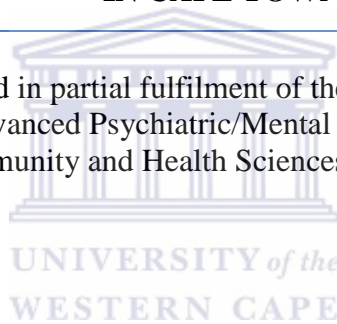




**FACULTY OF COMMUNITY AND HEALTH SCIENCES
SCHOOL OF NURSING**

**FACTORS ASSOCIATED WITH THE PSYCHOLOGICAL RESPONSE OF
NURSES' VICTIMS OF INPATIENTS VIOLENCE IN A PSYCHIATRIC
FACILITY FOR ADULTS WITH INTELLECTUAL DISABILITY
IN CAPE TOWN**

A mini-thesis submitted in partial fulfilment of the requirements for the degree of Masters in Nursing (Advanced Psychiatric/Mental Health Nursing) in the School of Nursing, Faculty of Community and Health Sciences, University of the Western Cape.



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May, 2012

DECLARATION

I declare that the study entitled “*Factors associated with the psychological response of nurses’ victims of inpatients’ violence in a psychiatric facility for adults with intellectual disability in Cape Town*” is my own work, that it has not been previously 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.

Pelisa Gingi



Signed.....

May 2012

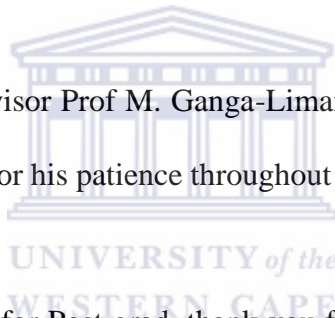
ACKNOWLEDGMENT

First and foremost, I would like to thank God for His grace and for giving me the strength throughout this arduous process.

To my husband, XOLANI HOLO, and my little angel AXOLILE ZAMA-QOCWA HOLO, whom I neglected and yet never complained, but provided me with the love and support, I thank you and love you with all my heart.

To my loving parents, I thank you for the role you played in my success.

I am indebted to my supervisor Prof M. Ganga-Limando for believing in me, when I did not believe in myself, and for his patience throughout this journey.



To Ryan, academic officer for Post grad, thank you for motivating me when I wanted to discontinue with my studies.

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Finally, to my colleagues, the nursing staff of Alexandra Hospital, whom without their support this study would not be possible, I thank you all so very much.

LIST OF ABBREVIATIONS

WPV	Workplace Violence
ILO	International Labour Office
WHO	World Health Organization
PSI	Public Service International
HCW	Health Care Worker
PUBHCS	Public Health Care System
PRIHCS	Private Health Care System
MHCU	Mental Health Care User
IDS	Intellectual Disability
OHSA	Occupational Health and Safety Act
COIDA	Compensation for Occupational Injuries and Disease Act
IES-R	Impact of Event scale-Revised
RS	Resilience Scale

ABSTRACT

Background and Research Problem: It is well-known that nurses around the world are exposed to various forms of violence at their workplaces. In psychiatric facilities, many of these incidents are perpetrated by patients against nurses. There is a perception that the current legislation and regulations in the country do not adequately protect psychiatric nurses (health care workers in general) against workplace violence. The preliminary literature suggested that most quantitative studies on workplace violence in psychiatric facilities have concentrated on secondary and tertiary psychiatric hospitals looking at the prevalence, the association between demographic factors and violence behaviour, nurses' therapeutic responses, and the impacts on the quality of care. Studies on workplace violence in a psychiatric facility for adults with intellectual disability in the country are limited. Secondly, it appeared from the preliminary literature review that similar studies have not looked at this phenomenon from the individual resilience perspective. Therefore, this study will seek to determine the factors associated with the psychological response of nurses' victims of inpatient violence in a psychiatric facility for adults with intellectual disability in Cape Town.

Aim: To determine factors associated with the psychological response of nurses' victims of in-patient violence in a psychiatric facility for adults with intellectual disability in Cape Town.

Objectives: To describe the (1) individual resilience of nurses working at a psychiatric facility for adults with intellectual disability; (2) psychological response of nurses' victims of in-patients' violence at a psychiatric facility for adults with intellectual disability; and (3) association between the individual resilience characteristics and the

psychological responses of nurses victims of in-patients' violence in a psychiatric facility for adults with intellectual disability.

Methodology: Descriptive-exploratory design using a quantitative approach was used. All categories of nurses (professional nurse, enrolled nurse and enrolled nursing assistance) working at the psychiatric facility for adults with intellectual disability were eligible for the study. Convenient sampling was conducted to select 127 participants who met the inclusion criteria. Self-administered questionnaire was used to collect data. Data was analysed using the SAS V9.3 computer programme. Ethical clearance was obtained from University as well as approval from the management of the psychiatric facility prior to approaching the study participants.

Results: The results of the study showed high level of resilience among nurses on Assessment of Resilience Scale (82.9%, n=104); nurses psychological responses to violence were equally distributed between avoidance (mean =4.65 and SD=1.36), intrusion (mean= 4.55 and SD=1.50), hyper arousal (mean=4.46 and SD=1.60) resulting in total mean of 13.67 (SD=4.14) on the revised Impact of Event Scale (IES-R). Measure of association between resilience and the impact of violence on the psychological well-being of nurses showed that nurses with high resilience score (82.9%, n=104) fitted the symptoms of PTSD on the IES-R. Spearman Rank correlations (r) analysis showed the total scores of IES-R (r=0.04, p=0.68), avoidance (r=0.01, p= 0.34), intrusion (r=0.08, p=0.34), and hyper-arousal (r= -0.002, p=0.97). Further research looking at the nurses' reliance and their responses using resilience theory is needed.

TABLE OF CONTENTS

DECLARATION	i
ACKNOWLEDGMENT	ii
LIST OF ABBREVIATIONS	iii
ABSTRACT	iv
CHAPTER ONE:	1
ORIENTATION TO THE STUDY	1
1.1 INTRODUCTION.....	1
1.2 BACKGROUND AND RATIONALE.....	1
1.3 PROBLEM STATEMENT.....	4
1.4 AIM OF THE STUDY	5
1.5 OBJECTIVES OF THE STUDY	5
1.6 SIGNIFICANCE OF THE STUDY	5
1.7 ETHICAL STATEMENT	6
1.8 OPERATIONAL DEFINITION OF KEY CONCEPTS	6
1.8.1 Violence	6
1.8.2 Victims of violence	7
1.8.3 Individual resilience	7
1.8.4 Psychological response	7
1.8.5 Psychiatric facility for adult with intellectual disability	7
1.8.6 Patient	7
1.9 OUTLINE OF THE REPORT.....	8
CHAPTER 2:	9
LITERATURE REVIEW	9
2.1 INTRODUCTION.....	9
2.2 WORKPLACE VIOLENCE IN HEALTH CARE SECTORS	9
2.2.1 Understanding workplace violence and its impacts	9
2.2.2 Impacts of workplace violence	12
2.3 INDIVIDUAL RESILIENCE AND PSYCHOLOGICAL RESPONSE.....	15
2.3.1 Individual Resilience	15
2.3.2 Protective factors	16
2.4 LEGAL FRAMEWORK GUIDING SAFETY AT WORKPLACE IN SA.....	20
2.4.1 Occupational health and safety Act	20
2.4.2 Occupational Health and Safety Policy	22

2.4.3 Compensation for Occupational Injuries and Disease Act	22
2.5 UNDERSTANDING INTELLECTUAL DISABILITY	23
2.5.1 Defining intellectual disability	23
2.5.2 Intellectual disability and mental illness (dual diagnosis)	24
2.5.3 Nursing adults with IDS with challenging behavior	25
2.6 CONCEPTUAL FRAMEWORK FOR THIS STUDY	26
2.7 CONCLUSION	29
CHAPTER 3:	30
RESEARCH METHODOLOGY	30
3.1 INTRODUCTION	30
3.2 STUDY DESIGN	30
3.3 RESEARCH SETTING AND STUDY POPULATION	31
3.4 SAMPLE AND SAMPLING TECHNIQUES	32
3.5 DATA COLLECTION INSTRUMENT	32
3.5. 1 Description of the instrument	32
3.5. 2 Validity and Reliability of the instrument	34
3.6 DATA COLLECTION PROCESS	35
3.7 DATA ANALYSIS	35
3.8 ETHICAL CONSIDERATIONS	36
3.9 CONCLUSION	37
CHAPTER 4:	38
PRESENTATION AND DISCUSSION OF THE MAIN FINDINGS	38
4.1 INTRODUCTION	38
4.2 CHARACTERISTICS OF THE RESPONDENTS	38
4.2.1 Individual and professional characteristics	39
4.2.2 Exposure to violence	40
4.3 INDIVIDUAL RESILIENCE CHARACTERISTICS OF NURSES	42
4.4 PSYCHOLOGICAL RESPONSE OF NURSES TO IN-PATIENTS VIOLENCE	44
4.5 INDIVIDUAL RESILIENCE AND PSYCHOLOGICAL RESPONSE OF NURSES TO IN-PATIENTS VIOLENCE	48
4.6 CONCLUSION	53
CHAPTER 5:	54
CONCLUSION, RECCOMENDATIONS AND LIMITATIONS OF THE STUDY	54
5.1 INTRODUCTION	54
5.2 SUMMARY OF THE MAIN FINDINGS	55

5.3 CONCLUSION	56
5.4 RECOMMENDATIONS.....	57
5.5 LIMITATIONS OF THE STUDY	58
LIST OF REFERENCES.....	59
LIST OF TABLES	
TABLE 1 Individual and professional characteristics.....	41
TABLE 2 Mean distribution of the individual resilience of the nurse.....	42
TABLE 3 Frequency distribution of the individual resilience of the nurse.....	43
TABLE 4 Mean distribution of the psychological response of nurses to inpatients violence.....	45
TABLE 5 Frequency distribution of the psychological response of nurses to inpatients violence.....	46
TABLE 6 Frequency distribution of the association between resilience and the psychological response of nurses to in-patient violence.....	50
TABLE 7 Correlation between individual resilience and the psychological response of nurses to in-patient violence.....	52
LIST OF FIGURES	
Figure 1 Immediate response to violence.....	14
Figure 2 Illustration of individual resilience as applied in this study	28
Figure 3 Frequency distribution of the psychological response of nurses to inpatients violence.....	44
Figure 4 Frequency distribution of the association between resilience and the psychological response of nurses to inpatient violence.....	47
Figure 5 Correlation between individual resilience and the psychological response of nurses to in-patient violence.....	53

LIST OF APPENDICES

Appendix I: Letter requesting approval to conduct study

Appendix II: Letter of permission to conduct study

Appendix III: Participants information sheet

Appendix IV: Consent form

Appendix V: Approval letter from the Senate Research Committee

Appendix VI: Research Instrument



CHAPTER ONE:

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

This chapter provides an overview of the study in terms of the background and the rationale, the problem statement, the purpose and objectives of the study, the significance of the study, the ethical statement, and the definition of key concepts and the outline of the report.

