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DEVELOPMENT OF AN INTERVENTION STRATEGY TO PROVIDE EMOTIONAL SUPPORT FOR NURSES CARING FOR VIOLENT PATIENTS IN ACUTE WARDS IN PSYCHIATRIC HOSPITALS IN THE WESTERN CAPE

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ABSTRACT

Background: Globally, workplace violence in healthcare is a major public concern, especially in the nursing profession. Nurses have higher risk of experiencing workplace violence they spend more time with patients. The violence has an impact on nurses' day-to-day work as it negatively affects their physical and mental health, job satisfaction, productivity, and quality of patient care. Several interventions such as critical incident debriefing, group intervention approach, clinical supervision, and mindfulness-based stress reduction interventions have been developed to support nurses from workplace violence. Despite these interventions, the response to satisfaction with accessibility and utilisation have varied in areas in the workplace

Aim: The aim of this study is to develop an intervention strategy to provide emotional support for nurses caring for patients presenting with violent behaviour in acute units in psychiatric hospitals in the Western Cape.

Method: A sequential multi-method research approach was employed in the study to achieve the objectives of this study. The researcher adopted the first three phases of the intervention research design developed by Rothman and Thomas (1994) which guided the study.

Phase One: A cross-sectional survey was conducted to describe factors associated with physical and verbal incidents and its management. Semi-structured interviews were conducted with fourteen (14) participants to explore and describe experiences of nurses caring for patients presenting with violent behaviour in acute psychiatric wards.

Phase Two: A systematic review was conducted to examine the effects of stress reduction interventions for nurses working in acute psychiatric wards and to identify key elements of the interventions in supporting nurses to cope and improve their wellbeing.

Phase Three: A nominal group technique was conducted to develop a re.C.H.A.R.G. E strategy (Communication, Health Awareness, Resilience, Gratitude, Educate) to provide emotional support for nurses working in acute units

Results: **Phase one (Paper 1)**: Verbal abuse was the most prevalent type of violence experienced by nurses in acute units, and female nurses being the most reporting experiencing violence. There was an association between years of employment and likelihood of experiencing physical violence (p=.007). **Phase one (Paper 2)**: Five themes were generated during analysis: violence perceived as part of the job, contributing factors to patient violent behaviour, physical and psychological effects on nurses, adaptive and maladaptive coping strategies, and perceived support from stakeholders. **Phase two (Paper 3)**: Findings highlight

diverse supportive interventions in supporting psychiatric nurses in coping with stress in the workplace which included mindfulness-based stress reduction, burnout prevention programs, communication skills, educational program, group intervention, resilience training program and stress management. Four key elements emerged from these interventions, namely educational support, interpersonal skills, psychological support, and adaptive coping

In Phase Three: Concluding statements were generated from the findings of the first two phases which guided the development of the re.C.H.A.R.G. E strategy.

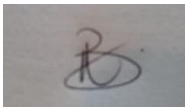
Conclusion: The re.C.H.A.R.G. E strategy will improve the emotional wellbeing and adaptive coping skills of nurses working in acute units. Future research focusing on utilisation of support interventions could assist in identifying barriers that lead to underutilisation of available formal support to measures in place.

KEYWORDS: Acute ward, Coping, Emotional support, Intervention strategy, Support, Violence

DECLARATION

I declare that, ***Development of an Intervention Strategy to Provide Emotional Support for Nurses Working with Violent Patients in Acute Psychiatric Units in Psychiatric Hospitals in the Western Cape*** is my own work, that it has not been submitted before for any degree or examination in any other university, and that all sources I have used or quoted have been indicated and acknowledged as complete references.

Ntombiyakhe Bekelepi

Signed: 

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DEDICATIONS

I dedicate this PhD thesis to the following people who have impacted my journey in different ways:

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MAY ALL YOUR SOULS REST IN ETERNAL PEACE UNTIL WE MEET AGAIN!

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ABBREVIATIONS/ACRONYMS

CINAHL- Cumulative Index for Nursing and Allied Health Literature

EAP- Employee Assistance Programme

HRD- Human Resource Development

IDS- Intellectual Disability Services

JBI- Johanna Briggs Institute

MBSR- Mindfulness-Based Stress Reduction

MEDINE-Medical Literature Analysis and Retrieval System Online

NGT- Nominal group technique

PRISMA- Preferred Reporting Items for Systematic Reviews and Meta-Analysis

PTSD- Post-traumatic stress disorder

RCT- Randomised Controlled Trial

re.C.H.A.R.G. E – Communication Health Awareness Resilience Gratitude Educate

SPSS- Statistical Package for Social Science

WHO - World Health Organisation

CHAPTER ONE

1. ORIENTATION TO THE STUDY

1.1. Introduction

Globally, workplace violence in healthcare is a major public concern, especially in the nursing profession (World Health Organisation, 2012), and has caused serious threats to the physical and mental health of health workers (Alkorashy & Al-Moalad, 2016). This crisis has attracted increasing attention from organisations, researchers, and media around the world (Phillips, 2016). WHO (2010) defines workplace violence as incidents where staff experience abuse, being threatened, or assaulted in circumstances related to their work, including commuting to and from work, involving explicit or implicit challenge to their safety, well-being, or health. Violence can occur in all areas of work, with healthcare workers reported to be at higher risk of experiencing workplace violence (Chapman et al., 2010), and nurses have been identified as the most vulnerable group and have a higher risk of experiencing workplace violence (Wyatt, Andersen-Drevs & Van Male, 2016; De Vasconcellos, Griep, Lisboa & Rotenberg, 2012; Gates, Gillespie & Succop, 2011). This is because nurses spend more time with patients compared to other groups of health workers and therefore are more likely to become target of patient assault and violent behaviour (De Vasconcellos et.al, 2012).

There have been reports on increase in violence towards nurses working in emergency and in psychiatric units (Spector et al., 2014; Phillips, 2016); in particular, the acute in-patient psychiatric environment has been reported as challenging given the elevated level of acuity of patients, demands on staff time, and the variability of staff's skill mix (Chambers & Kantaris, 2017). Patients admitted in this unique type of secure environment are often involuntary committed due to the severity of their mental illness and can be a danger to themselves or others (Coates & Howe, 2015). Violence affects all nurses regardless of whether they personally experience an act or not (Maluleke & van Wyk, 2017). It is unfortunate that nurses need to prepare themselves with the skills and knowledge to deal with violence in the workplace while the fundamental goal of nursing is caring (Stone, McMillan, Hazelton & Clayton, 2011). Workplace violence forces them to be vigilant at all times for self-protection as they are a primary target of violence from patients (Giarelli, Nocera, Jobes, Boylan, Lopez & Knerr, 2018).

Reported incidences of workplace violence for healthcare providers range between 8% and 38 % (WHO, 2012), and even more nurses encounter threats or violence annually, especially in

psychiatric departments (Shiao, Tseng, Hsieh, Hou, Cheng & Guo, 2010). Workplace violence against nurses has been reported over the last decade in most regions globally in countries such as in Italy (Ramacciati, Ceccagnoli &Addey, 2015); Germany (Franz, eh, Schablon, Kuhnert & Nienhaus, 2010); Taiwan (Shiao et al. 2010); South Africa (Kajee-Adams & Khalil, 2010), Egypt (Abbas, Fiala, Abdel Rahman & Fahim, 2010) and the USA (Gates, Gillespie & Succop, 2011).

However, violence against nurses is defined inconsistently, inadequately documented, underreported, and normalised (Kennedy & Julie, 2013; Howerthon Child & Mentes, 2010) which makes it difficult to correctly measure the extent of the problem (Shahzad & Malik, 2014). Violence has a negative impact on nurses' physical and mental health, job satisfaction, productivity, and quality of patient care (Gates, Gillespie & Succop, 2011; Ward, 2011), and it impairs staff perception of safety. Staff perception in decrease in safety in their workplace due to exposure to assault may lead to altered health behaviours and long-term effects on physical and emotional health (Maluleke & van Wyk, 2017). This may lead to staff engaging in behaviours that impair therapeutic rapport, such as avoidance, passivity, and inconsistent enforcement of ward rules (Kelly, Fenwick, Brekke & Novaco, 2016).

Studies have shown that nursing entails a high risk of experiencing stress, anxiety, and depression, therefore ensuring wellbeing of nurses is important to safeguard workplace supply (Perry et al., 2015). Lack of control over traumatic experiences contribute to poor recruitment, poor retention and may manifest as exhaustion, sense of being physically run down, feeling angry, being cynical and negative which could lead to other complications, such as depression and anxiety (Edward, Stephenson, Ousey, Lui, Warelow & Giandinoto, 2015).

In the plight to address the scourge of workplace violence, the International Council for Nursing formulated guidelines for the healthcare sector in collaboration with the International Labour Office, World Health Organisation and Public Service International, that clearly state that all organisations involved in the healthcare sector are responsible for enforcing policies and strategies to prevent violence and ensure a safe working environment for staff (Fujimoto, Hirota, Kodama, Greiner & Hashimolo, 2017). Despite the availability of programmes to support nurses working in psychiatric hospitals, Banda, Mayers & Duma, (2016) and Kelly et al, (2016) alludes to the stress experienced by psychiatric nurses who have witnessed, or experienced violence perpetrated by patients resulting in deleterious consequences and underutilisation of support provided (Manganyi, 2016; Lodewyk, 2011).

Therefore, this study aims to develop an intervention strategy to provide support for nurses caring for psychiatric patients in acute units who may present with violent behaviour.

1.2. Background

Patient physical assault of staff is disturbingly prevalent in psychiatric settings (Kelly, Fernwick, Brekke & Novaco, 2016) with 55% and 95 % of nurses experiencing physical assault in studies conducted by researchers (Spector, Zhou & Che, 2014; Hahn, Muller, Needham, Dassen, Kok & Halfens, 2010), respectively. These authors also reported high incidents of verbal abuse, with Spector et al. (2014) in the Middle East reporting that 78.3% (n=9763) of nurse's experience at least one incident of verbal aggression by a patient per year and 72% (n= 291) experience verbal abuse (Hahn et al., 2010). The therapeutic role played by nursing staff in mental healthcare is important in settings such as inpatient wards, where patients interact with nurses for the largest proportion of time and the relationship with them is cited as key to therapeutic progression (McAndrew et al., 2014). The therapeutic relationship between the nurse and patient plays a role in the quality of care rendered (Coffey et al., 2019). Patient aggression and violence toward nurses can cause them to adopt maladaptive strategies for coping with anxiety that have detrimental effect on the quality of care (Boon, 2011).

