely used in the prevention and management of violence. This is so despite the fact that there is disagreement as to whether it is a therapeutic intervention in its own right, a means of containment, a punishment, or whether all of these factors are present to a lesser or greater degree each time it is used. Its use remains controversial, wherever it is practiced (Mason, 1994).

2.4: Management Following Aggression and Violence

The present section reviews literature on the nursing process of management procedures after an emergency. The review of the nursing process has been necessitated by the recognition of the central role played by the nurse in the management and treatment processes. In addition, research also indicates that the management of problematic behaviours can be enhanced by an appreciation of the environment in which the nurse encounters the patient and an understanding

of the concept of health crisis (Mohr, 2006; Aguilera, 1998).

2.4.1: Patient Assessment

In every case of violence, a careful reassessment of the patient's mental status should be carried out. Kaplan and Sadock (1998) posit that in the mental status assessment, it is important to note psychomotor agitation as well as the nature, frequency, and severity of violent ideation. Signs, such as pressured or rapid speech, angry affect or tone of voice, restlessness, clenched fists, tense posture, hostility, paranoid thinking, demanding behaviour, or poor boundaries, were found to indicate a potential for violence (Chapman & Styles, 2006). Amore et al. (2008) recommend that health personnel should always ask about a history of violent acts.

Literature on prediction of violence finds it to be important and beneficial to both patient and nurse to assess patients during the initial interview for the presence of risk factors for aggression and violence, as well as psychiatric and substance abuse disorders (Mohr, 2006). Knowing the risk factors of patient violence, assessing individuals for potential violence before clinical encounters, and controlling situations to reduce risk of injury was found to further enhance care (Battaglia, 2006).

Risk factors for potential aggression and violence are determined by demographic data such as male gender, young age, past history of violence (Krüger & Rosema, 2010; APA, 2000; Steinert, Wiebe & Gebhardt, 1999), drug and alcohol abuse (Steinert et al., 1999), and management and treatment non-compliance (Swartz et al., 1998). History of aggression is one of the strongest

predictors of future aggressive behaviours (Evins, Lieberman & Meltzer, 2004). Swartz et al. reported that the combination of substance abuse problems and medication non-compliance were associated significantly with serious violent behaviour.

Assessment concludes with identifying specific problems which may be documented as nursing diagnoses. High-risk behaviours which are identified accurately as nursing diagnoses set the tone and expectation for nursing care. The development of rapport during the assessment fosters a sense of control and responsibility for the patient while possibly avoiding future power struggles (Bostrom, Boyd, & White, 2006; Harris & Morrison, 1995). Based on the data collected and severity of symptoms, a formal psychiatric consultation also may be considered (Bostrom et al., 2006).

2.4.2: Planning

At the planning stage, goals and nursing interventions based on patient problems are identified (Mohr, 2006). Establishing patient outcomes, which are goals from the patient's perspective, is considered the first step in planning. Interventions incorporating patient input are deemed to foster cooperation and reinforce patient-nurse rapport, which in turn enhance the effectiveness of interventions should a behavioural crisis develop (Bostrom et al., 2006; Harris & Morrison, 1995).

Following the establishment of patient goals, nursing interventions are developed and can be categorized according to environmental, psychobiological, counselling, and health teaching

interventions (Mohr, 2006; American Nurses Association (ANA), 2000). The environmental plan for nursing interventions includes the nurse's provision of a structured therapeutic environment (ANA, 2000). Among other environmental interventions is the selection of a private or semi-private room and roommate based on the data collected during the assessment (Fontaine, 2003; O'Brien, Kennedy & Ballard, 1999).

Psychobiological interventions include supporting adherence to the medication regimen and the timely administration of PRN medications (Bostrom, Boyd, & Hamera, 2006). Medication non-adherence is a significant factor in psychiatric patient relapse and recurrent hospitalizations. Specific and concrete interventions are more effective in improving compliance and reducing relapse than general patient education strategies.

Planning for the timely administration of appropriate PRN medication can support the patient's effort to manage his or her anxiety and frustration, thus avoiding potential behavioural episodes. The nurse's role in collaborating with the physician to ensure the availability of PRN medication at all times is a critical intervention. According to Evins et al. (2004), a variety of treatment options exist following the Food and Drug Administration approval of intramuscular forms and rapidly disintegrating oral tablets for second-generation antipsychotic medications such as olanzapine (Zyprexa[R]) and ziprasidone (Geodon[R]). In addition to the traditional use of haloperidol (Haldol[R]), these medications have proven effective with or without the concurrent use of a benzodiazepine such as lorazepam. The availability of a medication intervention carefully planned with patient input cannot be over-emphasized.

Counselling interventions support the patient's ability to develop effective coping mechanisms and prevent problematic behaviours related to the diagnosis (ANA, 2000). Mohr (2006) recommends that the nurse encourage the patient to identify specific situations that have resulted in frustration, agitation. The nurse must support the expression of uncomfortable emotions, questioning patient thinking that leads to anger and hostility; and utilize relaxation techniques at strategic times.

Health teaching activities focus on providing the patient with information that supports therapeutic decisions. Reasons cited for stopping medication include unpleasant side effects, denial of the extent that the illness affects functioning, and a desire not to take medication forever (Bostrom et al., 2006). Explaining the actions and potential side effects of medications may not be sufficient in motivating adherence. Information that supports patient goals may be more effective. Health teaching through role playing can reinforce the concept that everyone benefits from the help of others (Mohr, 2006). Support systems such as family and friends can play a key role in maintaining health and preventing relapse, but the patient often is hesitant to seek assistance. Hospitalization may be an opportunity to re-establish patient connection with family or significant others.

2.4.3: Execution

Once the plan is established, it is communicated to the patient and family (ANA, 2000). Various strategies can be employed and some of these have been examined under de-escalation. Briefly, tension reduction interventions for the patient may include walking the hallway, asking to speak

with a staff member, asking to be alone, watching television for distraction, listening to music and asking for a PRN medication (La Torre, 2004).

Patient violence toward others frequently occurs in response to the blocking of patient demands or limit setting by staff (Van der Merwe, Bowers, Jones, Simpson, & Haglund, 2009; Bowers et al, 2009; Bostrom et al., 2006). The patient with a pattern of intimidating and aggressive behaviour often uses it in an attempt to control the environment or manipulate others (Morrison, 1994). Violent Behaviour can occur if the patient perceives the nurse did not respond quickly enough to their demands. Anger, resentment, fear, and self-doubt following verbal threats have been cited as reactions (O'Connell et al., 2000). Individual responses to these types of threats or abuse often are based on the person's past experiences (Lanza, 1992). As emotions intensify, the ability to hear and integrate information deteriorates. The nurse may operate on a more basic level, often responding to the other person's tone, affect, and body language (Aguilera, 1998).

2.4.4: Victims of Violent Behaviour

Review of literature shows that the nursing staff is overrepresented on victims of patients' aggression and violence. In a survey of mental health workers in mental health hospitals in South Africa, the United States, Britain and Canada, Poster (1996) established that approximately eight in every ten of the 999 nurses (75%) interviewed said they had suffered an assault by a patient at one point in their career. Whether it is nurses or other individuals not directly involved in the management and treatment of a violent patient, victims of aggression often require special help and attention.

As review of literature demonstrates, the effects of violence can be devastating to the victim (Friedman, 2006). According to Friedman, victims of violence by patients experience similar psychological and physical consequence as those that have suffered a natural disaster. In a different study, Erdos and Hughes (2001) reported that the health personnel, especially the nursing team, that spend a greater part of their time with patients have a most risk of suffering a physical attack. While the study revealed that in most cases, the injuries were minor, it however, indicated that a minute proportion of the health personnel suffered several life-threatening injuries.

The same study reported that, because of assault by patients, 45% the health personnel took time off work, and 65 % of those that took time off work need roughly a year to recover fully (Friedman, 2006). Sheridan, Henrion, Robinson and Baxter (1990) also reported that the nursing team is at the greatest risk of experiencing a physical attack by a mentally ill patient. The authors cited nurses' role in limit-setting and regular contact with patients as explanations for increased exposure. Sheridan et al. (1990) argue that patients can see mental health personnel as authority figures or adversaries, a situational that put them at more risk. These findings are also consistent with the results reported by Privitera, Weisman, Cerulli, Tu and Groman (2005) after studying the incidence of violence perpetrated against psychiatric staff. They established that both nurses and physicians had the greatest incidence of violence against them as compared to other clinical personnel.

In the health Sector in South Africa, Steinman (2003) found out that roughly 62% of all mental health workers interviewed had suffered so form of violence in the 12 months period prior to the

commencement of her study.

2.4.5: Prevention of Violent Behaviours

Although one cannot predict violent behaviour in a reliable or systematic way, prevention is always preferable to cure. Risk assessment to evaluate violence potential may be a crucial first step in predicting and preventing aggressive and assaultive behaviour in patients and is critical in the management and treatment deliberations (Antonius et al., 2010). Even equally important, it may serve to enhance staff's ability to safely manage violent patients and decrease the likelihood of staff assaults. By examining a patient's history and background, it is possible for the clinical staff to predict the likelihood of a violent behaviour happening in the future.

In any treatment setting, the institution and its clinical staff should be properly trained and organized to provide a secure environment in which violent or potentially violent behaviour is unlikely to occur or can be rapidly detected and controlled if it does occur. In their research, McNiel, Chamberlain, Weaver, Hall, Fordwood, & Binder (2008) indicate that formal training in the evaluation of potentially violent patients can indeed enhance clinicians' rationale for risk assessment and management plans. In other words, the clinical team should be proficient in the use of physical and pharmacological restraints and should be trained to manage anger, interpersonal conflict, and stress. Familiarity with each patient's condition, background, previous history of violence or substance abuse, and other factors that might be predictive of violence is critical to assessment success.

It is important that mental health staff also possess skills in diffusing potentially violent situations (Antonius et al., 2010). Advance precautions such as identification of high-risk patients and improving security should be taken to ensure the safety of both patients and staff (Flannery, 2005). It is also recommended that interviews with potentially violent individuals should be held in rooms that are stripped of dangerous materials, that permit easy exit, and that are large enough to allow the presence of other staff members.

In their endeavour to reduce threats of violence mental health personnel are expected to be aware of existing policies for the management of violent patients (Black, Compton, Wetzel, Minchin, Farber, & Rasfogi-Cruz, 1994), and the types of behaviour that will not be tolerated. Fair and consistent enforcement of limits by all members of the treatment team should be ensured (Felthous, 1984).

In hospital settings, support staff, should be properly trained in the prevention and management of violent situations. Everyone should be familiar with the institution's policies for the management of unacceptable behaviours and should be aware of all current policies, procedures, and protocols provided by the institution's administration.

2.5: Inpatient Violence and Prediction

Understanding factors associated with violence in mental illness is the first step in its prevention through effective therapeutic approaches. The problem with prediction of violence is that a number of studies have questioned the accuracy of violence prediction. Volavka (1995) asserts

that the low base rate of severe violence reduces statistical accuracy.

Basically, two methods are commonly used to predict violence. The actuarial method uses standardised protocols derived from analyses of groups of patients. In this approach, the risk of violence is assessed by statistical methods, as opposed to intuitive assessment for a single patient (Dolan & Doyle, 2000). Monahan (1984) suggested that the actuarial method is preferable to the clinical method. In order to develop statistical data to assess potential for short-term inpatient risk of violence requires establishing the variables that will predict violence in a specific context.

In the clinical method, the clinician combines knowledge and previous experience with information gathered about the patient to form a categorical (yes or no) opinion of the risk of violence. Though the clinical approach has been criticised as having low reliability, low validity, for failure to specify the decision-making process (Monahan & Steadman, 1994), and for low predictive validity (Mossman, 1994), it is believed that the strengths of clinical risk appraisal lay in its flexibility and potential for violence prevention (Snowden, Gray, Taylor & Fitzgerald, 2009).

2.6: Aggression and violence: Impact in Health Care Settings

According to Lanza (1992), violence perpetrated by mentally ill patients is a pervasive, long standing, and an under reported occupational health problem. Injuries to other patients and staff are considered very painful and costly. The seriousness of harm caused by violence is usually considered in terms of physical injuries sustained. Legally, this is reflected in the relative

severity of charges that are associated with criminal violence. However, it should be acknowledged that threats, verbal abuse, and physical assault can also result in emotional damage being sustained by victims, which can in some instances exceed the degree of physical harm inflicted. The following section is an examination of literature on the physical, emotional and therapeutic effects of violence in mental hospitals.

2.6.1: Physical Harm

The HSAC survey (1987) found that the highest level of violent incidents classified as minor and the second highest level of violent incidents classified as major were found in inpatient psychiatric settings. Just over a quarter of respondents in inpatient psychiatric settings (27%) reported receiving a minor injury requiring only ‘first aid’ type treatment (such as a dressing or analgesia) in the year prior to the survey. A further 16% reported receiving a major injury (requiring hospital treatment or admission for observation) in the same time frame (20% of respondents in learning disability settings reported this level of injury).

Carmel and Hunter (1989, 1993) examined data on staff injuries from attacks by patients in Atascadero State Hospital in California. The first study examined staff injuries from inpatient violence over a one-year period. It was discovered that 16 injuries per 100 nurses (the most frequently injured staff group) were sustained over the study period, over 60% of which were sustained by assault rather than during attempts to contain violent behaviour. Injuries sustained in assaults were more likely to be to the head, and to cause more than three weeks’ absence from work. Male nursing staff was more than twice as likely to be assaulted as female staff, and nearly three times as likely to receive injuries while trying to restrain violent patients. The second study

(Carmel & Hunter, 1993) examined injuries over a five-year period. Two hundred and nine employees suffered a total of 236 injuries, with ward nursing staff sustaining 185 injuries. Again, male staff were more likely to be assaulted (the attack rate being 50% higher in male nursing staff), and most injuries sustained (71%) were to the head.

Data on the seriousness of such assaults cited in a report by Gournay et al. (1998) on mental health nursing in inpatient care shows that between 67% and 93% of assaults recorded in the five MILMIS (Monitoring Inner London Mental Illness Services) resulted in no detectable injury. Data on the seriousness of assaults from a one-week survey of nursing activity in acute and psychiatric intensive care units in inner London (Gournay et al., 1998) found an average rate of one assault causing major physical injury every two months per ward.

Love and Morrison (2003) concluded that, because of injuries suffered from attack by patients, Health-Care Staff is not only affected in terms of time lost from work or financial difficulties as a result, but experience post-traumatic stress disorder. Supporting evidence comes from Love and Morrison (2003) who reported that abuse influences Health-Care Staff's distress, the desire to stay at work, their productivity, and the potential to commit errors. Over and above reporting significant levels of abuse by their patients, Farrell et al. (2006) found nursing staff distraught for the reason that the care they provided could not meet the demands of patients.

2.6.2: Emotional Harm

Adams and Whittington (1995) found that 29% of a sample of 38 hospital-based nurses reported experiencing verbal aggression over a 10-week period. Over the study period, 50 episodes of

verbal aggression (approximately one incident per 100 person-days) were recorded, most of which (76%) occurred on the inpatient units. Forty-four per cent of incidents involved threats (the remainder being abuse only), but only 14% of the episodes of verbal aggression were accompanied by violent behaviour.

Gender of assailant appeared to be unrelated to reported levels of anxiety, although higher levels of anxiety were reported for incidents involving threats rather than those which only involved abuse. In terms of the emotional harm suffered by staff following physical assault, Whittington and Wykes (1992) reported a study examining the effect such an exposure in an inpatient psychiatric setting. While most of the assaults experienced by the participants resulted in no detectable injury, levels of anxiety and strain were quite high immediately following the incidents.

Caldwell (1992) examined the incidence of assault-related PTSD in staff in a private psychiatric facility and in a state hospital in Wisconsin. Out of 224 clinical staff respondents (a response rate of 62%), 138 (62%) had witnessed or been involved in a critical incident involving a serious threat to life or physical safety, 62 of whom had had such an experience in the preceding six months. One hundred and thirty-seven respondents (61%) reported symptoms of PTSD, which was sufficient for 23 respondents (10%) to match DSMIII-R diagnostic criteria of PTSD, based upon the number of symptoms reported.

2.6.3: Compromised Therapeutic Relationships

Exposure to aggression and violence from patients can also affect the attitudes of staff

(particularly victims) towards all the patients in their care, not just perpetrators of assaults. The evidence suggests that, not only does this adversely affect the quality of care that patients receive, but also that such reactions may actually increase the likelihood of further violence.

Lion et al. (1987) present six case reports in which the counter-transference reactions of psychiatrists towards perpetrators of assault adversely affected treatment outcomes. In the study, reactions of anger, frustration, rejection, frustration, were reported by assaulted staff, as well as the re-vivification of feelings associated with earlier experiences of assault. All these can affect decisions that are made about the patient's management and the quality of care that he or she receives. These consequences can range from patients not receiving appropriate care because they are deemed to be inappropriately placed, to the development of 'malignant alienation' (Watts & Morgan, 1994), whereby mutual hostility between the patient and staff fuels the breakdown of the therapeutic alliance. It has been suggested that this can lead to the physical or sexual abuse of patients by staff, and suicide in patients in extreme cases.

Following a study of nurses in medical-surgical areas, O'Connell et al. (2000), reported that nurses repeatedly suffered episodes of aggression perpetrated by their patients. Following an experience of verbal and/or physical aggression, the nurses commonly reported feeling angry. Cottle, Kuipers, Murphy and Oakes (1995) examined reactions toward clients and coping after physical assaults in inpatient nursing staff working in learning disability and adult mental health settings. Post-incident anxiety was found to be significantly higher than baseline measures of anxiety, and while the anxiety scores across the sample had returned to near-baseline levels after one month, this was not the case in all assaulted staff. One week after the incidents, 56.6% of

assaulted staff displayed high levels of expressed emotion (EE), which was expressed exclusively in terms of critical comments rather than over-involvement. After one month, 66.6% of assaulted staff displayed high levels of EE. These findings indicate that EE was situational, rather than a trait characteristic of staff.

In brief, staff who have been assaulted tend to have negative attitudes towards their patients, which may compromise the quality of care that is given and may actually play a role in precipitating future assaults (although these need to be more directly examined). Furthermore, the attributions that assaulted staff makes regarding the causes of violence in assaultive patients tend to ignore the possible effects of external circumstances or the behaviour of other people in favour of attributions focusing on the internal dispositions of the client, which may lead to therapeutic nihilism.

2.7: Factors in the Treatment of Violence

Violence on psychiatric wards has already been identified as a growing concern because of its prevalence (Haller & Deluty, 1988; Hubschmidt, 1996) and the growing number of incidents. Literature acknowledges the problem to be so severe that many mental health professionals expect to encounter violence in their work with psychiatric patients.

After reviewing the literature on the management and treatment of aggressive and violent patient behaviour, the researcher identified as critical the factors leading to violence on acute inpatient units. These factors can be broadly divided into four categories: patient, staff, environment, and

staff-patient dynamics. The subsequent sections are a review of these factor categories.

2.7.1: Patient factors

Literature review on prediction of violence identified patient factors to comprise of gender (Fottrell, 1980), age, history of violence (Morrison, 1992), social and economic status, and diagnosis, especially schizophrenia (Craig, 1982).

Patient factors found to be related to violence include being a young male with a diagnosis of schizophrenia (Calcedo-Barba & Calcedo-Ordonez, 1994), particularly with neurological impairment (Krakowski & Czoborn 1994; and being involuntarily admitted to the hospital (Noble & Rodger, 1989). Having a diagnosis of dementia or delirium (Eastley & Mian, 1993), substance abuse (Palmstierna & Wistedt, 1989), personality disorder and bipolar disorder (Miller, Zadolinsky & Hafner, 1993) have also been shown to be related to violence.

2.7.1.1: Gender and Violence

While men are found to be more aggressive and violent in the society (Krakowski & Czobor, 2004; Grange & Corbett, 2002), studies provide evidence that mental illness seems to reduce gender differences and in some cases eliminate it altogether (Krakowski & Czobor, 2004). Tardiff, Marzuk, Leon and Weiner (1997) found not gender difference in terms of the likelihood of committing an act of violence among female and male patients. In fact, both male and female patients were found equally likely to have been violent. Investigating the relationship between violence and positive psychotic symptoms, Krakowski and Czobor (2004) also reported it to be

the equal in male and female patients.

Though there is limited data in Zimbabwe available for the estimation of the proportion people with a severe mental illness, evidence from international literature shows that, at the least, one (1) in every five (5) male individuals that are severely mentally ill become violent as compared to lesser proportion of their female counterparts (Hodgins et al., 1996). In Zimbabwe this would total approximately 200,000 – 250,000 individuals.

2.7.1.2: Age of a mentally Ill Patient

Though considered only of minor importance in an exhaustive literature review by Steinert (2002), age was found to play a critical role in influencing the pattern of violence in psychotic patients. Grange and Corbett (2002) considered age as one of the factors highly associated with episodes of violence.

After comparing violent and non-violent patients in a mental hospital, James, Fineberg, Shah and Priest (1990) found out that patients aged 25 years and below were likely to be violent than those above 25 years. In another survey, Faulkner, Grimm, McFarland and Bloom (1990) discovered that approximately 70% violent patients were aged 30 years and below. These younger patients were the ones found to account for multiple violent incidents. Even though Faulkner et al. finding are consistent with literature, the cause for this age difference still needs further investigation. Variations in the prevalence of mental disorders across age groups is suspected to be a major factor in drug abuse, personality disorders, and schizophrenia (Tardiff et al., 1997), in which acute symptoms are more commonly experienced by the young (James et al., 1990).

2.7.1.3: Diagnosis

It has already been noted that having a diagnosis of dementia or delirium, substance abuse, and personality disorder and bipolar disorder have been shown to be related to violence. Tardiff (1999) reported that violent behaviour found in mental hospital wards is usually associated with individuals diagnosed with schizophrenia and bipolar disorders. Patients found to be most often involved in violence include those diagnosed with mania, substance abuse and schizophrenia.