1.2 BACKGROUND AND RATIONALE

Health care workers are victims of various forms of violence (physical, verbal, emotional, sexual and psychological) at their workplace almost every day (Kennedy, 2005). They are not only victims of co-workers, visitors or family members of the clients but also patients' violence (Chappell & Di Martino, 2006). In psychiatric hospitals, most of cases of violence are perpetrated by patients (Lannza, 2006). Working as a nurse is not easy, while enduring abuse from the patients, at the same time one has to endure abuse from the managers, their colleagues as well as the parents of health care users (ICN, 2008). According to the World Health Organization, 61% of health personnel in South Africa experience at least one incident of physical or psychological abuse yearly (WHO, 2010).

According to the International Council of Nurses (ICN, 2006), nurses are more affected by workplace than other health professionals. ICN (2009), reports that “up to 95% of nurses have been bullied at work”. The organization argues that the situation is quite alarming as 95% of nurses around the world are women (ICN, 2009). Furthermore, it is suggested that most cases of workplace violence against nurses are under-reported. More often, incidents of workplace

violence go unreported due to nurses' perception that "violence is part of their job". The continuation of non-reporting itself may result in the cycle of workplace violence (ICN, 2009).

It is argued that workplace is an environment where workers should feel safe as they spend most of their time there. Evidence suggests that unsafe health care environment affects workers' job satisfaction and when health professionals are unsatisfied with their jobs, the rates of absenteeism and turnover increase, staff morale and productivity decrease, and work performance as a whole deteriorate (ICN, 2008). The South African Nursing Council clearly states that nurses have the right to "a safe working environment, a working environment which is free of threats, intimidation and/or interference" (SANC, 2011). In addition, safety of the work place environment in South Africa is guaranteed by law. The Occupational Health and Safety Act of 1993 (Act No 85 of 1993) compels every employer to provide and maintain as far as is reasonably practicable, a working environment that is safe and without risk to the health of his employee. However, critics argue that the act mostly concentrates on the physical aspects of safety in the working environment and does not provide clear definitions of other types of safety that the employee might enjoy in the workplace. It focuses on the occupational injuries. The question is, what about the emotional and psychological safety?

In 2002, a new MHCA (Mental Health Care Act) No 17 was introduced in replacement of the Mental Health Act 18 of 1973. According to the Act, any person who is found to have abused a mental health care user in any manner that is degrading to him/her will have committed an offence (Mental Health Care Act, 2002). Similar criticisms to Occupational Health Safety have been labelled against the new Mental Health Care Act No 17 of 2002, which is accused of failing to address the rights of health care providers working in mental health settings.

Evidence suggests that workplace violence against nurses affects the health care delivery and their personal health. Studies associate workplace violence against nurses with poor job satisfaction, high rates of absenteeism and turnover, decrease morale and productivity, and poor work performance, and poor quality of care (ICN, 2007b; WHO 2010). Franz, Kuhnert, Nienhaus, Schablon, & Zeh (2010) states that violence and aggression can, negatively affect the quality of care and treatment, cause longer periods of absenteeism and deteriorate the work climate. In an exploratory study of nurses' account of workplace violence, it was shown that workplace violence affected nurses' self-concept, self-esteem, and self-control (Van Wiltenburg, 2007). Most studies on workplace violence in health care facilities have focused on the most serious types of violence behaviour (e.g. those resulted in physical injury requiring medical attention) in terms of prevalence and impacts on the victims and provision of care (Lo, 2008).

As a nurse working in the facility for adults with intellectual disability, the researcher has witnessed several incident of violence perpetrated by patients against nurses on a daily basis. It is well known that these incidents have direct impacts on the quality of health care provision and well-being of the victims. It is also well-known that not all nurses' victims of patients' violence respond in the same way to those incidents. Can this difference be associated with certain individual factors? Or would nurses' psychological response to workplace violence vary according to individual resilience? It is assumed that some nurses are more resilient than others; and patients' violence will have less psychological impacts on resilient nurses than non-resilient nurses. It on the basis of the above assumption that the researcher wants to look at factors associated with the psychological response of nurses' victims of in-patients violence in this specific setting.

1.3 PROBLEM STATEMENT

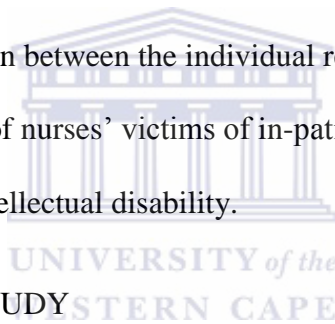
It is well-known that nurses around the world are exposed to various forms of violence at their workplaces. In psychiatric facilities, much of these incidents are perpetrated by patients against nurses. There is a perception that the current legislation and regulations in the country do not adequately protect psychiatric nurses (health care workers in general) against workplace violence. The impacts of workplace violence against health care workers including nurses with regard to the provision of care, and the health of the victims are well documented. However, from the preliminary literature it appears that most quantitative studies on workplace violence in psychiatric facilities have concentrated on secondary and tertiary psychiatric hospitals looking at the prevalence, the association between demographic factors and violence behaviour, nurses' therapeutic responses, and the impacts on the quality of care. Studies on workplace violence in psychiatric facilities for adults with intellectual disabilities in the country are limited. Secondly, it appeared from the preliminary literature review that similar studies have not used individual resilience model as a framework. Therefore, this study seeks to determine the factors associated with the psychological response of nurses' to in-patients violence in the facility for adults with intellectual disability using individual resilience model as a framework.

1.4 AIM OF THE STUDY

The aim of the study was to determine factors associated with the psychological response of nurses as victims of in-patient violence in the psychiatric facility for adults with intellectual disability in Cape Town.

1.5 OBJECTIVES OF THE STUDY

- To describe the individual resilience of nurses working at a psychiatric facility for adults with intellectual disability;
- To describe the psychological response of nurse victims of in-patients' violence at a the psychiatric facility for adults with intellectual disability; and
- To describe the association between the individual resilience characteristics and the psychological responses of nurses' victims of in-patients' violence at the psychiatric facility for adults with intellectual disability.



1.6 SIGNIFICANCE OF THE STUDY

The results of the study provide insight into the multi-dimensional responses of mental health care providers who are victims of patients' violence at their workplace. The generated knowledge can also be used by the management of mental health care settings to identify vulnerable group of mental health care nurses to patients' violence, and to develop specific interventions. Health professional educators can use the findings of this study as baseline information for further research.

1.7 ETHICAL STATEMENT

Ethical clearance was obtained from the University of the Western Cape, Senate Higher Degrees before the commencement of the research. Permission to collect data from the participants was granted by the Head of the Mental Health Establishment where the study took place. The participants were fully informed about the study and they were requested to sign a consent form. More details about the ethics are given in Chapter three under ethical considerations.

1.8 OPERATIONAL DEFINITION OF KEY CONCEPTS

1.8.1 VIOLENCE

Pearsall (2002) defines violence as “Behavior involving physical force intended to hurt damage or kill”. Violence is being destructive towards another person, which can be interpersonal, self-directed, physical, sexual and mental. It incorporates all types of abuse, being it behavior that humiliates, degrades or injures the well-being, dignity and worth of an individual (ICN, 2009).

WHO (2002) defines violence as 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”. For the purpose of this study, the WHO (2002) definition was adopted. This definition was adopted as it describes both physical and psychological violence.

1.8.2 VICTIMS OF VIOLENCE

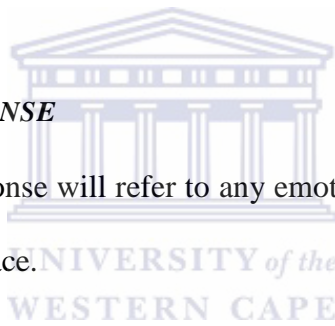
In this study, victim of violence will refer to any nurse who has witnessed or been victim to in-patient violence during the course of duties in the facility for adults with intellectual disability under study.

1.8.3 INDIVIDUAL RESILIENCE

Individual resilience refers to the ability of certain individual to overcome or bounce back from adversity without negative consequences. In this study, a 14-items resilience scale will be used to assess nurses' individual resilience.

1.8.4 PSYCHOLOGICAL RESPONSE

In this study, psychological response will refer to any emotional and/or feelings resulting from in-patient violence at the workplace.



1.8.5 PSYCHIATRIC FACILITY FOR ADULT WITH INTELLECTUAL DISABILITY

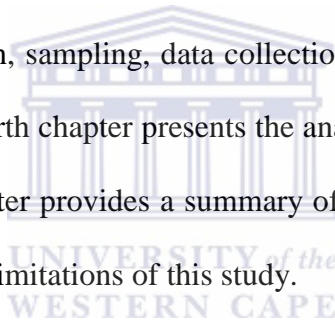
Psychiatric facility for adults with intellectual disability refers to a health establishment for the care, treatment and rehabilitation of people with intellectual disability (Mental Health Care Act, 2002).

1.8.6 PATIENT

A patient in this study refers to any person who is admitted in a mental health care service for care, treatment and rehabilitation.

1.9 OUTLINE OF THE REPORT

This report is divided into five chapters. The first chapter presented an overview the study in terms of the background and the rationale, the problem statement, the purpose and objectives of the study, the significance of the study, the ethical statement, and the definition of key concepts. The second chapter presents the literature review with focus on workplace violence in the health sector, theories looking at violence, the impacts of violence on the victims and health care delivery and the framework that guided the study. The third chapter deals with the research methodology undertaken to reach the objectives of the study, discussing in detail the research design, study population, sampling, data collection instrument and technique and the method of data analysis. The fourth chapter presents the analysis of data and discussions of the research findings. The fifth chapter provides a summary of the main findings and the relevant recommendations as well as the limitations of this study.



CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter looks at the literature related to the key concepts of the study. It focused on workplace violence in the health care sector, the individual resilience and the psychological response to traumatic events, the legal framework guiding health and safety at the workplace in South Africa, and the conceptual framework of the study. A summary of the literature reviewed is provided in the conclusion.



2.2 WORKPLACE VIOLENCE IN HEALTH CARE SECTORS

2.2.1 UNDERSTANDING WORKPLACE VIOLENCE AND ITS IMPACTS

NIOSH (2002) defines workplace violence as “violent acts (including physical assaults and threats of assaults) directed towards persons at work or on duty. In the health sector, workplace violence is defined as “any incidents where staff are abused, threatened or assaulted in circumstances related to their work, including commuting to and from work, involving an explicit or implicit challenge to their safety, well-being or health” (Steinman, 2003). Perpetrators of this type of violence may include patients or clients, visitors, colleagues or co-workers with patients consistently being the highest (Erkol et al, 2007; Buikstra et al, 2006; Nolan et al, 1999 & Van Wiltenburg, 2007).

Violence by patients/clients: This type of violence is often committed by those receiving Mental Health Care Services. According to Chappell & Mayhew (2001) as cited in Schiff (2010), this includes “employees of services-based occupations” where their type of occupation increases their vulnerability from violent customers, clients or patients.

Violence by co-workers/colleagues: In this type of violence, the victim and the perpetrator have an employment relationship. Van Wiltenburg (2007) believes that perpetrators can include prospective, current or former employees. There are two types of violence between co-workers that exist. One occurs between supervisors and subordinates, as well as workers at the same level.

Violence by visitors/strangers: The perpetrator does not have any relationship to the employee. Visitors or strangers who come visit their family members who are mental health care users. Violence is often random and the worker becomes a victim while performing a job related function (Chappell & Mayhew, 2001).

