KNOWLEDGE AND SKILLS OF PROFESSIONAL NURSES IN MANAGING AGGRESSIVE PATIENTS IN A PSYCHIATRIC HOSPITAL IN THE WESTERN CAPE

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ABSTRACT

Background: Mental illness has become more common than many other diseases such as heart disease, cancer or diabetes. Aggression or violence by patients towards psychiatric nurses is a global issue. These nurses, therefore, face the huge challenge of providing nursing care to aggressive psychiatric patients. Without the necessary knowledge and skills, the nurses are vulnerable to all kinds of injuries, given the time spent managing aggressive patients.

Purpose and objectives: The purpose of the study was to determine the level of knowledge and skills that professional nurses possess to manage the aggression of psychiatric patients. The objective of the study was to ascertain whether the knowledge and skills of professional nurses were sufficient to manage aggressive psychiatric patients.

Method: A quantitative approach and descriptive design was used to conduct this study at a Psychiatric Hospital in the Western Cape, South Africa. The target population consisted of 149 professional nurses employed at the Psychiatric Hospital. The sample for the study was all-inclusive i.e. all professional nurses employed at the hospital. Only 70 participants were available for the study. Structured questionnaires were distributed to the participants for data collection and the response rate was 77% (n=54). Data analysis was done with the aid of a statistician using a Statistical Package for Social Science, version 22, and nominal as well as ordinal data was analysed using descriptive analysis. The process and purpose of the study was explained to the participants, who gave their consent, prior to the distributing of the questionnaires. The researcher obtained permission from the necessary authorities before commencing with the study.

Findings: The study found that nurses were more likely to be exposed to verbal aggression as opposed to sexual aggression. It also revealed that nurses with less years of experience had more knowledge than their counterparts who had more years of experience in same position. Furthermore, the study revealed that those who had training in aggression management reported that the training did not meet their needs. Overall, the findings revealed that nurses had a fair knowledge of managing aggressive psychiatric patients. The overall findings also revealed that professional nurses had the required skills to manage aggressive patients.

Recommendations: There is a need for on-going in-service training and refresher courses in the management of aggression. There should also be a needs analysis before commencing with these training courses which should be made compulsory for all staff to attend. Further studies should be conducted on the different categories of nurses, and other disciplines within nursing, to ascertain their knowledge of the management of aggression. Qualitative studies should also be conducted on nurses' experience of aggression in different settings.

KEYWORDS

Knowledge
Skills
Registered professional nurse
Aggression
Violence
Psychiatric hospital

ABBREVATIONS

APNA - American Psychiatric Nurses Association
HIV - Human Immunodeficiency Virus
MAVAS - Management of Aggression and Violence Scale
NHS - National Health Service
PTSD - Posttraumatic Stress Disorder
TB - Tuberculosis
SASH - South African Stress and Health
SPSS - Statistical Package for Social Sciences
UK - United Kingdom
WHO - World Health Organisation

DECLARATION

I declare that the study, *Knowledge and Skills of professional nurses in managing aggressive patients in a Psychiatric Hospital in the Western Cape,* is my original work, that it has not been submitted for any degree or examination at any other University and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Full name: Ntombiyakhe Bekelepi

Date: 08 May 2015

Signed……

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TABLE OF CONTENTS

CHAPTER 1

ORIENTATION TO THE STUDY

CHAPTER 2

LITERATURE REVIEW

CHAPTER 3

RESEARCH METHODOLOGY

CHAPTER 4

RESEARCH FINDINGS

CHAPTER 5

DISCUSSION OF THE FINDINGS

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

REFERENCES

LIST OF TABLES

LIST OF FIGURES

LIST OF ADDENDUMS

CHAPTER 1

ORIENTATION TO THE STUDY

1.1. Introduction

Mental illness has become more common than many other diseases such as heart disease, cancer or diabetes. Aggression or violence by patients towards psychiatric nurses is a global issue (Department of Health, 2008). These nurses, therefore, face the huge challenge of providing nursing care to aggressive psychiatric patients.

Nurses serve as the frontline care providers in the country's health system particularly the mental health system in South Africa (Department of Health, 2008). Nurses are thus required to have the necessary knowledge and skills to manage mentally ill, aggressive patients without being hurt in the process. In order to do this, psychiatric nurses need to be educated and trained in understanding mental illnesses and how they impact on patients' behaviour.

Mental illness has a major impact on individual and population health as the results are more significant disabilities than physical illnesses. Physical illnesses include, amongst others; high risk of injuries, cardiovascular disorders and HIV (Human immunodeficiency virus) which are the major contributors to the burden of diseases in South Africa (Corrigall, Pienaar, Matzopoulos, Bourne, Bradshaw, Draper, Chopra & Sanders, 2007). However, according to the World Health Organisation (2004), five of the ten leading causes of disabilities, globally, are psychiatric conditions. These include diseases such as: major depression, schizophrenia, bipolar disorder, panic disorders and alcohol use disorder**.** This highlights the burden caused by mental illness in psychiatric services.

Aggression of psychiatric patients is viewed as a major challenge locally and internationally. Poster (1996), in Chen, Hwu & Williams (2005), asserts that nurses' experience of aggression or violence from patients is an expected occupational hazard internationally. A national audit conducted by the Healthcare Commission (2005) in Wales and England, which focused on mental health and learning disabilities in patients' wards, revealed that violence against nurses was consistently high with up to 86% of nurses affected by violent and aggressive behaviour of patients. Duxbury & Wright (2011) and the American Psychiatric Nurses Association (2007), add that aggression of patients in healthcare settings raises concerns

about the safety of both patient and staff. Workplace violence in healthcare settings is seen as an epidemic by various authors since it is reported in almost all countries globally (Kennedy & Julie, 2013; Rintoul, Wynaden & McGowan, 2009; Jonkers, Goossens, Steenhuis & Oud, 2008)**.** However, psychiatric settings and emergency departments have been identified as the settings where aggression and violence by patients occur most frequently (Rintoul et al., 2009; Inoue, Tsukano, Muraoka, Kaneko & Okamura, 2006).

Inoue et al. (2006) conducted a study at two hospitals in Japan to assess the psychological impact of verbal abuse or violence by patients on nurses working in psychiatric departments and to identify factors related to their impact. Findings from this study revealed that exposure to aggressive behaviour could lead to long term psychological effects, such as burnout and psychological distress of nurses, which would ultimately affect the quality of care provided to patients (Inoue et al., 2006).

Papadopoulos, Ross, Stewart, Dack, James & Bowers (2012) assert that violence and aggression cause a negative effect on staff performance including a high rate of absenteeism, high stress levels and low staff morale. In a South African study conducted by Kennedy & Julie (2013) on nurses' experience and understanding of workplace violence in trauma and emergency departments, the authors allude to nurses experiencing physical threats, verbal abuse, psychological and imminent violence on a regular basis. These authors also assert that nurses tended to normalise abusive behaviour as it was perceived 'to come with territory'.

1.2. Background

Studies in the United Kingdom show that aggressive incidences are prevalent in all areas of the National Health Service (NHS) (Foster, Bowers & Nijman, 2007; Duxbury, Hahn, Needham & Pulsford, 2008). According to the National Audit Office (2003), which is an independent parliamentary body in the United Kingdom responsible for auditing central government departments, as cited in Foster et al. (2007), nurses experience the highest number of aggressive incidences by patients. It further estimated that the average number of aggressive incidents in mental health services is more than two-and-a-half times the average for all other areas of the health service.

According to Swarts, Niehaus, Koen & Macris (2010), staff working in psychiatric hospitals are assaulted by patients approximately seven to 14 times per month. Foster et al. (2007) assert that all staff are vulnerable to violence and aggression, especially those who have direct contact with the public. These staff would include ambulance and emergency services personnel.

A study was conducted by Abderhalden, Needham, Friedli, Poelmans & Dassen (2002) on the perception of aggression among psychiatric nurses in Switzerland. The objectives of this study were to identify components and patterns in the perception of aggression by psychiatric nurses; and to explore relationships between the perception of aggression and personal as well as workplace characteristics. The findings revealed that of the total population of n=729 nurses who participated in the study, 72,4 % reported to have felt seriously threatened in their professional lives and 70% reported being physically attacked at least once in their nursing career. In studies conducted by Kajee-Adams & Khalil (2010) and Khalil (2010) in the health sector in Cape Town, an upward trend of violence in general and psychiatric hospitals, as well as community health care settings, was reported. The nurses at general hospitals reported the highest incidents of verbal abuse compared to nurses in psychiatric hospitals (Khalil, 2010).

According to Bradshaw (2003), cited in Corrigall, Pienaar, Matzopoulos, Bourne, Bradshaw, Draper, Chopra & Sanders (2007), neuropsychiatric conditions such as depressive disorder, anxiety disorder, schizophrenia and substance abuse are the second highest proportions of the local burden of diseases in South Africa. Statistics South Africa (2001) reported that, in the Western Cape alone, more than 22% of all disabilities are due to emotional and intellectual disability (Corrigall et al., 2007). The South African Stress and Health (SASH) study was the largest scale population study based on common mental health disorders in the country and aimed at estimating the national life time prevalence of mental illness in the South African population (Herman, Stein, Seedat, Heeringa, Moomal & Williams, 2009). The findings from the SASH study shows that the lifetime prevalence for any disorder was 30,3%, with anxiety being the most prevalent 12-month and lifetime disorder, rated at 15,8%, followed by substance abuse with the rate of 13,3%. It is estimated that mental disorders in the Western Cape Province are rated second in the top five contributors to the burden of disease. The most prevalent lifetime mental disorder in the Western Cape is substance abuse, with a prevalence rate of 20,6%. This study also revealed that the Western Cape has the highest 12-month

prevalence and lifetime rate of substance abuse at 42 % and the Northern Cape at 29%, which was the lowest prevalence and lifetime rate of substance abuse (Herman et al., 2009).

According to Soyka (2000), substance misuse among patients with major mental disorders, especially schizophrenia, is a major risk factor for violence. The effect of substance misuse on patients produces adverse effects such as psychosis, hallucinations and anxiety (Pluddemann, Dada, Parry, Parker, Temmingh, van Heerden, de Clercq & Lewis, 2013). Patients are more likely to be aggressive when they have a perceived persecutory threat and are unable to control their thoughts and feelings (Skeem, Odgers, Stowman, Mulvey, Schubert & Gardner, 2005).

A study was conducted by Pluddemann et al. (2013**)** on monitoring the prevalence of methamphetamine related presentations at a psychiatric hospital in Cape Town. The study aimed to determine a demographic profile of methamphetamine related admissions to major psychiatric services. The findings highlighted the significant burden that methamphetamine induced psychosis places on psychiatric services. The results of this study showed that aggressive behaviour was the most common symptom displayed by these patients. According to Pluddemann et al. (2013), anecdotal evidence suggests that an increase in the use of methamphetamine in the Western Cape is placing a large burden on psychiatric services. The increase in substance abuse affects the mental state of an individual and results in a psychotic episode. Patients who are admitted to the psychiatric service as psychotic, and who display aggressive behaviour, need to be placed in an acute unit with trained staff. Nurses spend long hours caring for these patients and are faced with an increasing number of aggressive incidences during their daily practice (Jonkers et al., 2008).

In addition, there is a shortage of security personnel, which results in nurses having to deal with aggressive incidents, in addition to their work. They are forced to perform the dual task of providing care to the patients and, at the same time, acting as security officer to ensure the safety of other patients and staff, which exposes them to assaults (Poggenpoel, Myburgh & Morare, 2011). This has an effect on the work performance of the nurses as they tend to have minimal interaction with patients who are the perpetrators, thus affecting the continuity of care (Kennedy & Julie, 2013).

Jonkers et al. (2008) conducted a study on the perceptions of mental health nurses on patient aggression in clinical psychiatry in the Netherlands and the findings allude that psychiatric nurses in a mental health institution are confronted with patient aggression once every other day. This puts tremendous pressure on nurses as it is their responsibility to maintain a safe and therapeutic milieu. In addition, a study was conducted by Ngako, van Rensburg & Mataboge (2012) in South Africa on the experience of psychiatric nurses working with mental health care users presenting with acute symptoms. The findings in this study alluded to nurses indicating that the quality of care was compromised because they found it challenging to establish therapeutic relationships and maintain a therapeutic environment with acutely ill patients. These patients tended to display aggressive behaviour that caused the staff to distance themselves from them.

Furthermore, Foster et al. (2007) allude to the lack of knowledge and skills that nurses may experience during the process of interacting with aggressive patients. Without the necessary skills and knowledge to manage aggressive patients, nurses are exposed to injury in the process. According to Foster et al. (2007), patients express their aggression in different ways, from raising their voices during an argument to an unprovoked violent attack. If aggression is not well managed it could escalate to such an extent that the person becomes violent. Schultz & Videbeck (2005) assert that nurses need to be able to make quick decisions when faced with an aggressive patient and administer the correctly prescribed medication when necessary. Dealing with violent, aggressive, mentally-ill patients can be stressful for nurses, especially when they feel that they are inadequately trained. Having the theoretical knowledge and skills, equip nurses with the necessary techniques for competent and effective management of aggression.