2.7.1.4: Phase of illness

The observation that most aggressive and violent incidents happen within the first few days of admission supports the thinking that phase of mental illness is a good predictor of aggressive and violent behaviour (Davis, 1991). According to Davis, this is useful particularly in the short term. Severe psychopathology and distorted cognitions make the patients likely to feel provoked and intimidated and therefore to behave in a violent manner. The finding that most patients exhibiting aggressive behaviour were likely to be secluded seems to be supported by several studies (James et al., 1990; El-Badri & Mellsop, 2002).

2.7.1.5: History of aggression

There is a consensus in the literature on prediction of violence in mental institutions that patient's history of violence is the most critical predictor of future violent behaviour (Monahan et al., 2001; Shah, Fineberg & James, 1991; Crighton, 1995). This relationship has been found to exist in offenders with and without mental health problems (Menzie & Webster, 1995). In a

study by El-Badri and Mellop (2002) slightly above 50% of patients found to be violent had a history of violence. In a review of literature on prediction of violence, Steinert (2002) concluded that previous violence is the only static variable that predicts violence.

In the MacArthur study in the United States, Monahan et al. (2001) provides an excellent illustration of the link between past aggression and future aggression. In their sample of 939 mental health in-patients from three sites, 16.4% had been violent in the preceding two months, 8.2% of admissions were at least partially precipitated by violence, 50.3% had been arrested at least once since the age of fifteen (36.8% had been arrested at least three times), and 21.5% of those arrested had targeted other people during their assault. Highly significant proportions (that is a minimum of 58%) of the sample went on to become violent again in the one year period following their discharge from hospital. Monahan et al. concluded that history of aggression is highly predictive of aggression following discharge from an in-patient psychiatric ward, no matter what the method of reporting.

2.7.1.6: Substance Misuse

Substance misuse and violence has been seen to be related. Soyka (2000) argues that substance misuse among psychiatric patients is a significant risk factor for aggression and disturbed behaviour. The reason, Soyka argues, substance abuse worsens psychotic symptoms and possibly interact with personality variables and not adhering to treatment. Other variables have been noted by El-Badri and Mellso (2002) to be time of the day, staff skill and rules set to limit patient behaviour.

2.7.2: Staff factors

Staff factors include inexperience or lack of training, lack of a clear role, and low staff-to-patient ratio (Lanza, 1992). Infantino and Musingo (1985) report that staff skill and training in both violent control techniques and limit-setting are equally essential. Skills of staff, attitude and patient-staff relations are found to be interconnected. According to Infantino and Musingo, these factors, including the impact the way rules are imposed on patients should be further investigated.

Indeed, healthcare workers with the least experience were found to be at greater risk of assault (Bernstein, 1981). In one study, Bernstein found that inexperienced psychiatric staff was assaulted four times as often as experienced clinicians. Nursing assistants, nurses, and physicians are at the greatest risk, respectively (Fottrell, 1980). Bowers, Jeffery, Simpson, Daly, Warren and Nijman (2007b) investigated this in relation to student nurses and junior doctors. They found no association between the presence of these inexperienced staff on acute psychiatric wards and increased rates of patient aggression. However Cunningham, Connor, Miller and Melloni (2003) and Whittington et al. (1996) reported that less experienced nursing staff was more likely to be exposed to aggression from patients.

Given that members of ward staff are an inherent part of the ward environment it was found also necessary to examine the influence of staff in the occurrence of patient aggression. Lanza (1992) suggested that the role of being a nurse could predispose nurses to being victims of aggression if a nurse's role is perceived to be one that should involve listening to and "accepting" everything.

If the role is perceived in such a way, it is possible that patients perceive that this gives them permission to express their anger and anxiety, which is manifest in an aggressive manner. Inadequate staffing levels have been highlighted earlier in respect to patient aggression (Lanza, 1983; Kindy, Petersen & Parkhurst 2005). In addition to this, Bowers et al. (2007b) reported that staff annual leave and vacant posts are associated with higher levels of patient aggression, as is staff absence to attend training courses on the management and prevention of aggression. Where there are adequate staffing levels, the amount of experience staff have in working in psychiatric settings has been postulated to contribute to patient aggression.

While mixed results have also been reported for the likelihood of patient aggression towards male and female nurses, Cunningham et al. (2003) and Lanza, Kayne, Hicks and Milner (1991) have found that men and women were fairly equally represented as victims of assault. The findings point to the need for staff training and continuing education in the management of assaultive behaviour. The effectiveness of such training is noted by Lanza, Kayne, Hicks and Milner who found in a prospective study that non-assaulted staff reported 100 percent more time attending classes designed to teach staff how to cope with assaults and 74 percent more time in regular training updates than assaulted staff.

2.7.3: Factors Related to Staff-patient Dynamics

Factors related to staff-patients dynamics include the intricate relationships that form between some inpatients and mental health personnel in the wards. These result from prolonged stay in the ward, or readmissions. Johnson (2004) and Duxbury (2002) reported that the quality of the

relationships between staff (health personnel) and patients has been found to be an important situational-interactional factor related to inpatient aggression and violence. Barker and Buchanan-Barker (2010) described this staff-patient relationship as the hub of psychiatric nursing.

Elsewhere, Bowers et al. (2009) established that nurses who were often engaged in close patient interaction were more likely to be the target of patient aggression than those who were less involved. One of the reasons suggested by the authors was the importance of keeping a respectful distance to patients who show signs of distress and aggression (Bowers et al., 2009). Rask and Brunt (2007) recommended that a caring nurse-patient relationship should be based upon honesty, respect and trust and it is the responsibility of the nurse to initiate these qualities into the relationship.

Winstanley and Whittington (2004) reported that when the context of aggression was considered, there was a clear role of the staff member in precipitating the occurrence of aggression. In particular, the authors reported that staff had delivered an aversive stimulus to the patient immediately prior to the occurrence of the aggression. Whittington and Wykes (1996) interviewed psychiatric nurses using a semi-structured questionnaire. A total of 63 assaults by psychiatric patients upon nurses were included in the study. In 86% of these assaults, the nurse victim had delivered an aversive stimulus to the patient immediately prior to the assault. The aversive stimulus was delivered in the form of either causing frustration to the patient by preventing a goal-orientated behaviour, or refusing to meet a request of the patient (Zernicke & Sharpe, 1998; Flannery, 2005; Flannery, Laudani, Levitre & Walker, 2006); making a direct,

verbal request to the patient; or initiating physical contact with the patient (such as leading or restraining an agitated patient, or administering medication).

Winstanley and Whittington (2004) reported that 83% of aggressive incidents in a general hospital setting involved staff victims delivering potentially anxiety-provoking stimuli to the patient immediately prior to the assault. In the majority of these incidents, the anxiety-provoking stimuli involved the staff member intervening with the patient's intended (goal-directed) behaviour. Other factors reported to contribute to the occurrence of patient aggression may be attributed to the interaction style of nursing staff that Duxbury (2002) has described as "controlling". Examples of ineffective interaction styles include not listening to patients, interrupting patients, failing to keep appointments, failing to understand the patients, and making excessive demands of the patients (Flannery, 2005). In addition to these, Spokes et al. (2002) reported that in some cases nursing staff had been rude, confrontational, and tried to administer medication immediately prior to the occurrence of patient aggression.

2.7.4: Environmental factors

Literature indicates that the role of the environment in precipitating aggression is consistent for all patient groups and includes friction within a ward environment, being denied treatment (Haggard-Grann et al., 2006) and not recovering from illness quickly. In addition, inadequate staffing levels (Kindy et al., 2005), lack of privacy and freedom in a ward setting, poor organisation (Duxbury, 2002), few opportunities to engage in therapeutic activity and poor overall policy (Kindy et al. 2005) contributed to aggression and violence by patients.

Roth (1987) highlighted that psychiatric patients are required to function within an environment that is often completely different to how their life is outside of a ward. In addition, patients are required to mix with other people whom they may not get on very well with. Difficulties in adjusting to the change of environment may also influence patient aggression. The type of environment that has been described above could easily be described as poor in quality and as a poor psychosocial work environment. Andersen (2003) reported that such environments are likely to contribute to staff stress and burnout, which in turn may influence the development of incidents of patient aggression.

Other environmental factors are the time of day or day of the week (Dietz et al., 1983), location within the unit), patient overcrowding, an untherapeutic ward environment, and ward turmoil. Literature has looked at the physical environment and the potential effects upon management and treatment of violent and aggressive behaviours, specifically the use of seclusion. These studies have ranged from those looking at the physical layout and issues such as crowding (Palmstierna, Huitfeldt & Wistedt, 1991), to those looking at the nature of the institutions themselves. Factors related to staff-patient dynamics were identified and these include lack of control by the staff, few or poorly organized activities; uncertainty, confusion, or fear about the staff-patient relationship, and poor staff-patient interaction. Crichton (1997) highlighted the environment as a relevant factor in determining the staff's response to disturbed behaviour.

Literature on incidents within Special Hospitals concluded that incidents occur more frequently in the Special Hospitals. These incidents were also more serious in nature and resulted in greater injury (Larkin et al., 1988). The observations by Larkin et al. are expected given that, in all special hospitals, patients have been considered to display dangerous, violent or criminal

propensities, and that the majority have histories of violent behaviour. A higher rate of violent behaviour might be, therefore, expected in special hospitals than is found in less secure treatment settings.

2.7.5: Time of Day

Beside male gender and age, Grange and Corbett (2002) considered hour of day the as one of the factors highly associated with episodes of violence. Elsewhere, studies have reported that over half of the violent incidences happened in the evening and mostly directed against nurses (El-Badri & Mellso, 2002). Threats of violence and verbal aggression were found to be predominant. El-Badri and Mellso found out that aggressive incidents peaked during change of shift, medication and bed times. According to El-Badri and Mellso, hospital rules are enforced at these times and there seem to be associated with episodes of aggression. Limit setting and attempting to achieve tasks have been found to provoke patient aggression and/or violence (Sheridan et al., 1990).

2.7.6: Crowding and Aggression on Inpatient Psychiatric Wards

Violence in psychiatric healthcare is a serious concern because of its high prevalence and its likely adverse effects on the health of employees and the quality of psychiatric care (Woods & Ashley, 2007). Though review of literature suggests that environmental variables are rarely taken into account in studies of inpatient violence, Kumar, Ng and Robinson (1999) found out that lack of personal space and the disruption of everyday activities caused by crowding may exacerbate

stress, which may in turn lead to violent incidents. In a prospective study, Palmstierna et al. (1991) reported that crowding on an acute psychiatric ward increased the likelihood of aggressive behaviour among patients with schizophrenia or schizophreniform disorder.

Worldwide, overcrowding in mental hospital has resulted in the decline in mental health inpatient beds during the past decades (Fuller, Entsminger, Geller, Stanley & Jaffee, 2008; Sharfstein, 2009; Keown, Mercer, & Scott, 2008). It typically arises when there is shortage of beds in relation to need or when acute beds are 'blocked' by individuals who no longer need hospital care but for whom suitable community support is not available. Some studies have shown that more violent incidents occur in the unit when the numbers of patients is high (Palmstierna & Wistedt, 1995).

Elsewhere, aggressive incidents were documented on two closed psychiatric wards (Nijman et al., 1997). A modest correlation between number of patients on the ward and number of aggressive incidents per patient was found. Nonetheless, the enlargement of the physical space by the addition of a courtyard to one of the wards midway through the study did not lead to a significant decline in incidents. The results seemed to suggest that a lack of psychological space may be more important in triggering aggression than a lack of physical space.

Ward crowding was found to be modestly correlated with the number of aggressive incidents per patient per week. Although the effect sizes are small and causality remains unclear due to use of the correlational approach, this finding corresponds with the clinical impression that high ward turmoil can over stimulate and frustrate patients and thus may contribute to aggression (Nijman et al., 1997).

2.7.7: Other factors Associated With Assaults

Factors associated with assaults include: denial of services, status change to involuntary admission, and limit setting. Limits involving eating, drinking, and use of tobacco were deemed most risky. Inpatient mental health therapies that rehearse aggression (such as using a punching bag) may promote aggression in the form of assaults (Morrison, 1993).

2.8: Inpatient Violence: A Problem or Not

Though it is possible to find recent literature supporting the conclusions that the mentally ill are no more violent, they are as violent, or they are more violent than their non-mentally ill counterparts (Wessely, 1998), violent behaviour has been a common reason for psychiatric admission and prolonged hospital stays, and a hindrance to successful community placement reintegration. Understanding major mental illness in relation to violent behaviour would assist nurses to manage the mentally ill during their hospitalization. When a mentally ill patient exhibits violent behaviour, it is important to consider the course of violence in relation to patient's fixed and/or changing symptoms of the mental illness.

2.9: Chapter Summary

It was herein acknowledged that workplace-related violence has been increasingly recognized as a particular problem for nursing personnel particularly in emergency departments and psychiatric facilities. It seems that the crowded nature of emergency rooms, the characteristics of the patients

coming in, and the lack of sufficient staff are recognised as contributory factors to the risk of violence directed at health care personnel. Literature has provided evidence that studies of violence in health care settings have focused mainly on assaults on staff by patients in psychiatric care settings such as mental health hospitals, psychiatric hospitals, or psychiatric units of hospital (Lanza, 1983). Factors contributing to violence toward staff were alcohol abuse, drug abuse, anger and high stress, overcrowding of the department, open access to the emergency department, and psychiatric patients. Other studies of emergency and psychiatric departments of hospitals also found incidences of physical attacks on medical and nursing staff and carrying hidden weapons to the hospital.

Chapter Three

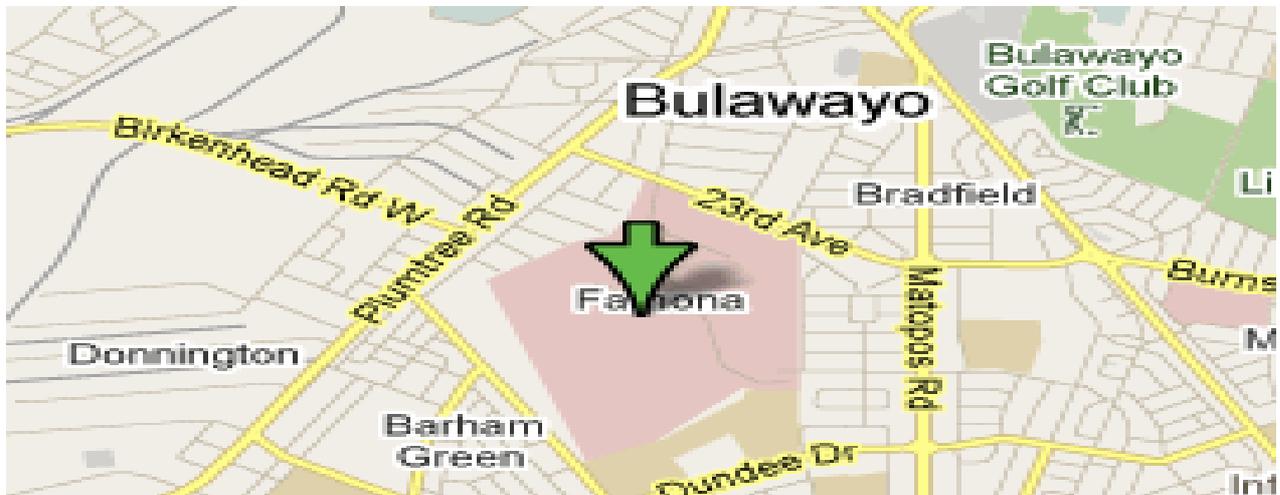
Methodology

3.0: Introduction

The current chapter highlights the methods and materials employed in the quest to realise the objectives of the current study. The decision between using either quantitative or qualitative methodology was based on the nature of the information required and the expected use of the findings (Robson, 2002). The research needed to identify factors considered relevant in the management and treatment of violent behaviour, establish the degree to which the factors are recognised and the weight of importance attached to each factor by mental health workers.

The research, therefore, basically required to provide a broad-brush overview of the current situation and determine critical factors in the management and treatment attempts for further inquiry. This reinforced the appropriateness of a descriptive research design detailed in sections that follow. In order of presentation, items covered in this section include; location and background information on Ingutsheni Central Hospital, the research design, materials, participants, procedure, ethics, and data collection and analysis.

3.1: Location of the Study



Source: Google maps

Figure 1: Location of Ingutsheni

The location of the study is Ingutsheni Central Hospital in Bulawayo, Zimbabwe. The Hospital is located about 3.5 km from the city centre of Bulawayo, Zimbabwe. Adjacent to the Belmont Light Industrial sites along 23 Avenue West. It is exclusively concerned with the treatment and rehabilitation of patients with psychiatric disorders, and provides training for mental health practitioners of medicine in Zimbabwe and SADCC region (Ministry of Health and Child Welfare (MoHCW), 2005).

MoHCW (2005) notes that the hospital is a referral centre, only admitting patients through central and provincial hospitals in accordance with Mental Health Act of 1997, and does not admit straight from the community. Types of patients admitted include the acutely ill, sub-acute, chronically ill, mentally handicapped and psycho geriatrics (MoHCW, 2005). The hospital's 15-ward capacity enables it to cater for a patient population of up to 720 with average bed occupancy of 550 per day.

Ingutsheni Central Hospital also administers the St Francis Home (a facility for the severely mentally handicapped children of ages 0 – 16 years), Emakhandeni Day Centre (Centre accommodates 18 patients and offers vocational training for discharged patients), Bellevue Halfway Home (patients about to be discharged for orientation into society use this home, but presently not operational), Mlondolozu (Khami Prisons) and Khumalo ward (for severely mentally ill patients).

3.2: Research Design

The study used a descriptive research design. Widely used in the social sciences, this methodological approach has been described as highly appropriate for use in health care research (Reid, 1993). The design was chosen because little is known about the health personnel's responses to the occurrence of an emergency situation (Sousa, Driessnack & Mendes, 2007). Sousa et al. also note that the descriptive research design helps answer question such as who, what, when, where, how many and how much? This is consistent with the current to study's focus on identifying factors affecting the management and treatment of aggressive and violent behaviours in a mental hospital, who is involved in the management and treatment efforts, when and how many. The study also sought to establish the weight of importance attached to factor identified by the health personnel in various ward.

Creswell (2003) stated that the descriptive method of research is to gather information about the present existing condition. The current study, therefore, utilised the emphasis for a descriptive method on describing efforts at emergency management and treatment of aggressive behaviour rather than on judging or interpreting. Since the study is not concerned with cause and effect

relationships, a descriptive research design was the preferred approach (Shuttleworth, 2008). Shuttleworth also noted that the design is used as a precursor to serious statistical analysis and further research. Thus, the design appropriately suited the immediate concerns of the current study of providing a general overview of the subject. Two descriptive research methods were chosen as a result; these are questionnaire survey and observations (Leedy & Ormrod, 2010). The use of both approaches was preferred so that “the biases inherent in any single method could neutralize or cancel the biases of other methods” (Creswell, 2009; 14).

3.2.1: Questionnaire Survey

Robson (2002) highlighted how survey strategies are well suited to descriptive studies where the aim is to establish or identify how many people in a given population possess a particular attitude or opinion. Robson also professed that the data could be used to explore aspects of a situation, or to seek explanation.

Together with direct observation, a survey was also used for this study. The ultimate goal was to collect data in four purposively selected wards at Ingutsheni Central Hospital. The method was considered suitable to collect data from a reasonably large number of health agents exceeding 60. It was also considered appropriate to collect data on their past experiences with violent patients, their opinions on factors in the management and treatment of violent behaviour in emergency and their characteristics. The approach allowed their responses to be analysed using percentages and frequencies (Borg & Gall, 1989).

The method was chosen partly because it was felt that that many variables can efficiently be

measured without substantially increasing time or cost. In other words, data experiences with violent patients and opinions on factors in the management and treatment of violent behaviour in emergency could be collected from many health personnel at relatively low cost and relatively quickly. Most importantly though, it was felt that interview methods were unlikely to elicit needed information accurately or reliably, either because the respondents would not know the factors or that they may be reluctant to say.

Thus, the researcher was interested in obtaining data about experiences and opinions of health workers, their characteristics, and knowledge levels concerning factors that they consider important in dealing with aggression in an emergency (Leedy & Ormrod, 2005). The ultimate goal of using the approach was to collect data from different wards constituting Ingutsheni Central hospital. Beside the approach being simple, it was chosen for its strength in capturing self-report data (Leedy & Ormrod, 2005), allowing the respondents to say what they believe is true and what they wish were.

3.2.2: Observations

To complement the survey in the four selected wards, observations were conducted in Khumalo ward (one of the four wards). In an otherwise qualitative study, observations would have been recorded in detail, sometimes with field-notes that capture the wide variety of ways in which the health workers would have responded to an emergency situation (Leedy & Ormrod, 2005). From these data, a researcher would have constructed a complex yet integrated picture of how the health agents proceed in an emergency situation. The current study, however, implemented a

quantitative approach where the focus was on a particular behaviour, that is, management and treatment of violent incidences in emergency, with the aim of quantifying this behaviour. Each occurrence of the behaviour was counted to determine its overall frequency. This is consistent with recommendations of Leedy and Ormrod (2010; 182) that in descriptive observational studies, when human beings are being studied, the “focus is typically on a certain aspect of behaviour, which can then be quantified in some way.”

The approach was chosen because by nature, it involves identifying the characteristics of an observed phenomenon (Leedy & Ormrod, 2005), and allows participants (health personnel in the current study) to be observed in an unchanged environment (Shuttleworth, 2008) as they deal with aggressive and violent patients requiring emergency intervention.

The approach was informed by the need to strive for objective assessment of the management and treatment efforts by the health agents in Khumalo ward. Direct observation included the systematic noting of aggressive and violent incidents occurring in Khumalo ward, behaviours and environments in which they occurred. Management and Treatment Observation Tables were used.