The literature associates several factors with workplace violence in the health sector. For the purpose of this study, the focus was placed on organizational factors, factors related to the environment of care, and the individual factors. These factors may include risk factors of violence such as unrestricted movement of the public, poor environmental design, inadequate security, and shortage of staff, overcrowding, and lack of support by management (Bimenyimana, 2008; NIOSH, 2002; Steinman, 2003).

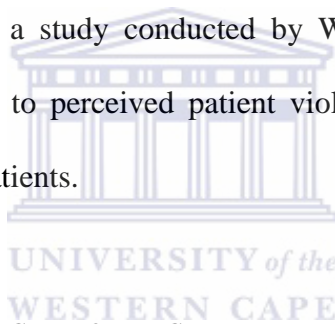
Staff shortages in hospitals contribute to burnout among health professionals. They become demotivated when overworked and decide to stay away from work thus increasing the rate of absenteeism. Studies (Bimenyimane, 2008; Wiltenburg, 2007) have associated lack of support from the management and, overcrowding to workplace violence against registered nurses in South Africa and Columbia. In a qualitative study of nurses lived experiences of aggression and violence in a Gauteng psychiatric institution, one participant said in an interview “as you can see today, I am working alone. I am one registered nurse to 35 patients, this shortage is demotivating” (Bimenyimane, 2008). In the Columbian study, the participants reported that nursing management plays a role in how they were reporting, addressing and managing the problem of violence in the workplace (Wiltenburg, 2007).

With regard to psychiatric institutions, it is argued that the way in which some of these facilities are built (uncomfortable waiting rooms, poorly lit corridors, rooms) also contribute to violence. Mental health care users who are admitted in such facilities may experience feelings of frustration and anger of being “locked up” and direct these feelings onto nurses. Amongst the environmental factors that were explored in the Canadian study, were exposure to violence and types of violence. Participants in that study identified physical abuse, verbal abuse, bullying and sexual harassment as behaviors of violence that they have experienced in their workplace (Bimenyimane, 2008).

NIOSH (2002) reports that several studies indicate that violence often takes place during times of high activity and interaction with patients, such as meal times and during visiting hours and patient transportation. In a study of nurses working in nursing homes in Sweden, 59.8 %

reported in the study that violence incidents mostly took place when assisting residents with their activities of daily living such as bathing, dressing, oral hygiene, toileting, during feeding times, and when assisting the residents from bed to wheelchair or from wheelchair to bed (Astrom et al, 2004).

According to Uys (2004), many psychiatric patients display violent behavior when reacting to threats that are part of their psychosis. In patients who are intellectually disabled, they display acting out behavior as a result of feeling helpless and not being understood. Individual patient factors would include a history of violent behavior, history of substance abuse, anxiety and agitation and mental illness. In a study conducted by Wiltenburg (2007) showed that the manner in which staff responds to perceived patient violence, or talk to patients may also trigger negative response from patients.



2.2.2 IMPACTS OF WORKPLACE VIOLENCE

Workplace violence has negative effect not only on the victim but also on the organization (MacInosh, 2005). It is argued that workplace violence is associated with absenteeism, reduced productivity, increased turnover, decreased staff morale, and reduced quality of life, decreased staff morale, counseling cost, hostile working environment, reduced trust of management, and increased job stress (Church et al, 2004; Elovaino et al, 2000; NIOSH, 2002).

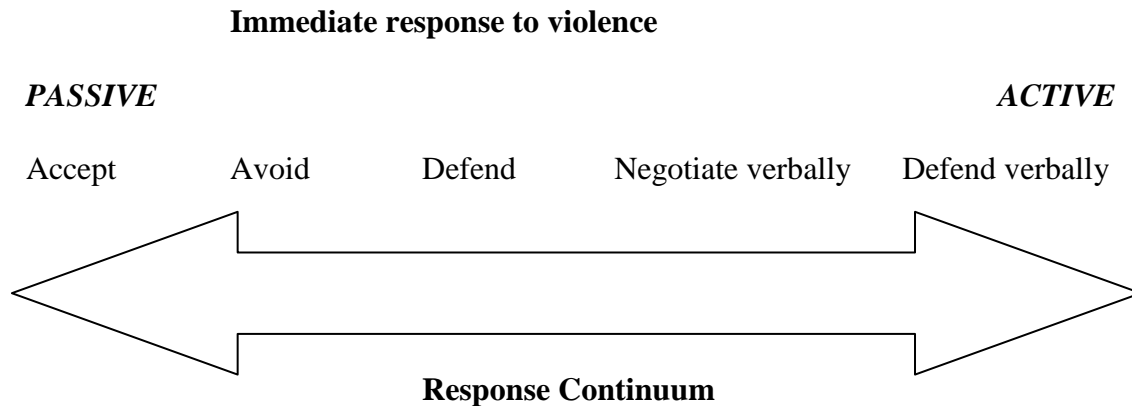
In a survey of 70 nurses experiencing workplace violence in Kuwait, 67 suffered from one or more health consequences and 3 reported symptoms of anxiety. The symptoms of anxiety

lasted for more than 28 days whereas other effects lasted four weeks, which in turn affected the health establishment due to long sick and increased rate of absentees (Al-farrah, 2003). ICN (2007b) argued that nurses who experience violence at work, and sustain physical injuries tend to be absent from work for longer periods. The organization also argues that the consequences of workplace violence might have a serious impact on the quality of care.

According to Al-farrah et al (2003), the possible effects of violence on individuals depend on the “severity and frequency of episodes and perceived vulnerability to further episode”. They argued that post-traumatic disorder, insomnia, agoraphobia and depression are the most common psychological effects among nurses victim of patients violence. Studies by ICN (2007b) showed that burnout was the most common psychological effect among nurses’ victims of patient violence. Lo (2007) indicated that victims of workplace violence experienced emotional exhaustion, depersonalization, and reduced personal accomplishment.

According to ICN (2007b) report, nurses immediate responses to violence as individuals are influenced by “personality type, learned mechanism (conscious and unconscious), physical environment and societal expectations (cultural and profession). More often nurses accept abuse as part of their job and therefore their response to violence in their workplace vary from passive to active. This is illustrated in the following diagram.

Figure: 1



(ICN, 2007b)

In an explorative study on nurses' responses to patients' violence and abuse, it was revealed that some registered nurses responded to violent patient by means of direct confrontation and by securing the assistance of the security. Some participants responded by just ignoring the patient, whereas the minority of the registered nurses responded by not wanting to interact with the patient. In contrast, male nurses "felt obliged to respond in a defensive or aggressive manner (Kennedy, 2005).

Despite the increase in the incidents of violence against nurses and their impacts' on the health of the victims and the health care delivery system, the literature suggests that most cases are unreported. This under-reporting makes it difficult to accurately establish the intensity and seriousness of this issue. According to the ICN, some incidents of WPV go unreported due to nurses' perception that "violence is part of their job" (ICN, 2009). The organization argues that management should encourage workers to report incidence of violence, whether they regard it as minor or unimportant. The continuation of non-reporting itself may result in the cycle of

workplace violence. Reporting will enable the employer to acknowledge what workers are experiencing regarding violence in the workplace (ICN, 2009).

2.3 INDIVIDUAL RESILIENCE AND PSYCHOLOGICAL RESPONSE

2.3.1 INDIVIDUAL RESILIENCE

The term resilience has been used in various disciplines, including nursing and psychology to name a few. Psychology literature has examined the vulnerability and resilience to workplace violence among health care workers in public hospitals (Lo, 2008), and resilience in young children (Flouri et al, 2009).

The nursing literature has also explored personal resilience as a strategy for surviving and thriving in the face of workplace adversity as opposed to community or family resilience (Jackson et al, 2007). According to Luthar et al (2000) in Ramirez (2007), resilience was originally referred to as a personality trait, in recent decades it has been redefined as a dynamic, modifiable process. The term “resilience” replaces the term “invulnerable” and “invincible” (Dyer and McGuiness, 1996; Earvolino-Ramirez (2007). In earlier years these terms were used to describe individuals who were regarded as resilient.

Many definitions arise in literature, with most concluding that it is the ability to recover and bounce back from a face of adversity (Dyer and McGuiness, 1996; Kaminisky et al, 2007; Meichenbaum, n.d.; Ramirez, 2002; Rutter, 1985).

2.3.2 PROTECTIVE FACTORS

Coping skills

Healthy coping skills foster resistance to traumatic event or stress. Social support can protect a person from the possible adverse effects of traumatic event (Andrews et al, 2003; Everly et al, 2007; Lo, 2007). Resilient individuals are regarded as having different coping skills that they make use of when faced with adversity. These coping skills include approach coping (also known as problem-focused coping) and avoidance coping. According to the stress and coping theory of Lazarus and Folkman (1984) in Gillespie (2007), behavioural efforts are made by the individual in order to manage internal and/ or external stressors that are appraised as excessive. Coping styles can affect how one perceives a stressful event and management thereof. In her study of resiliency and vulnerability factors in the workplace violence, Lo (2007) adapted a comprehensive model of Moos et al (1993) in “describing the relationships among different factors which can influence the effects of stressors”. This conceptual model describes the outcome of traumatic event as the combination of a person’s personal, environmental, and coping resources. Positive outcomes and less psychological symptoms are associated with active coping (approach /problem-focused coping) whilst poorer adaptation is associated with avoidance coping.

Studies on men suffering from prostate cancer (Penedo et al, 2006) and youth with diabetes mellitus (Boland et al, 2000) supported the hypothesis of Moss et al (1993) that these factors were related to the outcome of life crisis. In a qualitative study of factors promoting resilience in high risk youth (Ricketts, 2008), one participant reported “I just thought ok, that was meant to happen, and it’s happened, it’s not like I can do anything about it now. I try not to let things

get to me because once you do let things get to you it has its own way of dragging you down.....Like if I think I am incompetent in one thing, then I am competent in something else”.

Although coping skills are regarded as a protective factor in resilience, researchers argue that resilience and coping are two different entities in that from coping, a person can cope with a situation by simply avoiding it (Schmidt- Ehmcke, 2008) while resilience is the ability to cope with adversity and recover from it (Alvarez-Castillo et al, 2006).

Social support

Social support can protect a person from the possible adverse effects of traumatic event (Andrews et al, 2003; Everly et al, 2007; Lo, 2007). During a stressful period, if an individual believed that people around them will be able to provide them with all necessary support needed for them to cope during that period that could have an effect on how they perceive and deal with stress (Lo, 2007). This will result in the individual to regard the stressful event less likely to be stressful (Lo, 2007). Receiving support from family and friends lowers stress levels of an individual through “effective risk communication”, which is a communication designed to provide five essential elements that include information, reassurance, direction, motivation, and a sense of connection (Everly et al, 2007).

The impact of violent crimes was proved to be lowered by social support. A study of gender differences in social support levels post violent crime revealed that females with less social support from family and friends experiences higher risks of Post-Traumatic Stress Disorder that male counterparts (Andrews et al, 2003). In her study of vulnerability and resilience to

workplace violence among health care workers in public hospitals, Lo (2007), used a 22 item Social Support Behaviour scale (SSB) to assess sources and modes of social support both in the workplace and at home. Results of that study showed that victims who received stronger support from the workplace (colleagues and supervisors) experienced less symptoms of post-traumatic stress.

Positive cognition

Positive cognition is a mental process that involves the ability to think positively and to judge, and of knowing. Positive cognition appears to exert meaningful effects on the individual's response to traumatic event. Belief in oneself can foster positive cognition and self-determination. It is believed that if an individual has high levels of self-determination, they feel that they are able to cope and overcome life challenges regardless of the severity of the stressful events (Schmidt-Ehmcke, 2008).