According to Bowers, Nijman, Allan, Simpson, Warren & Turner (2006), on-going training in aggression management can increase the confidence of psychiatric nurses when confronted with aggressive patients. Nurses need to have an understanding of the possible causes of aggression (Dawood, 2013). Similarly, Foster et al. (2007) state that training psychiatric nurses will decrease their anxiety of working in such an environment. Bock (2011) conducted a study in four psychiatric hospitals in the Western Cape on the assessment of attitude related to management of aggressive patients. The results of this study showed that only 33% of nurses were trained in psychiatry, while 66,9% had no psychiatric qualification. The nurses

with no psychiatric training lack knowledge about patient aggression which impacts on their ability to manage aggressive patients, hence the need for training.

According to Di Martino & Chappell (2000), in Oostrom & van Mierlo (2008), improving the interpersonal skills and knowledge of nurses on aggression can reduce incidences of aggression in patients. These authors assert that the way nurses respond to emotional clients can have a reducing effect on aggression. Poggenpoel et al. (2011) state that nurses should be educated about mental illness and be equipped with knowledge and skills concerning their interaction with mentally-ill patients which will change their perception towards these patients. Ilkiw-Lavalle (2006) suggests that staff receive regular refresher sessions on aggression management as well as on-going education on acquiring the necessary skills in order to promote safety and confidence. They assert that the improvement of professional nurses' knowledge and skills of handling psychiatric patients will reduce the chances of aggressive outbursts in psychiatric wards. In addition, the use of appropriate communication skills, including de-escalation, may diffuse aggression. Verbal de-escalation is the strategy most used by staff when confronted with aggressive patients.

A study was conducted by Letlape (2012) on the exploration of in-service training needs of psychiatric nurses at a psychiatric hospital in Gauteng. The findings indicated that psychiatric nurses were challenged by the types of patients they cared for as well as the environment in which they worked. Letlape (2012) postulates that psychiatric nurses, who attend in-service training and become empowered with the latest psychiatric knowledge and skills, are more effective to deal with psychiatric patients and are able to reduce the risk of injuries to either staff or patients. Willets & Leff (2003) agree that in-service training increases the knowledge and skills of psychiatric nurses in managing aggression of patients.

There are four specialist psychiatric hospitals in the Western Cape Province that have a population of about five million people (Statistics South Africa, 2012). These hospitals render mental health services to people with mental illness as well as intellectual disability and provide a platform for the training of health workers and research. Two of these hospitals render acute psychiatric services including a range of specialised therapeutic programmes; one hospital specializes in rendering services for acute and chronic intellectual disability, mental illness or severe challenging behaviour. Lastly, the selected hospital for this study renders both acute psychiatric services−which include specialised therapeutic programmes,

forensic service for state patients who have been found unfit to stand trial in a court of law– and services for acute, chronic intellectual disability and mental illness or severe challenging behaviour. It is situated in the Mitchell's Plain area (Department of Health 2013) (see Addendum K: Map of Cape Town Metropole).

The selected hospital has 149 professional nurses, which includes 19 operational managers, who have the responsibility of rendering quality nursing care to mentally ill patients. Their daily activities include rendering comprehensive mental health care to their clients (risk assessments, administering prescribed medication and a holistic approach to patient needs). These professional nurses also have the responsibility of liaising with community psychiatric nurses for the continuity of care of discharged patients and do home visits to meet the families and assess the home environment.

1.3. Problem statement

Nurses are faced with an increasing number of aggressive incidences by patients during their daily practices in psychiatric hospitals (Jonkers et al., 2008**)**. Some patients become aggressive without being provoked. Aggressive behaviour exposes nurses to unnecessary stress and could lead to them becoming less interested in the care they provide to patients (Inoue et al., 2006). Anecdotal evidence suggests that nurses experience difficulties in managing aggressive patients in psychiatric hospitals. This may be due to a lack of confidence in dealing with aggressive patients. Literature alludes to the nurses' lack of knowledge and skills during the process of interacting with these patients. This study therefore aims to gain insight into and an understanding of the knowledge and skills professional nurses possess in managing aggressive patients at a psychiatric hospital in the Western Cape.

1.4. Purpose of the study

To determine the level of knowledge and skills of professional nurses to manage aggression of patients at a psychiatric hospital in the Western Cape.

1.5. Research questions

- What knowledge do professional nurses have of managing aggressive patients at a psychiatric hospital?

- What are the skills professional nurses have to manage aggressive patients at a psychiatric hospital?

1.6. Objectives of the study

- To determine the knowledge professional nurses have of managing aggressive psychiatric patients at a psychiatric hospital.
- To determine the skills professional nurses have to manage aggressive patients.

1.7. Significance of the study

The findings and recommendations of this study may provide nursing managers with information about the professional nurses' knowledge of and skills to manage aggression. Existing guidelines may be adapted to include aspects such as aggression management strategies which may emanate from these findings to assist nurses in dealing with aggressive patients. Training programmes may be formulated based on the findings of this study. The findings may influence existing policies on the management of aggression in this particular hospital.

1.8. Operational definitions

For the purpose of this study, the following terms are used and defined below:

- **Knowledge −**

  Knowledge is the information and knowledge acquired through experience or education (Concise Oxford Dictionary, 2005). In this study knowledge refers to psychiatric nurses' theoretical understanding of aggression of psychiatric patients such as causes of aggression and its management.

- **Violence −**

  Violence is the "intentional use of physical force or power, threatened or actual, against oneself, another person or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation" (WHO, 2002:4). In this study violence is the physical force patients with mental illness use to hurt themselves or nurses.

- **Aggression −**

  Aggression is the behaviour aimed at causing harm, which can be verbal aggression, such as insults, or physical aggression which causes injury to self and others, for example, being kicked or slapped (Uys & Middleton, 2014:287). In this study, aggression will be any verbal aggression that comprises insulting, threatening and disruptive behaviour or physical aggression such as assault by psychiatric patients directed towards themselves or others.

- **Professional nurse −**

  According to the Nursing Act No 33 of 2005, a registered professional nurse refers to a 'person who is qualified and competent to independently practice comprehensive nursing in the manner and the level prescribed and who is capable of assuming responsibility and accountability for such practice' (South Africa, 2005). In this study a professional nurse is a person who is qualified and competent to render nursing care to patients in the selected psychiatric hospital of this study.

- **Psychiatric hospital** –

  According to the Mental Health Care Act 17 of 2002 (South Africa, 2002), a psychiatric hospital is defined as a 'health establishment that provides care, treatment and rehabilitation for patients with mental illness'. In this study a psychiatric hospital refers to the mental health institution in the Western Cape where this study was conducted.

- **Skills −**

  A skill is the ability to perform something well (Concise Oxford Dictionary, 2005). For the purpose of this study, it is the skills professional nurses use to manage aggressive patients, for example, communication skills and de-escalating skills.

1.9. Research design and method

In this study, a quantitative approach, using a descriptive design, was employed to describe the knowledge and skills of professional nurses to manage aggressive patients at a psychiatric hospital in the Western Cape. According to Polit & Beck (2008), quantitative, descriptive research is suitable when participants are only required to describe the occurrence of real life situations. This research method was most suitable for the study as the researcher had no intention of establishing a cause-effect relationship (Brink, van der Walt & van Rensburg,

2006). Instead, the researcher wanted to determine the level of knowledge and skills of professional nurses to manage an aggressive patient. The methodology will be discussed in-depth in Chapter 3.

- **Data analysis**

  The Statistical Package for Social Science (SPSS), version 22, was used in the analysis of data with the assistance of a statistician. This was used to collect basic descriptive statistics on the knowledge and skills of professional nurses in managing aggressive patients. The data was arranged into frequency distribution, and these were presented in the form of tables, pie charts and graphs. Comparison of demographic variables with overall knowledge was done and the significance difference between these variables was tested through the Kruskall Wallis Test for Independent Samples. The significance level for the statistical test was at $p<0.05$ (see Chapter 3 for an in depth discussion).

- **Ethics**

  Ethical approval to conduct the study was obtained from the Senate Research Ethics Committee of University of the Western Cape and the Research Ethics Committee of the selected hospital. All participants gave consent to participate in the study. It was explained to participants that they could withdraw at any time in the study without any prejudice. To maintain the participants' anonymity and confidentiality, the researcher ensured that no names were attached to questionnaires. The researcher also ensured that privacy and confidentiality is respected by allowing the participants to decide to what extent the information could be shared with other institutions or be published. The ethics will be discussed in-depth in Chapter 3.

1.10. Chapter outline

Chapter 1: introduces the background of the study, research problem, purpose of the study, research questions, objectives of the study, significance of the study, operational definitions, an overview of the research design and method and the ethics of the study.

Chapter 2: discusses the literature review undertaken to locate studies on the knowledge and skills of professional nurses to manage aggression of psychiatric patients.

Chapter 3: outlines the research design and methodology of the study. The research methodology discusses the research setting, research design, population, sampling, data

collection instrument and process, data analysis and ethics. The research design utilized allowed the researcher to achieve the aim and objectives of the current study.

Chapter 4: presents the findings of the study.

Chapter 5: discusses the findings in detail and places these findings in context with the broader literature by means of comparing them with other studies.

Chapter 6: a summary of the study is provided and conclusions are made based on the findings of the study. Limitations to the study are also outlined. In addition, recommendations for further practice and research are made.

1.11. Conclusion

This chapter outlined the background of the study, problem statement, purpose of the study, research question, objectives of the study, significance of the study, operational definitions, overview of the research design and method and ethical considerations. The purpose of the study was to determine the level of knowledge and skills of professional nurses to manage aggression of patients at a psychiatric hospital in the Western Cape. In Chapter 2, an in-depth review of literature will be documented pertaining to the topic of interest.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

Aggression and violence in a psychiatric setting is a matter of great concern as nurses are subjected to incidents of violence on a daily basis. However, if nurses possess the necessary knowledge to deal with the violent incidents, serious consequences, such as injuries, post-traumatic stress disorder (PTSD) etc., could be mitigated.

The researcher conducted a literature review of the empirical literature on the knowledge and skills of professional nurses working in psychiatric hospitals. The literature searched included the following data bases: EBScohost, CINAHL, MEDLINE, Wiley online library, Science direct and PubMed**.** The following key words were used to conduct a literature search: aggression, skills, knowledge, psychiatric hospital and professional nurse. The researcher could not locate studies done on knowledge and skills in aggression management.

The purpose of a literature review is to conduct a critical, analytical appraisal of recent scholarly work on the topic in order to determine what is already known (Brink et al., 2012). The researcher, therefore, conducted a literature review to identify what was already known about the knowledge and skills of professional nurses to manage aggressive patients in a psychiatric setting. The literature reviewed focused on: an overview of aggression and violence, the causes of aggression in psychiatric patients, the management of aggression in psychiatric hospitals and the impact of aggression on the health of nurses (physical and psychological).

2.2. An overview of the concepts, aggression and violence

Aggression has been defined in various ways by different authors. Barlow, Grenyer & Ilkiw-Lavalle (2000) define aggression as ‘any act of verbal or physical aggression directed to self or others irrespective of outcome’, while Baumann (2015:160) defines aggression as ‘a domineering forceful or assaultive verbal or physical action’. Similarly, Sadock & Sadock (2007) allude that aggression implies the intent to harm or injure another person. McMahon & Fisher (2003) asserts that aggression can be expressed in many forms−from raised voices

during an argument to physical harm with or without weapon use. Bowers, Nijman & Palmstierna (2007) add that the most recent instrument for observing and measuring aggression, define aggression with respect to its outcome−the more severe the outcome of aggression (e.g. bruising, bleeding or damage to self/others and or property) the more dangerously the behaviour is rated. Kealeboga (2009) adds that aggression can also result from frustration following unmet needs−when people do not get what they think they are entitled to, they become aggressive. These authors Sadock & Sadock, (2007); McMahon & Fisher, (2003); Barlow et al., (2000) have highlighted that aggressive behaviour may result in negative effects on the person that it is directed at. These negative effects may be injuries sustained or negative attitudes of staff towards patients who perpetrate aggressive behaviour.

In a study conducted by Fluttert, van Meijel, Bjorkly, van Leeuwen, & Grypdonck (2012), the authors investigate early warning signs of aggression in forensic patients by means of the Forensic Early Signs of Aggression Inventory (FEASI). Their findings identify early warning signs of aggression such as anger, agitation, social isolation, decreased social contact and changes in daily activities. Braithwaite (2001), in Irwin (2006), indicates that early signs of aggression exist uniquely, but pacing, restlessness and fist clenching are frequently reported. A study by Meehan, McIntosh & Bergen (2006), on the patient's perception of aggressive behaviour in high secure forensic settings, suggests that staff should take a more proactive approach in identifying and managing signs of aggression before escalation.