3.2.2.1: Background to Khumalo Ward

After conducted a pilot questionnaire survey in selected wards and consultations with Ingutsheni Central Hospital’s Clinical Director, the researcher settled in Khumalo ward for observations whilst working on voluntary basis in admission and assessing inpatients for discharge.

Khumalo ward is an admission ward where observations and part of the survey questionnaire were finally conducted. Patients in this ward are those that can be described as the 'raw type', those referred from central and provincial hospitals. At the time of the current research, 92.9% (N = 84) of the patients in the ward were readmissions, mostly diagnosed with relapsed psychosis, schizophrenia, drug abuse and epilepsy. When the patients are judged to have shown significant improvement, especially in thought content, can they either be discharged (if they have got a home to go to) or transferred (usually patients do not have a home they return to or that the relatives may not want them back because of violence) to other wards at Ingutsheni Central such wards as Mambo, Mzilikazi, Dawson, and Villa.

3.2.2.1.1: General Ward Environment

A description of the ward environment was reached at considering how important it is in the activities that are engaged in all attempts at dealing with problem behaviours. While the ward environment could be generally considered as a major factor in the management and treatment of violent behaviours, it was felt treating it as such would have brought about issues to do with measurement. Instead, the immediate environment pertaining to the occurrence of a violent incident under observation was taken into consideration in subsequent discussions of observed specific incidents. The larger environment, therefore, was considered necessary to present the picture of the state of affairs in which health personnel, patients and visitors meet and interact for common causes; to treat, manage and modify socially incongruent behaviours. What follows then, are subcategorized aspects of the general ward environment.

3.2.2.1.2: Work Motivation in Khumalo Ward

Comments by the health personnel during their attempts at behaviour management and treatment were captured. They seemed to suggest low motivational levels to engage with the inpatients among ward health personnel. Among other things, workers complained of low remuneration.

Apart from absconding, it was noticed that workers, particularly qualified nursing staff, would report to work late (2 to 3 hours after 0800 hours), or simply fail to turn up for duty on a particular day. Poor turn-over was seen to depend on whether the particular workers would have found themselves something better to do than report for duty, whether they still got the needed bus fare to board a kombi into town, and to Ingutsheni. It appeared therefore, that qualified workers sometimes reported for duty as a last resort.

3.2.2.1.3: Ward Upkeep

The wards grounds were well swept, the verandas neatly polished and a few benches (exactly seven in Khumalo ward) were used by patients, visitors and working health personnel. The researcher did not find any sharp objects lying idle in the wards environment that could be used as weapons by violent patients. All doors that provided access outside the wards did not have door levers, rendering it impossible for inpatients to leave wards without permission or accompaniment of a health worker.

3.2.2.1.4: Ward Entertainment Provision (specified and unspecified)

Khumalo Ward recognises the need for inpatients to engage in entertainment activities as reflected by forms of entertainment listed on a chart in the office of the nurse manager. Below is an overview of these and other unspecified forms of entertainment for inpatients in Khumalo ward.

3.2.2.1.5: Smoking

The researcher observed that all inpatients found some form of pleasure and diversion in the activity. Smoking provided an opportunity for the inpatients to share the fire and the cigarettes. In some patients, it is a lucrative business opportunity (white epileptic inpatient). The patients who were selling cigarettes had their relatives bring them packets of cigarettes (in this case, inpatient's foster father), which they in turn sale to their fellow inmates. The money could therefore be used to buy bread for tea or things that they may need, things that the ward could not provide them with.

Most importantly, smoking is the time to sit and chat about every aspect of the patients' private, public and particularly ward lives. Stories are told (schizophrenic inpatient articulates the history of the Ndebele people so well that even health personnel gather to hear), jokes shared on a cigarette, arguments exchanged and mock fights staged without necessarily turning violent. One outstanding evidence of the extent to which smoking is done in the ward is provided in inpatients' cigarette-burnt fingers. In the ward, cigarettes are smoked until the stubs are so small that sometimes you needed to pluck them out from between the patients' fingers!

3.2.2.1.6: Extramural Activities

Activities such as slashing grass, working in the garden at ward level, which included flower irrigation and vegetable irrigation out in the front of ward enclosure, fetching food and ward cleaning were not specified duties for the patients. Mainly inpatients considered stable enough would be found willingly participating in these. Extramural activities seemed to provide needed diversion for inpatient that brood and openly complained to the researcher about their being locked up in the enclosed ward.

3.2.2.1.7: Brisk Businesses (Hawking)

Patients from other wards (open wards) like Dawson brought in oranges, apples lemons and cigarettes to sell for 10 million Zimbabwean dollars each (old currency). Within wards, patients would sell each other cigarette brought for them by relatives that visited them. The money would then be used to buy bread, other food stuffs the ward could not provide and even more cigarettes for resale. Food was not allowed to be sold. It was not uncommon to find a health worker within ward selling, especially sweets, to patients. As shall be covered in later discussions, the researcher felt and observed that this affected staff-patient relations especially when it comes to dealing with unwanted behaviours where the particular staff and inpatient were involved.

3.2.2.1.8: Sports

Patients expressed lack of entertainment as one of the contributing factors to what they call their 'lifeless' stay in the enclosed ward. Indeed, activities such as volleyball, football, and film

watching existed only on the chart in the office of the nurse manager. The researcher observed that attempts at dealing with socially undesirable behaviours were incomplete without provision of such extramural activities. Sue et al. (1990) rightly noted that such large hospital as Ingutsheni Central provide mainly custodial care, produce little benefit for the patient and impede improvement.

3.2.2.1.9: The Dining Hall (Khumalo Ward)

The dining hall (commonly referred to as the kitchen in Khumalo ward) is located in the interior and occupying the central position of the enclosure (ward), literally making it the central feature of all activities that went on in the ward. All meals that are formally eaten in the ward are served here (except of course that bought or brought for the patients by relatives and friends). The exterior of the dining hall provides a place to relax and chat for all; inpatients, staff and relatives. To that effect, most of the available benches are arranged along the exterior walls of the dining hall, and are moved according to availability of sunshine (in winter), and vice versa in summer timer.

For student state registered nurses, outside the dining hall provided a place to conduct case interviews with their preferred patients. At these times, the majority of the inpatients homed in at the student nurses hoping to grab an opportunity to be interviewed and, therefore make friends with the student nurses. Some inpatients would get the opportunity to try their luck by trying to convince some students that they are stable enough to be pencilled in to see a psychiatrist or psychologist. Outside this dining hall, some patients take it upon themselves to train others how

to respond to questions by the physician; in other words, responses are rehearsed prior to meeting the psychologist or the psychiatrist who are always expected to grant them with Leave of Absence (LoA) or discharge.

3.2.2.1.10: Ward: A Diminutive Society

The ward represented a small society, ordered and with interacting people. At the highest level was the psychiatrist making rounds, then the nurse manager responsible for the running of the ward, followed by the qualified nurses, student nurses, nurse aides and finally at the lowest rang, the inpatients. Parents and relatives of the mentally ill would occasionally come into the wards bringing another link, besides that of staff, to the patients' external world outside ward walls. The latter brought in gifts and especially food and clothing, brought in the much wanted cigarettes and good tidings from relatives and friends though occasionally could cause distress for the inpatient by refusing to take them home.

A significant amount of interaction took place between inpatients and students nurses. This is understandable because the students constituted the majority of the workforce in all the wards at Ingutsheni central hospital, and they interact with inpatients most of the times when they do case interviews.

3.3: Participants

One major challenge faced by the researcher was to estimate the chance of a given health worker

in a selected ward being included in the sample. Because of the indiscriminate way health personnel were reporting for duty and the potential difficulty posed by randomly selecting and identifying possible respondents (Rubinfeld, 2004), sampling of respondents was done based on availability as is consistent with recommendations by Aday and Cornelius (2006) on deliberate sampling.

3.3.1: Participants for Direct Observations

3.3.1.1: Selection of Ward for Observation

Out of the 15 ward capacity of Ingutsheni Hospital, Khumalo ward was purposively selected for the observations. Apart from consultations with the Clinical Director of Ingutsheni Central, Khumalo ward's strategic functions of admitting, stabilizing violent patients, rehabilitating, providing them with leave of absence (LOA), and discharging or transferring them to other wards made it an appropriate focus for observations. But most importantly, it is one ward where violence can still be said to be a daily anthem.

Table 1: Wards and Bed Occupancy at Ingutsheni Central

Ward	Type of Patients	Bed Occupancy
Dawson	For Open Chronic mental disorders (males	55
Mambo	Forensic (males)	50
Khumalo	For acute mental disorders (males)	84
Nandi	Female Geriatrics	50.
Villa	Female Subnormal	35
Juvenile	Female subnormal	30
St Francis home	For severe mentally and physically handicapped children	50
Annexe	Severe mentally and physically handicapped children	30
St Marys' 1	For acute mental disorders (females)	35
St Marys' 2	Chronic mental disorders (females)	30
St Lukes' 1	Male geriatrics	35
St Lukes' 2	Male subnormal	30
Hostel	Half way Home	30
Mzilikazi 1	Male subnormal	40
Mzilikazi 2	Chronic mental disorders (males)	40
Total Bed Occupancy		679

The table shows the 15 wards at Ingutsheni central hospital and bed occupancy. Although the table shows that there were 679 patients admitted at Ingutsheni Central Hospital at the time of the study, the total bed occupancy for the whole institute is 720 patients.

3.3.1.2: Selection of Participants for Observation

Observations focused on the behaviours of management and treatment of aggressive and violent incidents in Khumalo ward. Because the focus of observations was on a behaviour defined well in advanced, the responses of the health workers to aggressive and violent incidents were observed as and when they happen. A total of 29 mental health personnel in Khumalo ward were therefore observed as they engage in the behaviour of managing and treating these incidents. Table 1 below shows the distribution of health personnel in Khumalo ward by level of training.

Table 2: Health Personal in Khumalo Ward

	Male	Female	Total
Psychiatric Nurses	5	4	9
Registered General Nurses (RGNs)	4	0	4
Nurse Aide (s)	2	0	2
Hospital Hand (s)	7	0	7
Student Nurses	2	5	7
Total	20	9	29

The table 2 above shows staff composition of health personnel in Khumalo ward at the time when observations were made. The ratio of qualified nursing staff (psychiatric nurses) to patient per shift was observed to be roughly one nurse per 21 patients (1:21).

Generally, there were more males than females for all posts. There were no female RGNs, Nurse Aides or Hospital hands. The researcher also noted that there were work shifts with some staff members reporting for duty in the morning while others came for the afternoon shifts. However, high staff absenteeism was a common observable fact. The researcher postulated that this could have been due in part to the prevailing political and economic conditions that saw workers' priorities shifting to focus on pursuing ways that would bring food in their homes instead of reporting to work. It may also be valuable to note that the research was carried out after the controversial 2008 elections.

There was no upper or lower limit to the number of aggressive and violent incidents studied. Any emergent aggressive and or violent behaviour that called for health staff intervention and occurring during the time of the study was observed.

3.3.1.3: Patients in Khumalo Ward

At the time of observations, Khumalo ward consisted of 84 male in-patients with acute psychosis. Categorisation of patients by gender was not possible for the simple this reason. Demographic variables were considered for observed violent patients include age, aggressor diagnosis and violent behaviours committed.

3.3.1.3.1: Age of Aggressor

Ages of aggressive and violent patients in Khumalo ward at the time the observations were carried ranged from 25 to 40 and these were collapsed to four categorises for analysis.

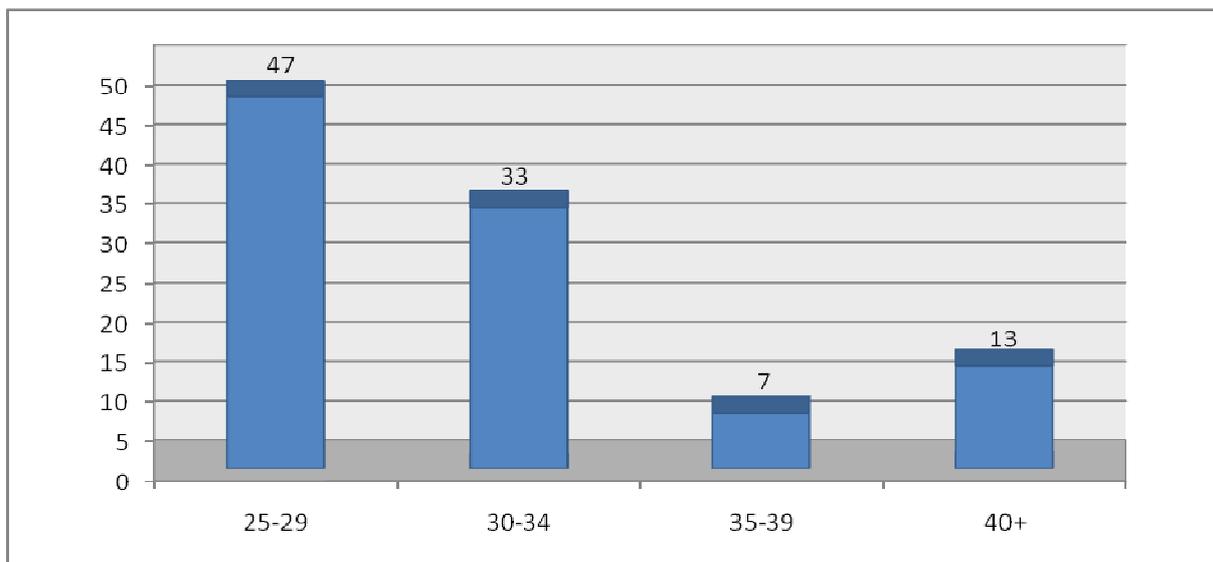


Figure 2: Distribution of Aggressors by age

Figure 3 above is a distribution of violent inpatient observed according to their age groups. The chart suggests that the most violent/aggressive inpatients range from 25 (47%) to 34 years (33%) of age, while above 35 incidents of violence in patients seem greatly reduced, constituting only

20% of the time.

3.3.1.3.2: Aggressor Diagnosis

Of all the violent incidents that occurred and were observed, patients fall in the categories of diagnosis shown in table 4 below:

Table 3: Patient diagnosis

	Percent
Schizophrenia	47
Relapsed psychosis	27
Psychotic	13
Epileptic	13
Total	100

Table 3 shows categorisation of patients according to ward records. Forty seven percent (47%) of all incidents of violence observed in Khumalo ward involved patients who were schizophrenic. Fifty seven percent (57%) of these involved patients who aged 33 to 35 and 43% were below the age of 30. Patients who were epileptic and psychotic contributed 13% each to the total violent incidents in the ward.

3.3.2: Participants for the Survey Questionnaire

Out of the 15 ward capacity of Ingutsheni Hospital, four wards were purposively selected for the survey questionnaire. The four include St Francis Home (for severe mentally and physically handicapped children), St Mary's 1 (for female inpatients with chronic mental disorders), St

Mary's 2 (for female inpatients with chronic mental disorders) and Khumalo Ward (for male inpatients with acute mental disorders). In all these four wards, a survey questionnaire was distributed targeting any available member of the treatment team (Aday & Cornelius, 2006).

In this case, every person who worked in the wards and directly (e.g., psychiatric nurses) or indirectly (e.g., nurse aides and support staff) contributed towards the management and treatment of violent behaviour qualified as a respondent. This criterion excluded inpatients from responding to the survey questionnaire.

3.3.2.1: Health Personnel Demographics

Representativeness of the overall gender mix of health personnel within the hospital could not be determined prior to the commencement of the questionnaire distribution in the selected wards. Of the respondents, 56.3 % were male and 43.7% were female staff health personnel. No information was available regarding the breakdown of all staff into age bands prior to the undertaking of the study. Approximately 75% (see table 3) of these respondents were aged 25-30, 18.8% below the age of 25 and 6.2% above 30. By far the largest groups of respondents were those in the age band of 25-30 years. Respondents' qualifications ranged from 'no qualification', for example general hands, to Diploma in psychiatry (DIP Psych).

Table 4: Percentage Distribution of Respondents' Background Characteristics
N = 64

CHARACTERITCS	PERCENT (%)
Age	
Below 25	19
25-30	75
Above 30	6
TOTAL	100
Gender	
Male	56
Female	44
TOTAL	100
Marital Status	
Single	63
Married	33
Windowed	4
TOTAL	100
Mental Health Training	
Yes	25
No	75
TOTAL	100
Highest Qualification	
Psychiatric Nurse	9
Registered General Nurse (RGN)/State Registered Nurse (SRN)	16
No specialised training	55
Total	100

Only 25% of the respondents received training in mental health as compared to 75%. Of these 75% with no specialised training in mental health, approximately 16% were RGNs and/or SRNs while the rest were either nurse aides or support staff.

3.4: Instruments

The current section on research instruments covers the survey questionnaire and the observation tables in order of data collection procedure.

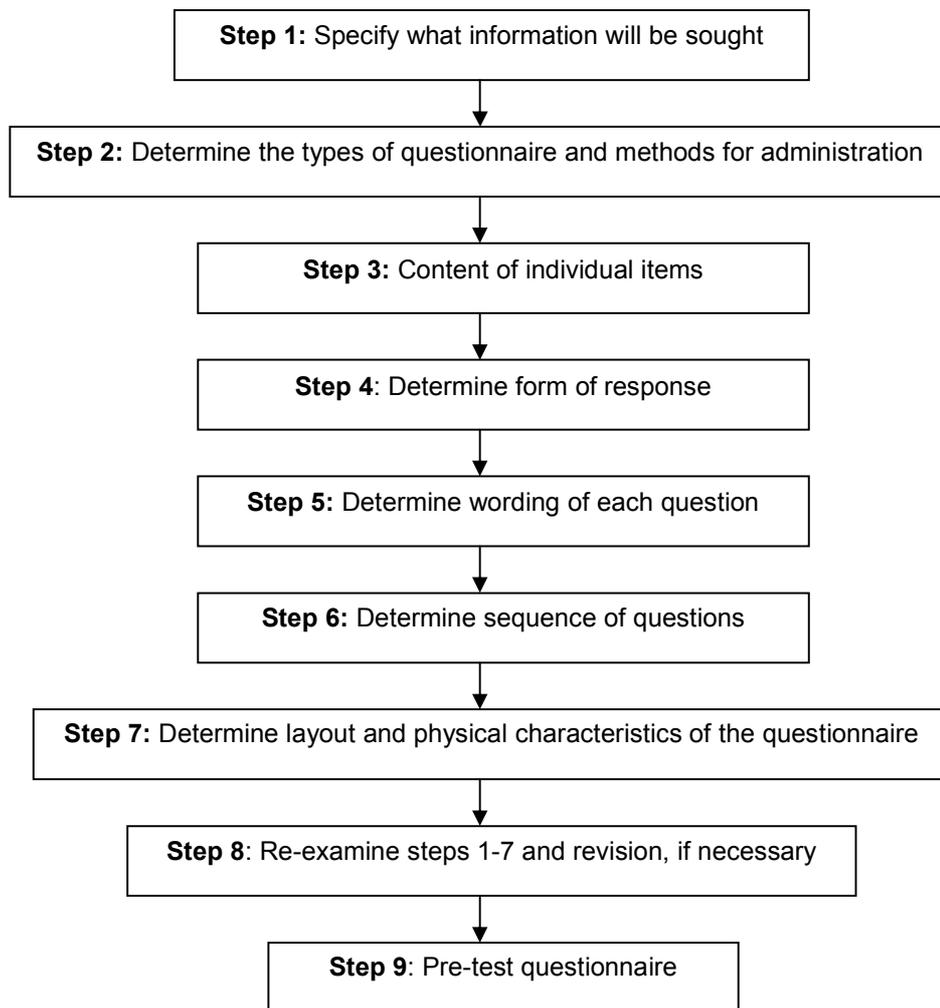
3.4.1: Survey Questionnaire

As already observed, data from the four wards were collected by way of a questionnaire personally distributed to mental health workers in enclosed envelopes. The questionnaire tapped into mental health workers' experiences, knowledge and practices (Rubenfeld, 2004; Aday & Cornelius, 2006) concerning management and treatment of aggressive and violent inpatients. It was descriptive in nature, largely drawing on factual data instead of drawing inferences between constructs or concepts.

The method was proposed after careful consideration of its potential advantages and disadvantages. General advantages were recognised as low cost, and being the least time consuming. However, the most important factor in choosing this data collection instrument was that it ensured the maintenance of anonymity for respondents. The researcher felt that this anonymity is particularly important given the controversial nature of the subject being researched and in light of the potential reluctance of mental health workers to participate in research studies.

3.4.1.1: Construction of the Questionnaire

The process of questionnaire development is based on the approach recommended by Churchill and Iacobucci (2002) which composes of nine steps. The following figure illustrates a step-by-step procedure which was used as a guideline for generating the questionnaire employed in this study.



Source: Adapted from Churchill and Iacobucci (2002, p. 315).

Figure 3: Process of Developing a Questionnaire

McColl et al. (2001) suggested that items on a questionnaire can be ordered on the basis of content (for example, broad questions preceding specific ones). Consistent with this recommendation, demographic questions were presented first so as to ease respondents into questionnaire completion. Items were placed on the questionnaire in some order, with each item relating to specific factors, behaviours, characteristics, or aspects of management and treatment process. The respondents were asked to rate the potential importance of each when considering

the decision to continue or terminate a patient's seclusion regime.

It was recognised that the traditional format of a Likert scale is to have a range of potential answers ranging from strong positive to strong negative responses. However, given the already lengthy nature of the questionnaire demonstrated from piloting in one of the wards at Ingutsheni, it was felt that to provide potentially strongly correlated negative question items and response categories would simply lengthen the process and generally give rise to less accurate information. Robson (2002) highlighted how the length of the questionnaire can affect the quality of the responses and this was born in mind at this stage.