According to Earvolino-Ramirez (2007), "self-determination encompasses the concept of self-worth, not being overwhelmed by feelings of hopelessness or extreme challenge base on strong internal belief that whatever life brings the individual will persevere". Scholars also believe that positive emotions help in reduction of stress levels by either undoing or quieting negative emotions after a stressful event (Bonanno, 2004).

Cognitive appraisals also appear to be key determinants of stress (Everly et al, 2002). In the assessment cognitive and affective appraisal, Everly et al, (2002) reports that other studies have explored the association between occupational resiliency and coping strategies and how

this impacts workplace stress, burnout, and crisis. Everly et al (2002) believe that cognitively orientated techniques appear to exert a meaningful resilience effects, and may work by directly impacting one's affective experiences.

According to Carvelly (2005), in a study of occupational resiliency and coping in a public service work setting, resilient employees were adaptive, had high self-esteem, optimistic, and possessed an internal locus of control. Employees with these features according to Carvelly (2005) were associated with better health ratings, increased exercising, lower absenteeism, and lower burnout rates.

Self-efficacy

Self-efficacy is another protective factor present both in children and adults and has been vastly researched (Cicchetti & Luther, 2002; Rutter, 1987). People who are efficacious are believed to have perseverance and are able to rise above life challenges. Bandura (1997, 2004) defines self/personal efficacy as the ability of an individual to organise and take control of events that affect their lives and be able to reach a desired outcome. People's reaction to adversity, depends on their self-efficacy. If one believes that they are able to obtain control over their obstacles or stressors, "they are less likely to be overwhelmed by problem" (Lo, 2007).

According to Gillespie (2007), beliefs of self-efficacy assist in determining how people display perseverance when faced with adversity. She also believes that "the higher the sense of self efficacy, the greater effort, persistence and resilience". Everly et al (2002), report that high

self-efficacy is negatively associated with job stress, whereas low efficacy is positively related to job stress. In her mixed method research (qualitative and quantitative) of predictors of resilience, Gillepsie (2007) used a general self-efficacy scale to measure self-efficacy of nurses working in Operating rooms. From the study, nurses who participated in the survey reported to have high levels of self-efficacy were able to succeed in adversity and management of stress in the workplace. Bandura (1992) cited in Van Bread (2001) believe that “people with strong sense of efficacy focus their attention on handling the task and are energised by difficulties, while people who doubt their efficacy tend to be consumed by the inadequacies and have little energy to deal with the task at hand”.

2.4 LEGAL FRAMEWORK GUIDING SAFETY AT WORKPLACE IN SA

2.4.1 *OCCUPATIONAL HEALTH AND SAFETY ACT*

The Occupational Health and Safety Act No 85 of 1993 came into effect in 1994. In s.8, ss. 1 of the Occupational Health and Safety Act 1993, “every employer shall provide and maintain, as far as reasonably practicable, a working environment that is safe and without risk to the health of his employees”. Furthermore, it is documented in Subsection 2(b) that when the employer is providing and maintaining reasonably practicable working environment, the employer shall take steps to “eliminate or mitigate any hazard or potential hazard to the safety or health of employees, before resorting to any protective equipment. In the case of workplace violence, patients who are the cause of the health hazard (being patient violence) cannot be eliminated, but the employer can take necessary steps to lessen nurses’ exposure to patient violence. Hazard is defined in the Act (1993) as a source or exposure to danger. Subsection

2(c), speaks about the duty of the employer to take steps in establishing what hazards to the health and safety that the employee may be exposed to in their work while work is being done.

The Act mentions plants and machinery that maybe used in completing a task at work, however, the Act is not clear in its definition of “plant”. According to the Act (1993), plant includes fixtures, fittings, implements, equipment, tools, and appliances, and anything which is used any purpose in connection with such plan. From this definition one may ask, if the duty of the employer is to establish what hazards the staffs in psychiatric settings is exposed to, where dose patient violence come in? One may also argue that the Act is not clear enough about other occupational injuries such as psychological harm and not only physical injuries.

The employer is however not solely responsible for the health and safety in the workplace, employees also have a duty towards their health and safety at work. Section 14 (1993), states that every employee has a responsibility or duty to take reasonably care for the health of himself and others, in psychiatric settings, every staff has a duty to ensure that their safety as well as others (colleagues) from in-patient violence. E.g. if all staff in a particular ward have a key to open the gate, and one staff member leaves the gate open and a patient gets out of the gate and attacks himself or another staff member, therefore the person who left the gate open shall be held responsible and not the employer. It is also documented in the Act that an employee has a duty to report “any incident which may affect his health or which has caused an injury to himself, report such incident to his employer as soon as practicable but not later than the end of the particular shift during which the incident occurred, unless the circumstances

were such that reporting of the incident was possible, in which case he shall report the incident as practicable thereafter.

2.4.2 OCCUPATIONAL HEALTH AND SAFETY POLICY

In 2003, the Department of health drafted an Occupational Health and Safety Policy to ensure a safe and healthy working environment for all its employees. The policy states that each individual employee has a responsibility of reporting to his/her employer or any health and safety representative should he/she be involved in an incident that may affect his/her health or comes across any situation which feels unsafe or unhealthy.

Unlike the Occupational Health and Safety Act (Act 85 of 1993), the occupational health and safety policy makes provision for violence in the workplace. Section 15.1 of the policy states that “the employer shall, as far as reasonably practical, ensure that the workplace is violence free”. Section 15.2 states “if, however an employee is attacked in the workplace, he/she shall be entitled to treatment to avoid contracting HIV/AIDS.”

2.4.3 COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASE ACT

The Compensation for Occupational Injuries and Disease Act (COIDA) No 130 of 1993 came into effect on 1st March 1994, replacing the old Workmen’s Compensation Act. The Act is aimed at providing for compensation for disablement or death caused by occupational injuries or diseases sustained by employees during the course of their employment. The Act also ensures that such employee’s dependants qualify for compensation. It is a legal framework for

all work related activities resulting in injuries, disablement, disease and death (occupational disease and accidents).

The Act allows for the workers to be paid an amount of money should they sustain an injury or gets a disease as a result of their work. The amount referred to above is the money that the employer pays into a central fund each month depending on the risk profile of the industry or workplace, the number of people employed as well as their wages. With the implementation of COIDA, employers are required to pay employees compensation for the first three months of a temporary disability and extending benefits to all employees regardless of the level of income. The new Act also covers all employees across including not only those with lower income and those classified as “workmen”. Unlike the old Act, the new Act makes provision for compensation not only of widows as it was in previous Act but also to the living spouses of the victims. The fund is payable to the employees if the injury sustained or disease occurred during the course of their work and is within their scope of practice.

2.5 UNDERSTANDING INTELLECTUAL DISABILITY

2.5.1 DEFINING INTELLECTUAL DISABILITY

Intellectual disability (formerly known as Mental Retardation), is characterized by significant limitations both in intellectual functioning and in adaptive behaviour as expressed in conceptual, social, and practical adaptive skills (AAIDD, 2010). This disability originates before 18 years. There are five diagnosis criteria regarding the definition of intellectual disability:

1. Limitations in present functioning must be considered within the context of community environments typical of the individual's age peers and culture.
2. Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavioural factors.
3. Within an individual, limitations often coexist with strengths.
4. An important purpose of describing limitations is to develop a profile of needed supports.
5. With appropriate personalized supports over a sustained period, the life functioning of the person with intellectual disability generally will improve (AAIDD, 2010).

2.5.2 INTELLECTUAL DISABILITY AND MENTAL ILLNESS (DUAL DIAGNOSIS)

According to Bauman (2007:531), most behavioural problems occur in the presence of psychopathology, and its co-existence in people with intellectual disability represents a dual diagnosis). The interaction between genetic, chromosomal, perinatal and environmental factors plays a role in the development of mental and behavioural (challenging) disorders in people with intellectual disability as they resulting in poor brain development (Moss et al, 1997). This increases their vulnerability to the development of such disorders. People with intellectual disability are more at risk of developing mental disorders than people with no intellectual disability. This is because of the deficits in communication, processing skills, cognitive functioning and social skills (Reiss 1994 & Sovner 1986) as cited by McIntyre et al (2002)

In the past years, mental disorders were often overlooked in people with intellectual disability (McIntyre et al, 2002). Mental disorders were confused with maladaptive behaviours. Reiss (1993) argued that maladaptive behaviour and psychiatric disorders are separate entities that may or may not be related, but that should be evaluated separately (Cited in McIntyre et al, 2002). According to Moss et al (1997), “in the past 10years there has been major growth in the field of the psychiatry of learning”. They further state that currently, the need to respond more to mental health problems in the community of intellectual disability has grown.

2.5.3 NURSING ADULTS WITH IDS WITH CHALLENGING BEHAVIOUR

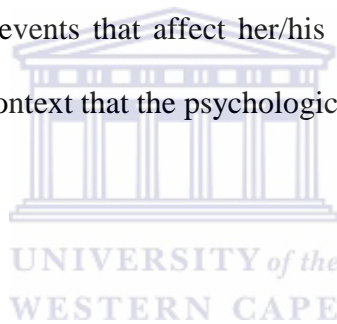
According to Gonagle et al (2004), the Republic of Ireland has had a problem of recruiting nurses to work in the field of intellectual disability. They did a phenomenological study with a sample of ten Filipino nurses working in Ireland for a period of three months. From that study, several participants reported experiencing difficulty in managing intellectually disable clients with challenging behaviour. The participants’ concerns was also documented by Espnes et al (2002) where he asserted that professionals working with people who are intellectually disabled are many times faced with highly disturbed and agitated individual. In a qualitative study by Barr & Sowney (2005), that was aimed at exploring nurses’ experience of working with adults with intellectual disability. One of the themes that emerged from the group discussions was fear and vulnerability. One participant reported “I feel that they will react in some way that I won’t be able to cope with”, another reported to fearing an intellectually disable patient more than a psychiatric patient.

2.6 CONCEPTUAL FRAMEWORK FOR THIS STUDY

The literature reviewed assisted the researcher to identify the conceptual framework for this study. The study was guided by the individual resilience theory. The literature reviewed suggested that people may experience the same kind of traumatic event, but their reactions to such an event may be different. Some may be negatively affected or develop pathological symptoms while others may positively adapt to the situation (National Institute of Mental Health, 2002). The literature review showed that over the past ten years, the concept of resilience has been increasingly described in the nursing literature in relation with individuals (both children and adults), families, communities, workplace and policies responses to traumatic events and/or disaster situation (Broussard & Myers, 2010; VanBreda, 2001). Dyer & Tusaie (2004) believe that nurses, because of the nature of their work, witness suffering, human distress and even experience workplace violence; resilience is therefore essential in their everyday work. Coleman and Ganong (2002) define resilience as a “dynamic process encompassing positive adaptation within the context of significant adversity”. Rutter (1985) as cited by Jackson et al (2007) viewed peoples’ response to traumatic event in a continuum with vulnerability and resilience at either end. Everly et al (2007) argued that resilience is more than the ability of an individual or community to withstand adversity or a form of “psychological or behavioural immunity. It is the ability of an individual to rapidly and effectively rebound adversity (Everly et al, 2007).