If aggression is not well managed, it could escalate to violence, defined as any physical behaviour which results in injury to self or others (Uys & Middleton, 2014:287). Violence is also defined as 'threatening or aggressive behaviour (verbal), spitting, scratching or pinching, use of physical force such as punching, slapping and kicking' (Soares, Lawoko & Nolan, 2000). In its most comprehensive form, the World Health Organisation (WHO 2002:4) defines violence as 'the intentional use of physical force or power, threatened or actual, against oneself, another person, a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation'. However, not all aggression leads to violence. Studies by Kennedy & Julie (2013) and Jonker et al. (2008) allude to the non-threatening verbal abuse and sexual intimidation that nurses experience while working in trauma and emergency departments.

2.3. Factors that cause aggression of in-patients

Aggression of patients in psychiatric hospitals can be due to internal, external or situational/interactional factors (Kealeboga, 2009; Duxbury & Whittington, 2005; Duxbury, 2002).

2.3.1. Internal factors associated with in-patient aggression

Internal factors leading to aggression and violence have been identified as those directly linked to the patient. They include gender, age, and psychopathology (Duxbury, 2002). A study conducted by Skeem et al. (2005) on the comparison of aggression between male and female in-patients suggests that women are involved in more incidents of aggression than men. Similarly, in a study conducted by Krakowski & Czobor (2004), gender differences in physical and verbal aggression were examined using the Modified Overt Aggression Scale. Their findings show that female patients had more physical assault and verbal aggression incidents than male patients.

In contrast, Rosenfield, Wood & Eagly (2003), cited in Logan & Blackburn (2009**),** assert that women actually use violence at a lower rate than men as the traditional patterns of socialisation discourage aggressive behaviour amongst women. Meanwhile, Daffern, Howells, Ogloff & Lee (2005) found no significant difference in the number of males and females who incite aggressive behaviour.

In terms of the staff gender and exposure to patient aggression, Oostrom & van Mierlo **(**2008) indicate that abuse, by both male and female patients, in mental hospitals occur regardless of the age or gender of the nurses. In contrast, Nijman, Bowers, Oud & Jansen (2005), in a survey of 154 mental health nurses, found that male staff were more likely to be victims of physical aggression. The reason for this might be that male staff were mostly called to assist when an aggressive patient needed containing.

Mental illness has been found to be associated with aggression in psychiatric hospitals. Baumann (2015) states that while the aetiology of violence within a medical context is multifactorial, it is important to consider psychiatric conditions. According to Duxbury (2002), various psychiatric illnesses have been associated with the incidence of aggression in the health care setting, with mania and schizophrenia being the most

commonly reported. A study done in the United States of America on schizophrenic patients by Swanson, Swartz & Vandom (2006) found that positive signs of schizophrenia, i.e. suspiciousness, persecutory delusions and auditory hallucinations increase the chances of the patients becoming aggressive or violent.

According to Cornwell (2006), manic patients tend to display maladaptive behaviour of aggression during the periods of heightened energy, which is not tolerated in the wards. During the manic episode the patient has an abnormally and persistent elevated or irritable mood, they attempt to control the environment and have intrusive behaviour (Cornwell, 2006). Researchers Van Wijk (2006) and Gournay (2000) counter that even though mania and schizophrenia have been frequently associated with the cause of aggression, other psychiatric disorders, such as personality disorders, should not be ruled out since their association with aggression have not been explored.

In addition to mental illness, patients who abuse substances, or have a comorbid illness of substance induced psychosis, are also most likely to perpetrate violent acts (Gournay, Ward, Thornicraft & Wright, 1998, as cited in Irwin, 2006). Lanza, Kayne, Pattison, Hicks & Islam (1994), as cited in Dawood (2013), state that alcohol and drug intoxication are also potential triggers for violence or aggression in patients. Duxbury & Whittington (2005) further state that the situation is exacerbated with dual diagnosis patients, where there is a combination of mental illness and substance abuse. A review of literature by Rintoul et al. (2009) on managing aggression in the emergency department, promoting an interdisciplinary approach, adds that withdrawal from alcohol and drugs can precipitate an altered mental state, which often leads to patients displaying aggressive behaviour. In addition, Crilly, Chaboyer & Creedy (2004) assert that substance misuse has been identified as a cause of aggression and its presence in patients is increasing globally.

2.3.2. External factors associated with aggression.

External factors associated with aggression in psychiatric hospitals are related to the patient's environment. These include, among others, physical aspects of the ward such as, the layout and design of the ward, overcrowding, ward activities and privacy (Van Wijk, 2006; Duxbury & Whittington, 2005) and patients who are admitted involuntarily (Mental Health Care Act 17 of 2002). In studies by Van Wijk (2006), Meehan,

McIntosh & Bergen (2006) and Ilkiw-Lavalle & Grenyer (2003), patients attributed their aggressive outbursts to poor living conditions, such as boredom due to a lack of structured ward activities, environment that is not clean, overcrowding where all patients are kept in a locked place, lack of privacy where they share rooms with several patients, inadequate food and lack of appreciation by nursing staff. In addition, they also reported other factors, such as not being allowed to leave for home and being admitted against their will, as some of the contributing factors to their aggressive outbursts (Ilkiw-Lavalle & Grenyer, 2003).

Mentally ill patients are admitted to mental health institutions against their will when they are unable to make the conscious decision to seek treatment, care and rehabilitation as stipulated by the Mental Health Care Act 17 of 2002, which could contribute to their aggressive outbursts. Similarly, Inoue et al. (2006) assert that there are many factors in psychiatric hospitals that cause patient aggression, such as being forced to adjust to hospital life and share their lives with other patients whom they are not familiar with. In a cross-national comparative study conducted by Duxbury et al. (2008), using the Management of Aggression and Violence Scale (MAVAS), the authors aimed to determine the transferability of the management of aggression and violence attitude scale to European mental health settings. The results revealed that nurses from Switzerland disagreed with the statement that the ward environment in which the patients are kept contributed to their aggressive behaviour, while United Kingdom nurses were more likely to agree. These groups of participants also agreed that patients could be provoked by other people, even though the UK group was less certain. Kealeboga (2009) and Duxbury & Whittington (2005) concur that environmental factors do contribute to patient aggression. Furthermore, Duxbury & Whittington (2005) did a study on the perspectives of staff and patients regarding the causes of patient aggression and the way it is managed. Their findings revealed that both patients and nurses agreed to factors within the environment being precursors of aggressive behaviour in patients. A study by Dawood (2013) aimed to investigate and compare Egyptian and Saudi nurses' perspectives of the causes and management of aggression. The results revealed that the participants perceived the restrictive physical environment as a contributory factor to patient aggression. The participants of this study, however, alluded to manipulating the restrictive environment in an effort to reduce incidences of aggression and violence.

2.3.3. Situational/interactional factors associated with aggression

Situational/interactional factors focus on deficiencies within the staff-patient relationship (Duxbury, 2002). The situational precursors to violence and aggression are variables directly related to staff-patient interaction. These variables include communication (Ilkiw-Lavalle & Grenyer, 2003) and behaviour such as staff exercising social control over patients to enforce a strict hierarchy of authority (Meehan, McIntosh & Bergen, 2006). The findings of a study by Ilkiw-Lavalle & Grenyer (2003), who examined the views of patients involved in incidents of aggression, revealed reports from patients that poor communication between them and the staff, as well as their needs not being met, caused their aggression. At the conclusion of a study by Meehan et al. (2006), on the perceptions of aggressive behaviour in patients at a highly-secured forensic setting in Australia, patients suggested that, in order to improve communication, staff should listen to their concerns and respond with empathy, rather than demand attention.

Furthermore, Papadopoulos et al. (2012) cite staff-patient interaction as the most frequent type of precursor to aggression and involves limiting patient freedom by placing restrictions. They further state that most violent incidents are due to staff exercising their power over patients. In addition, Van Wijk (2006) concurs in her study that mental illness is not the only causal factor of aggression in psychiatric patients. Once the patient is admitted to the ward, several environmental factors and staff/patient interactions play a large contributory role. The findings of a study by Jonker et al. (2008), on the perceptions of patient aggression by mental health nurses in clinical psychiatry, revealed that nurses perceive patient aggression as destructive and offensive. This perception influences the nurse-patient relationship negatively and could lead to negative attitudes towards patients. In order to ameliorate this negative perception of aggression, Dawood (2013) suggests improving nurses' knowledge and skills regarding the causes and management of patients' aggression, thus enabling them to identify aggression and act accordingly. This will reduce the likelihood of nurses being injured in the process of handling the aggressive patient. According to Foster et al. (2007), to reduce aggressive behaviour, nurses need to improve their knowledge of aggression, in order to understand the cause.

2.4. Managing aggression in a psychiatric hospital

Mental health nurses working in psychiatric hospitals should be able to predict when patients may display aggressive behaviour and should also attempt to prevent these incidents from happening (Duxbury, Hahn, Needham & Pulsford, 2008). Papadopoulos et al. (2012) state, in their meta-analysis of the antecedents of violence and aggression within psychiatric in-patient setting, that it is important for nurses to understand the factors that increase the chances of patients becoming aggressive as this will improve their ability to predict and prevent incidents of aggression. They further state that it will help nurses to become skilled at recognising and preventing potential triggers of aggression. Duxbury et al. (2008) concurs that prevention of aggression involves the creation of a physical and social environment that minimises stress and the triggers of aggression.

Although managing aggressive behaviour is of paramount importance, underreporting by staff complicates this task. Moylan & Cullinan (2011) conducted a study on the frequency of assaults as well as the severity of injuries to psychiatric nurses in relation to the timing of the nurses' decision to restrain the patients. The findings revealed that most of the participants had been assaulted numerous times in the performance of their duties; many of them had sustained injuries and more than one-fifth had been seriously injured. The study also revealed that underreporting of assaults and injuries was due to the fact that aggressive outbursts as well as violence in psychiatry are expected and considered routine occurrences. They were often also blamed for their own injuries as well as the aggressive behaviour displayed by the patients. Nurses work under extremely high risk conditions and should be equipped with the ability to assess and manage their patients.

Foster et al. (2007) state that aggression, especially verbal aggression, is under-reported for various reasons such as, incidents are not regarded as serious and reporting procedures are too time-consuming. In addition, Duxbury (2002) alludes that not having clear guidelines for the classifications and definitions of violence or aggressive behaviour impacts on the reporting of incidences. The findings from a study by Kennedy & Julie (2013), aimed at gaining an understanding on how nurses experience and understand workplace violence, reveal the importance of reporting serious physical violence and aggressive behaviour. However, it also emerged that some types of aggression, such as verbal abuse, are not

regarded as serious and therefore not reported. Zuzelo, Curran & Zeserman (2012) concur that only very serious incidents are being reported by nurses.

One way of managing patient aggression is by means of Risk Assessment. Risk assessment is the process whereby the hazard is identified, the risk associated with the hazard analysed or evaluated and appropriate ways determined to eliminate or control the hazard (National patient safety agency 2007). Risk assessment is done by using a risk assessment tool. According to Irwin (2006), risk assessment, as a preventative tool, should provide the opportunity to predict aggression based on previous behaviour, as well as known triggers, in order to prevent it from happening again.

In addition, the use of appropriate communication skills including de-escalation may also diffuse aggression. Verbal de-escalation is the strategy most used by staff when confronted with aggressive patients. Verbal de-escalation is defined by Distasio (1994), as cited in Cowin, Davies, Estall, Berlin, Fitzgerald & Hoot (2003), as a 'complex therapeutic interactive process, which is the act of talking the patient down from a disturbed, excitable emotional state by therapeutic use of self'. Johnson, Martin, Guha & Montgomery (1997), in Irwin (2006), asserts that nurses should express an interest and willingness to listen to patient concerns, which will convey an impression of understanding and caring that may prevent feelings of powerlessness and the ensuing aggression. Patterson & Leadbetter (1999), in Irwin (2006), state that there are strategies that could be used to defuse situations, such as distracting the patient at an early stage with recreational and social activities. According to Paterson & Leadbetter (1999) and Lowe, Taylor & Wellman (2003), both cited in Irwin (2006), removing the aggressor from the focus of conflict, limit setting, using a calm voice and listening to individuals are recommendations when managing aggressive patients.

In a study by Foster et al. (2007) on the prevalence, severity and management of aggressive behaviour in acute psychiatric wards, findings revealed that in incidences that involving patient directed aggression, staff were more likely to talk or calmly lead the patient away from the conflict situation than use other containment measures such as seclusion or restraints. They further state that for the staff to be able to reduce aggressive behaviour in psychiatric wards, they need to improve their response in managing aggression when it does occur and gain an understanding of the causal factors that influence patients to act in an aggressive manner.

In contrast, Duxbury & Whittington (2005) conducted a study on staff and patient perspectives of the causes and management of patient aggression or violence. Their findings revealed that nurses preferred to use medication, seclusion and physical restraints in the management of aggression. However, a study on clinicians' perceptions of personal safety and confidence to manage in-patient aggression in a forensic psychiatric setting by Martin & Darffen (2006) revealed that personal knowledge, experience and skills, such as de-escalating skills when dealing with aggressive patients, have boosted the confidence of psychiatric nurses. In contrast, they also state that there are other personal factors, such as lack of physical ability, inexperience with physical restraining and the lack of knowledge of aggression that negatively influence the confidence of psychiatric nurses when handling aggression. Duxbury (2002), cited in Foster et al. (2007), states that research has shown that nurses may use containment measures, such as seclusion and restraints, to manage patient verbal aggressive behaviour. However, aggressive behaviour can be controlled with less restrictive methods, such as time out and verbal contact (Duxbury, 2002, cited in Foster et al., 2007).