The questionnaire, therefore, was designed as a five-point Likert scale with potential responses ranging from "1 = unimportant" to "5 = very important". Rather than a 'strongly negative – neutral – strongly positive scale', it was a 'neutral – strongly positive scale'. For the purpose of statistical analysis a response of 3, or greater than 3, was considered to be of potential importance.

The questionnaire was successfully made short and relatively friendly to the respondents. The idea was to reduce it from impacting negatively upon not only the number of staff willing to take the time to respond, but also in the quality of the responses. This was consistent with review of literature on questionnaire construction which suggests that lengthy questionnaires are less likely to be completed because of the burden they impose on the respondent (Fox, 1994). Passmore, Dobbie, Parchman and Tysinger (2002) suggested that most research questions are addressed with 25 or fewer items.

3.4.2: Observation Table (Management and Treatment Observation Table)

The quest was to standardise and make easy the collection of data through observation. The violent behaviour Management and Treatment Observation Table (MTOT), motivated by Nijman's et al. (1999) Staff Observation Aggression Scale-Revised (SOAS-R), was constructed for the purpose of observations in Khumalo ward. The SOAS-R was used by the staff member who observed an aggressive and violent incident to describe the observed provocations proceeding the incident, means used by the patient, aim of aggression, consequences and immediate measures taken by the staff. In contrast, the table for the present study was used solely by the researcher. The MTOT includes two columns, instead of five as on the SOAS-R, of a number of pre-determined options for the researcher to tick or write following observed predetermined factors. The columns specified what was observed.

The table enabled the specific aggressive behaviour to be recorded, defined factors (e.g., number of available staff, age of inpatient and characteristics of the environment) to be identified and also recorded. Factors were coded for quick and easy recording on the tables.

3.4.3: Reliability and Validity

An instrument can be said to be reliable if its measures accurately reflect the true measures of the attribute under investigation; in essence this is the consistency with which the instrument performs. Given the descriptive nature of the research, other forms of reliability could not readily be established. The responses given may be prone to change over a period of time, or may even

have been influenced by the frame of mind of the respondent at the time of completing the questionnaire. Nonetheless, items for both the questionnaire and observation tables were generated through literature reviews and through consultation with experts in clinical psychology and psychiatry.

In a continuous attempt to achieve reliability, the researcher attempted to collect accurate, consistent and dependable data. Guided by this, observation tables were designed to collect data objectively and consistently. Most importantly, the survey questionnaire was tested for internal consistency for Cronbach's Alpha on responses obtained from a pilot study of 10 participants. Result indicated a reliability alpha level of 0.798, which pointed towards a high level of internal consistency for the items on the questionnaire. Correlations between 0.70 and 0.90 are considered optimal (Norman & Streiner, 2000).

Validity can be defined as the extent to which an instrument measures what it is intended to measure (Patterson, 2008). The validity of an instrument has to do with the effectiveness of that instrument in as far as collecting the required data is concerned. Again, given the descriptive nature of the questionnaire it has not been possible to readily establish several aspects of validity. But face and content validity were established by review of the literature. A piloting of the themes underpinning the questionnaire items was carried out with nurses filling in questionnaires in a ward conveniently selected at the mental hospital. By using different data collection methods and instruments, the researcher was also able to 'achieve methodological triangulation, therefore adding to the validity of the study' (Robson, 2002; 174).

At the same time, observations tables were tested. Thus, to ensure validity, the researcher continually checked the appropriateness and accuracy of data collection techniques, procedures, and instruments.

3.5: Data Collection

3.5.1: Access

Whenever a capture group is to be used for a study, the researcher must work, of course, through appropriate channels before approaching potential participants. In a study of institutionalized persons, such as psychopathological patients, the researcher had first to solicit the aid of the official who had the highest level of responsibility and then worked through the hierarchy until the potential participants themselves were approached.

Permission to carry out the research was sought from the Chief Executive Officer (CEO) of Ingutsheni Central Hospital, but access into the institute was delayed for more than a month. It was particularly made difficult by the fact that the researcher's applications for permission were, on two separate occasions, somehow misplaced even though they had gone past the office of the Chief Executive officer. These were very unfortunate occurrences given the fact that permission was granted on both occasions prior to the disappearance of the application pack to conduct research.

The application process required of the researcher to be patient and to proceed with great

caution. It was obvious that the officers concerned did not want the issue to be raised with CEO lest they were held accountable.

3.5.2: Data Collection Procedure

Data collection took place from 28/04/2008 to 16/12/2008. The initial phase of data collection (28/04/2008 to 04/05/2008) was done, first, for the purpose of confirmation to conduct research at the institution. A visit to the institution followed conversations on the phone with the clinical director of Ingutsheni Central hospital that resulted in the agreement to visit the institution on a date that coincided with the institution's monthly meeting for medical doctors. After meeting with the institute's clinical director, a meeting with the Chief Executive Officer was arranged that resulted in the researcher touring the various wards for familiarization purposes.

3.5.2.1: Piloting

Phase 1, 03/05/2008 to 16/06/2008, was also intended for the purpose of testing the instruments. Creswell (2007) observed that pilot testing helps in refining and developing research instruments, framing questions, collecting background information and adapting research procedures. The questionnaire was pre-tested in two stages before main study. In the first stage, it was pre-tested using personal interviews with five (5) nursing staff at Parirenyatwa's Annexe hospital so as to get feedback on problems such as ambiguous questions.

Passmore et al. (2002) observed that respondents' comprehension of items on the questionnaire

may be affected by language skills, education and culture. Pre-testing initiated the process of reviewing and revising questionnaire items. Its purpose was to evaluate whether respondents would interpret items in a consistent manner, as intended by the researcher (Collins, 2003), and to judge the appropriateness of each included items. The researcher asked the Annexe nursing staff after pre-testing whether to accept the original questions and meanings, to change the questions but keep the meanings or to eliminate the questions for new ones (Bowden, Fox-Rushby, Nyandieka & Wanjau, 2002).

Later, it was tested in a pilot study in the same manner it was intended to be administered. A pilot study can be viewed as a small-scale preliminary survey conducted before the main research so as to check feasibility of the research to be done (Coolican, 1995). It was basically carried out to iron out wrinkles in decisions to do with identifying and classifying the behaviours under investigation as either violent or non-violent (Leedy & Ormrod, 2005).

Ten (10) mental health personnel from Mzilikazi 2 and Annexe participated in the second phase of the pilot study. The results from this second phase were analysed using SPSS version 15.00, and tested for internal consistency.

Specifically, the researcher tested the survey questionnaire and observation tables. The process allowed variable identification, abstraction and coding of factors identified. The observation table was adjusted to its current form in terms of layout, to make it user friendly, the number of cells per identified factor was reduced to only six (6) and item nine (9) on brief notes on treatment modalities was introduced. This followed the realized need to capture as much of the

treatment environment as could be possible.

Before piloting, the questionnaire had 12 items of which five of them were open-ended, demanding of participants to respond by briefly listing and explaining. Nurses that participated in the pilot complained that the open-ended items were somewhat demanding and requiring them to dedicate a little more time to answering them.

As a result of piloting, open-ended questions were reduced to one (item 6), which required respondents to 'List (briefly) the behaviour and those factors they consider affect how staff deal with the violent behaviours they have identified in emergency'. Item 7 was changed from open ended to allow respondents to tick in the appropriate boxes. As noted in the questionnaire design, the Instrument was successfully made short and relatively friendly to the respondents. This is consistent with observations made by Netemeyer, Bearden and Sharma (2003) that a pilot study can reduce the number of items in an initial poll to a more manageable number. Indeed, the idea was to reduce it from impacting negatively upon not only the number of staff willing to take the time to respond, but also in the quality of the responses. The data from this piloting was analysed to uncover the unforeseen shortcomings.

Analysis of questionnaire responses from the pilot study indicated that open-ended questionnaires were frequently left unanswered for the reasons that ranged from lack of time to lack of knowledge particularly because nurses in Annexe ward did not have much experience with aggressive and violent patients. Results of the pilot study allowed the researcher to zero in, with special advice from the clinical director, on a particular ward, Khumalo, that is responsible

for admissions. It is in Khumalo ward the observations were conducted.

3.5.2.2: Administering the Survey Questionnaire

The questionnaires were given to the nurse manager for each ward in a box for distribution to the health personnel in that particular ward. The researcher was aware that distributing the questionnaire in enclosed envelopes required the questionnaire to be self explanatory, with clear and simple instructions and items (Czaja & Blair, 2005). Instead of using a cover letter stating the objective of the survey and highlighting why potential respondents were selected (Dillman, 2000), the researcher highlighted rationale for the survey directly on the questionnaire itself (Stone, 1993) because this was considered less expensive.

In addition to providing clear instructions to the nurse managers, they were also told to allow every willing mental health worker on duty to pick and fill in a questionnaire and then place them in the deposit box provided for safe keeping by the nurse manager. The health personnel were discouraged to carry the questionnaires home, and instead to take 10 minutes of their break or lunch time to fill them in and leave them for collection on the same day (Czaja & Blair, 2005). The researcher would then constantly come to check for and collect the completed questionnaire.

3.5.2.3: Finalising on the Observation Ward

Following consultations with the clinical director, and a pilot study carried out in different wards, the researcher made a decision to collect most of the research data in Khumalo ward. In this ward

cases of violence occurred with high frequency (for example three (3) cases of violence behaviours were recorded the first day of pilot studying and six (6) cases the second day in a row) as compared to all other wards where it was extremely rare for sedated and stabilized patients to engage in acts of aggression and violence. For example, St. Francis Home, a facility for the severely mentally handicapped children of ages 0-16 years, posed no risk of violence prior to, and even during the period of pilot study. Observations excluded such wards to zero in at Khumalo ward.

3.5.2.4: Observations

After finalising and zeroing in on the ward, the researcher volunteered, and as part of the requirements to carry out the study, to work under the supervision of the clinical director in assessment of patients during submission, doctor's rounds and discharge. This took place 17/06/2008 to 17/12/2008. Most of the times, the researcher would give hand in serving food in the dining hall, supervise patients during ward cleaning, ferrying food, and sometimes participated in the medication process. The researcher made a great effort to get involved in the activities that involved inpatients in and outside the ward environment in order to maximise chances to be there when violence happens.

Since observation was intended for an emergency involving a violent patient and health personnel attempting to deal with such a patient, these behaviours were observed as they occurred. For every violent incident occurring, the researcher recorded on the observation tables the following: health personnel characteristics (for example, number staff present; gender; staff in

charge; and support staff present), patient characteristics (for example, age, diagnosis, violent behaviour committed, harm caused and patient history), environmental characteristics (for example, time of day, patients present and location of violent behaviour), victims and treatment modalities.

3.6: Data Analysis

Data from the observation tables were coded and input into SPSS version 15.00. Czaja and Blair (2005) noted that data coding and cleaning should be done before analysis. The analysis included running frequencies and representing these through tables and graphs. Cross tabulation was done in an attempt to compare factors such as number of health personnel (trained and untrained) present and treatment option opted, treatment options and inpatient violence and readmission history, and aggressor diagnosis and treatment option.

Data collected by way of a questionnaire was also input into SPSS version 15.00. The analysis was limited to descriptive statistics in line with the chosen methodological approach. To determine weight of importance attached to the identified factors, participant's response to item six (6) were ranked according to their mean value. Factor Recognition by mental health workers was determined by counting the frequencies of yes responses to question number 7 that required respondents to indicate 'yes' to given factors they were familiar with, and hence considered important in emergency response to the occurrence of aggressive and violent behaviour. Data from open ended questions in the questionnaire were captured as they appeared and run as frequencies. These were then analysed by merging them into major themes consistent with

literature on prediction of violence among mental ill patients and counted.

3.7: Ethical Considerations

Considerations of ethics are an inherent part of every phase of a researcher's life for both social and practical reasons (Kazdin, 1980). Even though everyone's behaviour is modified whether or not a particular programme has been designed for this purpose, issues to do with controlling one's behaviour raise questions about ethics (Shanley, 1986). It was also made clear from the onset that participation in this research was entirely voluntary and participants/respondents reserved the right to withdraw at any time.

3.7.1: Informed Consent to Research

Before obtaining informed consent to enter specific wards, the researcher informed the nurse managers of the purpose of the research, expected duration, and procedures; then their right to decline to participate and to withdraw from the research as a ward once participation has begun; any prospective research benefits; limits of confidentiality; and whom to contact for questions about the research and research participants' rights. The researcher provided opportunity for the prospective wards, represented by the nurse managers, to ask questions about the research process and receive answers.

Individual respondents were given a reasonable choice about own participation and the right to their own privacy was respected (Kazdin, 1980). As the researcher sought frank and honest answers to the survey and interview questions, it was made clear to all respondents that the

research was specifically for academic purposes and that the identity of survey respondents would remain undisclosed and confidentiality would be maintained throughout. This was imperative given the assertion that “employees often fear that somehow the results of their survey will come back to haunt them” (Hargie & Tourish, 2009; 64).

Even though the patients in Khumalo ward were not per se the participants, their behaviour was certainly observed. For the reason that the patients were legally incapable of giving informed consent (APA, 2010) and because of their psychopathology, the researcher obtained appropriate permission from Chief Executive Officer of Ingutsheni Central Hospital (on behalf of the Institution), Clinical Director and the nurse managers (representing selected wards).

3.7.2: Maintaining Confidentiality

The researcher recognized that he had a primary obligation and took reasonable precautions to protect confidential information obtained through the research process. The researcher explained clearly that the data were going to be used purely for academic reasons (APA, 2010). No names were written on the questionnaire to ensure anonymity and confidentiality. All information obtained was treated with privacy and strict confidentiality and kept under lock and key. Each person’s performance during management and treatment of aggressive and violent incidents in emergency, opinions in response to the questionnaire, insights and recommendations were treated with strict confidentiality.

3.7.3: Institutional Approval

In the process of seeking institutional approval to carry out the research, the researcher provided accurate information about the research proposal. The application pack requesting permission to conduct research included the proposal (APA, 2010; 2002), the instruments and letter from the department of psychology at the University of Zimbabwe. The researcher also ensured that approval was granted prior to conducting the research.

Approval to carry out the study was obtained from the institutional ethics authorities, Chief Executive Officer of Ingutsheni Central Hospital, Clinical Director and the nurse managers. The observations in Khumalo ward were carried out with least intervention and, using least intrusive observational methods (Shanley, 1986).

3.7.4: Deception in Research

Whether or not to use certain levels of deception was a challenge for naturalistic observation in Khumalo ward. The researcher was aware that a researcher should not conduct a study involving deception unless determined that the use of deceptive techniques is justified by the study's significant prospective scientific, educational, or applied value and that effective non-deceptive alternative procedures are not feasible (APA, 2010). Basically, the research was not expected to cause physical pain or severe emotional distress in any way. The health personnel were told by the nurse manager in Khumalo ward that the researcher (introduced as student at the University of Zimbabwe) was there to conduct an academic research and take part in the management and treatment of violent patients.

3.8: Chapter Summary

This chapter of the research study gives brief background information of Ingutsheni Central Hospital. An outline of the methodological considerations and procedures of data collection are provided. A detailed discussion of the research instruments is a constituent of the chapter. The next chapter (Chapter Four) is a presentation and analysis of data.

Chapter Four

Results

4.0: Introduction

The present section is a presentation of results. Data collected by way of a survey questionnaire in the four purposively selected wards and through observations in Khumalo ward were merged and presented in the current chapter according to the objectives of the study. These are, once again:

- To identify factors relevant in influencing mental health workers' wide range of interventions in response to inpatient aggressive behaviour and violent incidents
- To establish the degree to which mental health workers recognise factors that influence their management and treatment of violent behaviours in emergency situations.
- To establish the weight of importance attached to each factor identified by mental health workers as being important in their management and treatment of aggressive and violent behaviours.

First, however, is an overview of questionnaire response, violent behaviour types, places violent incidences were found likely to occur and treatment options found to be available for health personnel in case of emergency.

4.1: Questionnaire Response

Due to the great exodus of nursing staff to greener pastures and the inconsistency with which the workers reported for duty in the hospital at the time of the study, the researcher was unable to

ascertain the total population of both qualified and unqualified nursing staff within the hospital prior to the commencement of the study. Of the 90 questionnaires distributed to the sample of health personnel (herein referred to as respondents) in the selected wards, a total of 55.6% (n = 64) were returned. However, of these responses a total of 33.3% failed to complete the second item of the questionnaire (where respondents were requested to list a specific violent behaviour and those factors that they consider affect how staff deal with the violent behaviour they have identified in emergent situations). For the reason that lack of response for this particular item was considered lack of knowledge, these questionnaires were retained for further analysis on other items.

4.2: Violent Behaviour Types

Through observation, the researcher managed to identify and record violent behaviour types observed in Khumalo ward under six (6) categories. These are shown in figure 4.

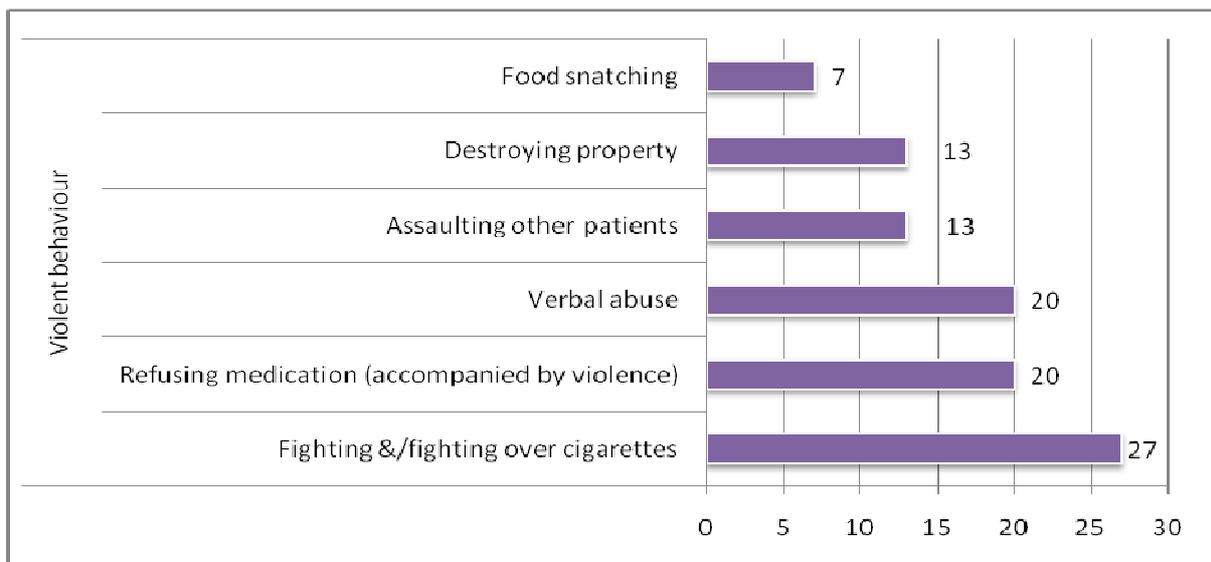


Figure 4: Violent Behaviour Type

The most common problematic behaviour occurring at the rate of 3 in every ten (27%) recorded incidents was fighting amongst patients themselves. In most cases these fights were over sharing of cigarettes which were relatively in short supply. Verbal aggression (2 in 10), in form of threats, were as fairly common as refusal of medication (often associated with violence). Food snatching at lunch was a rare occurrence.

4.3: Places Violent Incidences are Likely to Occur

While all patients live locked up in the ward making it their major place of interaction, the ward is made up of key places where patients further met and interacted. These include the bathrooms, treatment rooms, TV room, inside and outside the kitchen and seclusion rooms. Each and every one of these places provided different environments and opportunities for the patients. A closer look seemed to suggest that violence incidences were distributed differently across these places of interaction. Table 5 provides the distribution of violent incidents by place of occurrence.

Table 5: Place Violent Incidences Occurred

Place	Incident Occurrence
Inside kitchen	10
Open area within the ward	70
Medication point	10
Treatment room	10
At admission	20

It is interesting to note that percentage incidence of violent occurrence was observably significantly low inside (10% of observed incidents) and reasonably high outside (70% of observed incidents) the kitchen, a central feature of the enclosed ward.

4.4: Treatment Options Available for Health Personnel in Case of Emergency

All the management and treatment options used by mental health personnel and frequency of use during observations were carefully recorded. In the main, the health personnel were found to use only Chlorpromazine (CPZ), seclusion, medication per rising need (PRN) or a combination of any two of these at any given time. Figure 5 represents the treatment options on a graph.

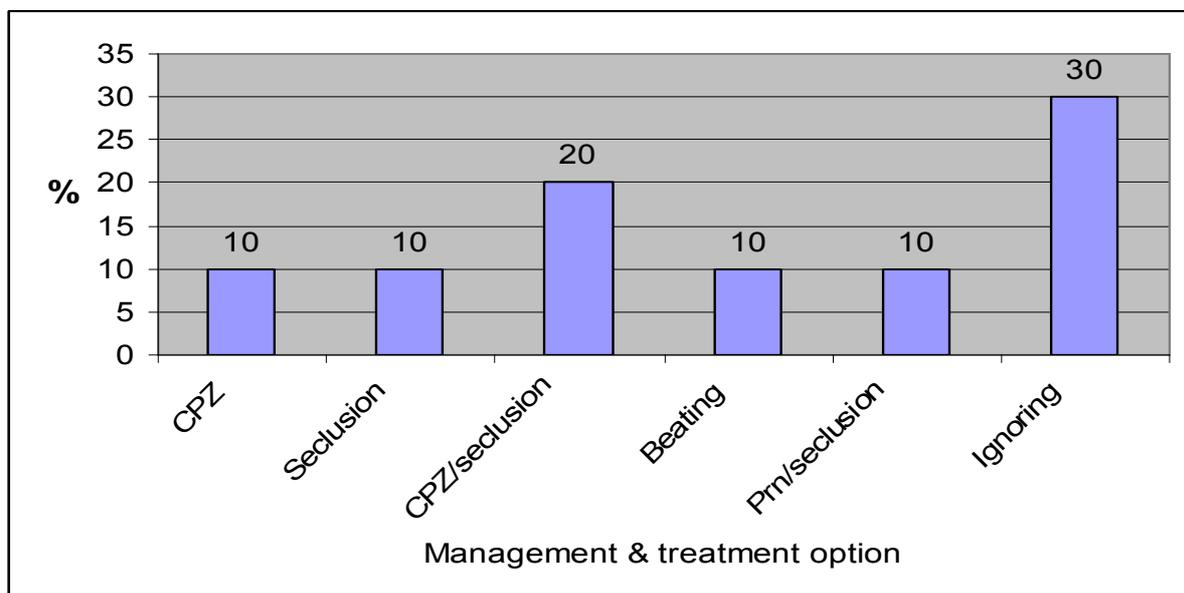


Figure 5: Treatment Options Distribution

Figure 5 above shows the proportions of management and treatment options that were used by treatment staff during the course of observation period. Ignoring violent behaviours conspicuously stand out from the rest. While questions could be raised whether it was intentional on the party of health personnel to ignore behaviour, what is obvious is that 30% of the times, violent behaviours were ignored, while a combination of CPZ and seclusion was observed to be fairly common (20%).