Fredericks & Tugade (2004) argued that the ability to find positive meaning in an adverse situation and to regulate negative emotions, contribute to personal resilience. It is further argued that individuals can develop and strengthen personal resilience through developing

strategies for reducing their own vulnerability, and the personal impact of adversity in the workplace. Such *strategies include coping skills, social support, positive cognition, and self-efficacy* (Dyer & McGuiness, 1996; Dyer & Tuisae, 2004; Kaplan et al (2006) in VanBreda, 2001). Healthy coping skills foster resistance to traumatic event or stress. Social support can protect a person from the possible adverse effects of traumatic event (Andrews et al, 2003; Everly et al, 2007; Lo, 2007). Positive cognition appears to exert meaningful effects on the individual's response to traumatic event. It is believed that when one reflects on past events, it gives them new perspective on dealing with those events of the same nature (Everly et al, 2002; Jackson et al, 2007). Bandura (2004) defines self-efficacy as the ability of an individual to organise and take control of events that affect her/his life and be able to reach a desired outcome. It is within the above context that the psychological response of nurses was viewed in this study.



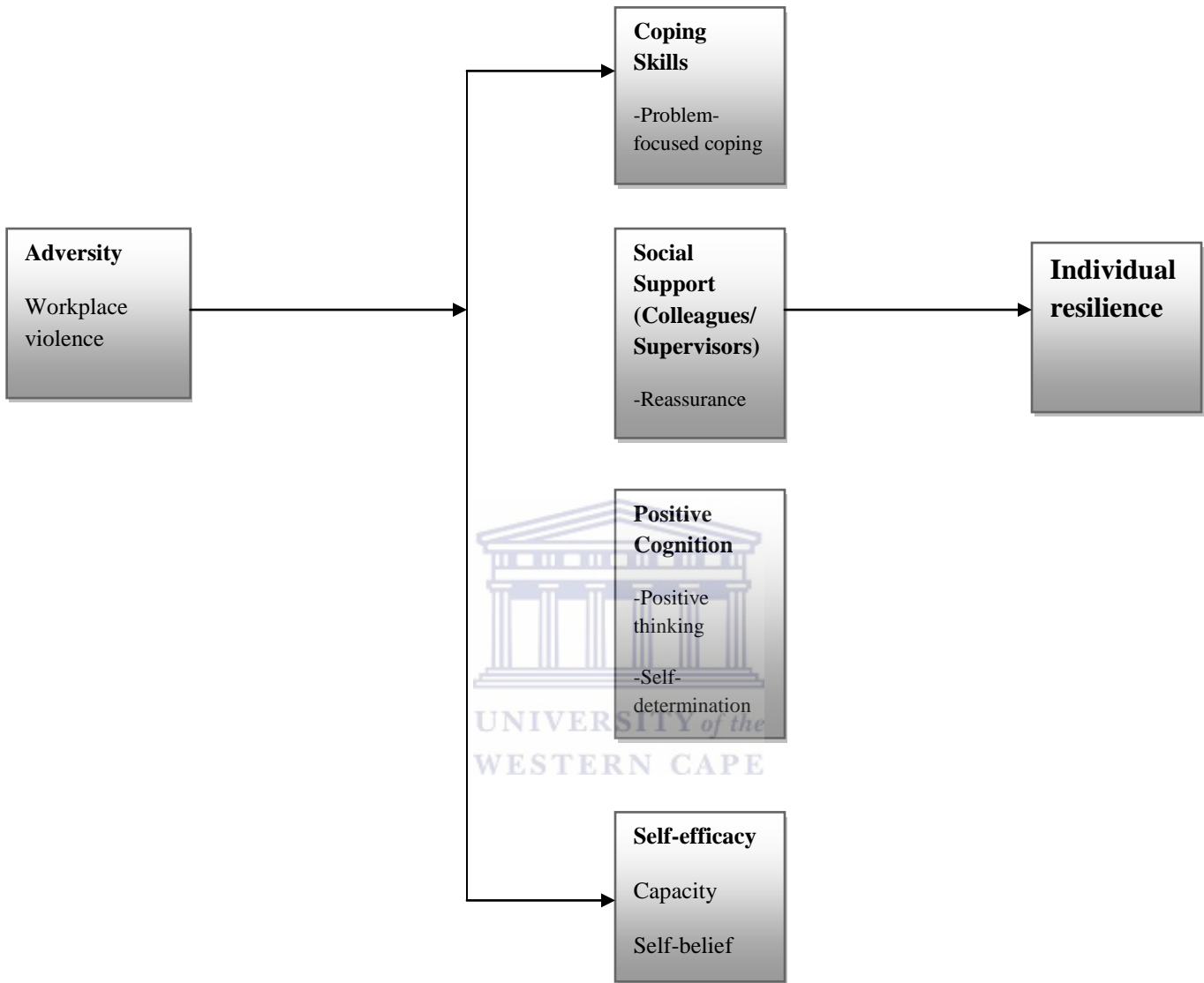


Figure2: Illustration of individual resilience as applied in this study

2.7 CONCLUSION

This chapter discussed the literature review conducted to gain insight into workplace violence. Literature confirms that workplace violence in the health sector is global issue. It is also eluded in literature that factors associated with workplace may include organizational, environmental and individual factors. This chapter also gave insight into the term resilience and what factors are needed to cope with any stressful event. The next chapter will address the research methodology.



CHAPTER 3:

RESEARCH METHODOLOGY

3.1 INTRODUCTION

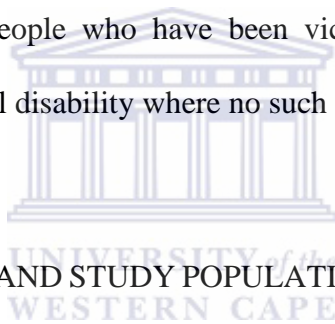
The aim of the study was to determine factors associated with the psychological response of nurses' victims of in-patient violence in the psychiatric facility for adults with intellectual disability in Cape Town. This chapter describes the research methodology used in the addressing the above aim, precisely, the research design, setting, population, sample, sampling techniques, data instrument, data collection process, data analysis and ethical considerations.

3.2 STUDY DESIGN

A study design is the planning on how you intend conducting your research (Babbie & Mouton, 2001). Burns & Grove (2001) describe a research design as a “blueprint for the conduct of a study that maximizes control over factors that could interfere with the study’s desired outcome”. The researcher used a quantitative, descriptive, and explorative design to reach the aim of the study. This design was deemed relevant as the researcher wanted to understand and describe individual resilience characteristics of nurses, nurses’ psychological responses to in-patients violence and the association between nurses’ individual resilience characteristics and their psychological responses to in-patients violence.

Exploratory research is mostly done to satisfy the inquisitiveness of the researcher as well as the desire to gain a deeper understanding of the phenomenon (Babbie & Mouton 2001). Babbie & Mouton (2001) further state that this design can almost yield new insights into a topic for research”. In this study, the researcher used exploratory design to gain a deeper understanding into nurses’ psychological responses to in-patients violence.

According to Burns & Grove (2001), the purpose of a descriptive design is to “explore and describe a phenomenon in a real life situation” and is also used to “generate new knowledge” about a research topic where limited or no research has been conducted. As mentioned above, the research generated data from people who have been victims of in-patient violence at the facility for adults with intellectual disability where no such study had been conducted.



3.3 RESEARCH SETTING AND STUDY POPULATION

The study took place in a psychiatric facility for adults with intellectual disability situated in Maitland, Cape Town. The hospital provides inpatient as well as outpatient services, and outreach and community support services. The facility has a total of 13 wards and 177 nursing staff. This total number of nurses included professional nurses, enrolled nurses, and enrolled nursing assistants both male and female. According to Burns and Grove (2008), a study population is the set of elements (people, behaviours, events) that the research focuses upon and to which the results obtained should be generalised. In this study, the target population consisted of the 127 nurses working at the above facility.

3.4 SAMPLE AND SAMPLING TECHNIQUES

A sample is a subset of the population that is selected for the study (Brink, 2007). 10% of the study population is generally considered as a representative sample while sampling refers to the process used to select the sample (Burns & Grove, 2001; Polit & Beck, 1987).

In this study, the researcher used a non-probability, convenient sampling to select the participants from the target population (127 nurses). All nurses who were on duty during the data collection period were given a consent form and were selected according to the following inclusion criteria:

- involved in direct patients' care as nurse at the care and psychiatric facility for adults with intellectual disability targeted by the researcher;
- being involved or having witnesses violence directed at a nurse;
- working on day or night shift during the data collection period; and
- willingness to participate in the study.

Nurses who have met the above inclusion criteria working in all the 13 wards of the psychiatric facility for adults with intellectual disability were considered for the study. A minimum of 120 respondents was considered as representative of the target population (N=127).

3.5 DATA COLLECTION INSTRUMENT

3.5.1 DESCRIPTION OF THE INSTRUMENT

Self-completion questionnaires were used in this study for data collection. Self-completion questionnaires have the advantages of being less time consuming, assuring anonymity, and consistent and less intimidating as the respondents complete a standardised instrument on their convenience (Brink, 2007).

Each questionnaire consisted of three sections. The first section included general information that allowed the researcher to describe the characteristics of the respondents. It covered biographic data, nursing qualification, post basic nursing qualification (Advanced nursing qualification), years of experience as a nurse and exposure to in-patience violence in the workplace.

The second section measured the individual resilience characteristics of nurses using a 14 items Resilience Assessment Scale. According to Karairmak (2007), there are only a few measures intended to assess resilience in adults, and the 14 item Resilience Scale (Wagnild & Young, 1993) used in this study is used in nursing literature to measure the capacity to withstand life stressors and overcome adversity. It measured the following five characteristics:

- Meaningfulness (purpose),
- Perseverance (keep going),
- Self –reliance (belief in yourself),
- Equanimity (sense of humour), and
- Existential aloneness (coming home to yourself).

The Resilience Assessment Scale consisted of a 7-point scale ranging from strongly disagree (1) to strongly agree (7).

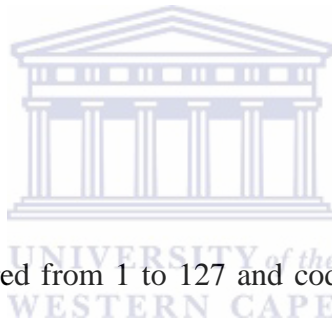
The third section measured the psychological response of nurses' victim of patient violence. The revised version of the Impact of Events Scale (IES-R) was used in this section. It contained 22 items with 3 subscales that measure three variables (intrusion, avoidance and hyper-arousal). The IES-R of 7-point scale ranging from strongly disagree (1) to strongly agree (7).

3.5. 2 VALIDITY AND RELIABILITY OF THE INSTRUMENT

The reliability of the two scales was established for use in international studies. Both the Resilience Scale and the Impact of Event Scale-Revised have been validated on numerous occasions, as they have been used in previous studies. Koen et al (2011) used the Resilience Scale to study the prevalence of resilience in a group of professional nurses and construct validity was determined by confirmatory analysis. Reliability, as a measure of internal consistency, was tested using Cronbach's alpha coefficient and a value of 0.95 was reported. This was the first study in South Africa to have used this scale. All items in the resilience scale are "worded positively and reflect accurately verbatim statements made by participants in the initial study on resilience conducted by Wagnild and Young" Koen (2011). Lo (2008) in her study of "vulnerability and resilience to workplace violence among health care workers", and Inoue et al (2006) in their study of "Psychological impact of verbal abuse and violence by patients on nurses working in psychiatric department" both used the Impact of Event Scale-Revised. In all three studies these instrument proved to be worth using. According to Brink (2007), content validity always comes before the actual data collection process, hence the instrument (questionnaire) was pretested for user-friendliness with 3 Community Service Registered Nurses who were not part of the actual study to ensure content validity. They consisted of 2 female and 1 male between the ages of 25-30 and all had less than 2 years' experience working at the study setting. All subjects reported to have been satisfied with the instrument and no recommendations were made.