A cross-national comparative study by Duxbury et al. (2008) aimed to determine the transferability of the Management of Aggression and Violence Attitude Scale (MAVAS) to European mental health settings. Seventy five nursing staff (45 females and 30 males) from six acute psychiatric wards in Switzerland and 75 from three psychiatric (acute in-patient, high dependency and psychiatric intensive care) wards in the United Kingdom participated in the study. The results showed that the use of medication was the most preferred management method of aggression followed by negotiating with the patient involved. The nurses from Switzerland, as opposed to the UK nurses, emphasized the need for the latter to be used more often. However, both groups indicated that it was not necessary to use seclusion as a management of aggression.

Johnson (2001), cited in Dawood (2013), asserts that management of aggressive psychiatric patients vary widely according to institutional policies and the Mental Health Care Act which includes special observations like the use of restraints, prescribed medication, seclusion and de-escalation. Moylan & Cullinan (2011) advise that there are laws protecting the rights of patients, requiring that they be treated with respect, dignity and less restrictive interventions. In South Africa, the Mental Health Care Act 17 of 2002 makes provision for the protection of mentally ill patients' rights. Restrictive interventions should only be prescribed once all other

measures (i.e. less restrictive measures such as the use of chemicals) have been exhausted. The Act also alludes that mental health users should be treated with dignity; their privacy respected at all time; the treatment or rehabilitation they receive should be proportionate to their mental health status and should intrude as little as possible; in order to give the effect of appropriate care, treatment and rehabilitation (South Africa, Mental Health Care Act 17 of 2002 .

Ilkiw-Lavalle (2006) conducted a longitudinal study of aggression minimisation training which aimed at enhancing the confidence and skills of mental health staff to deal with aggression. The training included identifying the predictors of aggression, the use of verbal and non-verbal skills in dealing with aggression, confidence in dealing with aggression and how to deal with fear. The findings indicated an increase of knowledge and skills in aggression management as well as an increase in confidence and a decrease in fear of aggressive patients after the staff had undergone the training. It also revealed that younger and less experienced staff appeared to be more confident than their older and more experienced peers. Various authors (Ilkiw-Lavalle, 2006; Willets & Leff, 2003) suggest that staff receive regular refresher sessions on aggression management, in-service training and on-going education to help them learn current skills as well as promote an environment of safety and confidence when handling aggressive patients. Ilkiw-Lavalle, Grenyer & Graham (2002) assert that staff may benefit from shorter and more frequent training programmes rather than infrequent lengthy ones.

Letlape (2012) conducted a study on exploring in-service training needs of psychiatric nurses at a psychiatric hospital in Gauteng. The findings indicated that psychiatric nurses were challenged by the types of patients they managed and the environment in which they worked. It also revealed that psychiatric nurses, who attended in-service training and were empowered with the latest psychiatric knowledge and skills, were more effective when dealing with psychiatric patients and were able to reduce the risk of injuries to both psychiatric nurses and patients.

However, a study by Hahn, Needham, Abderhalden, Duxbury & Halfens (2006), on the effects of training on mental health nurses attitudes to the reasons for patient aggression, showed no significant change after the training on management. They concluded with possible explanations for the lack of attitudinal change being that either the training was not

intense enough to have any effect or the respondents' attitudes were too inflexible to be affected by the training programme.

Willets & Leff (2003) conducted a study on the efficacy of the staff training programme in improving the knowledge and skills of psychiatric nurses. The findings of the study showed a comparison of pre and post-training which indicated an increase in staff knowledge of schizophrenia and the use of certain management skills, thus illustrating the efficiency of the training programme. In her recommendations, Bock (2011) added that training should focus on; improving the ability of staff to manage aggression and violence through improved communication and negotiations; and on a greater awareness of the causes of patient related aggression and violence. Furthermore, in a study conducted in Greece (2011), on the training needs of psychiatric nurses in acute wards, the findings highlighted the most important needs as; training in management of violence and aggressive behaviour; communication skills; and assessment skills; in order to improve their practice (Moschovopolou, Valkanos, Papastamatis & Giavrimis, 2011).

2.5. Impact of aggression on the health of nurses in psychiatric hospitals

Aggression affects staff both physically and psychologically. The physical effects include injuries sustained during the process of managing aggression by patients. According to Tema, Poggenpoel & Myburgh (2011) nurses are kicked and bitten when managing aggressive patients, they are sometimes blamed for the assaults and their knowledge and skills questioned. Furthermore, Keltner, Schwecke & Bostrom (2003), cited in Tema et al. (2011), state that injuries by patients could destroy the nurses' sense of trust and instil a fear of the patients who caused the injury. However, Foster et al. (2006), state that physical aggression can cause pain and visible injuries, but verbal aggression should not to be underestimated, as it can cause long term emotional damage. These consequences can be severe that nurses who are physically assaulted may not only suffer from physical injuries but are also prone to severe psychological distress, such as post-traumatic stress disorder (Ilkiw-Lavalle, 2006).

Psychological effects experienced by nurses due to aggression include: anxiety (Tema et al., 2011); detachment (Kennedy & Julie, 2013); burnout and distress (Inoue et al., 2006) that could affect the quality of care provided to patients. In a study conducted by Kennedy & Julie (2013), on nurses' experience and understanding of workplace violence in trauma and

emergency departments in South Africa, the findings indicated that violence had an effect on nurses' work performance, causing negative attitude changes, leading to minimal patient contact. Papadopoulos et al. (2012) agree that violence and aggression cause a negative effect on staff performance including; a high rate of absenteeism, high stress levels and low staff morale. Inoue et al. (2006) concur that exposure to aggressive behaviour could lead to long term psychological effects, such as burnout and psychological distress, which in turn affect the quality of care provided to patients. In addition, Rintoul et al. (2009) add that aggression could destabilise the environment and lead to high stress levels among nurses. Furthermore, Camuccio, Chambers, Valimaki, Farro & Zanotti (2012) performed a study on the thoughts and feelings of Italian nurses when managing distressed and disturbed patients. In their findings nurses reported feelings of anxiety when handling unknown aggressive patients. Poggenpoel et al. (2011) conducted a study on the experience of registered nurses with mentally ill patients in the medical ward. It emerged in the findings that nurses experienced danger and confusion when dealing with aggressive patients because of their lack of knowledge and skills.

2.6. Conclusion

In this chapter a literature review on the knowledge and skills of professional nurses in managing aggressive patients was conducted. An overview of the concepts: aggression and violence; causes of aggression; management of aggression; the impact of aggression on nurses' health; were discussed in the context of this study. In Chapter 3, the Research design and Research method used in the study will be discussed.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. Introduction

This chapter describes the methodology that was followed to achieve the objectives of the study. It focuses primarily on the research design, research method, population of the study, data collection instrument, reliability, validity and ethical considerations. In this study a quantitative, descriptive design was employed to describe the knowledge and skills of professional nurses in managing aggressive psychiatric patients.

3.2. Research approach

According to Burns, Grove & Gray (2013:23), quantitative research is defined as a 'formal, objective, systematic process implemented to obtain numerical data for understanding aspects of the world'. It is used to describe variables, examine relationships among variables and determine cause and effect interaction between variables. A quantitative research approach was chosen because the study aimed at gathering new information on the knowledge and skills of professional nurses and to describe their significance. The research design for the study is discussed below.

3.3. Research design

A research design is defined by Burns, Grove & Gray (2013:214) as a 'blueprint for conducting a study that maximizes control over factors that could interfere with the validity of the findings'. Brink (1996) states that a research design is a set of logical steps taken by the researcher to answer the research question. It forms the pattern for the study and determines the methods used by the researcher to obtain subjects, collect data, analyse the data and interpret the results.

For the purpose of this study a quantitative, descriptive design was used. According to Polit & Beck (2008), quantitative, descriptive research is suitable when participants are only required to describe the occurrence of real life situations. Burns, Grove & Gray (2013) depict descriptive design as one that is used to gain more information about characteristics within a

particular field of study and its purpose is to provide a picture of the situation as it occurs naturally. This research method was most suitable for the study because the researcher had no intention of establishing a cause-effect relationship (Brink et al., 2012) but wanted to determine the knowledge and skills of professional nurses in the management of an aggressive psychiatric patient.

3.4. Research setting

The study was conducted at one of the four psychiatric hospitals in the Western Cape. The selected hospital has a bed capacity of approximately 740 that makes it the largest psychiatric institution in the Western Cape, to which one third of the population of mentally ill patients in the Western Cape are referred. This hospital attracts patients from areas such as Mitchells Plain (population 400 000 people), Khayelitsha (population 406 779), Phillipi (population 191 000) and Delft (population 152 030), all areas with a high rate of unemployment, gangsterism, substance abuse and domestic violence.

3.5. Population and sampling

The term population is defined as 'the entire group of objects or persons that is of interest to the researcher' (Brink et al., 2012:131). Sampling is the 'process of selecting a sample from the entire population in order to obtain information regarding the phenomena of interest' (Brink et al., 2012:132).

3.5.1. Population of the study

The population for the study was all the professional nurses employed at the selected hospital. The total number of professional nurses at the institution was 149. Of these 19 were operational nurse managers, 8 community service nurses, 1 clinical programme coordinator nurse, 1 human resource development nurse (who dealt with staff training) and 1 professional nurse who worked with HIV/TB patients. Only 3 operational nurse managers of these 30 professional nurses were included in the study as they were directly involved with patient care. A total number of 122 nurses were available as possible participants for the study. However, the researcher was only able to distribute questionnaires to 70 participants. The absence of the remaining nurses was attributed to them having resigned from the service, being on annual leave, sick leave, study leave or others who were not interested in participating.

Inclusion criteria:

- Registered professional nurses who were permanently employed at that specific psychiatric hospital;
- Must have had one or more years of experience working with psychiatric patients;
- Only registered professional nurses who were directly involved in the clinical management of psychiatric patients;
- Staff who were willing to participate in the study.

3.5.2. Sample of the study

A sample is a 'small portion of the population selected for a particular study' (Brink et al., 2012:132). The sample for the study was all-inclusive, meaning that all professional nurses working in the selected hospital were included in the study. The sample size refers to the number of participants selected to participate in the study. The researcher distributed questionnaires to 70 participants with the response rate of 77% (n=54). The response rate was reduced by two questionnaires (that were incomplete and discarded) to a response rate of 74% (n=52).

3.6. Data collection

Data collection is the precise, systematic gathering of information relevant to the research purpose or the specific objectives, question, hypothesis of the study (Burns, Grove & Gray, 2013). Planning the data collection enables the researcher to anticipate any problems that are likely to occur and explore possible solutions (Burns, Grove & Gray, 2013). According to Polit & Beck (2008), a data collection plan for quantitative studies should yield accurate, valid and meaningful data that are maximally effective in answering research questions.

3.6.1. Data collection instrument

The researcher used a self-designed, structured questionnaire, consisting of 31 closed ended questions, to collect data. Brink et al. (2012) define questionnaires as a self-report instrument where the participants respond to given questions. The questionnaire was developed by the researcher, with the assistance of the research supervisor and a statistician. The questionnaire consisted of three sections. Section A consisted of 8 questions relating to biographic information such as age, gender, highest level of

education, years employed as professional nurse etc. Section B contained 13 questions relating to the knowledge of professional nurses. Section C contained 10 questions relating to the skills and training of professional nurses to manage aggression (see Addendum C).

3.6.2. Pilot study

Brink et al. (2012:174) describes a pilot study as a 'small scale study conducted prior to the main study with a limited number of participants'. It is aimed at investigating the feasibility of the proposed study and detecting possible flaws in the methodology. For the purpose of this study, the questionnaire was pre-tested on ten participants, who also worked at the same hospital where the actual study was conducted. The aim of the pilot study was to check the questionnaire's accuracy in capturing the intended information, its reliability and validity as well as the clarity/understandability of the questions. The unclear questions that were identified by the participants were rectified. Those participants who took part in the pilot study were not included in the actual study.

3.6.3 Data collection process

After the proposed study was approved by the University Higher Degree and Senate Research Committee, a letter was submitted to the Hospital Research Ethics Committee at a specific psychiatric hospital in the Western Cape. The participating Hospital Research Ethics Committee granted the permission on condition that the researcher obtained permission from the Department of Health in the Western Cape as well. The researcher forwarded the letter requesting permission from the Department of Health.

After permission was granted, the researcher started the data collection. The data collection continued from December 2014 to January 2015. Prior to data collection, the researcher visited each ward to check the duty roster and prepare a list of all potential participants. The purpose of the study, how participants were selected, the rights of each participant and the possible risk of participating in the study was explained. The participants were advised that taking part in the study was completely voluntary and that their confidentiality as well as anonymity would be protected at all times.