4.5: Factors in Management and Treatment of Violent Behaviour

One of the objectives of the study was to identify factors relevant in influencing mental health workers' wide range of interventions in response to inpatient aggressive behaviour and violent incidents. To achieve this, the health personnel was asked to respond to an open-ended questionnaire item by listing the 'behaviour and those factors that they consider affect how mental health staff deal with the violent behaviours that [they] have identified in emergent situations'. Their responses are shown in table 6

The health personnel believed that in order to be able to deal with an unexpectedly aggressive patient, one has to have knowledge of the patient's history of treatment adherence (adherence to drugs), the diagnosis of the aggressive patient, and also consider the harm that result from the aggression. Other key factors to be considered include the 'immediate environment; shortage of staff; skill of health workers in handling the incident and gender of health worker in charge of handling the incident'.

Table 6: Factors in Management and Treatment of Violent Behaviour
(N = 64)

VIOLENT BEHAVIOUR	FACTORS AFFECTING MANAGEMENT AND TREATMENT MODALITIES
Aggression	adherence to drugs; diagnosis; degree of harm; gender of health worker; immediate environment; shortage of staff; skill of health workers; Parental care
Assault on staff or patient	age of patient; drugs availability; skill of health workers; motivation for assault; adherence to treatment; age of staff; diagnosis; degree of harm; Situational stress; availability of resources; history of patients; patient marital status; degree of harm
Fighting	gender of health worker; history of patient; seclusion rooms availability
Verbal aggression /Scolding	patient utterances; diagnosis; shortage of staff; drugs availability; skill of health workers
Destroying property	age of patient; environmental characteristics; drugs availability; Location; history of violence; patient career history; degree of destruction; gender of patient; gender of health workers; patient career history; patient utterances, seclusion rooms availability
Sexual harassment	staff skill level; social & economic history

A perusal of the table above reveals a great deal of overlap in the factors considered key when making decision in the management and treatment of any specific incident that require urgent intervention. For example, drugs availability is considered a key factor in handling fights, property destroying behaviours, verbal aggression and assault of staff. The health personnel also consider skill level of one who is handling an emergency as critical as the availability of drugs in the ward. For extremely dangerous incidents such as fighting and destruction of property, the health personnel considered availability of seclusion rooms as a key factor.

4.5.1: Aggressor Diagnosis and Treatment Option

It was observed that about 50% of the times, violent incidents involving schizophrenic patients were curbed through both administering CPZ and seclusion, while psychotic patients were either

treated with CPZ/seclusion (50% of recorded times) and PRN/seclusion (50% of recorded times). Caution (16.7%) was observed with only patients who were suffering from schizophrenia and that about 33.3% of the incidents involving same category of patients were ignored. Ignoring violent patients occurred mostly with relapsed psychotic patients.

Generally, observation data seem to suggest that health personnel procedures did not clearly reflect a discernible pattern of the relationship between patient diagnosis and the treatment opted for by the health personnel in charge at the time of the occurrence of a violent accident.

4.5.2: Health Personnel Present During Management of Violent Behaviour

One of the key factors identified by respondents as critical in the management and treatment of violent patients is the number of health personnel present (both trained and support staff) to deal with the behaviour. While results will separately deal specifically with number of support staff (untrained) present, figure 6 below represents both categories of health personnel.

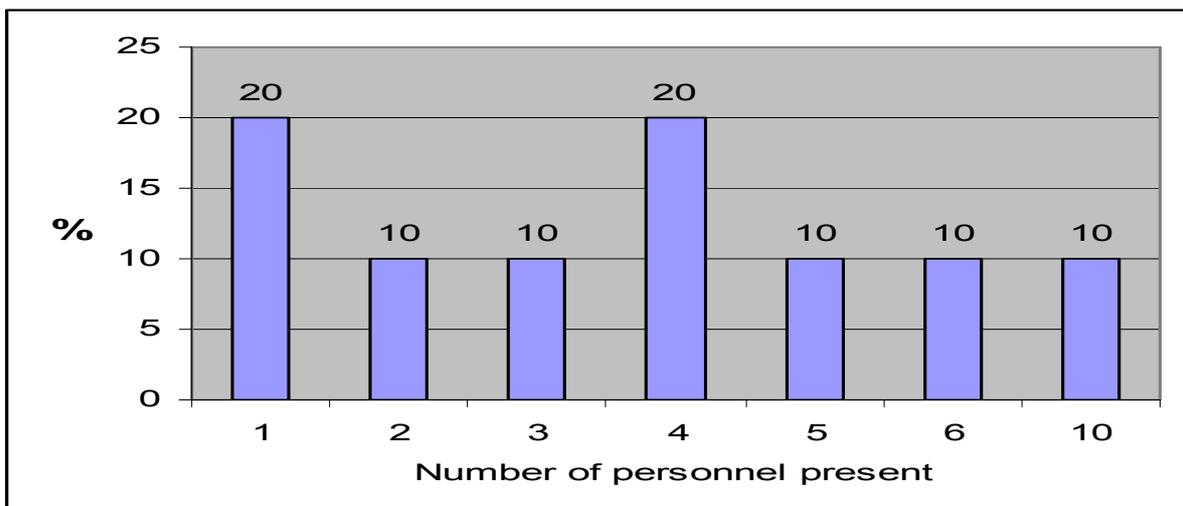


Figure 6: Distribution of Personnel

For every violent and aggressive incident observed, the number of behaviour modifying agents (health personnel) present to help in handling violent patients was recorded. It was found that the number ranged from one (1), at the least, to ten (10) at most. Figure 6 indicates that most of the times, there was one (1) or four (4) health personnel present at the scene of a violent incident to deal with it. The other categories, numbers of staff present were equally distributed with a percentage mean presence of ten (10) for each.

4.5.3: Staff in Charge of Management and Treatment of Violent Behaviour

Both the survey questionnaire results and observations seemed to be consistent in recognising staff in charge as a critical factor in the efforts at dealing with violent behaviours. Observations allowed tracking and recording of staff in charge. Every time there was an attempt to deal with an unexpected occurrence of violent behaviour, there were health personnel in charge of the management and treatment modalities. Figure 7 below presents the percentage estimate of the staff in charge of management and treatment of aggressive/violent behaviour at any given time.

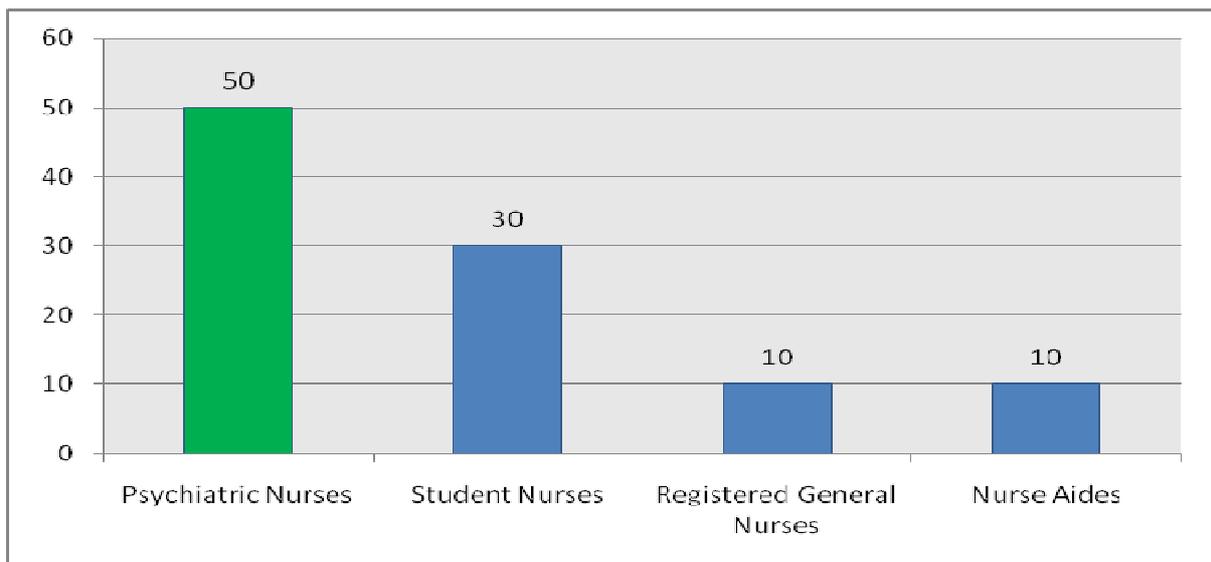


Figure 7: Staff in Charge

While it is encouraging to observe that, half of the times (50%), qualified nursing staff were in charge of management and treatment procedures, it is of great concern to note that half of the times (10% + 10% + 30%), actual management and treatment of violent inpatients is left in the hands of unqualified staff.

4.5.4: Other Patients Present

Care was taken during observations to also approximate and record the number of patients (victim or non-victim) that happened to be present during the occurrence of a violent incident and the management and treatment attempts. Generally, the number of patients present ranged from zero to eighty four (84), where 84 meant that approximately all patients were present (for example during mid-morning medication). The number ten was an approximation used to represent any number of patients that exceeded ten but not more than twenty.

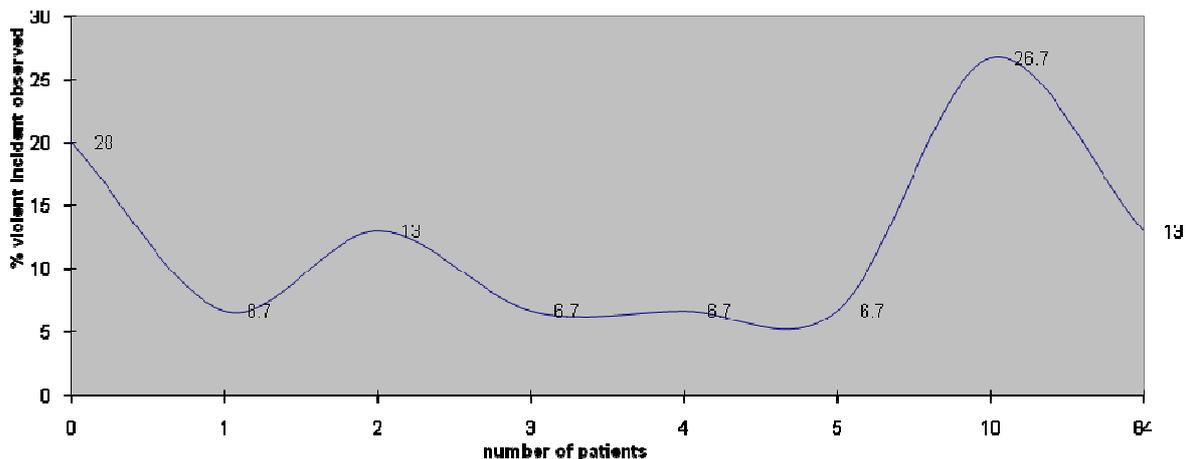


Figure 8: Other Patients Present

It could be surmised from the graph that a reasonable number of violent incidence occurred when there was 1) no other patient is around (for example hitting staff, and destroying own property in the presence of health personnel) and 2) at least more than ten people were present (fight over cigarettes, verbal aggression)

Data has also shown that attacking other patients happened only when the victim was alone with the aggressor. Behaviour such as fighting or fighting over cigarettes was likely to happen when there were at least ten other patients present.

4.5.5: Treatment Options as Function of Inpatient Violence and Readmission History

Observations seemed to reveal a consistent relationship between treatment used and the patient's history of violence and patient readmission history. Clearly, the fact that the patient was admitted in the ward before and that the patient was known to be violent seemed to have some bearing on the treatment used when the patient was found to be involved in an incident that required emergency intervention. The results shown in figure 9 confirm the views by health personnel that history of violence and readmissions were some of the factors critical in the emergency management and treatment of a violent patient.

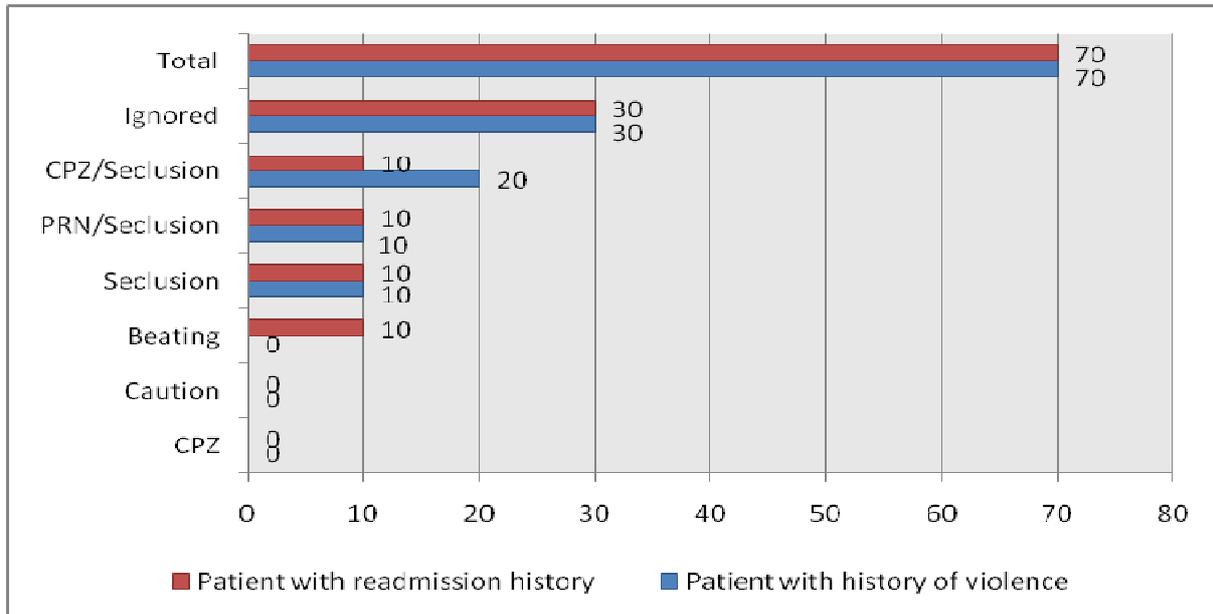


Figure 9: Treatment Options as Function of Inpatient Violence and Readmission History.

It appears from table 9 that 70% of recorded incidents of violence involved inpatients who had history of violence, and 70% of all recorded incidents involved readmitted inpatients. Nonetheless, no relationship is directly implied (if it exists then it exists by chance) between the 70% recorded incidents of violence and the 70% cases of readmissions.

4.5.6: Number of Total Staff Present and Treatment Option

A graph depicting the relationship between the total number of staff present and management and treatment option taken is shown in figure 10 below. Total number of staff includes both trained and untrained (support).

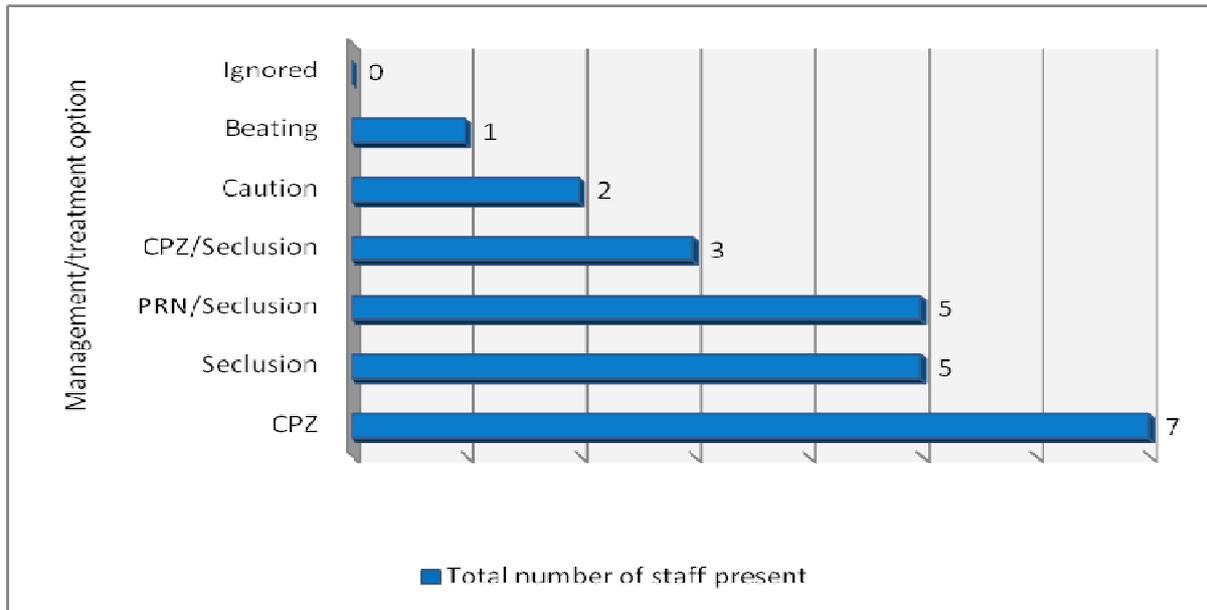


Figure 10: Treatment Option and Total Number of Staff Present

The treatment options that require physical restraining of inpatient (‘Chlorpromazine/diazepam’ (7), ‘Seclusion’ (5) and ‘Medication PRN/Seclusion’ (5)) are depicted as requiring a mean number of staff of not less than five. This could be viewed in light of the observed need to wrestle a patient down, and then pin them on hands and legs, while one staff administers an injection. Beating a patient (slapping or with a rod), as a factor, seems to happen when there is always one health worker present.

4.5.7: Treatment Option and Support (untrained) Staff Present

Working in Khumalo ward on volunteering basis had shown that support staff was a key element in the efforts at handling violent patients. As, a result, it was decided to treat it as requiring separate attention in the analysis. Figure 11 below is a presentation of this:

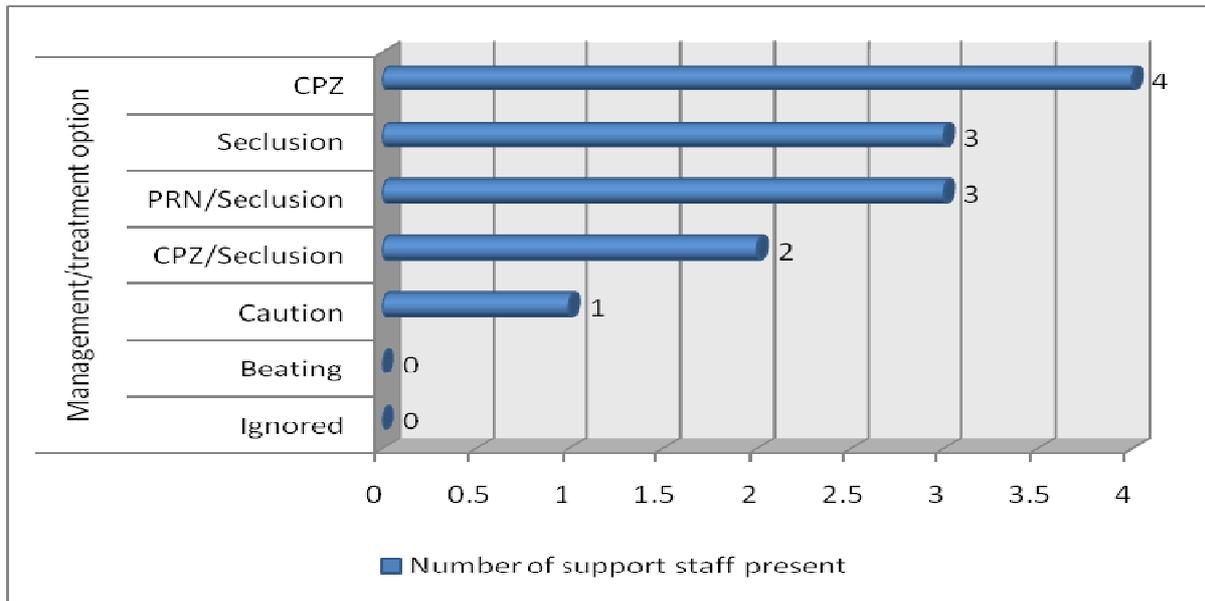


Figure 11: Treatment Option and Support Staff Present

Clearly administering CPZ alone (without seclusion) require a greater mean number of support staff to be present than the treatment option that requires CPZ/Seclusion. Other treatment options that required a significant presence of support staff include medication per rising need (PRN)/seclusion, and seclusion alone. Cautioning an aggressive and violent patient did not require support staff as compared to CPZ. At the lowest rang of the ladder is ‘beating’, which was observed only once during the course of data collection.

4.5.8: Treatment Option and Location

Management and treatment of violent behaviours seemed to follow a consistent pattern in relationship to the place of occurrence.