3.6 DATA COLLECTION PROCESS

Data were collected over a period of four weeks. After the ethical clearance had been acquired and permission by the hospital management granted, the researcher sent a circular to all 13 wards informing nurses about the study. Thereafter, the researcher distributed the questionnaire including the Participant Information Sheet (see appendix 3), the consent form (see Appendix 4), and a return envelope with the address of the researcher in all 13 wards. They were requested to return the envelopes to the respective unit managers, or alternatively return to the researcher. A total of 127 questionnaires were returned at the end of the four week period and the researcher decided to stop the data collection process as the number represented more than 10% of the target population.



3.7 DATA ANALYSIS

The questionnaires were numbered from 1 to 127 and coded to facilitate data capturing. The data was captured from 127 questionnaires and computed using SAS V9.3. Variables were coded with numbers to transform raw data into a format that can be used in computer (Collins et al, 2000). Data were analysed using descriptive statistics. Descriptive statistics are used to describe and summarise data (Brink, 2007). The goal of descriptive statistics is to use measures such as frequency distribution, measures of central tendency, variability, and measures of relationships.

A statistician was consulted to assist in the analysis of data. Descriptive statistics such as means, median and measures of variability were calculated to provide a basic description of the results. For the purpose of the analysis, the cut off scores for the Resilience Scale were calculated as follows: 14 - 56 = Very low; 57 - 64 = Low; 65 – 73 = Moderate low; 74 – 81 =

Moderate high; 82 – 90 = High; and 91 – 98 =Very High. For the IES-R, the cut off scores were calculated with adjustment to allow the interpretation of the results with the original cut offs. These calculations were done as follows: 1 – 11 = Presents with little or no symptoms of Post-traumatic stress; 12 – 32 = presents with several symptoms; Equal to or greater than 33 = presents with Post-Traumatic stress Disorder. For 22 items with 0-4 score and the range of 0-88, the cut off points were fixed at 11 and 33; for 22 items with 1-7 score and the range of 22-154 or 0-132, the following formula were applied: Cut off 11 \rightarrow $1/8^{\text{th}}$ of range \rightarrow $132/8 = 16.5$ (or 38.5 if 22 added back in); Cut off of 33 \rightarrow $3/8^{\text{th}}$ of range \rightarrow 49.5 (or 71.5 if 22 added back in).

Furthermore, Spearman Rank correlations were used since the data was basically ordinal in nature. The correlation was used to determine the relation between resilience characteristics (using the resilience scale) and nurses psychological response to in-patient violence (using the IES-R).

3.8 ETHICAL CONSIDERATIONS

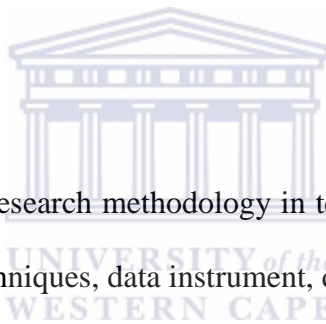
The researcher observed the fundamental principles that guide social science and health research (respect for persons, justice and beneficence). No participant was forced into taking part in the study. The participants were given the right to withdraw from the study at any given time without any repercussions. The researcher ensured that questions in the questionnaire were structured in a manner that was not harmful to the participant. The participants were informed of their rights to privacy. Each participant was required to sign a consent form, giving consent that they were willing to participate in the study. Anonymity and confidentiality was

maintained at all times, both during the data collection process and analysis by ensuring that no data will be traceable back to any of the research participants. Selection of the study population was based on the participants' understanding of the phenomenon being studied.

Ethical clearance was obtained from the University of the Western Cape, Senate Higher Degrees before the commencement of the research (see Appendix 1). Permission to collect data from the participants was granted by the Head of the Mental Health Establishment where the study took place (see Appendix 2). The participants were fully informed about the study (see Appendix 3) and they were each requested to sign a consent form (see Appendix 4).

3.9 CONCLUSION

The third chapter described the research methodology in terms of the research design, setting, population, sample, sampling techniques, data instrument, data collection process, data analysis and ethical considerations. The next chapter looks at the results of the findings.



CHAPTER 4:

PRESENTATION AND DISCUSSION OF THE MAIN FINDINGS

4.1 INTRODUCTION

A total of 127 questionnaires were returned and considered for analysis. The chapter is divided into four main sub-sections. The first section presents the characteristics of the respondents. The remaining three sections are structured according to the main objectives of the study. As outlined in chapter one, the objectives of this study were to describe:

- the individual resilience of nurses working at the psychiatric facility for adults with intellectual disability;
- the psychological response of nurses to in-patients' violence at a the psychiatric facility for adults with intellectual disability; and
- the association between the individual resilience characteristics and the psychological responses of nurses to in-patients' violence at the psychiatric facility for adults with intellectual disability.

4.2 CHARACTERISTICS OF THE RESPONDENTS

The respondents were described in terms of individual and professional characteristics (gender, age, professional category, post-basic psychiatric qualification, and work experience) and exposure to violence. The results of the characteristics of the respondents are summarised in Table 1.

4.2.1 INDIVIDUAL AND PROFESSIONAL CHARACTERISTICS

As indicated in Table 1, of the 127 respondents, 111 (87.4%) were females and 16 (12.6%) were males; 33 (25.98%) were in the age group of 41-45 years, 32 (25.20%) were in the age groups of 36-40 years; 29 (22.83%) were between 46-50 years; 14 (11.02%) were between 51-55 years, 7 (5.51%) were between 51-55 years, 6 (4.72%) were between 31-35 years, 4 (3.15%) were between 26-30 years, 1 (0.79%) was between 21-25 years, and 1(0.79) was above 60 years.

Of the 127 respondents, 79 (62.20%) were Registered Nurses, 33 (25.98%) were Enrolled Nursing Auxiliary, and 15 (11.81%) were Enrolled Nurses. The majority of the respondents (n=74, 80.43%) indicated not having a post basic qualification in psychiatric/mental health nursing while 18 (19.57%) have obtained advanced post-basic qualification in psychiatric/mental health nursing. Thirty-five respondents answered the question wrongly (“Do you have any post-basic psychiatry/mental health qualification?”) and their responses were regarded as missing. Of the 127 respondents, 111 (87.40%) had more than 5 years experience working at the psychiatric facility for adults with intellectual disability, 11 (8.66%) had worked between 2-5 years and 5 (3.94%) had less than two years working at the facility.

The individual demographic and professional characteristics presented above reflect the general demographic and professional distribution of nurses in the country. Data from the South Africa Nursing Council (SANC, 2011) showed that there are more female nurses (24 202) than male nurses (1 608); the majority of nurses are over 40 years, and the non-professional categories (EN and ENA) outnumber the professional nurses category (SANC 2011).

4.2.2 EXPOSURE TO VIOLENCE

Two questions were used to assess exposure to violence. Participants were requested to indicate the number of times they have witnessed incidents of violence at work in the past one year, and indicate if they were personally victims of patient violence in the past two weeks from the date of data collection.

As indicated in Table 1, out of 127 respondents, 72 (56.69%) indicated having witnessed incidents of violence toward their colleagues every day during the past one year, 37 (29.1%) witnessed this violence every week, 17 (13.4%) seldom witnessed such incidents, and 1 (0.79%) never witnessed such incidents. Of the 127 respondents, 83 (65.35%) reported being victim of patient violence three times and more within the two weeks period, 17 (13.39%) indicated that they had been victims of patient violence twice, 14 (11.02%) did not report being victim of patient, and 13 (10.24%) had experienced violence once during the stated period (within two weeks).

The above results are supported by previous studies (Inoue et al, 2006; Erkol et al, 2007; ICN, 2007a; 2007b) which confirm that violence in health care sector is a public health issue and that more health professionals, especially nurses are victims of patient violence on a daily basis.

Table 1: Individual and professional characteristics of the respondents

	Frequency	Percentage (%)
Gender:		
Male	16	12.60
Female	111	87.40
Age group		
21-25	1	0.79
26-30	4	3.15
31-35	6	4.72
36-40	32	25.20
41-45	33	25.98
46-50	29	22.83
51-55	14	11.02
56-60	7	5.51
> 60	1	0.79
Professional category:		
Registered nurse	79	62.20
Enrolled nurse	15	11.81
Enrolled nursing auxiliary	33	25.98
Post-basic qualification in Psychiatric/Mental Health Nursing:		
Yes	18	19.57
No	74	80.43
Missing data (n=35)		
Years of services in the institution:		
<2	5	3.94
2-5	11	8.66
>5	111	87.40
Number of times you have witnessed patient violence against colleagues in the past one year from data collection period:		
Never	1	0.79
Everyday	72	56.69
Every week	37	29.1
Seldom	17	13.4
Number of times you have been victim of patient violence in two weeks prior to data collection:		
None	14	11.02
Once	13	10.24
Twice	17	13.39
Three times and more	83	65.35

4.3 INDIVIDUAL RESILIENCE CHARACTERISTICS OF NURSES

The results of the descriptive summary statistics of the 14 items scale measuring the individual resilience characteristics of nurses showed a mean of 84.26 with SD of 12.31 and a median of 87.00 for the total score (see Table 2). As indicated in Table 2 given below, the mean score for the 14 items varied between 30.15 (minimum) and 98.00 (maximum).

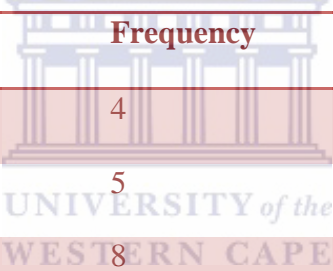
Table 2: Means distribution of the individual resilience of the nurses

Variable	N	Mean	Median	SD	Minimum	Maximum
RS 1	127	5.3465	6.0000	1.7338	1.0000	7.0000
RS 2	126	6.1667	7.0000	1.4629	1.0000	7.0000
RS 3	122	5.2377	5.0000	1.5215	1.0000	7.0000
RS 4	123	5.5935	7.0000	1.9870	1.0000	7.0000
RS 5	125	5.6400	6.0000	1.6084	1.0000	7.0000
RS 6	125	6.2400	7.0000	1.3100	1.0000	7.0000
RS 7	126	6.2460	7.0000	1.3248	1.0000	7.0000
RS 8	126	6.3651	7.0000	1.0323	3.0000	7.0000
RS 9	127	6.1654	7.0000	1.1668	2.0000	7.0000
RS 10	127	5.9528	7.0000	1.5628	1.0000	7.0000
RS 11	127	6.2520	7.0000	1.4637	1.0000	7.0000
RS 12	127	6.2283	7.0000	1.3225	1.0000	7.0000
RS 13	127	6.6378	7.0000	1.0887	1.0000	7.0000
RS 14	127	6.1339	7.0000	1.4495	1.0000	7.0000
TOTAL SCORE	127	84.2610	87.0000	12.3181	30.1538	98.0000

Note: RS= Resilience Scale; SD= Standard deviation

Further analysis to establish the level of resilience using the cut off scores as described in chapter 3 revealed that more than 80% of nurses were very resilient with 34.65% (n= 44) scoring very high, 33.86% (n= 43) scoring high, and 18.11% (n=23) scoring moderately high on the RAS. Less than 20% of the respondents showed low level of resilience with 6.30% (n=8) scoring moderately low, 3.94% (n=5) scoring low and 3.15% (n=4) scoring very low on the RAS (see Table 3). Figure 1 illustrates the frequency distribution of the individual resilience characteristics of nurses.