Each participant, on both day and night shift, received an informed consent form, information sheet and questionnaire, along with two empty envelopes. The researcher

explained that once the questionnaire and informed consent forms were completed, they were to be placed in the envelopes for the researcher to collect within 2 days between 12h00 and 15h00. A total of 70 questionnaires were distributed; 54 were returned, of which 2 were incomplete and discarded. Sixteen questionnaires were not returned as participants were either on leave, sick or had decided to withdraw from the study.

3.7. Reliability

Polit & Beck (2012:331) defines reliability as the 'consistency with which the instrument measures the targeted attributes'. 'Reliability exists in degrees and is usually expressed as a form of correlation coefficient with 1.00 indicating perfect reliability and 0.00 indicating no reliability' (Burns & Grove, 2005:365). A reliability coefficient of 0.80 is considered the lowest acceptable value for a well-developed instrument and for a newly developed instrument; a reliability of 0.70 is considered acceptable (Burns & Grove, 2005). In order to maintain test retest reliability of the questionnaire, the reliability coefficient was set at 0.70. The researcher used the Cronbach Alpha Coefficient, in consultation with a statistician, to test the reliability of the developed questionnaires. The overall Cronbach's Alpha for the instrument was 0,721.

Table 1: Reliability of the instrument

Scale: All Variables

Case Processing Summary			
		N	%
Cases	Valid	10	100.0
	Excluded	0	.0
	Total	**10**	**100.0**

Reliability Statistics	
Cronbach's Alpha	N of Items
.721	51

3.8. Validity

Polit & Beck (2012) defines validity of the instrument as the degree at which an instrument measures what it is supposed to measure. Face validity refers to 'the extent to which an instrument looks as though it is measuring what it purports to measure' (Polit & Beck,

2008:753). Face validity was established by consulting the experts in psychiatric nursing science, the supervisor and a statistician to provide feedback regarding the validity of the questionnaire.

Content validity is defined as 'the degree to which an instrument covers the scope and range of information that it sought' (Brink et al., 2006:200). The questionnaire was reviewed by a statistician, the research ethics committee and the supervisor who all submitted their input. The questionnaire was pre-tested on ten participants that helped to refine the questions for improved meaning, clarity and conceptualisation.

3.9. Data analysis

After data collection was completed, questionnaires were counted and checked for errors. The questionnaires were numbered and coded. A code book was created (see Addendum D) to facilitate data capturing and auditing of the captured data.

To facilitate the presentation of the results, the questionnaire was divided into the following topics: Knowledge of aggression; Skills in management of aggression; Awareness of current policies and procedures; and Current training in aggression management. The knowledge questions were grouped together into sub-categories such as: Causes of aggression; Environmental factors; Signs of aggression; Patient factors; Preventing factors; and Management of aggression. For each knowledge question, subcategory items were calculated and scores were created. The total knowledge score was calculated out of 37. The items in the knowledge section of the questionnaire were re-coded (see Table 2 on page 30).

The data was entered into a Microsoft Excel spread sheet and thereafter imported into the Statistical Package for Social Science (SPSS) version 22 with the assistance of a statistician. This was used to collect basic descriptive statistics on the knowledge and skills of professional nurses in managing aggressive patients. The nominal and scale data was analysed by means of descriptive analysis. Descriptive statistics are used to describe and synthesize data. This helps to set the stage for the understanding of quantitative research evidence (Polit & Beck, 2012). The data was arranged into frequency distribution that is described by Polit & Beck (2012) as a systematic arrangement of values from the lowest to the highest value, together with the number of times each value was obtained. The data was

analysed and presented with the aid of frequency tables, bar graphs and percentages. In consultation with a statistician, the comparison of the demographic variables with overall knowledge was done and the significant difference tested by the Kruskall Wallis Test for Independent Samples. The significance level for the statistical test was at $p<0.05$.

Table 2: Recoded knowledge items

SPSS	Variables	Spss label	Coding instruction
	ID	ID	N###
Causeaggr	Numeric	Possible causes of aggression	N2iWard + N2iiDiagnosis + N2iiiRelationship + N2ivProvoked + N14Communication
Cause100	Numeric	% cause	Causeaggr/5*100
Env	Numeric	Environmental factors contributing to aggression	N3iEnvironment + N3iiContribute + N3iiiPrivacy + N3ivWaitingtimes + N12Atmosphere + N13Therapeutic
Env100	Numeric	% Environmental factors contributing to aggression	Env/6*100
Signs	Numeric	Signs of aggression	N5iRestless + N5iiDilation + N5iiiAgitated + N5ivDemanding
Signs100	Numeric	%Signs of aggression	Signs/4*100
Ptfact	Numeric	Patient factors contributing to aggression	N6iHistory + N6iiIntoxication + N6iiiIllness + N6ivAdmssion + N7Outburst
Ptfactors100	Numeric	% Patient factors contributing to aggression	Ptfact/5*100
Prevent	Numeric	Factors preventing aggression	N9iProgram + N9iiListen + N9iiiUnreasonable + N9ivStressors + N9vEscalation + N9viAssess
Prevent100	Numeric	%Factors preventing aggression	Prevent/6*100
Mx	Numeric	Management of pt with aggression	N18iCalm + N18iiVoice + N18iiiUse + N18ivArgue + N18vRemove + N18viAssesssafety + N18viiSelfesteem + N21iPhysicalrestraints + N21iiSeclusion + N21iiiAdminister + N21ivNegotiate
Mx100	Numeric	%mx100Management of patient with aggression	Mx/11*100
Knowledge100	Numeric	Overall knowledge score	((causeaggr + env + signs + ptfact + prevent + mx)/35)*100
Positionyr	numeric	Years in current position	1=<=5, 2= 6-10, 3= >10
Unityr	Numeric	Years in current unit	1=<=5, 2= 6-10, 3= >10
Nurseyr	Numeric	Years as a nurse	1=<=5, 2= 6-10, 3= >10
Agegrps	Numeric	Age groups	1=<35, 2= 36 and older

Mx= Management, Pfact= Patient factors, Causeaggr=Cause aggression

3.10. Ethics

Ethical approval to conduct the study was obtained from the Research Ethics Committee at the University of the Western Cape (see Addendum E). A letter requesting permission to the conduct study was submitted to the Research Ethics Committee of the specific psychiatric hospital (see Addendum F) and the permission was granted (see Addendum G). Another request was submitted to the Department of Health and permission was granted (see Addendums H & I). The researcher has observed the following principles during the study:

- **Principle of respect for persons**

  All participants are autonomous and own the right to self-determination which means the participants could voluntarily decide to participate in the study or not (Brink et al., 2012). Participant information sheets (Addendum A) and consent letters (Addendum B) were distributed to all participants explaining the purpose, ethical considerations and guidelines for participation in the study.

- **Principle of beneficence**

  All participants own the right to be protected from discomfort and harm (Brink et al., 2012). The researcher ensured that the participants were not subjected to unnecessary risk of harm or discomfort during the study by not including sensitive questions in the questionnaire. Participants were advised that they had the right to withdraw from the study at any time without prejudice, if they felt uncomfortable. The researcher made the necessary arrangements for participants to be referred to the Independent Counselling and Advisory Service, should they have need of counselling.

- **Principle of justice**

  All participants own the right to fair selection and treatment (Brink et al., 2012), meaning that the researcher had to treat participants, who decided to withdraw from the study after agreeing initially, in a non-prejudice manner (Polit & Beck, 2012). Participants were selected for reasons related directly to the study problem. The researcher respected any agreements that were made with the participants.

- **Right to privacy**

  Right to privacy means that the researcher had to ensure that the study was not intrusive and that the participant's privacy was maintained at all times (Polit & Beck, 2012). Participants had the right to expect that their data be kept in strict confidence. Participants were allowed to complete the questionnaires in their own time without

interruption by the researcher. The researcher did not collect any unnecessary personal information from the participants.

- **Confidentiality and anonymity**

  The researcher pledged confidentiality that any information the participants provided would not be publicly reported in any manner that identifies them and would not be accessible to others (Polit & Beck, 2012). The researcher ensured that the names of participants involved in the study were not linked to the data collected to ensure anonymity. The data was also locked in a safe place to maintain confidentiality. The researcher ensured that the participants controlled to what extent the information was shared with other institutions or published.

- **Right to full disclosure**

  The researcher fully described the nature of the study, the person's right to refuse participation, the researcher's responsibility and the likely risks and benefits (Polit & Beck, 2012).

- **Informed consent**

  The researcher ensured that the participants had adequate information about the study, understood the information and had the freedom to consent or decline participation voluntarily (Polit & Beck, 2012). The participants were informed about the nature of the study, that participation was absolutely voluntary and that they could withdraw at any time, without prejudice. Participants were asked to sign the consent form before participating in the study (see Addendum B)

3.11. Conclusion

In this chapter the research design and research method was discussed, describing the setting, study population, data collection instrument, reliability and validity, data collection process as well as the ethical considerations. Chapter 4 will be presenting the findings of the study.

CHAPTER 4

RESEARCH FINDINGS

4.1. Introduction

In this chapter the findings of the study are presented. The purpose of the study was to determine the level of knowledge and skills of professional nurses to manage aggression of patients. This chapter will include an overall description of the participants (sample), their exposure to aggression, knowledge of aggression, skills in managing aggression, awareness of current policies and procedures as well as their current training in aggression management.

A total of 70 professional nurses participated in the study, but only 54 (77%) submitted questionnaires. Two of these questionnaires were incomplete and discarded, resulting in 52 completed questionnaires. The response rate was 74% (n=52).

4.2. Demographic information

The sample in this study consisted of professional nurses n=52 (100%) between the ages of 28 and 59 years, with an average age of 39.5 years (sd 7.5). Nearly three quarter of the participants, 38 (73.1%), were in the age group of 36 years and older, while n=14 (26.9%) were in the age group of <35 years. Just over half of the participants, n=29 (55.8%), were females and n=23 (44.2%) males. Of the participants, n=20 (38.5%) attained a nursing diploma, n=8 (15.4) a nursing degree, n=22 (42.3) an advanced nursing psychiatry qualification and n=2 (3.8) a master's degree (Figure 1).

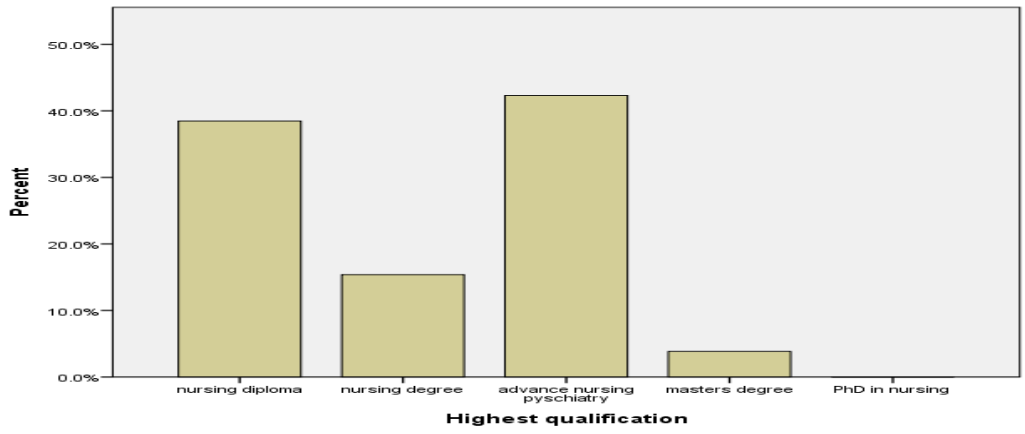

Figure 1: Highest educational qualifications

The professional nurses had working experience of more than one year in the participating psychiatric hospital, with an average number of 9.1 (sd 5.1) years. Of the participants n=28 (53.8%) had been employed in their current unit (ward) for <=5 years; n=19 (36.5%) for 6-10 years; and, n=5 (9.6%) for >10 years. Just over half of participants, n=27 (51.9%), had nursing experience of >10 years; n=17 (32.7%) had 6-10 years' experience; and n=8 (15.4%) had <=5 years. Nearly half of the participants, n=24 (46.2 %), were employed in general adult psychiatry, n=12 (23.1%) in forensic psychiatry, n=10 (19.2%) in services for intellectual disabilities and 5 (9.6%) in child and adolescent psychiatry. Just over half of participants, n=29(55.8%), were professional nurses for 6-10 years, n=12 (23.1%) for >10 years and n=11 (21.2%) for <=5 years. There was no significant difference noted in terms of knowledge among the age groups. Gender and educational qualification was not the focus of the study and was therefore not tested for statistical significance.

4.3. Exposure to aggression

The participants were asked to indicate the types of aggression they had encountered or witnessed. The responses showed that all participants had been mostly exposed to verbal aggression, n=52 (100%), followed by physical aggression, n=46 (88.5%) and only n=16 (30, 8%) had been exposed to sexual aggression.