Different types of reported violence experienced by nurses have been documented in the literature, which includes verbal abuse (Stevenson et al., 205), physical violence (Stevenson et al., 2015), and sexual harassment (Boyle & Wallis, 2016). Most attention has been given to physical violence due to injuries it causes. Psychological violence is a widespread form of workplace violence which ranges from mild offensive language to severe verbal abuse (Edward, Ousey, Warelow & Lui, 2014). The psychological trauma negatively affects the victims for much longer than the physical would, as it usually does not get recognised in most cases; possibly, because the damage is not visible until the victim relates or exhibits the effects of the trauma (Najafi et al, 2018; Moylan & Cullinan, 2011). Brophy, Keith, and Hurley (2017) assert that nurses may need more ongoing support for non-physical assault which causes frustration, anger, and anxiety. The detrimental effects may include but are not limited to mental illness which may include post-traumatic stress disorder (PTSD) (Stevenson, Jack, O'Mara & LeGris, 2015), burnout, depression (Alameddine, Mourad & Dimassi 2015; Nguluwe, Havenga & Sengane, 2014). The physical effect of violence on nurses may include but are not limited to physical injuries, disabilities, chronic pain, and muscle tension (Gates et al., 2011) fractures, lacerations, and bruises (Anderson & West, 2011). At an organisational level, negative outcomes may include nurse absenteeism (Roche et al, 2009), more frequent

medical errors (Pai et al, 2011), decreased staff morale and greater cost due to disability leave (Pai et al.,2011). Moylan, Cullinan, & Kimpel (2014) state that understanding the impact of assaults on nurses is important for the development of effective programmes of support to help them with the recovery process, giving more attention to the care and support of those who have experienced the trauma of assault in the line of duty. Floriana et al. (2019) suggest that those in a helping profession should get psychological support to counter the effects of their work-related stress.

There are several interventions that are developed to provide support to nurses which include but are not limited to critical incident stress debriefing (Jacobowitz, 2013), group intervention approach (Inoue et al., 2011; Moylan et al., 2016), clinical supervision (Sloan, 2006) and mindfulness-based stress reduction interventions (MBSR) (Kabat-Zinn, 1994). Zeller and Levin (2013) propose that for nurses it is more feasible and effective to develop interventions that focus on building their psychological resilience and adaptive coping to stress, rather than focusing on work environment interventions alone. Participants in a study by Ngako, Van Rensburg & Mataboge (2012) asserted that a caring and supportive workplace environment would promote quality nursing care. The review conducted by Jacobowitz (2013) shows that critical stress debriefing is the most common intervention implemented to provide support for psychiatric nurses who have been exposed to patient violence in the workplace.

In a study conducted by Buus et al. (2011), participants stated the benefits of clinical supervision as having opportunity to have time to come together and discuss issues without disturbances. However, a major issue hampering the nurses' opportunities for participating was the high workload in the hospital ward setting, and the limited opportunity to make plans that are not clashing with their work schedule. Findings from the study by Inoue et al. (2011), show that group intervention was effective in alleviating the psychological impact and stress of nurses exposed to patient violence.

Researchers have verified the positive effects of a mindfulness programme to reduce stress and burnout and improve health and wellbeing of nurses and other healthcare professionals (Smith, 2014; Bazarko et al, 2013). They identified several positive benefits including decreased stress, burnout, and anxiety, and increased empathy, focus, and mood. Mindfulness has demonstrated that it may be a key intervention to help improve nurses' ability to cope with stress and ultimately improve the quality of patient care provided.

Peer support, among other things, was considered as an effective support strategy for staff following a violent incident due to its instant availability and intimacy (Ramacciati et al., 2015;

Baby et al., 2014; Kennedy & Julie, 2013). Having a supportive team can mitigate the negative impact of the incident because the understanding from colleagues can provide immediate emotional support (Kennedy & Julie, 2013). According to Tuckett et al. (2015), lack of support from managers following a violent incident may disappoint nurses, which has been found to be a significant factor in why nurses choose not to report incidences or to leave the profession. Furthermore, post incident counselling is also needed as a significant intervention to mitigate the negative consequences of violence (Hassankhani et al., 2018).

Despite the availability of these resources, response to satisfaction with accessibility and utilisation have varied in areas in the workplace. Lawrence, Boxer, and Tarakeshwar (2002) in Manganyi (2016), identify issues that appear to mediate employee assistance programme (EAP) utilisation, which include employees' trust in the confidentiality of service provided, administrative support of the programme, ease of access, positive feedback from previous users of the service and perceive efficacy of the service. This motivated the researcher in developing the intervention strategy as an additional support for nurses experiencing patient violence in acute psychiatric setting.

1.3. Problem statement

Acute wards admit patients in crisis who may need safety, monitoring and assessment as well as therapy and medication. These may be presenting with acute psychotic symptoms which may include hallucinations, delusions, and lack of insight into their mental illness. These patients often display violent behaviours towards nursing staff. In a systematic review, Lozzino, Ferrari, Large, Nielssen and de Girolamo (2015), revealed that about 20% of patients admitted in acute psychiatric wards may commit an act of violence. This makes the role of nurses caring for these patients more demanding and challenging. The emotional effects of violence on nurses include but are not limited to psychological consequences with a high rate of stress and other sequelae such as depression, posttraumatic stress disorder, and burnout (D'Ettorre & Pellicani, 2017; Stevenson et al, 2015; Nguluwe et al., 2014); they may develop attitude towards these patients which compromises quality nursing care (Ngako et al. 2012).

Various interventions have been utilised to support nurses working with violent patients. These however have varying response rates or effectiveness. The following interventions to support nurses have been identified in the literature: mindfulness-based stress reduction (Yang et al., 2018) group intervention approach (Inoue et al., 2011); and stress management programme (Sailaxmi et al., 2015). The literature shows the positive effect these support interventions have in improving coping and wellbeing of nurses (Guillaumie et al., 2017). The researcher as a nurse herself has worked in the environment for long and have experienced or witnessed

violent behaviour. This has prompted this study to get to understand the needs of nurses in terms of the support they require and what strategies would work for this type of environment. Therefore, the researcher set about to develop an intervention strategy based on the findings of this study and literature reviewed in addition to what is already existing to provide emotional support for nurses working in acute psychiatric setting. The question then emerges: What intervention would nurses need to support them emotionally to deal with the deleterious effects of violence? The researcher reviewed the literature and conducted surveys and interviews to identify the gap, and to develop an intervention strategy to provide emotional support to nurses working in acute psychiatric settings.

1.4. Aim of the study

The aim of this study is to develop an intervention strategy to provide emotional support for nurses caring for patients presenting with violent behaviour in acute units in psychiatric hospitals in the Western Cape

1.5. Objectives of the study

Phase 1- Problem analysis and project planning

1.1 To describe factors associated with physical and verbal violent incidents and the management of incidents

1.2 To explore and describe the nurses experience of violence caring for patients presenting with violent behaviour in acute wards.

Phase 2- Information gathering and synthesis.

2.1 To examine the effects of stress reduction interventions for nurses working with violent patients in acute psychiatric units

2.2 To identify key elements of the interventions in supporting nurses to cope and improve their wellbeing.

Phase 3- Design of an intervention strategy

3.1 To design and develop an intervention strategy to provide emotional support for nurses caring for patients presenting with violent behaviour in acute wards.

1.6. Significance of the study

The intervention strategy developed from the findings of the study will serve as a useful framework to give guidance in empowering nurses in acute psychiatric units to deal with assault through prevention and developing coping skills. The developed intervention may assist nurses working in acute psychiatric settings to cope emotionally with stressors they face daily in their work environment. Additionally, the findings from this study may influence

policymakers in developing policies that seek to provide emotional support for nurses that are exposed to patient violence in their workplaces. The findings of this study will contribute to the body of knowledge addressing the provision of emotional support for nurses caring for psychiatric patients in acute wards in psychiatric hospitals in the Western Cape.

1.7. Research paradigmatic perspective

Guba and Lincoln (1994) in Kivunja and Kuyini (2017) describe paradigm as a set of belief or worldview that guides research action or an investigation. It can be regarded as a form of thinking that shapes the direction and outcomes of the research (Scotland, 2010). Therefore, it is a collection of meta-theoretical, theoretical and methodological assumptions that guide the research process (Wahyuni, 2012). A paradigm influences the questions that the researcher poses, and the methods employed to answer those questions (Scotland, 2012).

For the purpose of this study, the researcher adopted the pragmatism school of thought. Pragmatism, as a worldview, arises from actions, situations, and consequences rather than antecedent conditions (Creswell, 2013). It has gained considerable support as a stance for mixed methods research. Its philosophical underpinning allows and guides mixed method researchers to use a variety of approaches to answer research questions that cannot be addressed using singular method (Doyle, Brady & Byrne, 2009). Pragmatism accepts that objectivist and subjectivist perspectives are not naturally exclusive, hence a mixture of ontology and epistemology and axiology is acceptable to approach and understand social phenomena (Wahyuni, 2012). Pragmatism is concerned with the transferability of findings to other settings, in terms of how the knowledge can be used (Creswell, 2013).

Ontological assumption

Ontology is described by Crotty (1998) in Scotland (2012) as the study of being. Its assumptions are concerned with what constitutes reality. Researchers need to take a position regarding their perceptions of how things really are and how things really work. The researcher applies a mixture of objectivist and subjectivist ontology to understand the social phenomenon as recommended by the pragmatist school of thought. This gives a way for a choice of methods, techniques and procedures that will suit the needs of the research study (Wahyuni, 2012). In the context of this study reality is concerned with what would works and bring solutions to the problems identified, hence the researcher opted for a multi-method approach to conduct this study (Creswell, & Creswell, 2018).

Epistemology assumption

Epistemological assumptions are concerned with how knowledge can be created, acquired and communicated. It is aimed at determining the relationship between reality or the known world, and at the researcher for the purpose of generating research findings that are valid and accurate (Creswell 2014). During this study, the researcher together with the participants which included nursing staff working in acute wards, nurse managers and experts in the field of psychiatry were actively involved in the process which generated the knowledge that was used in developing the needed strategy for emotional support.