Table 3: Frequency distribution of the individual resilience of nurses



RAS	Frequency	Percentage
Very low	4	3.15
Low	5	3.94
Moderate low	8	6.30
Moderate High	23	18.11
High	43	33.86
Very high	44	34.65

Note: RAS= Resilience assessment score

The findings of this study indicate that the majority of nurses 86.6% (n=110) reported to be resilient, scoring between moderate high and very high, while 13.4% (n=17) were less resilient scoring between moderate low to very low. Could this high resilience be associated to high exposure to violence or number of years spent in the institution as highlighted in this study? As

shown in this study, 65.35% (n=83) of the respondents admitted being victim of patient violence three time or more within two weeks, 56.69% (n=72) witnessed violence on a daily basis within one year, and 87.40% (n=111) have been employed in this institution for the more than five years. Dyer & Tusaie (2004) suggested that nurses may be more resilient to violence because of the nature of their work and high exposure to violence. The findings of this study are supported by previous studies (Gillespie, 2007; Koen et al, 2011) that revealed high resilience score among nurses working in operating room and emergency departments.

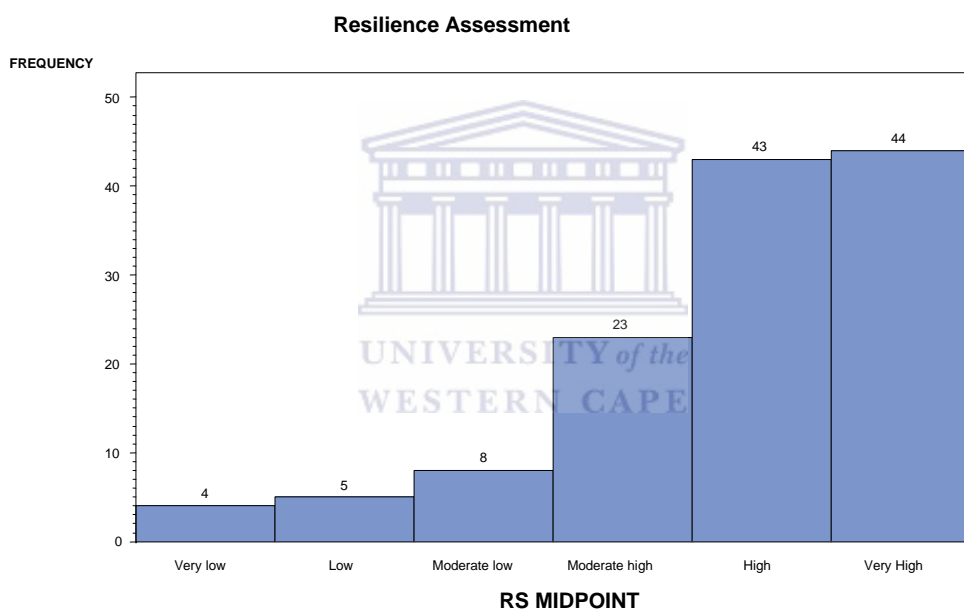


Figure 3: Frequency distribution of the individual resilience of nurses

4.4 PSYCHOLOGICAL RESPONSE OF NURSES TO IN-PATIENTS VIOLENCE

Table 4 given below shows the summary of the mean distribution of the results of the descriptive summary statistics of the 22 items scale measuring the psychological response of nurses to in-patients violence. It shows the mean of the IES-R scores on intrusion, avoidance, and hyper-arousal subscales for all 127 participants.

As indicated in Table 4 presented below, the mean scores were normally distributed, score for avoidance subscale equal to 4.65(SD=1.36); for intrusion subscale 4.55 (SD=1.50) and for hyper arousal subscale 4.46 (SD=1.60) resulting in total mean of 13.67 (SD=4.14).

Table 4: Mean distribution of the psychological response of nurses to inpatients violence

Variable/subscale	N	Mean	Median	SD	Minimum	Maximum
Avoid	127	4.6478	4.7500	1.3588	1.0000	7.0000
Intrusion	127	4.5563	4.4286	1.5036	1.0000	7.0000
Hyper-arousal	127	4.4612	4.4286	1.6024	1.0000	7.0000
Psychological impact	127	13.6653	13.6607	4.1404	3.3750	21.0000
Total psychological impact	127	100.2596	100.0000	30.1824	25.0000	154.0000

Note: SD= Standard deviation



The results of the frequency distribution shows that the majority 82.9% (n=104) of the respondents fit the symptoms of Post-Traumatic Stress Disorder (PTSD), 16.5% (n=21) presented several psychological symptoms and 1.6% (N=2) did not present any psychological symptoms after experiencing in-patient two days post violence (see Table 5 presented below).

Table 5: Frequency distribution of the psychological response of nurses to in-patients violence

Total IES-R	Frequency	Percentage	Cumulative frequency	Cumulative percentage
Few/no symptoms	2	1.57	2	1.57
Several symptoms	21	16.54	23	18.11
PTSD	104	82.89	127	100.00

The results on the psychological response of nurses to in-patients violence indicate that in-patient violence has had a tremendous psychological impact on the nurses. The mean score for the avoidance symptoms was the highest, indicating the high frequency of the participants who experienced these symptoms. This could be due to the fact that the victim has to return to the place (wards) where the incident had occurred. It is likely that avoidance symptoms would surface thus preventing the nurses' ability to provide mental health care. Research shows that in general, health care providers post a violent incident admit to avoiding patients who might or have displayed signs of aggressive behavior (Gates et al, 2011) . Figure 2 presented below illustrate the frequency distribution of the psychological response of nurses to in-patient violence.

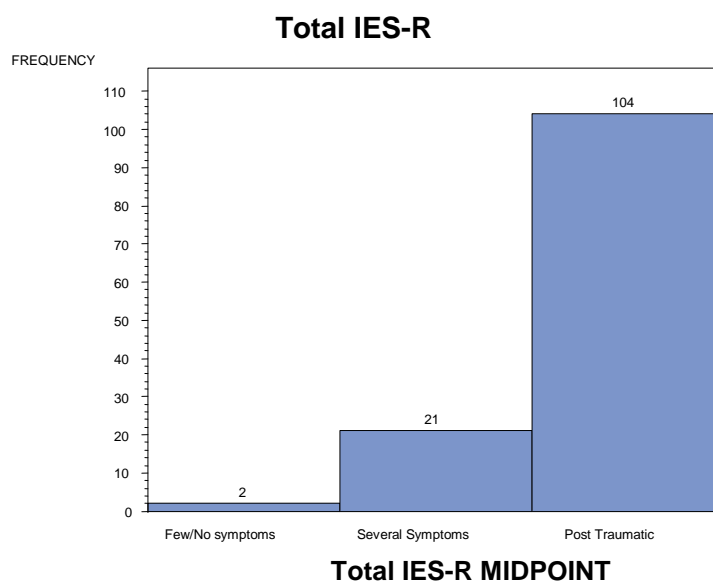
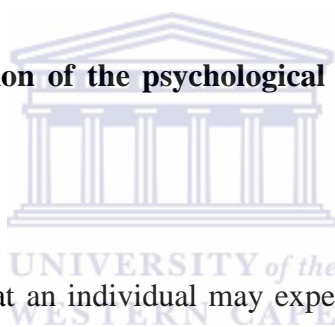


Figure 4: Frequency distribution of the psychological response of nurses to in-patients violence



From these results, it is clear that an individual may experience psychological trauma due to experience, or witnessing workplace violence. Liu et al (2012) concur with the results of the study, by reporting that a person can experience PTSD after witnessing violence. According to Gates et al (2011), it is not unusual for workers to experience symptoms of anxiety after being abused by a patient. The results of this study are similar to Gerberich et al’s (2004) study in which they surveyed 4918 nurses in Minnesota. From their study, it was found that the most commonly reported consequences of both physical and non-physical violence were feelings of frustration, anger, fear/anxiety/stress, and irritability, with greater proportions reported for non-physical violence for each of the consequences. These reported symptoms form part of the three categories (Avoidance, Intrusion and hyper-arousal) for symptoms of PTSD (American Psychiatric Association, 2011).

4.5 INDIVIDUAL RESILIENCE AND PSYCHOLOGICAL RESPONSE OF NURSES TO IN-PATIENTS VIOLENCE

The results of the association between the individual resilience and the psychological responses of nurses to in-patients violence are summarized in Table 6 and Table 7 given below. Table 6 is a two way table that shows the respondents resilience and the psychological responses of nurses to in-patient violence.

As indicated in Table 6, 1.6 % (n=2) of the respondents had high and very high scores in the resilience scale displaying few or no symptoms of psychological distress. These results support the hypothesis that resilience is positively associated with psychological well-being. A study by Humphreys (2003) of 50 sheltered, battered women revealed that women that had high resilience scores on the resilience scale reported few or no symptoms of psychological distress when compared to those women who had lower scores on the resilience scale.

However, the results also showed that nurses with low resilience scores reported less symptoms of anxiety than those with high resilience scores. 16.5% (n=21) scored between moderate high and very high on the resilience scale with several symptoms of psychological distress. The majority of the participants, 81.9% (n=104) experienced post-traumatic stress disorder. From this majority, 26% (n=33) scored high and very high respectively on the resilience scale. 16.5% (n=21) scored moderately high while 13.4% (n=17) scored between very low and moderate low. This indicates that less resilient nurses reported less depression and anxiety than the more resilient nurses. According to Wagnild (2009), “given the theoretical definition of resilience (perseverance, self-reliance, meaningfulness, existential aloneness and

equanimity”, people that have higher scores on resilience might be expected to manage adversity more successfully than those with lower resilience scores.

Avoidance subscale had the highest mean rank score of 4.65 (SD=1.36) compared to the intrusion and hyper-arousal subscales. This would explain why the participants had high resilience score and still present with PTSD (Beasley et al, 2003). As cited in Beasley et al (2003), Lazarus & Folkman (1984) report that coping styles can affect how one perceives a stressful event and management thereof.

Uys (2003) believes that a person who has been exposed to a traumatic event may experience avoidance and re-experiencing response. This is the kind of experience reported by participants in this study, with a mean score of 4.65 (SD=1.36) on the avoidance subscale. With avoidance response, the individual tries to avoid feelings, anything or situations, and ideas that will remind them of the traumatic event. Re-experiencing response include flashbacks or nightmares of the traumatic event. This would explain the high rate of PTSD amongst this group of nurses. According to Ward (2007), people may experience one traumatic event during their lifetime, and as a result of those experiences, psychiatric consequences that include PTSD, depression and anxiety may occur.