In particular, it was observed that violent acts happening on the sidewalk were managed and treated differently from violent acts happening during medication times, in the treatment rooms

or those that happened at admission to the wards. For example, violence inside the kitchen at lunch hour received caution, management and treatment of violent behaviours occurring in the sidewalk was done by way CPZ while those happening during patient admission received a combination of CPZ and seclusion.

4.6: Factor Recognition by Mental Health Workers

On questionnaire item seven (7) respondents were asked to indicate by ticking 'yes' from options given those factors they were familiar with, and hence consider important in emergency response to the occurrence of aggressive and violent behaviour. This was a multiple-response item, therefore respondents to the questionnaire could tick as many as they think important. The results are shown in table 7.

Table 7: Factor familiarity

(N = 64)

Factors	%
Number of health workers present	100
Perceived dangerousness of aggressor	100
Phase of patient illness	93
Diagnosis	93
Location violent behaviour takes place	93
Drugs availability	93
History of patient	93
Gender of health workers	87
Staff skill level	87
Ward or unit environment	87
Victim type	87
Gender of victim	87
Patient utterances	87
Adherence to medication	87
Immediate environment characteristics	80
Motivation for violence	80
Relations of inpatient to victim	73
Age of patient	67
Situational stress	67
Age of victim	67
degree of harm	67
Position of victim	60
Gender of patient	60
Number of patients present	60
Social & economic status of patient	53
Age of health worker in charge	53
History of health worker in charge	47
Time of the day	47

Factors are presented above clearly according to the proportion of respondents who indicated familiarity with them, and thus consider them important. Since respondents were answering to a multiple response item, frequencies do not add-up to a hundred (100%).

All respondents seemed very familiar and recognised that ‘number of health workers present’ (100%) and ‘perceived dangerousness of the aggressor’ (100%) are critical in emergency

management and treatment of violent patients. Phase of patient illness (93.3%), diagnosis (93.3%) and drugs availability (93.3%) are presented here as significantly identifiable with health workers who responded to the survey questionnaire in the selected wards.

While factors in the middle of the table can be said to be fairly popular with health workers (included in this category are: gender of violent patient and health worker dealing with violent incident, staff skill level patient utterance and degree of harm), those factors presented in the category at the bottom of the table are least familiar with most health workers. Compared to frequencies identified with factors at the top of the table, 60% familiarity can be said to be relatively low. Time of day (46.7%) and history of health worker in charge (46.7%) came out least likely to be considered important in the management and treatment of behaviour that require speedy response.

It appears factors staff is familiar with (number of health workers present, perceived dangerousness, drugs availability, history of patient and gender of health worker) and factors rated at the top five in terms of importance are somewhat similar.

4.7: Importance of Factors

Besides identifying factors relevant in influencing mental health workers' wide range of interventions in response to inpatient aggressive behaviour and violent incidents in emergency, the study was also intended to determine which factors the health personnel considered critical. First, health personnel were asked to write only four factors (starting with the most important

one) they, as individuals, considered important in the management and treatment of the emergency situations they had identified. Secondly, they were asked to rate given factors on a scale of 1 (least important) to 5 (very important). Following is a presentation of their responses.

4.7.1: Staff Ranking of Factors in Order of Importance

Table 8 below shows health personnel's ranking of factors in the management and treatment of aggressive and violent behaviour in terms of perceived importance.

Table 8: Staff Ranking of Factors
(N = 64)

Factors ranked	1 st most important factor	2 nd most important factor	3 rd most important factor	4 th most important factor
Adherence to drugs	13	-	-	6
Age of patient	13	-	-	-
Gender of health worker	6	19	6	-
Immediate environment	13	-	-	-
Patient utterances	6	-	-	-
Shortage of staff	13	6	-	-
Diagnosis	-	13	13	-
Drugs availability	-	13	-	-
History of patient	-	6	-	-
Degree of harm	-	-	6	-
Number of health workers present	-	-	6	-
Skill of health workers	-	-	6	13
Motivation for violence	-	-	-	6
Seclusion rooms availability	-	-	-	6

Together with shortage of staff (13%), immediate environment (13%), age of patient (13%), adherence to treatment (13%) was identified as one of the first most important factors to consider in the emergency management and treatment of a violent incident. The top 2nd most important factor came out as gender of health worker (19%), followed by diagnosis (13%) and drugs

availability (13%). Drugs availability is not listed among the 1st most important factors but is found under 2nd and 3rd most critical factors. Number of health personnel present at the scene of the incident (6%), skill of health personnel dealing with an aggressive and violent patient (6%) and degree of harm caused by the violent patient (6%) also appear as 3rd most important factors according to the respondents. The respondents also identified as important, patient utterances and seclusion rooms availability and motivation for violence. These last two, were, nonetheless, delegated to the position of 4th most important factors.

4.7.2: Weight of Importance attached to Identified Factors

The current section is a presentation of the rating of factors by respondents. Item number 8 of the questionnaire required the respondents to give a score to the identified factors in order of importance ranging from '1' as unimportant to '5' as very important. Of the 64 respondents 93.75% (60) completed this part. For this particular question, 4 respondents refrained from answering it. A descriptive analysis, arranged in descending order of arithmetic mean, is presented in table 9 below. Table 9 is part of Appendix A: Factor Importance.

Table 9: Factor Importance

(N = 64)

Factor	N	Range	Mean	Std. Deviation
Number of health workers present	60	1	4.93	.252
Drugs availability	60	1	4.80	.403
Adherence to medication	60	2	4.67	.705
History of patient	60	3	4.60	.807
Perceived dangerousness of aggressor	60	2	4.60	.616
Gender of health workers	60	4	4.20	1.117
Location violent behaviour takes place	60	3	4.07	1.191
Situational stress	60	3	4.00	1.164
Age of patient	60	5	3.13	1.512
History of health worker in charge	60	4	3.07	1.582
Time of the day	60	4	2.40	1.509

Table 9 is a presentation of the 5 top rated factors, moderately important and three taken from the bottom of the ladder of importance (see appendix A for all other factors). Apparently, observations in table 8 are consistent with observations in table 9, that is, number of health workers present; drugs availability, adherence to medication and history of violent inpatient are found to be familiar and critical. Gender of health worker in charge of a violent incident, situational stress and location behaviour takes place represent moderately important factors lying in the middle of the table.

The statistic 'Std. Deviation' shows the variability of respondents' rating of the given factors. From table 9, it can be noted that the respondents did not differ very much in the rating of number of health workers present as a key factor in the management and treatment of aggressive and violent behaviour. In fact the rating of the top five factors (in table 9) did not vary as much as for the other categories of factors. This is consistent with the ranges observed for the same factors. The range is also big for the factors that show greater rating variability by health personnel.

4.8: Chapter Summary

The present section has presented an outline of the findings from the data that were collected. Violent behaviours in the mental hospitals' wards have been noted, and the factors in the management and treatment of violent behaviours identified and ranked according to staff familiarity. Among other factors, gender of health personnel, location violent behaviour takes place, seclusion-rooms availability, the number of health workers present, degree of harm and patient utterances were familiar with and considered critical by staff though literature on violence and mental illness these does not give these factors prominence. Patient diagnosis, availability of drugs and patient's history of violence were some of the factors that mental health workers strongly consider critical in determining the management and treatment options preferred. Problems were noted in individual staff members in their attempts to label behaviour as either requiring urgent attention or not. As a result of such inconsistencies in reacting to violent incidents, a lot of information could not be recorded and therefore could have been lost in the process.

Chapter Five

Discussion

5.0: Introduction

The preceding chapter presented an outline of the findings from the data that was collected. The objectives of the study have been achieved; violent behaviours in the wards have been noted, the factors in the management and treatment of violent behaviours have been identified, ranked according to staff familiarity and attached importance. Nonetheless, there were problems in individual staff members in labelling behaviour as either requiring urgent attention or not. As a result of such inconsistencies in reacting to violent incidents, a lot of information could not be recorded and therefore lost. The present chapter presents a discussion, conclusion and recommendations based on the findings from both the survey and observations. As with chapter four, the discussion has been guided by and presented according to the objectives of the study. Generally, what respondents to questionnaire items identified as important in the emergent management and treatment of violence, are some of the factors that review of literature provides as important in the prediction of violence. Aspects covered in the present chapter include an examination of the dominant management and treatment approach in Khumalo ward where observations were carried out and discussion on the factors in the management and treatment of aggressive and violent behaviours already noted.

5.1: Dominant Management and Treatment Approach

At the time of the research, Khumalo ward constituted of state registered nurses, psychiatric nurses, student nurses, nurse aides, visiting psychiatrists and the present writer. From the composition of health personnel, it is understandable why the medical approach to management and treatment of violent inpatients is a dominant one. It may be necessary to point out that, at no one time during the visits to the central Hospital did the researcher meet either a psychologist or any other social worker.

Consistent with observation by Citrome (2002), the study noted that medications were often used to manage agitated behaviour in Khumalo ward. Nurses are there for the care giving rather than as agents of behaviour modification. Their main concerns seemed to be security opposed to therapy and dangerousness and management of violence (Mason & Lovell, 2008; Mason, King & Dulson, 2009). Their attempts at management and treatment of aggressive and violent behaviour are guided by the theories of physiology and neurology. The major objective was to stabilize patients by way of appropriate medication (chlorpromazine and diazepam were not uncommon with patients). Their daily activities revolved around health assessment, medication, and evaluation of medication outcomes. Their major concerns are care of patients, helping patients care for themselves through teaching patients to help themselves in performing daily activities of living. Particularly, nurses ensure that patients adhere to medication whilst in the hospital, and put measures in place (such as talking to relatives) to ensure that they adhere to medication when they are discharged.

Medication per rising need (PRN) composition, especially in form of the most dreaded injection 'Mandundu' (Usually, injection PRN was administered by way of an injection nicknamed Mandundu by the patients themselves. Mandundu is a common Shona name for a hornless cow, and therefore patients felt that they were being treated like cattle by the manner the injection was administered to them) - could be chlorpromazine or diazepam depending on patient diagnosis, was commonly used to stabilize violent inpatients, or any other unwanted behaviours. Activities to do with emergency management and treatment of aggressive and violent behaviours seemed all to have a common end, the injection. What differed was the composition of the injections depending particularly with patient diagnosis and perceived dangerousness.

5.2: Identifying Behaviour as Requiring Emergency Response:

The actual decision to define and respond to an incident as emergency and requiring appropriate and urgent intervention was a complex one. Indeed, such decision making process is influenced by many factors.

It should be again emphasized that there was no evidence, particularly in Khumalo ward, of an agreed protocol to identification of a situation as requiring emergency response or not. As a result, not all the incidents occurring in the ward that suit the research's conceptualization as emergency were so defined by concerned health personnel. As noted in the literature review (Irwin, 2006; Maguire et al., 2007), inconsistencies in the definition and appraisal of incidences hampered the process. It was observed that violent behaviour identified as emergency by one member of the management and treatment team may not be defined thus by another in identical

contexts. While the following behaviours: assault on staff or patient, fighting, verbal aggression /scolding, destroying property, generalized aggression, and sexual harassment were generally identified as requiring emergency response from the health workers that were observed, in many cases, such behaviours went unnoticed and in one incident resulted in physical harm to the victim (in this particular case a fellow inpatient).

Observations noted that experiences with aggressive and violent patients varied from individual to the other (Haller & Deluty, 1988). There were a lot of factors that contributed to a particular health worker successfully identifying behaviour as requiring emergency intervention or not. The factors were peculiar to the individual in charge but varied from personal, environment to patient. The most salient were a) health worker-patient relations, b) motivation of health worker, c) hierarchical position from the nurse manager in charge of particular ward, d) perceived competence to deal with violent incident (El-Badri & Mellsop, 2002), and e) existence of a protocol, f) other personal reasons. The researcher observed, as well, that these factors were instrumental in how the responsible health worker (s) proceeded in response to a situation recognized as worthy of emergency intervention.

A decision was also taken to classify as lack of response if the staff concerned ignored behaviour especially if ignoring appeared not intended as a treatment option. A typical example would be one student who ignored violence by a patient on another in the kitchen. The student was busy reading a text book in a corner in preparation for examinations upon return to the nursing school. It was disturbing for the researcher, who was making rounds when the incident occurred, to realize that the concerned student nurse ignored the aggressor who had violently pushed another

onto the kitchen bench and was following up in a tirade of threats. The incident was visibly going out of hand until the researcher intervened and defined the situation as requiring immediate response that the student nurse decided to take action.

Whatever the reasons that may be associated with the lack of a discernible pattern observed in the appraisal of a situation as emergency, it was felt that timely and proper labelling of an incident as emergency is crucial. The researcher felt that the way an incident is interpreted by whoever is in charge or present is in itself a very crucial factor in the urgent response to a situation. Such an interpretation is considerably crucial regardless of existence of a well-defined procedure in any given ward.

5.3: Factors in the Emergency Management and Treatment of Violent Behaviour

Consistent with literature on prediction of violence in mental hospitals and guided by Nijman's et al. (1999) model, factors in the emergency management and treatment of violence were categorized into staff, patient (Blomhoff et al., 1990), staff-patient dynamics and environmental (Dietz et al., 1983). From questionnaire responses and observations, it seemed that the same categories of factors that affect identification of an incident as emergency or not, and the same factors in prediction of violence, are also crucial in the emergency management and treatment of a violent incident. Nonetheless, it ought to be mentioned that there are specific factors that were found to apply only to the appraisal of an event as either emergency or not, specific factors that affect the willingness of a health worker present at the scene of a violent incident to respond timely and proceed in such incidents. While these specific factors can still be categorized as

mentioned above, one such as ‘the perceived ability to respond competently to an emergency incident’ is worth mentioning here. This particular factor and others will be highlighted in the ensuing discussion.

5.4. Staff Factors

Literature on the prediction of violence in psychiatric institutions has identified as staff factors inexperience or lack of training (Geddes & Baron, 1997), lack of a clear role and low staff-to-patient ratio. The findings of the present study seemed to be consistency with such a review of literature on inpatient violence. In studies that examined exposure to violence, Cunningham et al. (2003) and Whittington et al. (1996) reported that less experienced nursing staff was more likely to be exposed to aggression from patients. In the current study, student nurses and nurse aides were found wanting when it came to timely responding to aggressive and violent behaviours. While literature focused mainly on prediction of violence, the current research focused on emergency responses to the occurrence of an incident of aggression or violence in emergency situations.

The current study has also shown that individual differences existed in how health workers appraised an incident as either emergency requiring quick response or as non-emergency are of critical concern. While it is possible that the noted differences could have been a result of unclear definitions of aggression and violence (Royal College of Nursing, 2003) and absent of ward guidelines pertaining to what behaviour requires urgent intervention, other reasons could also be conjectured. These differences were observed to be worker motivation (in particular

remuneration), staff commitment to other things (student nurses preparing for examinations) viewed with the expenditure resulting in investing in dealing with patient violence (for example, failing examinations), and availability of more senior member acting as superintendent (nurse aide beating inpatient in a side-room out of sight of nurse manager).

The realisation that health workers greatly differed in making decision to respond appropriately to a situation that they might have correctly identified as needing emergency response made it difficult on the part of the researcher to decide whether ignoring an incident was to be considered a management and treatment attempt or not. Other factors had to do with hierarchical positions occupied by a health worker that might happen to be in the vicinity where incident occurs. A brief discussion of some of these factors follows closely below.

5.4.1: Perceived Competence to Deal with Violent Incident

Responding to the survey questionnaire, health personnel identified these factors as ‘skill level of workers’ involved and ‘gender of health worker involved’. The responses are consistent with literature on impact factors which notes that recently employed staff are at risk when compared to more experienced colleagues (Cunningham et al., 2003; Geddes et al., 1997). It was also reported that the presence of inexperienced staff and untrained staff can provide the opportunity for those that use violence and aggression as a coping strategy to engage in it. Observations have shown that all students’ nurses would summon the help of a male counterpart close by to handle aggressive and violent patient.

It was also a procedure that female students ensured that they did not find themselves in secluded places such as side rooms and treatment rooms alone with a patient. Perhaps a convenient example of perceived competence to deal with a violent patient was demonstrated by a 'support worker' who decided to beat a patient alone inside a side room.

Experienced female nurses were more likely confront an insubordinate patient than a student nurse on attachment or a qualified one who has just been assigned to the ward. No notable differences seemed to exist between both experienced psychiatric nurses and Registered General Nurses (RGN).

5.4.2: Gender of Health Worker

Reviewing gender of health worker as a factor, literature looked at how men and women were fairly equally represented as victims of assault (Cunningham et al., 2003; Lanza, Kayne, Hicks & Milner; 1991). Instead, the current study looked at gender as a possible factor in the management and treatment aggressive and violent behaviour in a mental hospital.

The section on 'Perceived Competence to Deal with Violent Incident' briefly touched on gender. Respondents to the survey questionnaire constantly pointed to gender of health personnel as critical in managing violent and aggressive patient, and in particular handling fighting patients and those who would have destroyed property. The respondents' sentiments seemed to be authenticated by observed data in Khumalo ward. Male health personnel in the observation ward were more likely than female to be confrontational in the way they handled violent patients.

They were more likely to beat a patient than their female counterparts. It was observed that the males were commonly found to be handy when it comes to wrestling and pinning a violent patient for medication per rising need. Such management procedure seemed necessitated by the need to contain and control a perceived dangerous patient in situations which might involve the risk of injury to self or harm to others, damage to property and compromise security (Gournay et al., 1998).

Female nurse and nurse aides tended to shout admonishing insults and quick to seek help from the male worker in the face of violence. When in charge, or at the scene of a violent behaviour, female health personnel were observed to be likely to recommend the injection and subsequent seclusion (locking up in the side-room) of a violent patient. They were also responsible for final administration of the injection when the patient is successfully brought down.

5.4.3: Skill of Health Workers

The skill of staff and their training in aggression control technique were considered important (Infantino & Musingo, 1985) by the health personnel responding to the questionnaire. Their responses were found to be consistent with literature on impact factors which notes that recently employed staff are at risk when compared to more experienced colleagues (Cunningham et al., 2003; Geddes et al., 1997). It was also reported that the presence of inexperienced staff and untrained staff can provide the opportunity for those that use violence and aggression as a coping strategy to engage in it. Observations have shown that all students' nurses would summon the help of a male counterpart close by to handle aggressive and violent patient. It was also a

procedure that female students ensured that they did not find themselves in secluded places such as side rooms and treatment rooms alone with a patient. They would also make sure that they walk around the ward as, at least, a pair.

Rather than simply 'level of skill of worker' concerned, observation seemed to suggest that that experience counted most. As already noted on "perceived Competence to Deal with Violent Behaviour', experienced female nurses were more likely to confront an insubordinate patient than a student nurse on attachment or a qualified one who has just been assigned to the ward. No notable differences seemed to exist between both experienced psychiatric nurses and Registered General Nurses.

Generally, qualified nursing staff, these include psychiatric nurses and experienced state registered nurses, handled cases of violence comfortably than student nurses, inexperienced nurses and nurse aides.

In the current study, the skill of a particular health worker was not readily evident as compared to the number of staff present at the scene of violence. The following section discusses number of support health personnel present to help in the management and treatment of aggressive and violent patient.

5.4.4: Support Staff

Cautioning and beating (one patient was beaten by support staff in a side-room) a patient did not

require as many support staff as options that required restraining and injection administering.

In their study on Interactions between patients and staff, Winstanley and Whittington (2004) reported that the immediate occurrence of the aggression was precipitated by the fact that staff had delivered an aversive stimulus to the patient. In the present study, when the context of administering an injection (the dreaded Mandundu) to an aggressive and violent patient is considered, there was a clear role of the staff members in worsening patient aggression. The patient (all patients on whom the injection had to be forcibly administered) fought had against the treatment option. As a result, all efforts to forcibly administer medication per rising need (injection) required sufficient numbers of personnel to drag the resisting patient to one of the treatment rooms, wrestle him down, and hold him motionlessly there for some nurse to administer the injection.

Management and treatment of a violent patient by way of an injection required a greater mean number of support staff (an average of 7) than simply caution (average of 2), beating (average of 1), and more staff than seclusion (average of 6).

It may not be easily clear why administering CPZ alone (without seclusion) required a greater mean number of support staff (7) to be present than the treatment option that requires both CPZ and Seclusion (3), but observations in Khumalo ward seemed to suggest that administering CPZ gave the aggressor a lot of room to try to resist medication, and therefore required more manpower than seclusion.

Beating of inpatient as a management and treatment option was very rare (only one such recorded event). But it was not uncommon for male support health personnel to smack extremely violent patients into submission during attempts at restraining and seclusion. The current study did not consider such beating as management and treatment option for they were indiscriminately done. One particular incident recorded seemed to suggest that such management and treatment option was not encouraged, and therefore could only be done out of sight of the nurse manager or such personnel in authority. Certainly, this particular incident was observed in a side-room which the nurse aide had opened with the intention to clean. The patient was of small stature, and considerably young (in the twenties), and nurse aide was male and visibly bigger than the patient in stature. It appeared therefore that the nurse aide perceived self physically capable to handle the patient alone.

5.4.5: Personal Reasons

It was found very difficult within the scope of the current study to outline health workers' specific personal reasons that also contributed towards their decision to deal with violent incidents. The major stumbling block was simply that the workers would not talk about these reasons without having been asked. Nonetheless, one obvious reason had to do with student nurses' burden of school work. In particular, a student ignored a scuffle in the dining room well after lunch because he was sequestered in a corner reading for expected examinations upon return to college.

5.4.6: Age of Staff

As a factor, age of staff in handling cases of violence was hard to discern. It is possible that gender, skill and experience of health staff were confounding factors in this case. As noted earlier, younger (student) nurses lacked experience and therefore the prerequisite skills. Nonetheless, age as a factor was more pronounced along gender lines. Older female nursing staff appeared confident and in control of situations especially during times of medication when all inpatients were assembled for their mid-morning medication. This postulation is consistent with literature review of staff factors in the management and treatment of aggressive and violent patients (Cunningham et al., 2003; Whittington et al., 1996).