Methodology assumption

Methodology is the mechanism used by the researcher to investigate the reality of the study (Gray, 2013). Howell, 2013 described it as strategies used to acquire knowledge in research, and encompasses techniques and data analysis . Depending on the nature and scope of a problem to be investigated, the methodological approach applied may differ from one study to another (Cram & Mertens, 2015). This study was conducted in three phases, where phase one mixed method approach was used which include quantitative and qualitative research approach. Data was collected separately and triangulated to formulate concluding statements which were utilised in the development of the intervention strategy in phase three. Methodology of the study is described in details in chapter three.

1.8. Operational definitions

Acute psychiatric ward - A hospital ward that provides In-patient treatment to individuals suffering from mental illness and related conditions, on either a voluntary or involuntary basis (Law insider Dictionary, 2013).

For this study, acute ward refers to a unit in a psychiatric hospital where acutely ill patients are admitted and receive mental health care treatment and rehabilitation.

Acutely ill patients- Any illness characterised by signs and symptoms of rapid onset and short duration. It may be severe and impair normal functioning (Segen's Medical Dictionary, 2012). For the purpose of this study, acutely ill patients refer to patients who suffer from mental illness that is characterised by significant and distressing symptoms that require admission for social control and immediate treatment.

Emotional support- One's belief that he/she is cared for and loved, esteemed, and valued (Cobb, 1976).

In this study, emotional support is the feeling of reassurance, belonging and being cared for perceived by nurses while caring for violent psychiatric patients.

Intervention strategy- A purposeful change strategy, whether at individual, family, or community; a programme or policy intended to produce change (Fraser, Richman, Galinsky & Day, 2009).

For the purpose of the study, intervention strategy refers to the strategy that was developed to support nurses emotionally to improve their emotional wellbeing.

Physical violence- An act attempting to cause or resulting in pain and/or physical injury **(**Flury et al. 2010).

For the purpose of this study, physical violence refers to alleged reported incidents of being slapped, beaten, kicked, bitten, and punched by patients.

Psychiatric hospital- A health establishment that provides specialist mental healthcare, treatment, and rehabilitation service to people who require such service (Mental Health Care Act 17 of 2002).

In this study, psychiatric hospital refers to the mental health institution in the Western Cape where the study was conducted.

Professional nurse- A healthcare professional who is responsible for treatment, safety, and recovery of acutely or chronically ill individuals and health promotion within communities and population. Professional nurses require special training, education and skills and have to be registered with a professional body (Nursing Act 33 of 2005).

In this study, professional nurse refers to an individual who has graduated from a nursing programme and met the requirement as outlined by South African Nursing Council to obtain a practice licence and provide care to mentally ill patients in psychiatric hospital.

Non-professional nurse: An individual responsible for assisting in the delivery of nursing care according to their scope of practice, under direct supervision of a professional nurse (Nursing Act 33 of 2005).

In this study, a non-professional nurse refers to nurses (enrolled nurse and nursing assistant) registered with the South African Nursing Council to obtain a practice licence in order to provide nursing care to mentally ill patients under supervision of professional nurses.

Violence- According to Collins Dictionary (2011), violence is defined as a behaviour which is intended to hurt, injure, or kill someone; it is an intentional use of physical force or power.

In this study, violence is the use of verbal or physical force by patients towards nursing staff to injure or abuse them.

Verbal abuse- Any use of harsh and insulting language directed at another person (Collins Dictionary, 2011)).

For the purpose of this study, verbal abuse refers to the alleged reported incidents of use of demeaning and derogatory words by patients towards the staff.

1.9. Research approach, Design, and Method

In this study, a mixed method approach will be adopted. This approach involves combining qualitative and quantitative data collection and analysis in one study (Creswell & Creswell, 2018). Additionally, it involves intentional collection of both qualitative and quantitative data and the combination of the strength of each to answer research questions. The quantitative aspect of this study was surveys while the qualitative aspect was semi-structured interviews. According to Creswell & Plano Clark (2011), a mixed method approach boosts the credibility of a study. The study was conducted following four phases of intervention research as outlined by Rothman and Thomas's intervention research Design and Development research model. De Vos, Strydom Fouche & Delport (2011) describe intervention research as research done for the purpose of formulating, creating, and testing innovative programmes in preventing or alleviating problems in society and maintaining quality of life. The research design and methods used to achieve the aim of this study will be discussed in depth in Chapter Three**.**

1.10. Chapter outline

Chapter One

This chapter introduces the background of the study, research problem, aim of the study, research questions, objectives of the study, significance of the study, research paradigmatic perspective, operational definitions, and provides a brief overview of the research method.

Chapter Two

This chapter provides the theoretical framework that underpins the study.

Chapter Three

This chapter outlines the paradigm perspective and research methodology undertaken to achieve the objectives of the study. The research methodology discusses the research design (Intervention Research Design and Development), research setting, population, sampling, data collection instrument and process, data analysis and ethics.

Chapter Four: (Paper One)

This chapter presents findings from the quantitative study conducted to address the first objective of Phase One, which is to investigate nurses' experience of violence working in three

psychiatric hospitals in Cape Town and its impact on them and was submitted to *Curationis* for publication (Appendix xi)

Chapter Five: (Paper Two)

This chapter addresses the second objective of the first phase of the study (qualitative study), which is to explore and describe experience of violence by nurses caring for violent patients in acute wards and to determine their support needs and was presented as a peer-reviewed article and published in *South African Journal of Psychiatry*

Chapter Six: (Paper Three)

This chapter presents the systematic review conducted to address objective three (Phase Two) of the study, which aims to examine the effects of stress reduction interventions for nurses working with violent patients in acute psychiatric units and to identify key elements of these interventions and was presented as a peer-reviewed article and published in *Health SA Gesondheid*

Chapter Seven

This chapter address objective four of the study (Phase Three) which is to develop the intervention strategy to provide support to nurses caring for violent patients in acute wards. This chapter is presented in a narrative form.

Chapter Eight

This chapter provides a summary of the main findings, limitations, recommendations, and conclusion of the study.

1.11. Summary

This chapter outlined the background of the study, problem statement, aim of the study, research questions, objectives of the study, significance of the study, research paradigm perspective, operational definitions, and provides an overview of the research methodology. The aim of the study was to develop an intervention strategy to provide emotional support for nurses caring for violent patients in acute units in psychiatric hospitals in the Western Cape. In the next chapter, the theoretical framework which underpins the study will be discussed.

CHAPTER TWO

2.THEORETICAL FRAMEWORK

2.1 Introduction

This chapter provides a detailed explanation of the social support theory (stress and coping perspective) by Lakey and Cohen (2000) which was adopted for this study. Case (2007) describes a theoretical framework as a set of related statements that explains, describes, or predict phenomena in a given context. This framework was used to position the study and guide the researcher in data collection, analysis, and discussion of the findings. The following key concepts of the theory discussed in this chapter are received support, coping and stress, health, social support, emotional support, and application of the theory in the current study.

2.2 Social support theory

Social support theory (stress and coping perspective) as developed by Lakey & Cohen (2000) is depicted in Figure 2.1. The supportive action approach predicts that received support enhances coping which buffers the relation between stress and health outcomes. This perspective predicts that supportive actions promote health and wellbeing by promoting coping (Lakey & Cohen, 2000).

The researcher used this theory based on its assumptions that social support reduces the effects of stressful life events on health through either the supportive actions of others or the belief that support is available. Supportive actions from others are thought to have an effect in enhancing coping performance (Lakey & Cohen, 2000). This can provide an opportunity to identify factors that can be targeted by the intervention to provide emotional support to nurses working in acute psychiatric wards. The assumption is that if the needs are correctly identified the developed intervention will be successful.

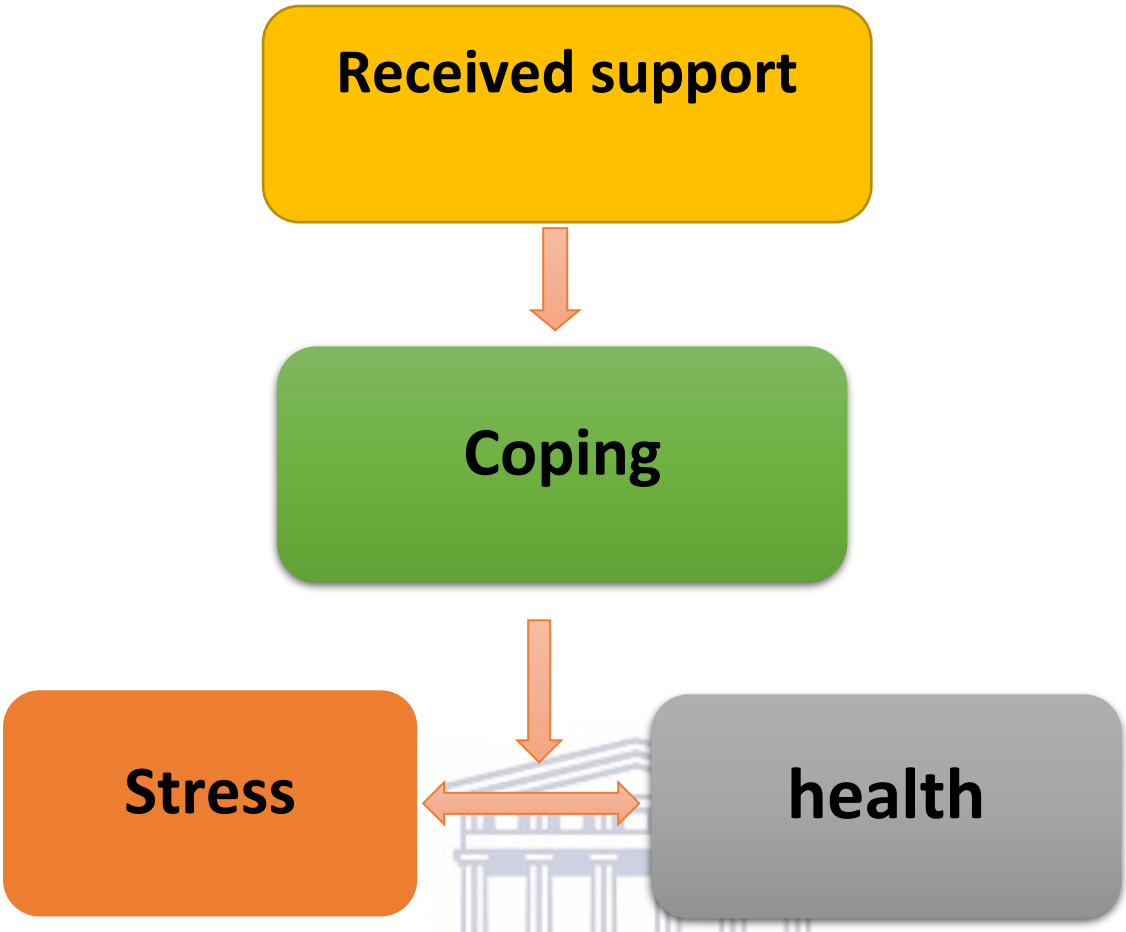

Figure 2.1: Stress and coping perspective (adapted from Lakey & Cohen 2000)

2.2.1 Received support

Uchino (2009) describe received support as a reported receipt of support resources during a specific time of need. While Bolger & Amarel (2007) assert that received support may not be beneficial because it is associated with a drop in self-esteem or threat to one's sense of dependence, which in turn offsets any benefits of received support.