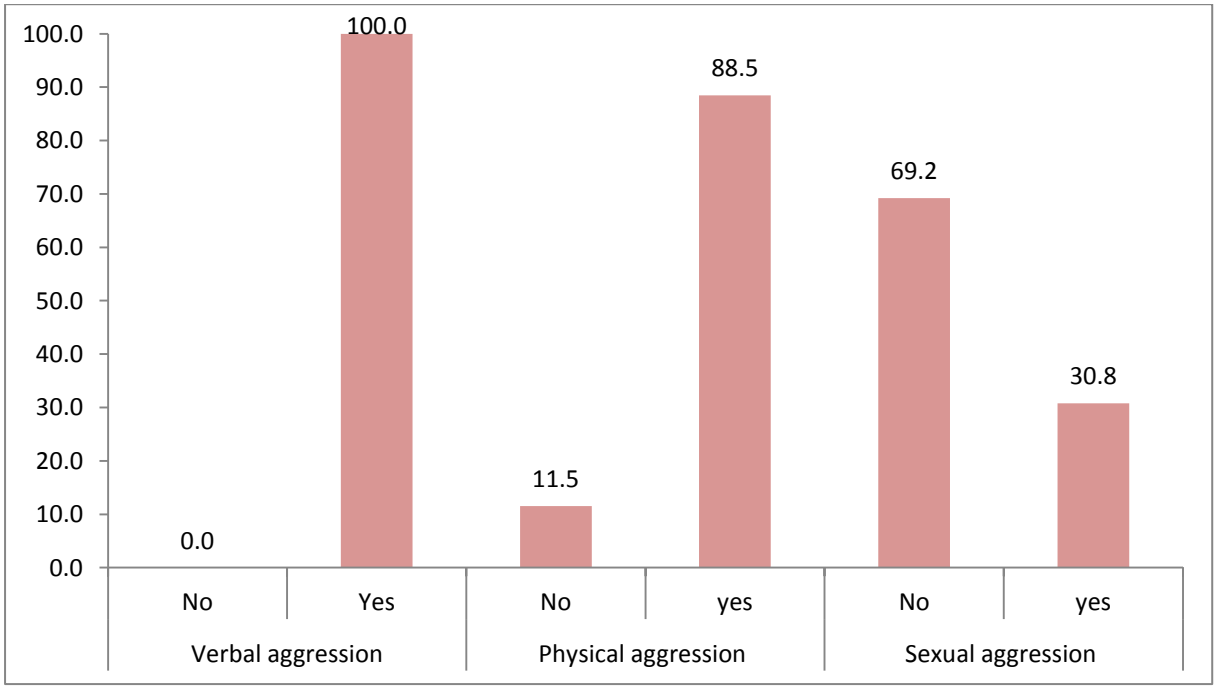

Figure 2: Types of aggression

4.4. Knowledge

The first objective was to determine the knowledge of managing aggressive patients that professional nurses possess. Their knowledge was tested under the following sub-categories: causes of aggression, environmental factors contributing to patient aggression, signs of aggression, patient factors contributing to aggression, factors preventing aggression of patient and management of patient aggression.

4.4.1. Knowledge item 1: Causes of aggression

The first section of knowledge that the participants were questioned about was the causes of patient aggression (see Table 3). The findings indicated that all participants, n=52 (100%), responded that a certain type of psychiatric diagnosis could indicate a risk or propensity for patient aggression and as such be a cause. The majority of the participants, n=49 (94.2%), suggested the lack of communication as a cause of aggression while n=46 (88.5%) recorded the provocation of a patient by staff or fellow patients. The ward environment was submitted as a cause of aggression by n=37 (71.2%) and a strained staff patient relationship by n=37 (71.2%). The total sub-score for these items was 4.3%.

Table 3: Knowledge item 1: Causes of aggression

Items	No %
Psychiatric diagnosis/mental illness	52 (100%)
Lack of communication among staff and patients	49 (94.2%)
Provocation either by staff or fellow patients	46 (88.5%)
Strained staff-patient relationship	37 (71.2%)
Ward environment they are kept in	37 (71.2%)
Total Sub-Score/5	**4.3 (sd0.9)**
Total Score 100	**85.0 (sd18.9)**

4.4.2. Knowledge item 2: Environmental factors

In the second section of knowledge, participants were questioned about environmental factors that could contribute to patient aggression. The findings showed that n=50 (96.2%) participants felt that a negative ward atmosphere contributed to patient

aggression. A total of n=47 (90.4%) participants submitted overcrowding as a cause of patient aggression; n=44 (84.6%) suggested physical and social environment; n=43 (82.7) indicated unfamiliar environment; n=40 (76.9%), long waiting times and n=37 (71.2%), lack of privacy. The total sub-score for these items was 5.0% (see Table 4).

Table 4: Knowledge item 2: Environmental factors causing aggression

Items	No %
Ward atmosphere can contribute to patient aggression	50 (96.2%)
Overcrowding	47 (90.4%)
Physical and social environment contribute to patient aggression	44 (84.6%)
Unfamiliar environment	43 (82.7%)
Long waiting times	40 (76.9)
Lack of privacy	37 (71.2%)
Total Sub-Score/6	**5.0 (sd1.2)**
Total Score 100	**83 (sd19.7)**

4.4.3. Knowledge item 3: Signs of aggression

In this section participants were asked how they identified signs of patient aggression. Findings showed that n=51 (98.1%) submitted when patients become loud and agitated as signs of aggression. Most participants, n=50 (99.2%), indicated when patients are restless, argumentative, demanding and difficult as signs of aggression. Only half of the participants n=26 (50.0%) reported that pupillary dilation indicated that a patient was becoming aggressive. The total sub-score for these items was 3.4% (see Table 5). When comparing the difference between the nurses' knowledge of signs and how long they had been in their position at work, there were significant differences: nurses with <=5 years' experience (3.8 sd 0.4); compared to those with 6-10 years (3.2 sd 0.6); and more than 10 years (3.4 sd 0.5) ($K = 6.7$, p=.034).

Table 5: Knowledge item 3: Signs of aggression

Items	No (%)
When patient becomes loud and agitated	51 (98.1%)
When patient becomes restless and argumentative	50 (96.2%)
When patient becomes demanding and difficult	50 (96.2%)
Pupillary dilation	26 (50.0%)

Total Sub-Score/4	**3.4 (sd0.6)**
Total score 100	**85.0 (sd15.1)**

4.4.4. Knowledge item 4: Patient factors contributing to aggression

The knowledge of participants was tested on patient factors contributing to aggression. As depicted in Table 6, n=50 (96.2%) indicated that patients with acute signs of illness were more likely to be aggressive, while n=49 (94.2%) reported that drug intoxication may indicate that a patient could be aggressive. A total of n=48 (92.3%) participants stated that patients with a history of aggression were more likely to be aggressive. Furthermore, n=37 (71.2%) submitted involuntary admission as an indicator that patients might be aggressive and n=30 (57.7%) participants agreed that patients with substance induced psychosis are more likely to be aggressive. The total sub-score for these items was 4.1%. In comparing the difference between nurses' knowledge on patient factors and their years of experience, there were significant differences: nurses with <=5 years' experience (4.9 sd 0.3) compared to 6-10 years (4.0 sd 0.8) and more than 10 years (3.9sd 0.9) ($K = 7.5$, p=.024).

Table 6: Knowledge item 4: patient factors causing aggression

Items	**No %**
Acute signs of illness	50 (96.2%)
Drug intoxication or withdrawals	49 (94.2%)
Previous history of aggression	48 (92.3%)
Involuntary admission	37 (71.2%)
Patients with substance induced psychosis	30 (57.7%)
Total Sub-Score/5	**4.1 (0.9)**
Total Score 100	**82.3 (sd17.9)**

4.4.5. Knowledge item 5: Factors preventing patient aggression

In this section participants were questioned about factors that prevent patient aggression. The findings revealed that n=51 (98.1%) participants stated that identifying stressors that contribute to patient aggression could prevent an aggressive incident while n=50 (96.2%) responded that listening to patients' complaints prevented aggression. A total of n=49 (94.2%) participants indicated that being able to assess a

volatile situation could prevent patient aggression while n=47 (90.4%) participants believed that effective utilisation of the ward programmes could prevent patient aggression. Furthermore, n=46 (88.5%) participants supported avoiding the escalation of aggression and only n=37 (71.2%) agreed that avoiding unreasonable demands by patients could prevent aggression. The total sub-score for these items was 5.4% (see Table 7). In comparing the difference between nurses' knowledge on prevention and their experience, there were significant differences: on nurses with <=5 years' experience (5.9, sd 0.3), compared to 6-10 years (5.2, sd 0.9) and more than 10 years (5.1,sd 1.0) (*K = 6.5,* p=.038). In comparing the nurses' level of overall knowledge score and the number of years' experience, there was a significant difference in people with <=5 years' experience having higher knowledge scores (35.3 sd 4.8) compared to 6-10 years (32.1 sd 4.0) and more than 10 years (32.1 sd 3.9) (*K = 7.7, p*=.021).

Table 7: Knowledge item 5: Factors preventing patient aggression

Items	**No %**
Identify stressors that could cause aggression	51 (98.1%)
Always listen to patients complaints	50 (96.2%)
Be able to assess the situation	49 (94.2%)
Keep patient busy with ward program	47 (90.4%)
Avoid escalation of aggression	46 (88.5%)
Avoid unreasonable demand	37 (71.2%)
Total Sub-Score/6	**5.4 (sd0.9)**
Total Score 100	**89.7 (sd14.8)**

4.4.6. Knowledge item 6: Management of patient with aggression

Participants were asked about the management of aggressive patients and their responses were as follows: all participants, n=52 (100%), when confronted by an aggressive patient, would call for help, assess the situation for safety, maintain the self-esteem and dignity of the patient and administer prescribed medication. A total of n=51 (98.1%) participants, when confronted by aggressive patients, stated that they would remain calm, talk in a calm tone of voice and remove the audience or patient from the conflict situation. Seclusion as management of aggression was suggested by n=50 (96.2%) participants, who also thought not arguing with aggressive patients was a good idea. Some participants, n=49 (94.2%), suggested using verbal and non-verbal

communication to negotiate with the patient involved and only n=35 (67.3%) felt that physical restraints should be used to manage aggressive patients. The total sub-score for these items was 10.4%. (see Table 8).

Table 8: Knowledge item 6: Management of aggression

Items	No %
Administer prescribed medication	52 (100.0%)
Maintain patient self-esteem and dignity	52 (100.0%)
Call for help and assess the situation for safety	52 (100.0%)
Stay calm	51 (98.1%)
Talk in calm tone of voice	51 (98.1%)
Remove audience or patient	51 (98.1%)
Use of seclusion	50 (96.2%)
Don't argue with patient	50 (96.2%)
Use verbal and non-verbal communication	49 (94.2%)
Negotiate with patient involved	49 (94.2%)
Use of physical restraints	35 (67.3%)
Total Sub-Score/11	**10.4 (sd0.9)**
Total Score 100	**94.8 (sd7.9)**

4.4.7. Overall knowledge of aggression

The overall score of knowledge out of 37 test responses was calculated and the results showed the score percentage of the sub-categories of knowledge ranging between 82.3% and 94.8%. The mean total score out of 37 was 32.6 (88.1%) (see Table 9 and Figure 2).

When comparing the nurses' level of overall knowledge with the period that they had been employed at the hospital, there was a significant difference. Staff with <=5 years' experience at the hospital obtained higher knowledge scores (34.8 sd 1.6), compared to 6-10 years (31.8 sd 3.3) and >10 years (32.2 sd 3.8) ($K = 7.3$, p=.025).

When comparing their level of overall knowledge with the period that they had been employed in the current unit, there was significant difference. Nurses with <=5 years' experience in the unit obtaining higher knowledge scores (33.5 sd 3.0), compared to 6-10 years (31.2 sd 3.4) and >10 years (33.0 sd 2.9) ($K = 5.8$, p=.038).

When comparing their level of overall knowledge with the number of years' experience as a nurse, there was a significant difference. Nurses with <=5 years' experience as a nurse obtained higher knowledge scores (35.3 sd 4.8), compared to 6-10 years (32.1 sd 4.0) and > 10 years (32.1 sd 3.9) ($K = 7.7$, p=.021).