The patients themselves readily followed instructions from these older female staff member than they would to a female student nurse, for example. To show their lack of respect, the patients could be heard trying to propose to young female students. In response, the young female student would make slight remarks that had the effect of encouraging instead of discouraging such conversations:

In the absence of concrete evidence, the researcher conjectured that such remarks, besides being associated with the young female staff members, were evidence of lack of experience on their part. It is possible that age of student nurse, their skills level, experience and marital status prompted such an exchange with patients.

5.5: Patient Factors

Literature on prediction of violence recognised, as patient factors, gender (Krakowski & Czobor, 2004; deMause, 2011; Grange & Corbett, 2002), age (Tardiff, 1983), history of violence (Monahan et al., 2001; Gutheil & Appelbaum, 2000), social and economic status, and diagnosis, especially schizophrenia (Tardiff, 1999). The current discussion examines some of these as follows. Apart from gender, which was the same among all patients in Khumalo ward, the current study also observed age, history of violence, social and economic status, and diagnosis to be critical.

5.5.1: Diagnosis

Schizophrenia was found to be over-represented on patients found to be violent (Tardiff, 1999), and the results have shown that treatment option taken by health workers did not seem related to aggressor diagnosis. While it was observed that about 50% of the times, violence involving a patient suffering from schizophrenia was curbed through both administering CPZ and seclusion, it was however baffling to note that, about 33% of the incidents were ignored.

Epileptic patients that required restraining and use of injection per raising need posed problems for the health workers. The problem could have been necessitated by the realisation that epileptic patients were extremely violent comparably. Ignoring such a patient was notably least likely (about 33% of the time), while injection was more likely to be used (67%).

Perhaps the most unusual procedure in the management and treatment of aggression by inpatients were observed in dealing with relapsed psychotics, beating in half of the recorded incidents (50% of the time). Because relapsed psychotic patients were considered to have awareness and to choose violence, they were often ignored (50% of recorded incidents).

5.5.2: Age of patient

Direct observations of violent incidents suggested that the most violent/aggressive inpatients ranged from 25 years to 34 years of age. Above the age of 35, incidents of violence in patients seemed greatly reduced, constituting only 10% (13) of the total incidents recorded during the study.

While health personnel that responded to questionnaire items indicated that age of patient (Tardiff, 1983) was important in the management and treatment of violent patients, observations did not find any support for that assertion. Incidents observed involving younger patients indicated a sporadic way of handling problem behaviour. One male patient (S12) was observed forcefully grabbing food from a fellow patient during lunch hour, throwing away plates and verbally abusing the victim patient. Only a male support staff tried very hard to restrain him, holding him back, shouting and threatening to bash him. In the struggle, the aggressive patient managed to snatch the plate of 'sadza' (thick porridge served with relish) after he had shrugged off resistance leaving the victim sprawling on the floor for help. Though the violent patient was later (incident was not treated as emergency) apprehended spanked hard and threatened with injection, there was no timely help from other staff members who were already leaving the

dining room for their lunch.

In a different incident, a patient (S3), aged 18-25, hit one of the support staff. The victim of his violent behaviour, the support staff, locked the patient inside a side-room, and hit back at the patient using his bare hands. Later, he unlocked him and explained his story to the current writer stood by curiously on-looking.

5.5.3: Treatment Options and Patient History

Data analysis unravelled response options at health personnel's disposal as a key factor in the management and treatment of a violent patient. Generally, health personnel had the limited selection of the CPZ, seclusion (use of side-rooms), beating (male nurse aide) and cautioning or threatening punishment (with injection or beating).

Inspection of cross tabulated, figure 9, data on treatment options and factors seem to suggest that use of restraining patient, use of injection and seclusion were fairly common with patients who were known to have history of violence and readmissions.

The result that the majority of inpatients displaying aggressive and violent behaviours were prone to seclusion is supported by other research findings (James et al., 1990; El-Badri & Mellsop, 2002; Krüger & Rosema, 2010). Almost always, readmissions were reported to have been turned violent, either because they were no longer taking medication at home, or they had started abusing drugs. Data analysed following observations approximated that 70% of recorded

incidents of violence involved in-patients who had history of violence, and 70% of all recorded incidents involved readmitted inpatients even though the 70% recorded incidents of violence does not equate to the 70% cases of readmissions. This may explain why health personnel used such approaches as injections per rising need, and seclusion.

5.6: Health Worker-patient Relations

The researcher observed that the relationship between student nurses and inpatients was to do with distribution of power and control (Barker, 1995; Barker, 1996) over the processes that make them interact on daily basis. As in the literature (Forchuk, 1995; Barker, 1996; Barker & Jackson; 1997), the current research recognised mental health worker-patient relations as central to the effective management and treatment procedures in Khumalo ward.

The student nurse badly needed a reasonably stabilized inpatient as a case study. That way ensured that the patient had some control on the nurses because patient had the information the nurse needed to successfully complete their studies. To keep inpatient motivated to participate, student nurse would volunteer to buy patients bread when they come to work the following day, buy them sweets, and evidently treat them fairly different from the rest of inpatients. Such patients were most likely to be chided when they do aggress; threatened with withdrawal of presents and favours, more than any other patient.

Some students / qualified nursing sold sweets to the patient. One student subcontracted a patient to sell cigarettes on his behalf. For this group of students, inmates were likely to be viewed as

business clients more than they are patients. It can be concluded that such interactions between health workers and patients, though for good purposes, resulted in compromised management and treatment relations. This conclusion is reached at in light of literature that states that staff-patient relationship is the hub of mental health nursing (Buchanan-Barker, 2010).

5.7: Staff-Patient Ratio

Staff composition of health personnel in Khumalo ward at the time when observations were made was found to be in the ratio of one qualified nursing staff (psychiatric nurses) to 21 patients per shift during the day. Literature review has highlighted inadequate staffing levels in respect to patient aggression occurrence (Kindy et al., 2005). In the absence of inferential analysis and basing on observations and literature, the current study propose that the low levels of staffing in Khumalo ward could have had a bearing on identification of incidents requiring urgent intervention, and management and treatment options when an incident has been so identified. For example the incident ignored by the student nurse in the kitchen and the beating of a patient by one of the support staff in a side-room could have been handled different in the presence a qualified nurse.

The researcher noted that work shifts worsened the problem of staff shortage by dividing the available workers between day and night. As already noted in chapter four, high staff absenteeism was a common observable fact that the whole hospital (and the health sector at large) grappled with during 2008 and subsequent years. The association of violence is articulated elsewhere in a study by Bowers et al. (2007b). These authors reported that annual leave for staff

and vacant posts are associated with higher levels of patient aggression.

5.8: Environmental Factors

The physical environments of the ward considered were its TV room, sidewalk, in and outside the refectory, bath rooms, treatment rooms, staff and or other inpatients present, furniture present, visitors from outside the ward environment and other physicians visiting. Literature summaries these environment factors as the time of day or day of the week (Dietz et al., 1983), location within the unit, patient overcrowding, an untherapeutic ward environment, and ward turmoil.

The ward environment and its tone have already been presented in chapter 4. It should be noted that in the current study none of the dormitories were overcrowded (Khumalo has a capacity bed occupancy of 90 inpatients and an average of 84 at time of the commencement of the study), and that the acts of violence did not follow any discernible pattern of occurrence consistent with the days of the week.

Observations noted that violent acts happening on the sidewalk were managed and treated differently from violent acts happening during medication times. This refers particularly to fighting behaviour involving two inpatients. The same applies to violent behaviours noted during lunch hour when patients were being served with food than those incidents taking place during doctors' rounds.

Management and treatment of violent behaviours occurring in the sidewalk was done by way CPZ, seclusion or a combination of both. It was observed that incidents occurring on the sidewalk attracted the attention of many patients who would gather around to see and therefore needed to be handled swiftly and effectively. Injecting CPZ was a sure way of sedating the patient. While seclusion may have appeared superfluous, it ensured that the patient would be sleep the large part of the day without interference from other patients.

The observation that patients being involuntarily admitted to the hospital (Noble & Rodger, 1989) were violent was true for the eleven submissions noted during the course of data collections. It was also observed that all patients violent at admission received a combination of CPZ and seclusion (27%). It seemed procedural that these patients be sedated and secluded as a way to ensure that they are brought under control before a doctor can examine them.

Medication per rising need (PRN) alone was only used in the treatment room and only once. While this group of patients was less violent as those at admission, their management and treatment was done in the presence of a doctor and seemed to follow a particular treatment schedule.

5.8.1: Ward Activities

Occurrence of violence and procedures for the management and treatment were also observed to be associated with certain routine activities in the ward. These included the compulsory mid-morning medication, food at lunch hour, doctor's rounds, and when student nurses do the cases

with patients. Medication was an anxiety-provoking stimulus for patients (Winstanley & Whittington, 2004) some of whom tried directly or indirectly to evade their mid-morning medication. Aggression and violence during time of medication was dealt with by way of rapid tranquilisation administered by way an injection (Mandundu) and subsequent seclusion.

At lunch hour when patients queue for their portions, few cases of fighting were observed. Most of incidents considered aggressive were in the form queue jumping, slight shoving and on rare occasions food snatching. Incidents involving pushing and shoving were common. Cases of aggression and violence during meal times were curbed by way of reduced portions, or by being denied extra share ('seconds') of food. Many factors contributed to reduced cases of violence during lunch. First, the apparent scarcity of the food itself and patients seemed to be aware of it. As a result, they would try very hard to behave in ways that would not result in the reduction of their food portion. Second, the increased presence of health personnel staff acted as inhibitive. Almost all health personnel present in Khumalo ward would be present helping serving the food. During such times, any act of violence was likely to be noticed and punished. Large numbers of health personnel ensured readily available manpower and quick response.

5.8.2: Immediate Physical and Social Environment

The current research considered as immediate physical and social environment other inpatients and furniture. This was consistent with questionnaire responses to both the pilot study and the main study.

The number of other patients present seemed to be related to the frequency of occurrence of violent behaviours. These were found to be 1) no other patient is around and 2) at least more than ten people were present. What was interesting was the relationship between the kind of violent behaviours that took place and the number of other patients close by. Attacking other patients happened only when the victim was alone together with the aggressor. Evidently, the aggressor could have been aware that the staff and other patients were out of interference. When patients gathered together, for example in the bath rooms and during medication, arguments and/or fights took place. All the inpatients that refused medication did it at the medication point in the morning where all the 84 patients are usually assembled to wait for the turn to take medicine.

Fighting or fighting over cigarettes was likely to happen when there were at least ten other patients present. Perhaps fighting over cigarettes happened at a time when other patients gathered around to try their luck at the last stub of the cigarette because they could not afford to buy their own. It was likely that another patient would try to snatch it from the other resulting in skirmishes.

But some patients who were stable enough to be in a position to know the consequences of such fights avoided them by resorting to being verbally abusing of other patients or anybody who happened to be close by.

5.8.3: Location

The locations of violent behaviours have been clearly presented in table 5. In summary, incidents

of violence in Khumalo ward were observed inside the Kitchen (10%), outside the kitchen and in the open area in the ward enclosure (70%), at point of medication (10%), inside treatment rooms (10%).

The low percentage points recorded inside the kitchen, at point of medication and inside treatment rooms can be explained in terms of increased health personnel visibility during these times. Since inadequate staffing levels have been pointed out in respect to patient aggression (Lanza, 1983; Kindy et al., 2005), increased staff visibility would imply reduced chances of the occurrence of aggression and violence. Usually, all health personnel are at some point in the kitchen when food is being served to the patients. Some will be making sure that there are no queue jumpers among the patients, others will be making sure that the available sitting places are shared equally while others will be monitoring the whole processing ensuring there are no food snatchers.

5.8.3.1: The Kitchen

The trend in the kitchen is understandable considering that whenever patients were inside the kitchen, there staff would be serving them food and monitoring progress. It would seem, therefore, as noted earlier on, that increased staff visibility was generally associated with incident reduction in violence (Bowers et al., 2007b). But the same cannot be said outside the kitchen where student nurses' bulk of work exists, and where their visibility is most pronounced. Outside the kitchen, these students seemed to be more worried about other aspects of their work, in particular school work, other than supervising patients' engagements.

One or two student nurses could be seen taking down patients' histories of illness, one selling sweets to a group of patients, another preparing patients' report for psychiatrist' rounds and some discussing a question in preparation for expected examinations upon return to their nursing schools. For them, patients did not seem to come first, and patients seem to be aware hence high incidences (40%) of aggressive and violent behaviour recorded.

5.8.4: Drugs Availability

Responses to the questionnaire and observation in Khumalo ward have shown that drugs availability is considered the most critical environmental factor key in the emergency management and treatment of violent inpatients. Given the earlier observations that the ward generally relied on the medical approach to the management and treatment of patients, the selection of drugs availability as most critical is understandable. Observations in Khumalo ward seemed to confirm this because medication per rising need (administered through an injection) was used almost always for violent patients. Whether it can be considered an appropriate response is largely beyond the scope of this thesis other than to note that the management and treatment was used on a majority of cases of aggressive and violent patients. This observation is consistent with evidence provided by Omérov et al. (2002) that such coercion methods are being continually used in mental hospitals.

While literature review shows that pharmacologic management of the aggressive and violent patient may serve as a primary therapy to other efforts at de-escalation, the observed objective of

the injection in incidents of acute violence seemed to be that of sedation. Through the injection, an aggressive and violent patient was successfully restricted in terms of freedom of movement for the greater part of the day. Studies have shown that the use of rapid tranquillisation was significantly associated with the use of physical restraint and the use of seclusion (Brown et al., 2009). It has been suggested that effective use of RT may reduce the need for seclusion and physical restraint (Macpherson et al., 2005). This study did little to clarify effectiveness use of the management and treatment approaches, took note that physical restraint is usually required to administer RT to an unwilling patient.

The option of using involuntary medication did not appear informed by how extreme the behaviour was or continues to deteriorate because there were no prior alternative management efforts tried in most of these cases. Evidence from literature search found no evidence either that the giving of high loading doses medication offers any advantage over standard doses (Holmes et al., 2001). Veltkamp et al. (2008) referred to involuntary medication as coercive methods that should be used according to patient preference where possible.

5.9: Categorization of Factors by Target Behaviour

Factors in the management and treatment of aggressive and violent behaviours are presented here in categories according to respondents to the questionnaire and the violent behaviour that was observed under treatment. It should be noted that these factors were found to overlap. For example, a factor observed to be important in management and treating assault on staff or another inpatient, say drugs availability was also found to be important in dealing with verbal

aggression such as scolding. The following sections cover this aspect.

5.9.1: Assault on Staff or Patient

Assault of staff or fellow inpatient is one of the examples of aggressive and violent behaviour that was identified as requiring urgent management and treatment. These findings are consistent with observations by O'Connell et al. (2000) who identified physical aggression as commonly experienced by nurses and requiring intervention.

Current research results went a bit further and identified the factors considered crucial in emergency and treatment of assault of staff or fellow inpatient in a mental hospital. These can be divided into environment, staff and patient factors (Nijman et al., 1999). Generally, responding to assault on staff was believed to be depended on the skill of the health worker involved and those that are present to help. The findings seem to suggest that the more experienced the worker is or workers are in dealing with a violent situation the more likely they were to succeed in handling an emergency. Respondents to questionnaire items also claim that age of staff assaulted is also a key factor. Nonetheless, the current study could not establish the relationship between age of staff victim and emergency response to assault by patient.

Critical patient factors we identified as history of patient and diagnosis (Tardiff, 1999). Observations in Khumalo ward suggested have also shown that these factors contributed significantly in the procedures taken to deal with violent patient. Diagnosis, for example, determined the composition of the commonly preferred injection and somehow appeared to

contribute to the treatment option preferred.

Together with diagnosis, history of patient was identified by respondents to the questionnaire as a critical factor in the decisions made in the management and treatment of an emergency. This suggestion was supported by observation results in Khumalo ward that have shown that treatment opted was a function of both patient readmission and patient violence history. It is also consistent with results from a study by El-Badri and Mellsop (2002) who found out that those patients who were aggressive had a history of previous violence.

Availability of drugs and other key resources in the ward were considered important. Nonetheless, observations in Khumalo ward could unravel these 'other resources'. What was, however, clearly the pattern in responses to an emergency was the reliance of drugs by the health personnel.

5.9.2: Fighting

Fighting was seen to be restricted to patients in a ward environment. Respondents to questionnaire items were asked to list factors they considered critical in their efforts to emergently deal with fighting taking place between and amongst inpatient. Three options emerged; these are (ranked in descending order of importance at analysis):

1. Gender of health worker
2. Violence history of patient
3. Seclusion rooms availability

Observations in Khumalo ward provided a glimpse into such order. Generally, emergent intervention in such situations required adequate manpower, usually a provision of male health personnel, to restrain fighting patients, wrestle them and pin them down for medication per rising need. Gender of personnel involved, was therefore critical. These findings are somewhat an echo of Dye, Brown and Chhina's (2009) remarks that physical intervention is usually needed to place someone within seclusion

There could have been no doubt about availability of seclusion rooms as another key factor in emergent management and treatment of violent psychopathological patients. In extremely violent cases observed, patient had to be, both, given an injection and then locked up in a side-room. Side-rooms (seclusion rooms) provided not only a convenient and easy way of getting rid of violent patient but also allowed health agents to recover and calm to return to the ward.

5.9.3: Verbal Aggression /Scolding

Verbal aggression/scolding was also listed by questionnaire respondents as one of the behaviours that affect how health personnel in the survey wards usual deal with violence. The way particular health personnel responded to verbal aggression was also noted to be a factor of patient utterances. As observations revealed, utterances that were sexual in content always (except a few subtly directed at young female students) prompted quick responses and attracted administration the injection. Generally and depending with availability of drugs, verbal aggression was likely to be met with injection per rising need.

Apart from patient utterances, 'shortage of staff' was identified as key in determining how health personnel proceed in case of verbal aggression. With one or two nurses around, it was observed that patient verbal aggression was likely to be ignored unless and until it escalated into physical blows or pushing.

While ignoring verbal aggression was notably a factor of availability of helping staff, arguably, it was also a factor of the skill(s) of health workers within the vicinity of the incident. Both male and female students on attachment in the ward were seen to brush aside even extreme cases of verbal aggression involving pointing fingers furiously at each other (two inpatients vehemently argued by the bathrooms about who, between them, was crazier until the current writer intervened).

5.9.4: Destroying Property

Another violent behaviour that was identified by respondents as requiring emergency intervention when it occurred is destruction of property. In their attempts at handling such behaviour, the health personnel suggested that the environment, the patient's history and gender of health personnel handling the situation are critical factors.

The environment identified includes the characteristics of the environment, location of the violent behaviour, degree of destruction caused and availability of drugs. It would seem that the level of destruction caused would determine the treatment option preferable. Actually observations also appear to suggest that level of damage caused on property was a determining

factor in the management and treatment procedures used. In fact, half of the 13% recorded such incidents were treated with seclusion and administering of the injection while another half were ignored; the latter being perceived as less serious.

In the absence of observed incidents and deducing from the way all patients perceived to be dangerous were handled in Khumalo ward, it can be speculated that seclusion and the use of injection would have been the preferred management and treatment approaches to incidents involving property destruction of extreme nature.

The location and other environmental characteristics have already been discussed under environmental factors. Perhaps, one factor identified as key in the management and treatment of violence directed at property, and has not been looked at, is patient utterances. Though recorded incidents involving destruction of property were could not come up of examples of patient utterances, it can be conjectured that what the patients says during these episodes can give an insight into some of the delusion being experienced and hence would guide health personnel as to how they should quickly and appropriately intervene.

5.9.5: General Aggressive Behaviours

A considerable percentage of questionnaire respondents listed aggression without specifying the forms or aggression they were referring to. Their responses could not be categorized as either property destruction or verbal aggression, and therefore referred to as general aggressive behaviours.

This section looks into the factors they listed as key in terms of detecting how to move on in case of the occurrence of an aggressive and violent behaviour. For the reason that this form of aggression can range from fighting to incidents of scolding fellow patient or health personnel, the key factors concerned were found to be overlapping.

Observations have also shown that diagnosis of patient or patients concerned is very important in terms of informing procedures in the management and treatment of not only aggressive behaviours, but of all manner incidents requiring emergency interventions (see treatment option and diagnosis).

It was not readily clearly to determine what sort of non-adherence was referred to in the survey questionnaire responses, but observation ruled out non-adherence as a matter of forgetting because all patients were required, reminded and even forced to queue and partake of their morning medication. Apparently adherence captured in the survey of the three wards would be refusal to take medication by the patient. Observations in Khumalo showed a consistent way of dealing with people who refused to take their medication when it was required of them to do so. Of the 20% cases recorded, 33.3% forcibly received the injection and 66.7% was secluded after receiving the injection. The health personnel obviously did not take light any patient who refused medication. The stance was understandable in the light of the earlier observations that the ward (and the hospital at large) has a medical approach to mental illness.

Apart from non-adherence and diagnosis, other identified factors include diagnosis, parental care

and skill of health worker in charge. While diagnosis and skill of health worker have been dealt with in other sections, it remains unclear how parental care has been considered critical in the management and treatment of aggressive behaviour in an emergency. This was the first time parental care was captured as factor. It is, however, the researcher's reasoning that the factor might as well be listed under the general term 'history of patient'.

5.9.6: Sexual Harassment

While during the time of the observation there was no recorded incident of sexual violence, some health workers confess about a health worker who transferred to the UK after having been sexually abused or raped by a sexually violent inpatient in a side room in the late 1990s. This happened when the unsuspecting nurse got locked-up inside a side-room by the patient she was attending to. Nonetheless, factors considered critical in dealing with sexually violent inpatients were identified as 1) staff skill level and the 2) social and economic history of the patient.