2.2.2 Coping

Moos (2002) defines coping as a process that develops in response to an individual perceiving an environment or circumstance as stressful. It plays a critical role in being able to withstand stress (Moos 2002). Carver & Scheier (1994) describe coping as a multidimensional process which involves cognitive, behavioural, and emotional efforts to deal with stressful situation that creates demands on an individual. It is a response to the circumstances of a stressor and its consequent emotions leading to an often-used distinction between problem-focused coping which is dealing with the source of stress and emotion-focused coping which is handling thoughts and feelings associated with stress (Lazarus & Folkman, 1984).

Successful coping is usually referred to as adaptation or adjustment, while unsuccessful coping is referred to as maladaptation. Adaptive coping strategies include behaviours such as exercise, meditation and seeking social support. While maladaptation coping strategies might involve activities such as avoidance, overeating and use of drugs (Holton et al 2016). Maladaptive coping strategies are associated with higher levels of stress as well as decrease in physical and mental health wellbeing (Holton et al 2016). Lin et al (2010) avow that effective utilisation of coping mechanisms interferes with the level of stress and depression among nurses. The way nurses cope with difficulties depends on many factors like leadership and management issues, relationship with other clinical staff, workload, but also their competences resulting from the education system.

2.2.3 Stress

Thoits (2010) defines stress as the physiological and psychological experience of significant life events, trauma, and chronic strain. Stress levels can be mediated if an individual applies effective coping strategies to handle the stressor (Hasan, Elsayed & Tumah, 2018). According to Panigrahi (2016), stress can be categorised as eustress or distress based on the impact it has on the body, mind and performance. Eustress is a reasonable amount of stress that an individual can take. It has a positive effect, can create passion for work, can inspire an individual to take on new activities. Distress is an excessive quantity of stress that is harmful to the individual and can have a negative effect on the body and mind of an individual. Stress can have deleterious effect on health outcomes. Because stress is subjective and hinges on perception, the degree at which the individual perceives an event as threatening or non-threatening determines the level of stress the individual experiences (Thoits, 2010) (Figure 2.2).

Workplace stress has been found to have a significant effect on nurses' performance and quality of work practice (Roche et al., 2011) and influence on patient care (Sarafis et al., 2016). Causes of work stress among mental health nurses often include inadequate staffing, aggression or violence and substance use in mental health settings (Chapman et al., 2010).

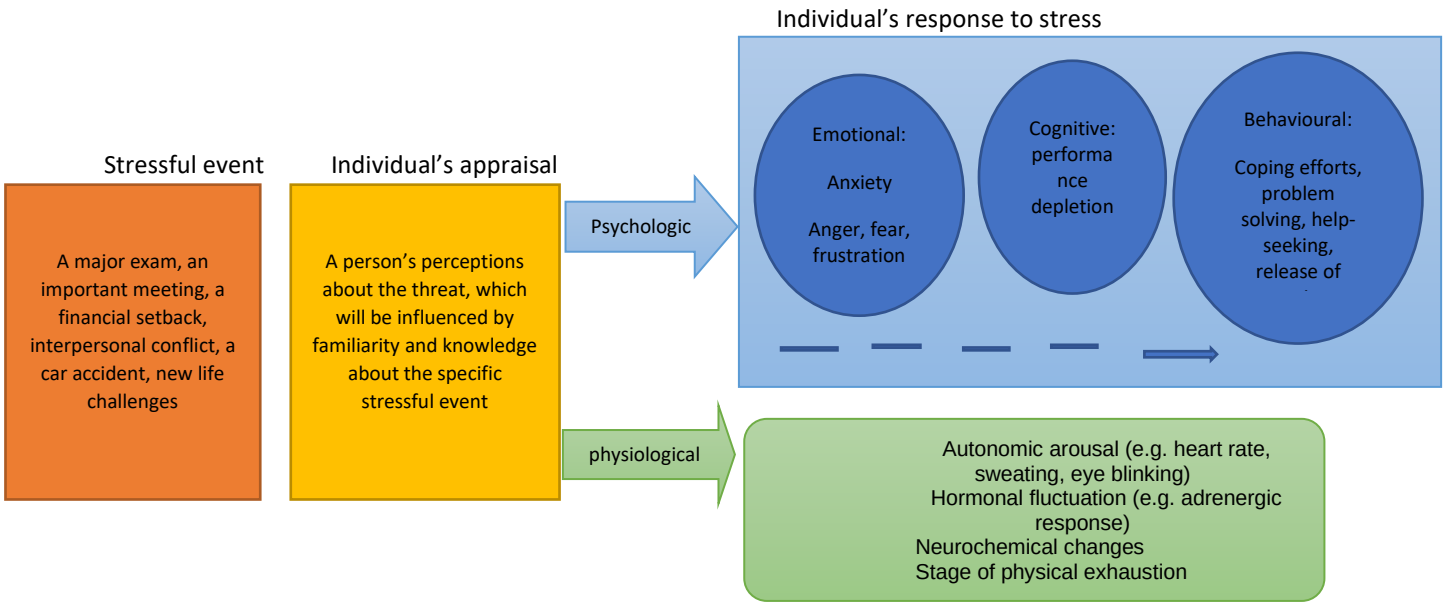

Figure 2.2: Overview of stress process and coping responses

2.2.4 Health

The World Health Organisation defines health as the state of complete physical, mental, and social wellbeing and not merely the absence of disease and infirmity (WHO, 1946). The social support theory proposes that support contributes to health by protecting people from adverse effects of stress (Lakey & Cohen, 2000) It has been shown that receiving social support can also have positive effect on recipient's health and wellbeing (Nurulla, 2012). In their study Adriaansen et al. (2011) found that receiving social support was positively related to life satisfaction. In their study Shrout et al. (2010) found that receiving emotional support was associated with increased vigor and decreased anger. In the review conducted by Nurlla (2012) showed promising outcomes of receiving and providing social support in reducing life strain/stress and promoting better health and well-being.

2.3 Application of the theory to the study

The stress and coping perspective suggest that support contributes to health by protecting people from adverse effects of stress. This theory reports that social support can affect physical health; it is affected through psychological processes (Uchino, 2004).

The following framework guided the researcher in conducting the three phases of this research study. In Phase One of the study, descriptive survey was conducted (paper one) to describe factors associated with physical and verbal incidents and its management. Then the second part of Phase One individual interviews (paper two) were conducted to explore and describe experiences of nurses and the received support following a violent incident. In Phase Three, a

systematic review (paper three) was conducted to examine the effects of stress reduction interventions and key elements of these interventions which provide support for nurses to cope and improve their wellbeing. Finally, in Phase Three, the intervention strategy to provide emotional support which consisted of different strategies was developed. However, the implementation and evaluation of the developed intervention strategy are beyond the scope of this research study.

2.4. Summary

This chapter presented an overview of the theoretical framework and its application in the study. This framework was identified based on the focus on stress, coping and health, as suitable to achieve the objectives of the study. The framework was used to guide in describing factors associated with physical and verbal incidents and its management, as well as exploring and describing experiences of violence by nurses working in acute psychiatric units. The overview also looked at the experiences of nurses and the support they receive when they encounter these violent incidents from patients, they are providing care for. The next chapter will focus on in-depth description of research methodology.

CHAPTER 3

3. RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology used in this study. It includes discussion of the research setting, research approach, research design, methods used in the study and ethical considerations. Methodology is the strategy or plan of action which lies behind the choice and use of a particular method (Scotland, 2010). Wahyuni (2012) refers to methodology as a model to conduct research within the context of a particular paradigm. Methodology is also concerned with why, what, from where, when, and how data are collected and analysed. It articulates the logic and flow of systematic process in conducting a research project, to gain knowledge about a research problem. It includes assumptions made, limitations encountered and how they were mitigated (Kivunja & Kuyini, 2017).

The aim of the study is to develop an intervention strategy to provide emotional support for nurses caring for violent patients in acute units. The study conducted followed the four phases of the intervention design and development research model by Rothmans and Thomas (1994). In this chapter the methodology addresses the following objectives:

1.1) To describe factors associated with physical and verbal violent incidents and the management of incidents.

1.2) To explore and describe experience of violence by nurses caring for patients presenting with violent behaviour in acute wards.

2.1) To examine the effects of stress reduction interventions for nurses working with violent patients in acute psychiatric units.

2.2) To identify key elements of the interventions in supporting nurses to cope and improve their wellbeing.

3.1) To design and develop an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards.

3.2. Research setting

According to Polit and Beck (2013), research sites are the exact locations where data collection takes place. Carrying out a survey in the natural environment signifies that the research scientist has no influence or control over that environment.

This study was conducted in acute wards of the three psychiatric hospitals in the Western Cape Province in South Africa, each serving a different geographical area within the borders of the

province. The study was conducted in acute units in the respective hospitals as the patients that are admitted in these units are mostly psychotic which indicated to them having a high risk of displaying violent behaviours as documented in the literature. These hospitals provide mental health services for persons with psychiatric disorders and intellectual disabilities to the larger population of the Western Cape.