Table 9: Complete knowledge of aggression

Items	Mean	(sd)	%
Cause of aggression/ 5	4.3	(0.9)	85.0
Environmental Factors/6	5.0	(1.2)	83.7
Signs and symptoms /4	3.4	(0.6)	85.1
Patient factors /5	4.1	(0.9)	82.3
Prevention /6	5.4	(0.9)	89.7
Management /11	10.4	(0.9)	94.8
Knowledge/37	**32.6**	**(3.3)**	**88.1**

As depicted in figure 3 below, the mean score was calculated for each knowledge section and the overall knowledge score. The total overall knowledge score for all knowledge items was 88.1%

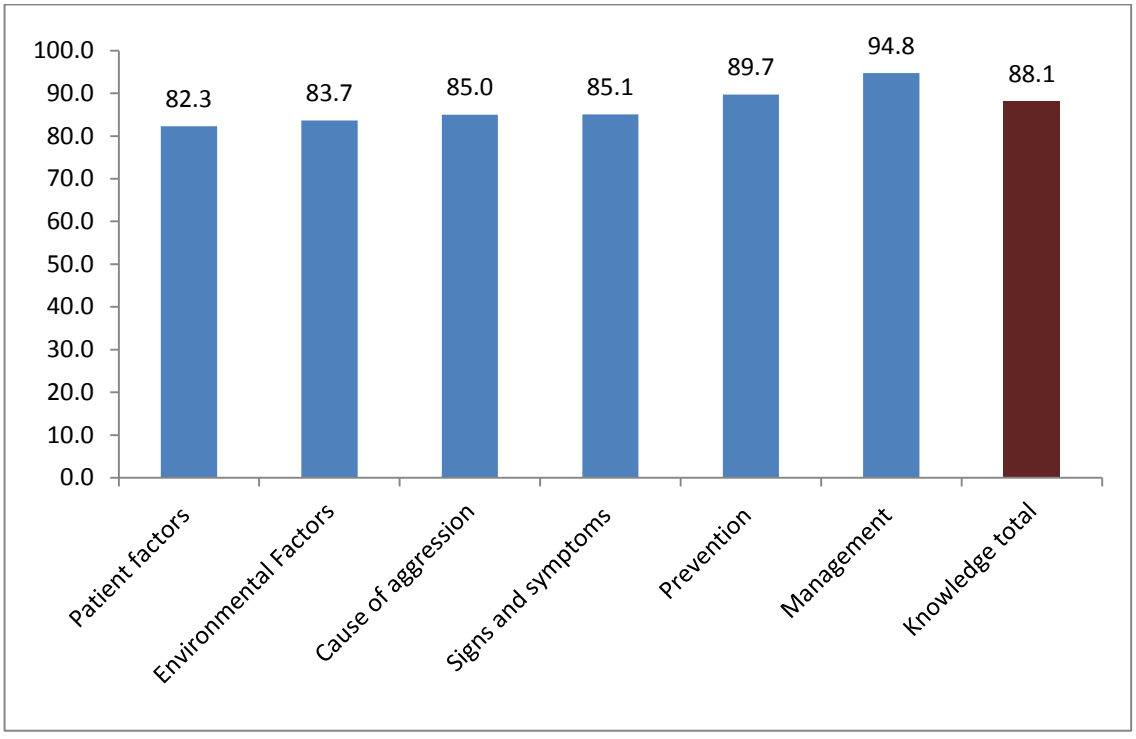

Figure 3: Overall knowledge score

4.5. Skills in managing aggression

In this section the results indicated that all participants, n=52 (100%), agreed that they were able to use both verbal and non-verbal skills to manage aggressive patients. A total of n=51 (98.1%) participants professed to knowing when to use physical restraints and seclusion when dealing with aggressive patients, while n=44 (84.6%) participants claimed to using team skills when restraining aggressive patients. A total of n=22 (42.3%) participants experienced difficulties when dealing with aggressive patients. Only n=10 (19.2%) participants admitted to challenges when using their assessment skills to identify patients who are at a high risk of becoming aggressive (see Table 10).

Table 10: Skills items to identify patients with aggression

Items	No %
Able to use verbal and nonverbal skills	52 (100%)
When to use physical restraints or seclusion	51 (98.1%)
Able to use team skills to restrain patients	44 (84.6%)
Difficult to deal with aggression	22 (42.3%)
Difficult in using assessment skills	10 (19.2%)

4.6. Awareness of policies and procedures about managing aggression

As outlined in table 11 below, the findings show that n=51 (98.1%) participants were aware of the policies in place that regulate the use of physical restraint and seclusion when managing patient aggression in the institution. A total of n=51 (98.1%) participants were aware of the procedures to be followed when reporting and documenting incidents of aggression. Furthermore, n=47 (90.4%) participants were aware of the different options available to them when confronted with aggressive patients and n=40 (76.9%) were aware of break-away techniques used when handling aggressive patients.

Table 11: Awareness of policies and procedures about managing aggression

Items	No %
Policies that regulate use of physical restraints and seclusion	51 (98.1%)
Procedure to follow when reporting and documenting incident of aggression	51 (98.1%)
Different options you have when confronted by aggressive patient	47 (90.4%)
Breakaway techniques used when handling aggressive patient	40 (76.9%)

4.7. Training on management of aggression

This section focused on the training needs of the participants. The findings revealed that only n=21 (40.4%) participants had received training on the management of aggression. Of those participants only n=19 (36.2%) declared that the training met their needs of understanding and managing patients with aggression (see Table 12)

Table 12: Training items pertaining to aggression

Items	No %
Had any training in the past 6 months on management of aggression	21 (40.4%)
Have the training met your needs	19 (36.2%)

4.8. Conclusion

This chapter presented the findings of professional nurses' knowledge and skills in managing aggressive patients at a psychiatric hospital. The findings were presented in the form of tables, percentages and graphs. In the next chapter the findings will be discussed in-depth.

CHAPTER 5

DISCUSSION OF THE FINDINGS

5.1. Introduction

This chapter discusses the findings that were presented in the previous chapter. The focus of the researcher was to describe the knowledge and skills of professional nurses in managing aggressive patients, which correspond with the overall purpose of this study, to determine the level of knowledge and skills of professional nurses to manage aggression of patients at a psychiatric hospital in the Western Cape. In this chapter the key findings are discussed under the following categories: knowledge, skills, awareness and training. However, participants were questioned about their exposure to aggression in order to place knowledge, skill, awareness and training into context.

5.2. Exposure to aggression

The findings of this study revealed that all participants were exposed to verbal aggression while less than half were exposed to physical and sexual aggression. These findings are consistent with findings from other studies. In a study on mental health nurses' perceptions of patient aggression in clinical psychiatry, conducted by Jonker et al. (2008) in six closed and semi-closed in-patient wards at a hospital in the Netherlands, nurses reported being confronted with non-threatening verbal aggression, with 80% of them asserting to never or rarely being confronted with sexual aggression. A study on nurses' experiences and understanding of workplace violence in a trauma and emergency department in South Africa, by Kennedy & Julie (2013), found that participants were exposed mostly to verbal abuse, which they regarded as senseless to report. Participants reported that they dealt with the verbal abuse by using available resources, such as security personnel or back up from colleagues. These findings suggest that nurses are more likely to be exposed to verbal aggression than sexual aggression.

5.3. Knowledge

This section is divided into the following sub-categories: causes of aggression, environmental factors, signs of aggression, patient factors, preventing factors and management of aggression, which will now be discussed in detail.

5.3.1. Causes of aggression

According to Duxbury (2002), literature has focused on three different frameworks/ models that incorporate explanations for the causes of patient aggression in health care from an individual's perspective. These are internal, external and situational models which have been incorporated into this study in order to test the knowledge of the participants in managing patient aggression. Duxbury et al. (2008) suggest that these models of causation of aggression greatly influence the current management practice of aggression.

The results showed that all the participants in this study thought that certain psychiatric diagnoses played a role in the causes of patient aggression. This finding is consistent with Duxbury (2002) who asserts that a variety of mental illnesses have been associated with the incidences of aggression in the health care settings, with illnesses such as mania and schizophrenia being the most commonly reported. A study conducted in the United States of America by Swanson, Swartz & Vandom (2006) found that positive signs of schizophrenia, i.e. suspiciousness, persecutory delusions and auditory hallucinations, increase the chances of patients becoming aggressive or violent. Cornwell (2006) highlights that manic patients tend to display maladaptive behaviour, such as aggression during periods of high energy levels, which are not tolerable. Van Wijk (2006) asserts that even though mania and schizophrenia have frequently been associated with the cause of aggression, other disorders should not be ruled out, since their association with aggression has not been studied.

The findings of this study revealed that most of the participants believed a lack of communication among staff and patients contributed to patient aggression. These findings are consistent with the results of a comparative study of Egyptian and Saudi nurses, conducted by Dawood (2013), on the causes and management of psychiatric in-patient aggression and violence. Results from this study revealed the participants

agreeing with the statement that poor communication and a restrictive environment contributed to patient aggression. In study by Meehan et al. (2006), patients suggested that staff listen to their concerns and respond with empathy.

The findings of this study also revealed that participants regarded provocation by either staff or fellow patients; strained relationship between staff and patients; and the ward environment as contributory agents of patient aggression. These findings are consistent with the findings from the study by Duxbury et al. (2008), conducted with nurses in the United Kingdom and Switzerland on the management of aggression. Respondents from the UK stated that the ward environment where patients reside could cause aggression. However, the Swiss nurses disagreed with the statement. They believed that patients could be provoked by other people, even though the UK nurses were less certain about that.

5.3.2. Environmental factors

The findings of this study indicated that most of the participants agreed that the ward atmosphere, overcrowding, physical and social environment, unfamiliar environment and lack of privacy contributed to patient aggression. Similar results have been reported by Van Wijk (2006) in a study aimed at investigating the perceptions of patients on the causes of aggression. The findings revealed that patients declared that living conditions, rigid limit settings and lack of privacy contributed to the cause of aggression. Similar findings have also been presented from other studies that concur with the statement that environmental factors contribute to patient aggression (Kealeboga 2009; Duxbury & Whittington, 2005). A cross-national comparative study, using a management of aggression and violence scale, conducted by Duxbury et al. (2008) with nurses from Switzerland and United Kingdom, revealed that nurses from Switzerland disagreed with the statement that the ward environment contributed to their aggressive behaviour, whereas the United Kingdom nurses agreed. In a recent study conducted in Saudi Arabia by Dawood (2013) on the causes and management of psychiatric in-patient aggression and violence in a mental health hospital, the restrictive physical environment was perceived as a contributory factor and the participants believed that manipulating this environment could help to reduce incidences of aggression and violence.

5.3.3. Signs of aggression

This study revealed that most of the participants stated that patients display the following behavioural signs when they are becoming aggressive: loudness, agitation, restlessness, being argumentative and demanding. This finding is consistent with some of the findings from a study by Fluttert et al. (2012), which revealed that agitation, anger and social isolation were early signs of aggression. A statement by Braithwaite (2001), as cited in Irwin (2006), indicated that early signs of aggression exist uniquely but pacing, restlessness and fist clenching are the most frequently reported signs of aggression.

Furthermore, the findings of this study also showed a significant difference in the knowledge about signs of aggression. Nurses with lesser years of experience scored higher than their counterparts who had more years of experience in the same position. This may be because newly qualified nurses had acquired more recent knowledge during their training in comparison to their older colleagues, who may have been working in the clinical setting for longer periods, but may not have been attending refresher courses on aggression management. In contrast, a study done in a mental health hospital in the Netherlands by Jonker et al. (2008) aimed at investigating nurses' perceptions of the prevalence of aggression, their attitudes towards patient aggression and the determinants of the use of coercive interventions, found that younger and less experienced nurses appeared to be more vulnerable to patient aggression and were unable to cope as the experienced nurses did. The more experienced nurses had the ability to recognise signs of developing aggression and intervened more appropriately than the less experienced nurses.

5.3.4. Patient factors contributing to aggression

The findings of this study showed that all participants believed that drug intoxication or drug withdrawal could indicate that patients were more likely to be aggressive. Just more than half regarded substance induced psychosis diagnosis as a contributory factor to aggression. The same number also considered patients who had been admitted against their will as most likely to be aggressive. These findings are consistent with the results of a study by Lanza et al. (1994), as cited in Dawood (2013), which assert that alcohol and drug intoxication were potential factors for aggression by patients.

Duxbury & Whittington (2005) assert that the situation becomes worse when a patient has dual diagnosis. This means that the patient has two psychiatric illnesses, one of which is related to the abuse of a substance, e.g. substance induced psychosis. A review of literature by Rintoul et al. (2009), on the promotion of an interdisciplinary approach to managing aggression in an emergency department, revealed that withdrawal from alcohol or drugs could precipitate an altered mental state which often leads to patients displaying aggressive behaviour. Furthermore, Gournay et al. (1998), cited in Irwin (2006), purported that patients with severe mental illnesses, who also misuse substances, are more likely to perpetrate aggressive acts in the wards than other patients. Similar findings were reported in a study by Duxbury et al. (2008) on the management of aggression and violence with Swiss and UK nurses. Both groups of nurses agreed that patients become aggressive because of their illnesses, but the Swiss nurses embraced internal factors (factors related to the patient such as mental illness, age and gender) to a greater extent than the UK nurses.

5.3.5. Factors preventing patient aggression

The findings from this study revealed that the participants asserted that identifying stressors, listening to patients, keeping them busy and avoiding escalation could prevent or minimise the chances of patient aggression. These findings are similar to a study by Duxbury et al. (2008) who purport that prevention of aggression involves the creation of a physical and social environment that minimises stress and the triggers of aggression. In addition, Irwin (2006) conducted a risk assessment which could provide a technique to predict aggression, based on the patient's previous behaviour and known triggers, in order to prevent an outburst from happening. Furthermore, in a meta-analysis on the antecedents of violence and aggression within a psychiatric in-patient setting, Papadopoulos et al. (2012) added that it was important for nurses to understand the factors that increased the chances of patients becoming aggressive in order to improve their ability to predict and prevent the aggression. Johnson et al. (1997), as cited in Irwin (2006), asserted that nurses should show an interest in patients and a willingness to listen to their concerns. This would create an impression of understanding and caring which may prevent the feelings of powerlessness and the ensuing aggression. Furthermore, Paterson & Leadbetter (1999), in Irwin (2006), described strategies that could be used to defuse situations, such as distracting the patient at an early stage with recreational and social activities. Participants from the

current study reported similar findings, such as keeping the patient busy with ward programmes and avoiding the escalation of aggression.