5.10: Factor Familiarity

The trend in answering the particular item that required health personnel to identify and list factors they consider important in the management and treatment of aggressive and violent incidents raises a lot of questions than answers. Of the seventeen factors that the health personnel listed, nine (9) applied to the patients themselves and only three (3) of the factors to the health personnel dealing with an emergency. The Staff has been found to attribute violent incidents to internal factors concerning the patient, such as the patient's mental illness (Nolan, Shope,

Citrome & Volavka, 2009; Duxbury & Whittington 2005). Such a trend may well suggest the mind-set that influenced the health worker's decision on management and treatment options in their management and treatment contingent. As a result, it seemed that any violent behaviour happening in the wards was almost always attributable to the patients and that management and treatment modalities seemed to put much of the blame on the patients.

The thinking emanating from such responses seem to be the contributing factor affecting treatment options for the health personnel. It might be observed that since much of the factors are associated with the patients, the treatment options (such as the dreaded injection per rising need, seclusion) are more inclined to punish the patient.

In the absence of tightly controlled studies, one is tempted to conclude that the mental health personnel might be biased against the patient, that they might be blind to the fact that as staff they are a key factor in situations of emergency. It is amazing how in their lists they left out, for example, 'number of staff present'; 'support staff available' to wrestle violent patient.

While review of the literature on violence by mental patients in psychiatric institutions has estimated the factors into thirties, it was encouraging to note that the health personnel were able to pick roughly half of them. However, analysis showed that not all the respondents answered the item that required them to list the factors, but that a few (24% skipped the item, 26% gave irrelevant responses) did and did it plausibly well. It might then be conjectured that less than 50% of the respondents are/were familiar with the factors under consideration.

The health personnel that responded to the questionnaire item managed to identify seventeen (17) factors they were familiar with and considered relevant in the management and treatment of aggressive behaviours in a mental hospital.

5.11: Weighting of Factors by Health Personnel

Sixty of the 64 respondents completed the part of the questionnaire that required them to score 29 items on a scale of '1-5' depending upon the potential importance of each item considered in emergency response in the management and treatment of aggressive and violent incidents in Khumalo ward. Respondents identified as important number of health personnel present at the scene of incident, availability of drugs in the ward, and adherence to medication, history of patient and perceived dangerousness of violent patient as the top 5 most important factors in the management and treatment of aggressive and violent behaviours in a mental hospital. The same factors were more likely to be recognised by the health personnel.

The top five factors are apparently associated with the violent patients themselves, further confirming a fundamental attribution bias on the part of the health personnel involved in the management and treatment of aggressive and violent patients. The only factor associated with the health personnel sitting in the 6th position in the top ten is age of health workers.

The finding that respondents did not vary significantly in their rating of the top five factors affirms the observation that the health personnel share about the same view that patient factors are critical in the management and treatment procedures. Rating of staff related factors show

greater variability overall.

5.12: Conclusions

Management and treatment of aggressive and violent behaviours, particularly in Khumalo ward, seemed to converge to restraining of the problem patient, seclusion, and medication. Notable was an obvious absence of a clear guideline on the identification protocol of behaviour requiring emergency responses. Interventions observed lacked a discernible pattern of how to proceed in case of such emergency; there was no checklist to facilitate health personnel on duty in case of the occurrence of a violent incident.

The discussion has also shown that a great deal of inconsistencies unjustifiably existed in the application of treatment and management options for cases that appeared related in terms of diagnosis, history of violence and type of violence committed. In such cases, intervention was given appeared more a prerogative of the health personnel in charge at the time of incident occurrence. A confusion of and possibly lack of knowledge about health other workers' roles in the management and treatment attempts was also noted. The research revealed inappropriate procedure on the part of support staff (aides and general hands). These included smacking or slapping patients in an attempt to put them back inline. Certain incidents of beating happened in the presence of responsible nurses in charge such as when a violent patient is being restrained for rapid tranquilisation.

Staff and patient relations classified as inappropriate in the current study were observed between

student nurses and somewhat stabilised patients. Specifically, the researcher found it unfortunate for some student nurse to be seen selling sweets to patients in Khumalo ward. Perhaps, further research may be able to shed light into how such interactions contribute to the management and treatment process.

The management and treatment options that involved use of stabilising medicines and seclusion were observed to be very effective in getting rid of the aggressive and violent patients. The effectiveness of the procedure in the long run lay outside the scope of the present study. But because violent patients almost always had to be manhandled, administered an injection and locked up in a side-room, number of staff present and availability of drugs became the major factors in the management and treatment efforts. Equally critical factors emerging from both observations and survey include perceived dangerousness of aggressor; phase of patient illness and location violent behaviour takes place. While questionnaire responses identified diagnosis and history of aggressor as critical, there was no evidence that in dealing with violence, the observed health personnel considered these as important. Other factors that were found to be pivotal include experience of health worker, age and motivation.

5.13: Chapter Summary

In the absence of a specified protocol, the study results pointed to the recognition of various factors that contribute to health workers' decisions in what options to take in the management and treatment of violent patients in a mental hospital ward.

5.14: Recommendations

5.14.1: For Mental Health Workers and Responsible Authorities

The health personnel in Khumalo ward need to broaden their conception of aggressive and violent behaviour management and treatment beyond the confines of restraining, seclusion, and medication.

There is need for responsible authorities or nurse managers to have a clear guideline on the identification of behaviour requiring emergency responses and how to proceed in case of such emergency. There is a great need to develop a checklist for use by health personnel on duty in case of the occurrence of a violent incident.

Closely related to having laid down guiding principle on how to identify incidents for intervention, is the idea of consistency in the application of treatment and management regimen. The health personnel should have a predetermined course of action for specified aggressive and violent behaviours before they occur and be consistency and seen to be so by the patients themselves in dealing with the problem behaviours.

There is need to have the roles of different health personnel defined. It should be clear what the student nurse, general hands and nurse aides should and should not do. Unclear roles seemed to result in diffusion of responsibility, and many times in the use of use of inappropriate management techniques (for example, smacking of patients by male support staff).

Staff and patient relations need to be well defined. In particular, the researcher found it inappropriate for some student nurse to be seen selling sweets to patients in Khumalo ward. While it was beyond the scope of the current study to examine how such relations impacted on the management and treatment procedures, it is however, conjectured that it is likely to affect the choice of management and treatment options available for use. It may also explain some of the unaccounted differences in responding to patients with history of violence.

There is need for the responsible authorities to introduce or encourage health workers to continue professional development. The researcher recommends further training, for all health workers, in the area of behaviour modification which presented a huge gap in their attempts to deal with aggressive and violent inpatients.

Even though the medical approach of rapid tranquilisation (CPZ injection) has been observed to produce result in terms of stabilising violent patients, knowledge and practice of behaviour medication techniques will be an invaluable tool for the health personnel. One thing coming out of the research is that the health personnel lack adequate knowledge in terms of factors affecting their management and treatment of aggressive and violent patients. This needs to be addressed.

5.14.1: For Further Research

This study has identified factors that may be of some importance in the emergency management and treatment of aggressive and violent behaviours within mental Hospitals. These hospitals,

however, have traditionally shunned inspection of their practices and have remained insular in their philosophies and cultures. Despite evidence that this culture is changing (Dale et al., 1995), Mason (1995) proffers that caution should still be taken when undertaking research in such institutions in light of the continuing pressure to comply with cultural norms and to 'tow the official line'.

A further point noted in literature review of incidents in a Special Hospital Special Care ward, was that a higher rate of violent behaviour might be expected than is found in less secure treatment settings. Indeed, the expectancy of potential violence may in itself influence, either consciously or unconsciously, response to an emergency or potentially emergency situation, and with it management and treatment options in emergency. As such, it would be of interest to note whether findings from Khumalo ward could be replicated in other psychiatric settings and clinical areas less expectancy of violence from the patient population.

This study identified factors that were considered important in the management and treatment of aggressive and violent behaviour in an emergency situation, yet failed to identify rationales or motivations for considering such factors as important. A further area of study would be to identify these rationales and motivations and to determine the reasons why the identified factors were actually considered of importance.

Yet even with the identification of potential factors that may prove important in the management and treatment of aggressive and violent behaviour in an emergency situation, one must remain aware of the complexities of decision making within organisations and the influence of

unconscious motivations and such concepts as hunches, intuition and gut feeling. Clinical judgements may not always be consciously driven and how this may influence future research in this area may prove important.

Finally, following from the results of this study, attempts can be made to formulate the 'Emergency Procedure Checklist' that partly initially inspired the study. It is hoped that once developed such a checklist may prove of benefit to health personnel in how to proceed in case of emergency.

5.15. Limitations to the Study

On reflection there were several limitations evident. This study is limited by a relatively small sample of patients from one mental hospital in Bulawayo. The results may not therefore be representative of mental hospitals in Zimbabwe. The small numbers in the sample restricted the ability to undertake serious statistical analysis. The researcher was also unable to ascertain the number and other demographic characteristics of the total health workers population in the wards at Ingutsheni Central hospital where the study was conducted. Hence issues to do with representative of the respondents to the total health personnel population with respect to these factors could not be ascertained. The feasibility of statistical analysis was compromised given the small number of observed incidents in particular age, number of patients/staff present and management and treatment opted. This problem may have been overcome with a larger sample of observed violent incidents and management options.

Another potential limitation to the study was the honesty, and therefore accuracy, of the information given by the respondents. This potential limitation was highlighted at the beginning of the study in light of the traditional culture of the mental hospitals. Literature has shown that, traditionally, health personnel, in particular the nursing staff, within these institutions have proven reluctant to engage in research and have been subject to great pressures to conform to the cultural norms of the organisation. Despite evidence that the culture of these institutions is changing (Dale et al., 1995), the accuracy of information obtained must continue to be questioned to some degree (Mason, 1995). This will be particularly so given the highly controversial and potentially emotive nature of the study, where respondents were questioned regarding their clinical judgement on issues that fundamentally have to do with control of another person's behaviour.

The use of a questionnaire survey was considered to be the most appropriate for this study in light of the culture of Special Hospitals, the ease and speed of data distribution and collection, and the anonymity offered to potential respondents. However, one potential disadvantage of this method has been shown to be in ascertaining the motives or rationales that underpinned particular responses of respondents. This is particularly so when anomalies or 'one-off' results appear. The use of a semi-structured interview may have been able to identify the motives and rationales behind particular answers given by respondents, although the advantage of this has to be weighed against the potential for respondents not being willing to provide honest answers. A recognised problem with interviews where respondents may be faced with an interviewer who may well be perceived in a position of power or authority over, the respondent. Instead, the researcher chose observations.

A further potential limitation to the study may lie in the complexity of the health worker's decisions to judge an incident as requiring urgent intervention or not. Evidence from observations and the literature suggest that the decision to initiate a seclusion regime is a complex one. From this one could argue that the decision would prove just as complex and may be influenced by any number of factors; consciously or unconsciously motivated. Attempts at identifying individual factors and rating their potential importance in this process may be significantly over-simplifying the decision making process itself.

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Appendices

Appendix A: Factor Importance

	N	Range	Mean	Std. Deviation
Number of health workers present	60	1	4.93	.252
Drugs availability	60	1	4.80	.403
Adherence to medication	60	2	4.67	.705
History of patient	60	3	4.60	.807
Perceived dangerousness of aggressor	60	2	4.60	.616
Victim type	60	4	4.53	1.033
Phase of patient illness score	60	5	4.47	1.268
degree of harm	60	3	4.47	.965
Immediate environment characteristics	60	2	4.47	.724
Diagnosis	60	3	4.40	.960
Motivation for violence	60	4	4.40	1.092
Staff skill level	60	3	4.40	.887
Gender of victim	60	3	4.20	.988
Gender of health workers score	60	4	4.20	1.117
Location violent behaviour takes place	60	3	4.07	1.191
Situational stress	60	3	4.00	1.164
Gender of patient	60	3	4.00	.974
Patient utterances	60	3	3.80	1.054
Age of victim	60	3	3.73	1.191
Patient demands	60	4	3.60	1.317
Number of patients present	60	4	3.47	1.321
Ward or unit environment	60	4	3.40	1.028
Relations of inpatient to victim	60	5	3.33	1.503
Social & economic status of patient	60	4	3.20	1.436
Age of health worker in charge	60	4	3.13	1.722
Position of victim	60	5	3.13	1.467
Age of patient	60	5	3.13	1.512
History of health worker in charge	60	4	3.07	1.582
Time of the day	60	4	2.40	1.509

Appendix B: Departmental Referral Letter

P.O. Box MP 167
Mount Pleasant
Harare, Zimbabwe
Telephone: 303211
Telex: 26580 UNIVZ ZW
Telegrams: UNIVERSITY
Fax : (263) (4) 333407/308296



Department of Psychology

University of Zimbabwe

22 May 2008

The Medical Superintendent
INGUTSHENI CENTRAL HOSPITAL
P. O. Box 8363
Belmont
BULAWAYO,
Zimbabwe

The Medical Superintendent

**RE: REQUEST FOR PERMISSION TO CARRY OUT AN ACADEMIC
STUDY: THESIS IN RESPECT OF MPHIL SOCIAL STUDIES DEGREE:
R. KOKERA R027994X**

The above mentioned is a student with the university of Zimbabwe, Faculty of Social Studies, Department of Psychology, studying for a Master of Philosophy in Social Sciences Degree. His research is on '**Factors affecting emergency treatment and management of inpatient aggressive and violent behaviour in a Zimbabwean mental hospital.**'

I would be grateful if you allow Richman Kokera permission to conduct his educational research. The student wishes to start his research the beginning of June 2008.

If you need any further information concerning Richman Kokera, please do not hesitate to contact me or Psychology Department, University of Zimbabwe.

Sincerely,

Mr. G. Javangwe (+263 912 960 707)
(Thesis Supervisor, Lecturer Psychology Department)
(gjavangwe@sociol.uz.ac.zw)



Appendix C: Permission to Conduct Study

Telephone: 09 – 466463/5

Telegraphic Address
"MEDICUS", Bulawayo
Fax: 09-466896
Telex:

Reference:
INGUTSHENI CENTRAL HOSPITAL
P.O. Box 8363
Belmont
Bulawayo
Zimbabwe

03 June 2008



ZIMBABWE

DEPARTMENT OF PSYCHIATRY

TO WHOM IT MAY CONCERN:

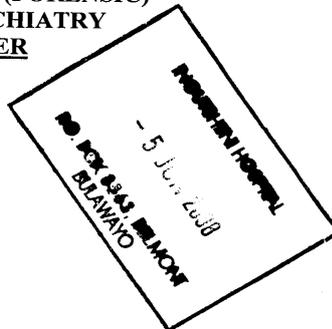
**RE: RICHMAN KOKERA, STUDENT NUMBER: R027994 X
UNIVERSITY OF ZIMBABWE**

This swerves to confirm that the above named student, has been granted permission to conduct his Academic Research at Ingutsheni Central Hospital.

After completion of the study, the student is required to communicate to the Hospital his research findings.

Thank you

P.A.
DR. E. POSKOTCHINOVA
CONSULTANT PSYCHIATRIST (FORENSIC)
HEAD: DEPARTMENT OF PSYCHIATRY
for: CHIEF EXECUTIVE OFFICER
ed



Appendix D: Nurse Manager Consent Form

To the Nurse Manager: Seeking Permission to carry out a Study

Title of the Research:

Factors affecting the Management and Treatment of Inpatient Aggressive and Violent Behaviour in a Zimbabwean Mental Institution

Researcher's Name: Richman Kokera
Registration Number: R027994X
Researcher's Position: Master of Philosophy in Social Sciences Student
Department: Psychology
Institution: University of Zimbabwe
Address: P.O Box MP167, Mt Pleasant, Harare, Zimbabwe
Contact Numbers: +263 (4) 303211 ext 1454/1703
Cell: +263 772818474
Email: rkokera@sociol.uz.ac.zw
roker@gmail.com

Important Information to Ward Nurse Manager

This form serves to seek for your assistance in the above-mentioned research to be conducted in your ward in fulfilment of the requirements for a Master of Philosophy in Social Sciences degree. The letter has been written with permission from the Chief Executive Officer of Ingutsheni Central.

As part of the exercise, the research will require the health personnel in your ward to complete a survey questionnaire. The researcher will also observe and record efforts of the health personnel as they attempt to deal with aggressive and violent incidents requiring emergency intervention.

Should at any time during the study, you experience an emergency as a result of my study, please feel free to raise the issue with me, the Chief Executive Officer of Ingutsheni Central or conduct the Department of Psychology at the above address.

The researcher will ensure that all materials remain confidential and stored safely. The final report will be made available to those respondents who wish to read it.

This is to confirm that (Nurse Manager) _____, confirm that the above named student, has been granted permission to proceed with his study in the ward. On behalf of the ward, I understand that we can withdraw from the study at any time and that Identification in the study will be an individual participant's decision.

Signature of respondent _____
Signature of Researcher _____
Date _____

Appendix E: Survey Questionnaire

To Respondent

All your responses are going to be handled with strict confidentiality. By faithfully responding to the items in the questionnaire, you would have contributed greatly to knowledge on how to proceed in case of emergency. Kindly respond to all the questions. Where there are options, tick in the appropriate box [es]

Your co-operation is greatly appreciated. Thank you in advance

Questionnaire Items

1. Your age range [kindly tick in the appropriate box]

Below 25		25-35years		Above 35 years	
----------	--	------------	--	----------------	--
2. Please tick where it applies to you

Female		Male	
--------	--	------	--
3. Marital status

Single		Married		Specify other	
--------	--	---------	--	---------------	--
4. Do you have specialised training in dealing with aggressive / violent patients?

Yes		No	
-----	--	----	--
5. Highest qualification of specialised training (kindly specify)-----
6. List (briefly)the behaviour and those factors you consider affect how staff deal with the violent behaviours you have identified in emergent situation

Type of violent behaviour	Factor(s) (kindly list as many)
1.	1 2 3 4
2.	1 2 3 4
3.	1 2 3 4
4.	1 2 3 4
5.	1 2 3 4

7. Which one (s) of the following do you think is/are important in dealing with aggressive / violent behaviour in emergency situation (s) (please tick as many as you think are applicable)?

Factors	Kindly
Patient Factors	
Age of patient	
History of patient	
Gender of patient	
Number of patients present	
Phase of illness	
Diagnosis	
Patient social & economic status	
Patient utterances	
Motivation for the violent behaviour	
Adherence to the medication	
Staff factors	
Age of health worker in Charge	
History of health worker in Charge	
Gender of health workers	
Number of health workers present	
Perceived dangerousness of aggressor	
Staff skill level	
Environmental factors	
Ward or Unit	
Location Violent behaviour takes place	
Immediate environment characteristics	
Time of day	
Situational stress	
Drugs availability	
Victims of Violent behaviour	
Victim type (furniture, staff, other patient)	
Gender of victim (for humans)	
Age of victim (for humans)	
Position of victim (for humans)	
Relations of inpatient to victim (for humans)	
Degree of harm	

- 8 Score the following factors in order of importance giving a range of 1 (unimportant), 2 (of little importance), 3 (moderately important), 4 (important), to 5 (very important). Circle the score of choice for every factor in the table below :

Factor(s)	Score				
	1	2	3	4	5
Age of patient	1	2	3	4	5
History of patient	1	2	3	4	5
Gender of patient	1	2	3	4	5
Number of patients present	1	2	3	4	5
Phase of illness	1	2	3	4	5
Diagnosis	1	2	3	4	5
Patient social & economic status	1	2	3	4	5
Patient utterances	1	2	3	4	5
Motivation for the violent behaviour	1	2	3	4	5
Adherence to the medication	1	2	3	4	5
Patient demands	1	2	3	4	5
Age of health worker in Charge	1	2	3	4	5
History of health worker in Charge	1	2	3	4	5
Gender of health workers	1	2	3	4	5
Number of health workers present	1	2	3	4	5
Perceived dangerousness of aggressor	1	2	3	4	5
Staff skill level	1	2	3	4	5
Ward or Unit	1	2	3	4	5
Location Violent behaviour takes place	1	2	3	4	5
Immediate environment characteristics	1	2	3	4	5
Time of day	1	2	3	4	5
Situational stress	1	2	3	4	5
Drugs availability	1	2	3	4	5
Victim type (furniture, staff, other patient)	1	2	3	4	5
Gender of victim (for humans)	1	2	3	4	5
Age of victim (for humans)	1	2	3	4	5
Position of victim (for humans)	1	2	3	4	5
Relations of inpatient to victim (for humans)	1	2	3	4	5
Degree of harm	1	2	3	4	5

Thank you for your co-operation. Call +263 11 340 382, two months from now, if you wish to receive the research results

Date -----
Signature -----

Appendix F: Management and Treatment Observation Table

Observation Table Number-----

Patient Number-----

Violent Behaviour type-----

Patient Diagnosis----- Treatment / Medication-----

STAFF PRESENT, (ACCORDING TO GENDER)		STAFF PRESENT (SKILL LEVELS)	
Patients present		Patients present	
Staff in charge (attributes)		Staff in charge (attributes)	
Immediate Environment		Immediate Environment	
Patient history (diagnosis)		Patient illness history (phase of illness)	
Day, time		Day, time	
Support staff present (Characteristics)		Support staff present (Characteristics)	
Brief notes on Treatment modalities		Brief notes on Treatment	
Victim characteristics		Victim characteristics	
Harm caused / perceived		Harm caused / perceived	
Brief notes			

PATIENTS PRESENT		PATIENTS PRESENT	
Staff in charge (attributes)		Staff in charge (attributes)	
Immediate Environment Characteristics		Immediate Environment Characteristics	
Patient illness history		Patient illness history	
Day, time		Day, time	
Support staff present (Characteristics)		Support staff present (Characteristics)	
Brief notes on Treatment modalities		Brief notes on Treatment modalities	
Victim characteristics		Victim characteristics	
Harm caused / perceived		Harm caused / perceived	
Brief notes on Treatment modalities			