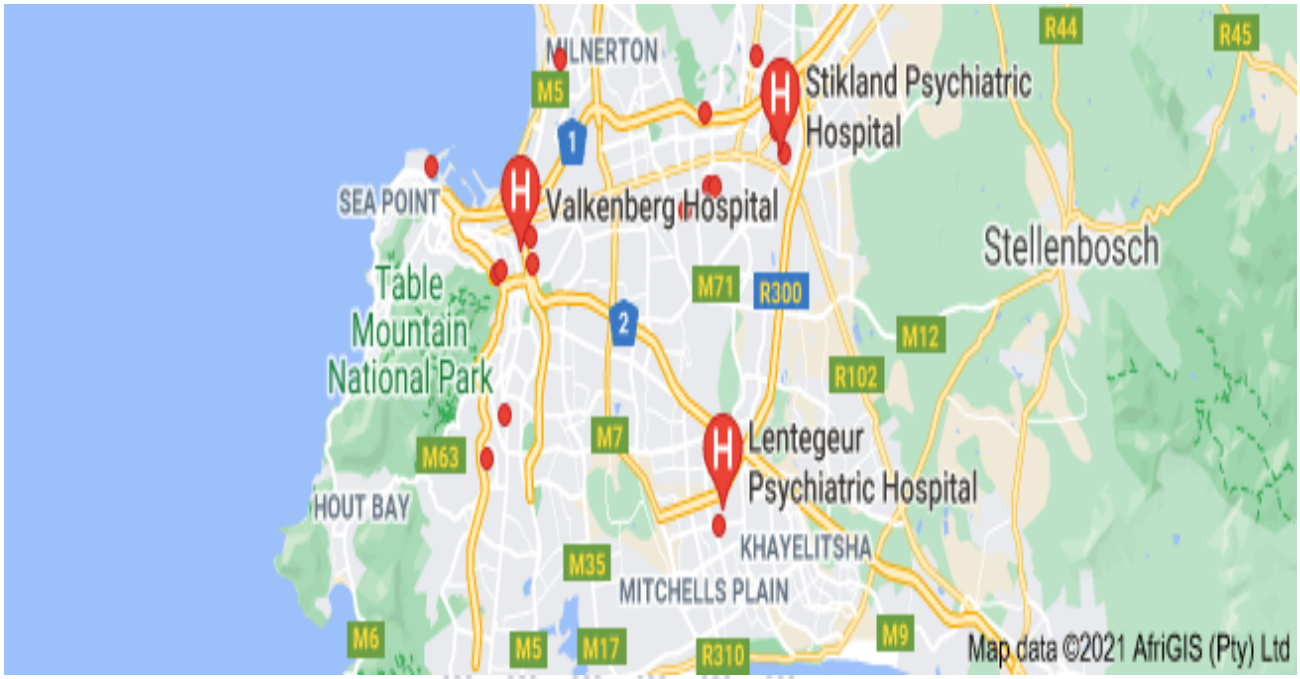

Figure 3.1: Map of the three psychiatric hospitals in Cape Metropole

Hospital A*:* This hospital is situated in the heart of Mitchell's Plain on the Cape Flats, provides a wide variety of services to the areas it drains which include all patients from the population of Khayelitsha, Eastern and Klipfontein Mitchell's Plain substructures of the Cape Metropolitan District. It also has a large rural drainage area. This hospital has a comprehensive clinical service offering via the four clinical Functional Business Units of child and adolescent psychiatry, forensic psychiatry, intellectual disability services and adult psychiatry.

This hospital accommodates 722 inpatient beds and is the largest of all psychiatric hospitals that provide mental health for the Western Cape population. Of the 722 beds, 165 are dedicated to acute psychiatric services and 150 for forensic psychiatric service, with the rest dedicated to long term patients. Patients are referred to this hospital via level 1 district health service facilities. This hospital also runs a spring project foundation which aims at changing the way in which mental health service is perceived, offered, and utilised by communities it serves, by fully embracing the recovery concept working along with patients, families, and the

communities within which they reside. It also serves as a training facility for multiple higher education institutions. The total number of nurses is 428.

Hospital B: This hospital is situated in the suburb of Observatory in Cape Town. It is the chief provider of specialist psychiatric service to the Cape Peninsula as well as being a major specialist referral centre of the Western Cape Province. It is a main teaching hospital for institutions of higher learning and specialised training centre for psychiatric nursing. This hospital offers general in-patient and out-patient psychiatric services, has a variety of specialised units such as forensic units and acute admission units. It has 386 beds, of which 165 are dedicated to acute psychiatric services and 145 to forensic psychiatric service, and the remainder houses long-term patients. Patients that are admitted to this hospital generally suffer from severe psychiatric disorders, and those admitted in the high care unit are likely to have history of more severe forms of psychotic illness associated with behavioural disturbances. The total number of nurses is 207.

Hospital C: This hospital is a mental health institution in the Tygerberg Eastern Health District of the metro region, situated in Bellville area. It has 318 inpatient beds of which 184 are dedicated to acute service, with 462 staffing of which 221 are nurses. It provides specialist services which include acute and therapeutic psychiatric service and psychogeriatric services, alcohol and rehabilitation and opioid detoxification services.

3.3 Research approach

A sequential mixed method approach was employed to achieve the objectives of the first phase of the study. Creswell (2009) describes sequential mixed method approach as a method that often appeals to researchers with strong quantitative leanings, which is guided by philosophical assumptions that enables the mixing of quantitative and qualitative approaches. It is characterised by collection and analysis of quantitative data in a first phase of research followed by the collection and analysis of qualitative data. The qualitative data are collected and analysed second in the sequence and help explain and elaborate on the quantitative results obtained in the first phase. The mixing of the data occurs when the initial quantitative results inform the secondary qualitative data collection. According to Creswell & Piano Clark (2011), mixed method approach boosts the credibility of a study. The straightforward nature of this design is one of its main strengths, while its weakness is the duration of time involved in data collection with the two separate phases.

For this study, the researcher employed a quantitative research approach to address objective 1.1 and qualitative research approach to address objective 1.2 from Phase One. The results from the quantitative study informed the development of the interview guide for the qualitative study (Paper two).

3.4 Research design

Research design is a plan or blueprint of how one intends to conduct the research (De Vos, Strydom, Fouche & Delport, 2011). It focuses on the end-product, formulates a research problem as a point of departure and focuses on the logic of the research. The study was conducted following phases of intervention research as outlined by Rothman and Thomas's intervention research design and development research model. De Vos et al. (2011) describes intervention research as research done for the purpose of formulating, creating, and testing innovative programmes in preventing or alleviating problems in society and maintaining quality of life. Fraser and Galinsky (2010) state that intervention research includes determining the extent to which an intervention is defined by explicit practice principles, goals, and activities. The process of designing an intervention is both evaluative and creative. It requires evaluating and blending existing research and theory with other knowledge and creating intervention principles and action strategies (Fraser & Galinsky, 2010).

The purpose of intervention research is to conduct research that will yield results that can be put to practice by policymakers, practitioners, and administrators (Rothmans & Thomas, 2013). Through intervention research, the programmes are developed and refined. Intervention research provides a systematic process in which research findings, empirically grounded theory and knowledge are conjoined to create new programmes or to modify existing ones (Fraser, Richman, Galinsky & Day, 2009). Secondly, it attempts to answer the fundamental question of whether a programme innovation is effective in producing desired outcomes (Fraser et al., 2009). The first phase of the study constituted of the mixed method approach where a sequential explanatory strategy was adopted, Phase Two is the systematic review of the literature and Phase Three entails the design and early development of the intervention strategy.

3.5 Facets of intervention research

Intervention research (IR) utilises three integrated components also known as facets of intervention research namely: Knowledge Development (KD), Knowledge Utilisation (KU), Design and Development (D&D) (Figure 3.2). These components can also be used independently. The important areas in intervention knowledge development includes learning more about the relevant target behaviour of potential clients and client systems, relevant

intervention behaviour and relevant behavioural, social, contextual, and environmental conditions. The research methodology involved in KD consists of research methods and techniques associated with conventional behaviour and the social science method. It may be conducted separately or combined with other facets, meaning that it can be conducted as an independent activity separate from any KU or D &D activity (Rothman & Thomas, 2013).

The second facet of knowledge utilisation (KU) entails the process of demonstrating the usability of the research knowledge and activities by which knowledge from research may be made practical and have come to be known as knowledge utilisation. It involves appraisal.

It is a process that is systematic, deliberate, and immersed in research procedures, techniques, and other instrumentalities. Its purpose is to produce workable human service technology that would effect a change in identified problems rather than of knowledge from primary research using empirical research methods such as meta-analysis, systematic analysis, and integrative literature review. The process of KU involves the selection, retrieval, appraisal, codification, and synthesis of relevant knowledge to formulate generalisation, stipulating practice guidelines and making them operational (Rothman & Thomas, 2009). The process may lead directly into and be part of the information gathering and design phases of D&D or may involve the transformation of knowledge for other uses.

The third facet is design and development (D&D). It is the point at which innovative human service interventions are evolved and is often a culminating activity that the other facets precede and lead up to. The D&D method is a problem-solving process for seeking effective interventions and tools to deal with human and social difficulties (Rothman & Thomas, 2013).

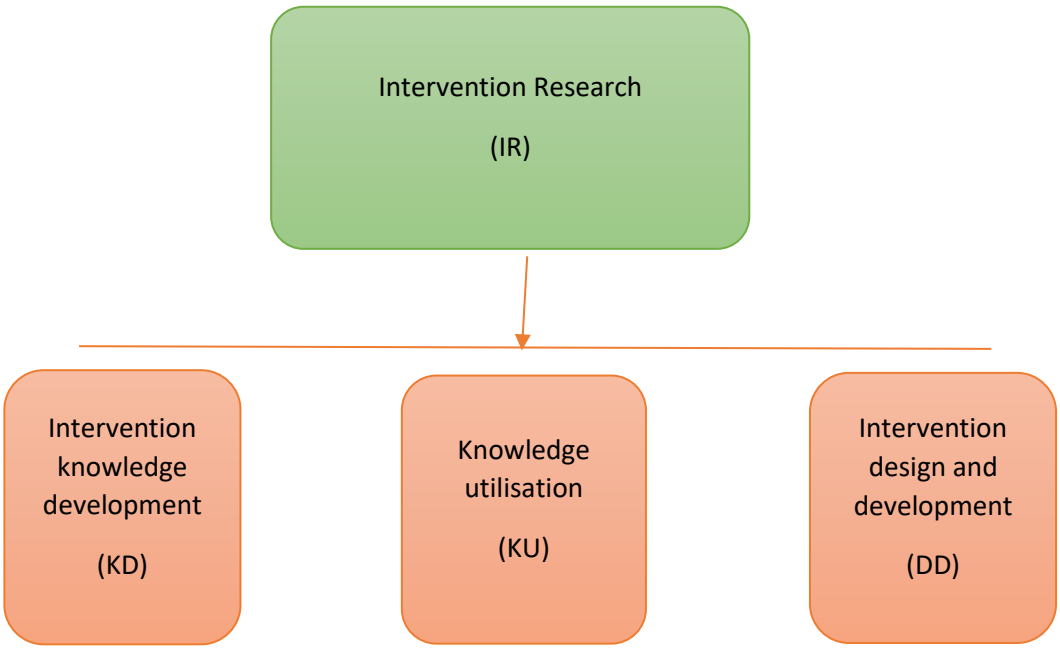

Figure 3.2: Components of intervention research (IR)

For this study specifically, the researcher used design and development to develop the intervention strategy. Design and development have steps of interconnected activities and phases that are intended to guide the development of an intervention strategy to provide emotional support to nurses caring for violent patients in acute wards in psychiatric hospitals. There are six main phases of intervention design and development, however for the purpose of this study only the first three were applied to develop the intervention strategy as they are aligned to the objectives of this study (Table 3. 1), with Phase Three and four merged together to address objective 3.