5.3.6. Management of patient aggression

The management of aggressive patients include, preventative measures, such as risk assessments; observation of the patient; interpersonal management of communication; listening skills; and the use of traditional methods, objectively with the patient's, as well as the nurse's well-being and safety as priorities (Duxbury et al. 2008; Uys & Middleton, 2014). The findings from this study indicated that all the participants acknowledged that it was important to maintain the self-esteem and dignity of patients when managing aggression. They asserted that staff should assess the safety aspect, call for help from colleagues/security and administer prescribed medication in order to manage patient aggression.

These findings are similar to the results of a study conducted in the UK and Switzerland by Duxbury et al. (2008) on the management of aggression and violence using the Management of Violence and Violence Attitude Scale in an acute psychiatric in-patient facility. The results showed that the use of medication was the most preferred method of managing aggression, with the Swiss nurses emphasizing the need for it to be used more often, compared to UK nurses who disagreed. On the other hand, both groups indicated that it was not necessary to use seclusion as an option to manage aggression.

Secondly, the findings from this study also revealed that most of the participants claimed that staying calm, speaking in a calm tone of voice and removing the patient or audience would help to manage an aggressive patient. Most participants in this study suggested the use of seclusion as a management option. Some also proposed not arguing with aggressive patients but rather using verbal or non-verbal communication to negotiate with the patient involved. Two-thirds advocated the use of physical restraints as a management of aggression option. This is consistent with the findings of a study conducted by Duxbury & Whittington (2005) on the perspectives of staff and patients about the causes of aggression and the way it was managed. The findings revealed that nurses preferred to use medication, seclusion and physical restraints in the management of aggression. However, the findings of a study by Martin & Daffern (2006), on clinicians' perceptions of personal safety and confidence to manage in-

patient aggression in a forensic psychiatric setting, revealed that personal knowledge, experience and skills, such as de-escalating skills when dealing with aggressive patients, have supported the confidence of psychiatric nurses. This shows that nurses without knowledge and skills of managing aggression would experience difficulties in executing their duties.

Contrary to the findings of this current study, a study by Foster et al. (2007), on the prevalence, severity and management of aggressive behaviour in an acute psychiatric ward at one of the hospitals in the United Kingdom, found that, in incidences of patient directed aggression, staff were more likely to talk or calmly lead the patient away from the conflict situation than use other containment measures, such as seclusion or restraints. This indicates that it is not always necessary to use seclusion or restraints when managing aggressive patients.

In agreement with the findings of this current study, Duxbury (2002), cited in Foster et al. (2007), states that research highlights nurses using containment measures, such as seclusion and restraints, to manage patients' verbal aggressive behaviour, however, this behaviour can be controlled by less restrictive methods, such as time out and verbal contact. Paterson & Leadbetter (1999) and Lower et al. (2003), as cited Irwin (2006), suggest that removing the aggressor from the focus of conflict, limit setting, using a calm voice and listening to the individual are recommended ways of managing aggressive patients.

The findings from this current study show that participants had a fair knowledge of aggression and its management strategies.

5.3.7. Overall knowledge

The findings, when comparing the overall knowledge scores to nurses' years of experience in the current unit, revealed that staff with less years of experience, had higher knowledge scores than their colleagues with more experience. Similar to this finding, a longitudinal study of aggression minimisation training in Australia, conducted by Ilkiw-Lavalle (2006), aimed to enhance the confidence and skills of mental health staff when dealing with aggression. The findings revealed that younger staff-members with less experience of working in mental health, perceived themselves

more confident than their older, more experienced colleagues did. The researcher speculates the reason for this to be that the newly graduated registered nurses, employed in the mental health unit, received aggression minimisation training as part of their orientation. Ilkiw-Lavalle (2006) adds that staff mix also plays a role in making less experienced staff more confident in dealing with aggression. In this current study there was no significant difference on overall knowledge and age groups.

5.3.8. Skills in managing aggression

The findings of this study revealed that all participants reported being able to use verbal and non-verbal skills when handling aggressive patients while most indicated that they knew when to use physical restraints, seclusion or team skills. Less than half of the participants reported having difficulties in dealing with aggression or using assessment skills to identify high risk patients for aggression. These findings are consistent with the results of a study by Ilkiw-Lavalle (2006) where the majority of staff claimed to use the skills learnt from the aggression minimisation programme with verbal communication and interpersonal skills as the key training skills to manage aggression. They also reported that the training had increased their knowledge and skills of managing aggression. Furthermore, Dawood (2013) concludes that improving nurses' knowledge and skills related to the causes and management of patient aggression could help nurses to identify early signs of aggression and act appropriately. In addition, Poggenpoel et al. (2011) stated that nurses should be educated about mental illness and be equipped with the knowledge and skills to interact with mentally ill patients as this could change their perception of patients.

5.3.9. Awareness of policies and procedures

The findings in this study indicated that all participants professed to be aware of policies that regulated the use of physical restraints and seclusion, as well as the procedure to be followed when documenting and reporting an incident of aggression, even though many of them were guilty of underreporting.

Kennedy & Julie (2013) assert that underreporting occurred as participants felt that violence was part of their daily lives. Zuzelo et al. (2012) asserted that nurses report only incidences of violence that are regarded as serious (where there are obvious injuries). Similarly, Foster et al. (2007) stated some reasons that could be the cause of

underreporting of verbal aggression such as incidences are not considered as serious enough for reporting and the reporting procedure being time consuming.

However, Johnson (2001), as cited in Dawood (2013), asserts that the management of aggressive psychiatric patients vary widely depending on institutional policies and management strategies.

5.3.10. Training on management of aggression

In the findings of this study, less than half the participants reported that they had received training on the management of aggression, with a lesser number acknowledging that the training had met their needs of understanding and managing aggression. The findings of a study by Bock (2011) on the assessment of nurses' attitudes to the management of aggression and violence in four psychiatric hospitals, revealed that of the total population of n=162 participants, only n=47(52%) received training relating to management of aggression as compared to this current study's findings of only n=21 (40.4%).

This current study's finding is similar to Tema et al. (2011) who found that nurses felt that they did not receive enough training in order to gain enough knowledge and be skilled in handling forensic patients. However, Letlape (2012) asserts that psychiatric nurses who attend in-service training and are empowered with latest psychiatric knowledge and skills are more effective when dealing with psychiatric patients and are able to reduce the risk of injuries to both nurses and patients. Ilkiw-Lavalle (2006) adds that an increase of knowledge and skills through regular refresher sessions promotes feelings of safety and confidence and decreases the fear of aggressive patients. Bock (2011) recommends that training should focus on improving the ability of staff to manage aggression and violence through improved communication and negotiations, as well as on the awareness of the causes of patient related aggression and violence.

However, a study by Hahn et al. (2006), on the effects of a systematic training course in aggression management on mental health nurses' attitudes about the reasons for patients' aggression and its management, reported that there was no significant change in the nurses' attitudes after the training. These authors posit the possibility that the

training was not effective enough to have an effect and that the respondents' attitudes may have been too inflexible to be affected by the training programme.

5.4. Conclusion

In this chapter the findings of the study on the knowledge and skills of professional nurses in managing aggressive psychiatric patients have been discussed with reference to existing literature. The findings revealed that professional nurses with less years of experience were more knowledgeable about the possible causes and management of aggression. It also revealed that the majority of participants had not received any kind of training in the management of aggression and the training that is provided, is not effective to equip the staff with the knowledge and skills to manage in-patient aggression. The next chapter will focus on concluding the study, giving a summary of the findings as well as recommendations for further research and practice.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1. Introduction

This chapter will summarize the findings, conclude the study and provide recommendations based on the findings. The focus of the study was on the knowledge and skills of professional nurses in managing aggressive patients in a psychiatric hospital in the Western Cape. The purpose of the study was to determine the level of knowledge and skills of professional nurses to manage the aggression of patients. A detailed search of literature pertaining to the study was conducted by the researcher. The researcher observed that there were limited studies related to the topic of interest in the literature, especially locally. To achieve the objectives of this study a quantitative, descriptive design was used to describe the knowledge and skills of professional nurses in managing aggressive patients.

6.2. Summary of the findings

6.2.1. Exposure to aggression

The psychiatric nurses working with patients who are mentally ill are faced with challenging behaviour on a daily basis. They are exposed to various types of aggression by the patients in their care. This findings in the study revealed that nurses were mostly exposed to verbal aggression.

6.2.2. Causes of aggression

The participants in this study seemed to have an understanding of what caused aggression. They identified mental illness, lack of communication between staff and patients, ward environment and strained relationships between staff and patients as possible causes of patient aggression.

6.2.3. Environmental factors causing aggression

It is clear from this study and previous studies that the environment where psychiatric patients reside plays a role in causing their aggression. Participants pinpointed

overcrowding, a non-therapeutic environment, lack of privacy and being locked up in an unfamiliar environment as contributory factors causing patient aggression.

6.2.4. Signs of aggression

Identifying signs of aggression requires a knowledge and understanding of mental illnesses. This enables the care-giver to identify when the patient is becoming agitated and act appropriately in order to prevent escalation which reduces the risk of injuries when handling aggressive patients. The participants in the study asserted that they were able to identify when patients become aggressive. The findings also revealed that professional nurses with less years of experience had more knowledge about the signs of aggression than their colleagues with more years of experience in same position.

6.2.5. Patient factors contributing to aggression

As indicated by Duxbury (2002), specific patient variables are viewed as factors contributing to aggression and violence. These variables include mental illness, age and gender of the patient. Participants in the study asserted that patients with acute signs of illness, such as hallucinations, delusions etc, patients with drug intoxication or withdrawal as well as substance induced psychosis are more likely to be aggressive.

6.2.6. Factors preventing patient aggression

Preventing patient aggression requires team work. Nurses should be able to identify high risk patients, assess the risk and act appropriately when required. The study revealed that professional nurses understood that identifying stressors, being able to use the ward programme effectively and taking time to listen to patients could prevent patient aggression.

6.2.7. Management of aggression

The study indicated that the participants had the knowledge of what was required of them when confronted by aggressive patients. They emphasised that, when dealing with aggressive patients, it was important to assess the safety aspect and call for help, while, in the process, maintaining the dignity of the patient. They also acknowledged that seclusion, administering prescribed medication and physical restraints are strategies for managing the aggressive patient.

6.3. Skills in managing aggression

The majority of the participants in the study claimed the ability to use their skills when handling aggressive patients. They also professed to have confidence and also knew when to use seclusion or physical restraints to manage aggressive patients.

6.4. Awareness of policies and procedures

Working in a psychiatric institution care-givers should familiarize themselves with the policies as well as the mental health care act that stipulates the care and rehabilitation to be rendered to patients. The Mental Health Care Act 17 of 2002 makes provision for the care of mentally ill patients. It clearly states that the care patients receive should be proportionate to their mental status and as discreet as possible. Participants in this study claimed to be aware of the policies that regulated the use of seclusion and physical restraints as well as the procedures to follow when reporting and documenting incidents of aggression. However, it has emerged from the literature and other studies that the underreporting incidents of aggression was due to nurses not regarding them as serious or that the reporting process was too time consuming.

6.5. Training on management of aggression

For nurses to provide quality care to psychiatric patients they need to be knowledgeable about mental illnesses and how to deal with the different behaviours displayed by these patients. Their knowledge and skills could be improved through training courses in order to keep them updated with new developments in aggression management. Less than half the participants in this study acknowledged that they had received training on the management of aggression and a similar number stated that it had met their needs in understanding and managing aggression. This indicated the need for continuous training for nurses, which will not only improve the quality of care provided to patients, but it could reduce the risk of injuries when handling aggressive patients.

6.6. Recommendations

6.6.1. Training

On-going training pertaining to aggression management should be provided on a regular basis. Training can also be done in the form of in-service training at the ward

level and should be made compulsory for all staff to attend. Training should focus on improving the ability of the staff to manage aggression, communication skills and incident reporting.

Nurses should be also sent for short courses as this will keep them up to date with the latest techniques in aggression management. Ilkiw-Lavalle (2006) states that nurses should get on-going refresher courses to keep them abreast of new developments in management of aggression.

6.6.2. Future research

A qualitative study should be conducted on this topic in order to obtain richer data on the knowledge and skills of professional nurses in managing aggressive patients.

A follow up study should be conducted at the same institution and should include all categories of nurses and other disciplines, as they also work with these aggressive patients.

6.7. Limitations

This study was only localised at one psychiatric hospital, therefore the findings cannot be generalised to other psychiatric institutions. The study did not include all categories of nurses and other disciplines.

6.8. Conclusion

The purpose of the study was to determine the knowledge and skills of professional nurses in managing aggressive patients in a psychiatric hospital. The findings have indicated that professional nurses have a fair knowledge of patient aggression and its management. It also highlighted the need for staff training on patients' aggression. A needs analysis should be done before providing training as the participants indicated that the training they had received did not meet their needs. Nurses should be given proper training to enhance their competencies in aggression management.

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