Table 6: Frequency distribution of the association between resilience and the psychological response of nurses to inpatients violence

Total IES-R	Resilience scale							
	Very low	Low	Moderate low	Moderate high	High	Very high	Total	
Frequency Percent Row Pct. Col Pct.								
Few/no symptoms	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.79 50.00 2.33	1 0.79 50.00 2.27	2 1.57
Several symptoms	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2 1.57 9.52 8.70	2 1.57 9.52 8.70	9 7.09 42.86 20.93	10 7.87 47.62 22.73	21 16.54
PTSD	5 3.94 4.81 100.00	4 3.15 3.85 100.00	8 6.30 7.69 100.00	21 16.54 20.19 91.30	33 25.98 42.86 20.93	33 25.98 31.73 75.00	104 81.89	
Total	5 3.94	4 3.15	8 6.30	23 18.11	43 33.86	44 33.86	127 100.00	

Spearman Rank correlations (r) analysis was carried out between the IES-R and Resilience scale to determine the level of association. The results presented in Table 7 that follows indicate that the resilience scale were not correlated with the total scores of IES-R (r=0.04, p=0.68), avoidance (r=0.01, p= 0.34), intrusion (r=0.08, p=0.34), and hyper-arousal (r= -0.002, p=0.97).

The relationship between the resilience scale and two subscales (avoidance and intrusion) of the IES-R shows a slight and almost negligible relationship, while intrusion subscale indicates a negative relationship. It is assumed that an individual with high resilience score will have a low score on IES-R. However, the results of the current study indicate that even though the nurses scored high on resilience, yet they scored high on the IES-R scale, meaning that the incidents of patient violence had severe psychological impacts on them despite their high resilience.

However, previous studies have also revealed similar results. Liu et al (2012) concur with the results of the study. They argued that a person can experience PTSD after witnessing violence. Gates (2011) argued that some individuals with high resilience may develop negative symptoms when faced with recurrent traumatic events such as violence if they recall the previous negative experiences.

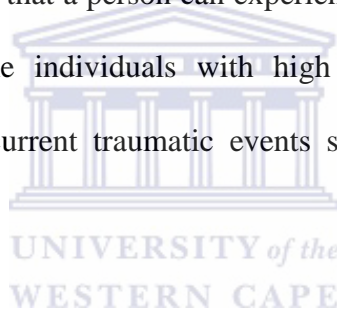


Table 7: Correlation between individual resilience and the psychological response of nurses to inpatients violence

<i>5 Variables:</i>	<i>RS</i>	<i>avoid</i>	<i>intrusions</i>	<i>hyper</i>	<i>Total</i>
<i>IES-R</i>					
Spearman Correlation Coefficients, N =127 Prob > r under H0: Rho=0					
	RS	avoid	intrusions	Hyper	Total IES-R
RS	1.00000	0.01308 0.8840	0.08424 0.3464	-0.00240 0.9786	0.03621 0.6861
Avoid	0.01308 0.8840	1.00000	0.71949 <.0001	0.74386 <.0001	0.87875 <.0001
Intrusions	0.08424 0.3464	0.71949 <.0001	1.00000	0.86740 <.0001	0.93302 <.0001
Hyper-arousal	-0.00240 0.9786	0.74386 <.0001	0.86740 <.0001	1.00000	0.94656 <.0001
Total IES-R	0.03621 0.6861	0.87875 <.0001	0.93302 <.0001	0.94656 <.0001	1.00000

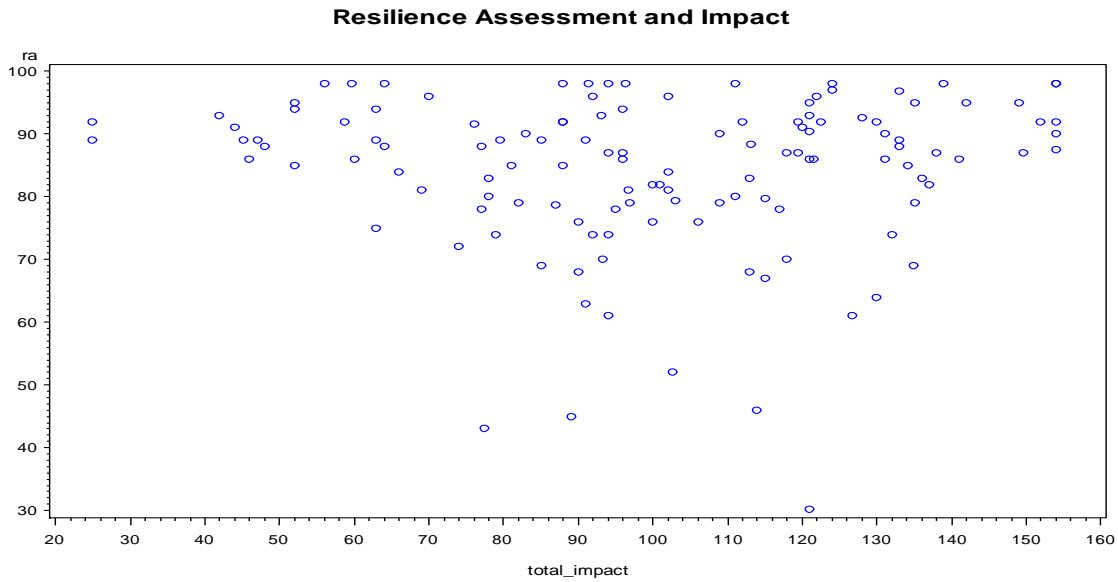


Figure 5: Correlation between individual resilience and the psychological response of nurses to in-patients violence



4.6 CONCLUSION

This chapter presented the individual characteristics of the respondents, and the results of the nurses’ individual resilience characteristics, their psychological response to in-patients’ violence and the association between the individual resilience characteristics and their psychological responses to in-patients’ violence. The next chapter will summarise the main findings of the study and make relevant recommendations. It will also include the limitations of the study.

CHAPTER 5:

CONCLUSION, RECOMENDATIONS AND LIMITATIONS OF THE STUDY

5.1 INTRODUCTION

The aim of the study was to determine factors associated with the psychological response of nurses' to in-patient violence in the psychiatric facility for adults with intellectual disability in Cape Town. A quantitative descriptive, exploratory design was used with the objectives of describing the:

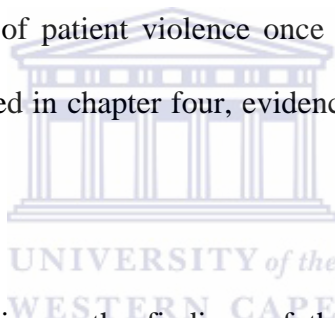
- individual resilience characteristics of nurses working at a the psychiatric facility for adults with intellectual disability;
- psychological response of nurses' to in-patients' violence at a the psychiatric facility for adults with intellectual disability; and
- Association between the individual resilience characteristics and the psychological responses of nurses to in-patients' violence at the psychiatric facility for adults with intellectual disability.

The Resilience assessment Scale (RAS) was used to address the first objective of the study while the revised Impact of Events Scale (IES-R) was used to describe the psychological response of nurses' victim of in-patients violence. Data was collected from 127 respondents selected through convenience sampling and analysed using SAS v9.3. Descriptive summary statistics and inferential statistics were used to assist the researcher to answer the main research questions. The resilience theory was used as a framework to guide the study.

5.2 SUMMARY OF THE MAIN FINDINGS

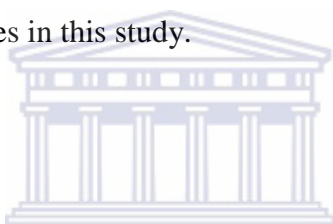
The results of this study have shown that there is an association between certain individual characteristics and nurses' individual resilience as well as between the individual resilience and the psychological responses of nurses' victim of in-patients violence.

The results of this study revealed that nurses working in a psychiatric facility for adults with intellectual disabilities are exposed to patient violence on a regular basis. As indicated in this study, 99.21% (126) of the respondents testified having witnessed incidents of violence perpetrated by patients toward health care workers within a period of one year and 88.8% (n=113) reported being victims of patient violence once or more than three times within a period of two weeks. As discussed in chapter four, evidence from the literature supports these findings.



With regards to individual resilience, the findings of this study are similar with previous studies which have shown that nurses tend to be more resilient to patients' violence because of the nature of their work among others. The results of this study revealed that 86.6% (n=110) of the respondents scored high on the resilience scale against 13.4% (n=17) who scored low. Looking at the resilience theory, one can speculate that nurses in this facility are using positive coping mechanisms with the resilience being the ultimate outcome. It was also highlighted that nurses' psychological responses to violence were equally distributed between avoidance (mean =4.65 and SD=1.36), intrusion (mean= 4.55 and SD=1.50), hyper arousal (mean=4.46 and SD=1.60) resulting in total mean of 13.67 (SD=4.14) on the revised Impact of Event Scale (IES-R).

The results of the study showed a negative association between resilience and the impact of violence on the psychological well-being of the resilient individual. The measure of association between resilience and the impact of violence on the psychological well-being of nurses revealed that nurses with high resilience score (82.9%, n=104) fitted the symptoms of PTSD on the IES-R. The Spearman Rank correlations (r) analysis was carried out between the IES-R and Resilience scale to determine the level of association. The results presented in Table 7 given above showed that the resilience scale was not correlated with the total scores of IES-R ($r=0.04$, $p=0.68$), avoidance ($r=0.01$, $p=0.34$), intrusion ($r=0.08$, $p=0.34$), and hyper-arousal ($r=-0.002$, $p=0.97$). These results indicate that in-patient violence has had a tremendous psychological impact on the nurses in this study.



5.3 CONCLUSION

This study was triggered by the facts that most quantitative studies on workplace violence in psychiatric facilities have concentrated on secondary and tertiary hospitals using the prevalence, the demographic factors, and nurses' responses in relation to the quality of care. Secondly, few studies have used the resilience model as a framework. This study looked at patients' violence in relation to the individual psychological responses of nurses within the context of the resilience theory. The results of this study confirmed that nurses working in psychiatric facility for adults with intellectual disabilities are equally exposed to violence as those working in other psychiatric facilities. Secondly, the results showed high resilience among nurses who are working within this environment. However, the high resilience did not protect them from the negative psychological impact of violence. Therefore, the resilience

theory or model alone cannot explain the psychological response of nurses' victims of in-patients violence.

5.4 RECOMMENDATIONS

In view of the main findings of the study, it is recommended that:

- The management of the hospital should:
 - Reinforce safety in the workplace to protect nurses and health care workers in general against patients' violence.
 - Provide adequate psychological support to nurses at the workplace.
 - Establish regular structured debriefing sessions for their staff at the workplace in order to allow them to ventilate their feelings.
- Nurses working in psychiatric facility for adults with intellectual disability should:
 - Be aware of the psychological impact of patients' violence on their well-being and take positive protective measures.
 - Feel free to verbalize their experiences and seek appropriate professional help when needed.
- Violence management should be incorporated and reinforced in the training of all categories of nurses.
- A large scale research on individual resilience and the psychological responses of nurses' victims of patient violence is needed to test the strength of the instruments.

5.5 LIMITATIONS OF THE STUDY

The results of this study should be viewed within the weaknesses of the convenience sampling which was used to select the participants and cannot be generalised to all nurses working in this facility.



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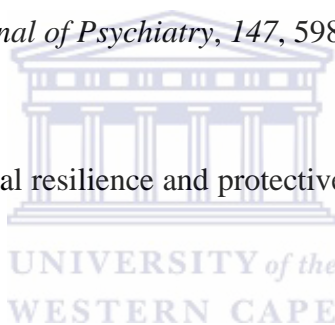
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