- Problem analysis and project planning
- Information gathering and synthesis
- Design
- Early development and pilot testing
- Evaluation and advanced development
- Dissemination

Table 3.1: Operational steps in intervention research

Phases of DD	Operational steps	Phases/Objectives
Phase 1: Problem analysis and project planning	▪ Identifying and involving clients ▪ Gaining entry and cooperation from settings ▪ Identifying concerns of the population ▪ Analysing concerns or problems identified ▪ Setting goals and objectives	**Phase 1** **<u>Quantitative study (Paper One)</u>** 1.1.To describe factors associated with physical and verbal violent incidents and the management of incidents **<u>Qualitative study (Paper Two)</u>** 1.2. To explore and describe experience of violence by nurses caring for patients presenting with violent behaviour in acute wards.
Phase 2: Information gathering and synthesis	▪ Using existing information sources ▪ Studying natural examples ▪ Identifying functional elements of successful models- through systematic review	**Phase 2** **<u>Systematic review (Paper Three)</u>** 2.1. To examine the effects of stress reduction interventions for nurses working with violent patients in acute psychiatric units. 2.2. To identify key elements of the interventions in supporting nurses to cope and improve their wellbeing.
Phase 3: Design	▪ Designing an observational system ▪ Specifying procedural elements of the intervention	**Phase 3** 3.1. To design and develop an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards.

Source: Design and development model: (Adapted from Rothman and Thomas, 1994; Strydom, Steyn & Strydom, 2007)

3.6 Phase 1- Problem analysis and project planning

In this phase, mixed method approach was used to address objectives 1.1 & 1.2 of the study:

i) To describe factors associated with physical and verbal violent incidents and the management of incidents, and

ii) To explore and describe experience of violence by nurses caring for violent patients in acute wards. The data collection methods that were used are descriptive survey and semi-structured interviews.

3.6.1 Study 1: Quantitative descriptive survey

A quantitative descriptive survey was conducted with nurses working in acute psychiatric units to describe factors that are associated with physical and verbal violent incidents and its management thereof.

Research design

A descriptive study design was employed in the study to address the objective. According to Omair (2015), descriptive study designs are useful for describing the desired characteristics of the sample that is being studied. It may allow generalisation of the findings from the representative sample to a larger target population (Bickman & Rog, 2009).

Population

Brink et al. (2012) describe population as individuals with a common characteristic in which the researcher is interested. The population comprised of all nurses caring for psychiatric patients in the acute wards in the selected hospitals. The nursing staff consisted of three categories, namely: professional nurses (n=93), enrolled nurses (n=30**)** and nursing auxiliaries (n=98). The target population for the study constituted of all nurses (n=191) who are working in acute wards in the selected hospitals. However, the researcher could only distribute questionnaires to 124 participants, due to other nurses be on leave, sick leave or not interested in participating in the study.

Sampling

Sampling is the process of selecting the sample from the entire population in order to obtain information regarding the phenomena of interest (Brink et al, 2012). An all-inclusive sampling method was and all categories of nurses working in acute wards were recruited to participate in the study. This method was chosen due to small numbers of participants in the selected acute wards. The researcher distributed 124 questionnaires with the response rate of n=114 (91.9%); the response rate was reduced by eleven (11) questionnaires that were incomplete and discarded to a response rate of n= 103(83.06%)

Eligibility criteria

a) Inclusion criteria

- Nurses working in an acute psychiatric unit in one of the selected hospitals

- Nurses who have been subjected or witnessed violence by patients
- Nurses directly involved in bedside caring of psychiatric patients.

b) Exclusion criteria

- Nurses who are not working in acute unit
- Nurses not directly involved in caring for patients, such as nurse managers
- Nurses working for an agency
- Nurses who were on leave, sick and those who were not interested in participating

Data collection

Data collection is the systematic gathering of information relevant to the research purpose or the specific objectives, question, hypothesis of the study (Burns, Grove & Gray, 2013). Planning of the data collection assists the researcher in anticipating any challenges that may occur and to explore possible solutions (Burns, Grove & Gray, 2013). According to Polit & Beck (2012), a data collection plan for quantitative studies should yield accurate, valid, and meaningful data that are maximally effective in answering research questions.

Data collection instrument: Data were collected using a 53 itemed self-administered questionnaire which was developed by World Health Organisation (WHO), International Council of Nurses (ILO) and Public Services International (PSI) (2003) (Appendix: vi). The questionnaire has been used in several studies across different countries such as Northern Taiwan (Niu et al. 2019), including South Africa (Steinman,2003). The researcher obtained permission to adapt some the first three section of the questionnaire that is relevant to the study for the survey (Appendix: vi). The researcher modified the demographic section of the questionnaire and omitted questions that were not relevant to the study. The utilisation of a structured questionnaire enhances objectivity and supports statistical analysis. The questionnaire was divided into four sections. Section A: Demographic data (twelve (12) questions). Section B: Information on physical workplace violence (twenty-four (24) questions). Section C: information on psychological workplace abuse (verbal abuse) (fourteen (14) questions) and Section D: Nurse's opinions on workplace violence (three (3) questions). There were both closed-ended and open-ended questions.

Reliability and Validity

Reliability refers in general to the extent to which independent administration of the same instrument or similar instrument consistently yields the same or similar results under comparable condition. Reliability is primarily concerned not with what is measured, but with how it is being measured (Creswell et al. 2018). The researcher adapted, with permission, some sections of the questionnaire that was relevant to the study for the survey. The overall Cronbach's alpha for the validated questionnaire was (0. 85).

Content validity is concerned with the representativeness or sampling adequacy of the content of an instrument. There are two questions that need to be asked in order to determine content validity: Is the instrument really measure the concept that is assumed to be measuring? Does the instrument provide an adequate sample of items that represent that concept**?** (Creswell & Creswell, 2018). The researcher adapted an existing instrument, and the supervisor assessed the questionnaire if it would indeed be able to collect data relevant to the objectives of the study.

Face validity refers to the extent in which an instrument looks as though it is measuring what it purports to measure (Creswell & Creswell, 2018). The researcher used a validated questionnaire.

Data collection process

The researcher invited all four psychiatric hospitals in the Western Cape to participate in the study and only three agreed to take part. The CEO of one of the invited hospitals declined participation in study citing concerns about being grouped with another psychiatric hospital as they rendered specialised psychiatric services and did have acute wards. After the researcher received the approval letter from the Western Cape Department of Health with the list of the hospitals that have agreed to take part in the study, the researcher contacted the respective hospitals (Appendix: v). The study was conducted in three psychiatric hospitals which were similar in nature in respect of services offered and patient profile. Data collection commenced on 11 th March 2019 at hospital A. The gatekeeper at this hospital was the nurse working in the human resource development department dealing with staff and student training. She introduced the researcher to the operational managers of the participating wards. The researcher presented information to the nurses in the wards. The information related to the aim of the study, participant selection, the rights of participants and the possible risks of participating in the study. Potential participants were informed that their participation in the study was voluntary and that they could withdraw from the study at any given time without any repercussions. They were also assured that confidentiality and anonymity would be maintained.

Each participant from both day and night shifts who agreed to participate in the study were given an envelope with a questionnaire, consent form and information sheet. They had to complete the questionnaire and consent form and put it back in the envelope. The researcher returned the following day at an agreed time which was between 15h00 and 17h00 for the day shift and 20h00 and 22h00 for the night shift to collect the completed questionnaires. On return, some participants indicated that they were unable to complete their questionnaire due to their busy schedule in the admission units. The researcher collected the completed forms the next date. During the latter half of March 2019, the researcher commenced data collection at Hospital B which was on the 13 th March 2019. The gatekeeper was the nurse working in the human resource development department and the same process of introduction to potential participants each ward was followed. Most of the participants requested to be given more time to complete the questionnaires due to their busy schedule. The researcher

gave each one a questionnaire, consent form and information sheet and returned on the third day. Some participants were willing to complete the questionnaire while the researcher was with them. The last day of data collection in Hospital B was the 15th March. The researcher visited the third participating hospital (Hospital C) on the same day, where the head of nursing requested that the researcher do a brief presentation of the study in a meeting with all nursing managers to recruit potential participants. Access to the acute units was granted and the researcher explained the purpose of the study to the participants, and those interested, were given the envelope with a questionnaire, consent form, and information sheet to complete. Data collection was completed at the end of March 2019. A total of 124 questionnaires were distributed yielding a return of 114 completed questionnaires.

Data analysis

According to Grove, Burns and Gray (2013) data analysis reduces, organize and gives meaning to collected data. After the data collection process was completed, the questionnaires were counted and checked for any errors. Numerical and non-numerical data were collected and therefore required coding for analysis and interpretation. The questionnaires were numbered and coded to facilitate data capturing and auditing of the captured data. Data were entered into a Microsoft Excel spreadsheet and thereafter imported into the Statistical Package for Social Science (SPSS) version 25 with the assistance of the statistician. This was used to collect basic descriptive data on workplace violence as experienced by nurses working in acute psychiatric wards. Nominal and ordinal data was analysed by means of descriptive analysis. Descriptive statistics are used to describe and synthesise data. This helps to set the stage for the understanding of quantitative research evidence (Polit & Beck, 2012). The data were arranged into frequency distribution. Frequency distribution is described by Polit and Beck (2012) as a systematic arrangement of values from lower to highest value. The data were presented in the form of tables and graphs. Inferential statistical analysis was done in the form of cross-tabulations using i.e., the chi-square test and Mann-Whitney U test to determine the associations between the demographic data and exposure to violence of nurses working in acute wards (More details in Chapter four)

3.6.2 Study 2: Qualitative research approach

Semi-structured interviews were conducted with nurses who have experienced violence first hand from the patients they are caring for in acute psychiatric wards. Fourteen (14) participants consented in taking part in the process.

Research approach

A qualitative research approach was employed to address the second objective which is to explore and describe experience of violence by nurses caring for violent patients in acute wards. This approach enables researchers to explore in detail social and organisational characteristics and individual behaviours and their meanings (Lapan, Quartaroli & Reiner, 2012). It is concerned with studying people in their natural context,

and it is essentially inductive and holistic. The orientation of qualitative research includes naturalism, reflexivity, a focus on meaning, a flexible approach to research strategy and a critical approach (Green & Thorogood, 2018).

Research design

An exploratory, descriptive design with semi-structured interviews was conducted to explore the experiences of nurses working in acute psychiatric units who had experienced patient violence.

Exploratory

Polit and Beck (2018) described exploratory research design as a method for exploring an area of human experience in order to understand a person's world perception. It aimed at exploring the full nature of the phenomenon, the manner in which it manifested and its underlying processes (Fouche & De Vos, 2011).

This design was suitable for this study because the researcher wanted to explore the experiences of nurses caring for patient presenting with violent behaviour in acute wards.

Descriptive design

Descriptive research is designed to provide a complete and accurate description of a particular situation, social setting or relationship (Fouche & De Vos, 2011). It also aimed to drive observation, description and documentation of naturally occurring situations that help with vivid and detailed exploration (Creswell, 2014). This design was therefore appropriate for this study for the description and gaining understanding about experiences of nurses warking in acute psychiatric care settings.

Population

The population of the study included all nursing categories (professional nurses, enrolled nurses, and nursing assistants) working at the participating hospitals.

Sampling and sample size

Brink et al (2012) define sampling as the process of selecting a sample from the entire population to obtain information regarding the phenomena of interest. Purposive sampling was used to select participants. Purposive sampling involves identifying and selecting individuals or groups of individuals that are knowledgeable about the phenomenon of interest (Creswell & Plano Clark, 2011). The researcher recruited participants with the assistance of nurse managers for the study because of their knowledge, experience or views related to the study (Burns & Grove, 2011). According to Burns and Grove (2011), the number of participants in a qualitative study is adequate when saturation and verification of information are achieved in the study area. The researcher conducted interviews and data saturation was reached after interviewing the 14th participant, where no new information was yielded.

Eligibility criteria

Inclusion criteria

- Nurses working in an acute psychiatric unit in one of the above-mentioned hospitals.
- Nurses who are directly involved in patient care and have experienced violence by patients.
- Nurses who are permanently employed.

Exclusion criteria

- Nurses who are not working in acute unit.
- Nurses not directly involved in caring for patients such as nurse managers.
- Nurses working for an agency.

Data collection

Polit and Beck (2012) describe data collection as a precise, systematic gathering of information that is relevant to the research purpose or research objectives. Creswell and Creswell (2018) posit that data collection steps involves setting boundaries for the study through sampling and recruitment, collecting information through structured or semi structured interviews as well as establishing protocol for recording of information.

Data collection instrument

Semi- structured interviews

Data was collected by means of semi structured interviews (Appendix: viii). Semi-structured interviews are a more flexible version of structured interviews, which allows depth to be achieved by providing the opportunity for the interviewer to probe and expand the interviewee's response (Tappen, 2011). It is a conversation where the interviewee has an opportunity to give account on their subjective experiences related to the theme introduced by the researcher. The interviewer then attempts to explore these experiences for further details worth of analysis. The researcher encourages the participants to speak in detail about the subject of interest without the use of a predetermine set of standardised questions. Researchers uses interview guides focused on central themes and suggest questions where the content is not strictly prescribed but can be modified according to how the conversations evolve (Datko, 2015). Semi-structured interviews allow the researcher more opportunity to explore answers for clarification or ask for more in-depth response (Tappen, 2011). De Vos, Strydom, Fouche and Delport (2011) assert that semi-structured interviews are useful if the researcher intends to gain a detailed picture of the participant's beliefs, perceptions, and accounts regarding a particular phenomenon. The researcher developed the interview guide based on issues that came up from the analysed data of the survey and literature review (Holloway & Wheeler 2010).

Piloting of the instrument: The interview tool was piloted on two participants who were working in acute wards in those selected hospitals, to check if the questions are clear, and whether they elicit the information to meet the objectives of the study. There were no changes made to the interview tool after the pilot. Those who participated in the pilot study were not included in the main study**.**

Data collection process

The researcher visited all the participating hospitals and made arrangements to meet with the managers to explain the research and its purpose. Nurse managers recruited staff who were interested in taking part in the study in their respective wards. They gave the names of interested staff to the researcher who made telephonic contact with them. Interviews were arranged at a time suitable for participants. A private room in each ward was available to conduct the interviews. The room was well-ventilated and free from interruption.

The researcher introduced herself and explained the purpose of the study again. Each participant signed a consent form before the interview commenced. All participants were reassured about the privacy and confidentiality of the information they were sharing with the researcher. Permission to audio record the interview and taking notes were sought from participants. The researcher followed the interview guide to conduct the interview, which was followed by probing questions to gain clarity about what the participant was saying. All interviews were conducted in English. The duration for each interview lasted for +- 45 minutes. The researcher ensured that she observed and took note of participants' behaviour during the interview as they were reliving their traumatic experiences which could evoke emotions. Prior arrangements were made with counsellor for support of any participants who may have become distressed during and following the interview. The recorded files were kept electronically, transcripts and field notes were kept in a locked place where only the researcher could access to ensure confidentiality. Field notes were taken during and immediately after each interview.

Data analysis

Data analysis is the process of making sense of collected data in research (Richards, 2014), In qualitative research, data analysis often begins during or immediately after the first data collected. Initial data analysis may also further inform subsequent data collection (Burnard, Gill, Stewart, Treasure & Chadwick, 2008). Data analysis begins with the management of data, which involves transcribing, organising, and developing categories and coding of data (Holloway & Wheeler, 2013).

The data from the semi-structured interviews were analysed following the six steps of thematic analysis adopted from Braun and Clark (2006). Data transcription is the process of transforming verbal data into words (Sandelowski, 2010). The transcripts were given to the independent coder (supervisor) to ensure credibility of the findings. The Atlas ti. software package version 8 was used to store, sort, and assist in coding of the data. Qualitative software programs facilitate data storage, coding, retrieval and linking (Creswell, 2014). After audio tapes were transcribed verbatim, data were analysed inductively following the six steps of thematic analysis by Braun & Clarke (2006) as follows:

- Step 1: Familiarising with the data – the researcher listened to the audio recordings and read transcripts line by line and noted any analytic observation.

- Step 2: Generate initial code – the researcher coded the entire data and collated all the generated codes and relevant data extracts.
- Step 3: Searching for themes – after completing the process of coding the data set, the researcher developed themes from the codes.
- Step 4: Reviewing themes – researcher reviewed all the themes and reflected on whether they were telling a story about the data.
- Step 5: Defining and naming themes – the researcher described the themes in a way that capture the essence of the themes.
- Step 6: Writing the analysis – the researcher provided an analytic narrative and data extracts to tell the story of the collected data and contextualise it in relation to the existing literature (in-depth explanation of the whole process in Chapter Five, Paper Two)

Rigour of qualitative research

To ensure trustworthiness, the research was guided by the following criteria by Guba and Lincoln (1985) as cited in Creswell, (2014):

Credibility refers to the degree to which findings and the research methods that are used can be trusted (De Vos et al., 2011). Thomas, Nelson and Silverman (2015) state that it is important for the researcher to fully understand the research context, the participants and the setting when interpreting the results of qualitative research. The researcher ensured that iterative questioning was used to ensure credibility of the study by rephrasing the questions, so the participants can have a clear understanding. The researcher engaged with the data collection process and consulted experts and knowledgeable people in the field to ensure credibility of the study. Member checking of the interview transcripts by the researcher and participants to ensure accurate transcription of the participants' views was done.

Dependability refers to how data remain stable over time and conditions (Polit & Beck, 2012). Dependability was ensured using semi-structured interviews which allow the researcher to ask a question and change the follow-up question depending on the answers provided by the participants (Thomas, Silverman & Nelson, 2015). Dependability of the study requires an audit. The enquiry auditor, generally a peer, verifies the processes and the procedure used by the researcher in the study and determines whether they are acceptable, that is, dependable (Brink et al., 2012). The process of data collection was checked by submitting the first few transcribed interviews to the supervisor to check whether the data collection process is correct. The researcher then described the design and method used in data collection. Independent verification of coding by an independent coder enhanced the dependability of the study.

Confirmability: According to Thomas, Nelson & Silverman (2015) confirmability deals with the issues of researcher bias. This criterion is concerned with establishing that the data represent the information provided by participants and the interpretation of the data is not the figments of the researcher's imagination (Polit & Beck, 2012**)**. Campbell et al. (2017) state that, to try to reduce researcher bias and to enhance the voice and interpretation of respondents, qualitative researchers attempt to minimise personal characteristics that could interfere with communication. This requires the researcher to reflect constantly on how they may be influencing the research setting and the research conversations by virtue of their identity, language capacity, and perceived power or access to resources desired by respondents. During data collection the researcher kept field notes, memos, transcripts, and the researcher's reflective notes which allow the reader to follow the process of the research study. The researcher would make this available upon request. Also, the sample of data analysis was given to the supervisor and an external auditor to assess for consistency in the analysis.

Transferability refers to whether the results would be applicable to other settings or when conducting research in a similar setting (Thomas, Silverman & Nelson, 2015). Furthermore, Polit & Beck (2012**)** describe transferability as the extent to which findings can be applied or generalised in other research studies. The researcher provided a detailed description of the research setting, all participants, as well as the method of data collection and data analysis used.

3.7. Phase 2: (Paper three) Systematic review

A systematic review was conducted to address objective two of the study. Systematic reviews typically involve a detailed and comprehensive plan and search strategy derived a priori, with the goal of reducing bias by identifying, appraising, and synthesising all relevant studies on a particular topic (Uman, 2011). It is a rigorous method that attempts to collate all empirical evidence that meet the prescribed eligibility criteria to answer a particular research question. The in-depth procedure followed to conduct this systematic review is presented in Chapter Six (Paper three).

- To examine the effects of stress reduction interventions for nurses working with violent patients in acute psychiatric units.
- To identify key elements of the interventions in supporting nurses to cope and improve their wellbeing.

This phase entails discovering what other researchers have done to understand and address the problem at hand. The knowledge acquisition involved identifying and selecting relevant types of knowledge and using and integrating appropriate source of information (Fawcett et. al, 2013). Rothman and Thomas (1994) as cited by Fraser et. al (2009), argues that studying of success cases compliments understanding the cause and correlates of problems, which are often the focus of literature. It is also useful in identifying potential programme components. The key activities for this phase include:

- Using existing information sources
- Studying natural examples and
- Identifying functional elements of successful models

To address these objectives, the following questions were formulated by the researcher in conjunction with the supervisor:

- What are the stress reduction intervention programmes for nurses caring for violent patients in acute psychiatric units?
- How effective are these interventions?
- What are the key elements of these interventions?

3.7.1 Eligibility criteria

a) Types of studies included

All study designs were considered, including peer reviewed articles; studies published in English; randomised controlled trials; quasi-experimental studies; qualitative studies; systematic reviews; studies discussing implementation/evaluation of interventions, aimed at providing support for nurses, mixed methods, and pilot studies. Studies had to be published between 2010 and 2021

b) Type of participants

In this review, the researcher considered studies that involved nurses (professional and non-professional) working in acute psychiatric units, as well as in acute psychiatric units in general hospitals.

c) Types of interventions

Only studies that were aimed at providing support (formal/informal) to nurses in acute care settings, in either individual or group formats, were included.

d) Comparators/control

This was not applicable, as the review included all study designs, whether they have comparators or not.

e) Context

Only studies that were conducted in designated acute psychiatric units (including acute psychiatric units in general hospitals), were considered for the review.

f) Outcome(s)

In this review, the researcher considered studies that included, but are not confined to the following outcomes: reduced perceived stress levels, improved coping, and overall wellbeing of nurses.

Exclusion criteria

- Scoping reviews, narrative reviews, dissertations, and protocols
- Studies conducted with nurses working in general hospitals
- Studies with interventions focusing on patients
- Studies in long-term units

3.7.2 Method

The review was conducted following the Preferred Reporting Items for Systematic Reviews, and Meta-Analysis (PRISMA) guidelines (Moher et al., 2015).

Search strategy for this review

The following databases from the university library were searched to locate published, as well as unpublished studies:

- MEDLINE,
- Academic Search Complete
- CINAHL (Cumulative Index for Nursing and Allied Health Literature),
- Google Scholar
- Health Source: Nursing/Academic Edition (EbscoHost)
- PubMed
- Wiley Online Library

The following multiple search terms, and any other synonyms, in combination with Boolean operators were used in all databases, including [intervention OR “intervention programme” OR “intervention strategy” OR supportive intervention OR staff support programme OR program]AND [emotional support]AND [violen* OR violent OR aggress* OR “workplace violence” OR assault] AND [“acute mental health” OR “psychiatric ward” OR “psychiatric hospital” OR “mental health unit”] AND [nurs* OR nurses OR nursing]

Study selection

After completing the search, all identified articles were collated and uploaded into Endnote X7.8 software, which automatically identified duplicates. The screening process of the titles and abstracts, against the inclusion criteria, were followed by two independent reviewers. Potentially relevant articles were retrieved in full, and assessed in detail, by two independent reviewers, against the inclusion criteria. Reasons for the exclusion of articles are recorded in the PRISMA flow diagram (figure 6.1). The results of the search, and the

study inclusion process, is reported, in full, in the final systematic review, presented in a PRISMA flow diagram (Moher et al, 2015) (Figure 6.1, Chapter Six)**.**

Critical appraisal

All selected studies were appraised critically by two reviewers, for methodological validity, prior to inclusion in the review, using the following standardised instruments: The Johanna Briggs Institute (JBI) critical appraisal checklist for Randomised Controlled Trials; and JBI critical appraisal checklist for quasi-experimental studies (Appendix: iv). Quality assessment of selected studies was performed by two reviewers independently. Any disagreement between the reviewers were resolved through deliberate discussion, or with the involvement of a third reviewer where necessary.

Data extraction

Two independent reviewers extracted the data from the articles in the review, using standardised the JBI Data Extraction Form for Review for Systematic Reviews and Research (Appendix: v). The following information that was extracted included: authors/ year, country, description of intervention, study design, aim of study, setting, sample size, key findings. Any disagreements between reviewers were resolved through discussion or with the involvement of a third reviewer.

Data synthesis and reporting

A textual narrative data synthesis was undertaken for the extracted data. This type of analysis is suitable, when studies that are involved in the review, vary in their methodologies, and have different interventions, and final outcomes (Barnett-Page & Thomas, 2009). A synthesis of findings was undertaken by two reviewers. The synthesis was structured based on the content, mode, components, and outcomes of the interventions of the included studies. In a case where findings of included studies could not be presented in statistical form, findings were presented in a narrative form. The PRISMA statement was used as a guideline for the reporting of the systematic reviews of these interventions.

3.8 Phase 3 - Designing and development of an intervention strategy

This phase deals with objective three of the study which is to develop an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards. It involves observing events and outcomes which occur in the process implementing an intervention programme. The intervention is designed and measured to assess its effects as well as its implementation. The important task during this phase is converting theoretical generalisations from the literature into programmatic prescriptions. Knowledge of research literature is the basis for the development of practice related strategies (Fraser et. al 2009). There are

two important operations in the design phase which is designing an observational system and specifying procedural elements of an intervention (Rothman & Thomas, 1994).

3.8.1 Designing an observational system

Fawcett et al. (1994) describe an observational system as a means for assessing an outcome of an intervention and is usually predetermined. According to Rothman and Thomas (1994), researchers must design a way for observing events related to the phenomenon naturalistically, a method system for discovering the extent of the problem and detecting effects following the intervention. The observational system is closely linked to the process of designing an intervention. and serves as a feedback system for refining early prototype. There are sub-events that are important under designing an observational system which include design objective, design domain and design requirement.

i) Design objective

Design objective refers to the task to be achieved on the design work. Thomas (2003) **s**uggests that determination of design objectives is the first step in the design phase. In intervention research design, the objective is the development of social technology to ameliorate social problems (Mullen, 1994). During this phase relevant information from the analysis phase is applied to the generation and design of an intervention. The design is articulated in sufficient details so that it can be usable in the real world, this may involve the formulation of set of procedural guidelines as an aspect of the design (Whittaker et al., 1994).

The design objective is to develop an emotional support strategy for nurses working in acute psychiatric units. This intervention strategy will help emotional wellbeing of nurses through increased adaptive coping.

ii) Design domain

Specific objectives should be formed to focus the design activities. Thomas (2003) proposes specifying the domain of design in which some intervention elements are assumed to be fixed and therefore do not need to be designed, while other elements are singled out for attention (Mullen, 1994). During the design of the intervention to support nurses emotionally in acute psychiatric units, the researcher in conjunction with different stakeholders, which included experts in the field of psychiatry and in design and development of interventions, deliberated the findings from all the phases in developing the observational system and specification in designing the intervention.

iii) Design requirements

The design requirements comprise of what the intervention will actually do (Thomas, 2013). The developed intervention should:

- Provide required support for nurses to be able to cope with stressful experiences they encounter in the workplace.
- Empower nurses with necessary skills and knowledge to be able to manage challenging behaviour of patients.
- Accommodate nurses in their busy schedule and be user friendly.

3.8.2 Specifying procedural elements of intervention

This is the second operation in the design phase. The procedural elements of the intervention should be narrated in detail so it can be easily replicated by other trained agents (Fawcett et al., 1994). Phase One of the constituted of problem analysis and project planning of the study. Phase Two of the study involved the information gathering and synthesis and identifying functional elements of successful models (Fawcett et al., 1994). The researcher in conjunction with the supervisor of the study conducted a systematic review to examine different types of support intervention for nurses working in acute psychiatric settings and key elements of successful interventions were retrieved. The findings from the two phases were triangulated and concluding statements were formulated which were used as a guide to develop a framework of the intervention. The researcher conducted the workshop with experts working in psychiatric units where findings were presented and deliberated on. The researcher then developed a draft of the intervention strategy from the information that was generated from the workshop with experts. To validate and review the draft, the researcher conducted a nominal group technique with nurse managers from one of the participating hospitals. The aim of this intervention strategy is to improve emotional wellbeing of nurses working in acute psychiatric units through increasing their adaptive coping using emotional support strategies

3.8.3 Nominal group technique (NGT)

The nominal group technique was developed by Delbecq et al**.** (1975) for the purpose of identifying strategic problems and developing appropriate and innovative ways to solve them. Its purpose is to generate information in response to an issue that can then be prioritised through group discussion (Potter et al., 2004). It does this through allowing participants to identify, rank, and rate critical problem dimensions without the interference of unbalanced involvement (Olsen, 2019; Gallagher et al., 1993). NGT is used for development of consensus, and it is a face- to-face meeting process unlike the Delphi technique (Harvey & Holmes, 2012), which usually lasts up to two hours (Potter et al., 2004). The NGT allows equal participation and all opinions to be respectfully considered, thereby minimising dominant participants from taking over the discussion and focus on one viewpoint (Lloyd, 2011; Pan et al., 2013).

Roets and Lubbe (2015) state that setting for nominal group should be conducive for group member participation; this includes the location, size and available resources in the physical environment and psychological climate of trust and openness.

Potter et al. (2004) note the following practical considerations that supported the use of NGT. It provides the opportunity to acquire relevant information within relatively short time. It is deemed cost efficient as it can be done with less expenditure. It is beneficial for healthcare workers due to their busy schedule, as it does require little preparations from participants. Lastly, it allows for immediate dissemination of results to the group which promotes satisfaction with participation. Additionally, Potter et al. (2004) outline steps to be followed when conducting NGT:

1. **Introduction and explanation:** At this stage participant will be welcomed, and the purpose and procedure of the meeting will be explained.

2. **Silent generation of ideas:** Participants will be provided with a sheet of paper with the question to be addressed and participants will be asked to write down all ideas that come to mind when considering the question. At this stage, participants will not be allowed to consult or discuss their ideas with others. This step will be allowed for approximately 10 minutes (Potter et al., 2004).

3. **Sharing ideas:** Participants will be given an opportunity to share the ideas they have generated. The researcher will record each idea on a flip chart using the words spoken by the participants. The round robin process continues until all ideas have been presented. There will be no debate of ideas at this stage and participants are encouraged to write down any new ideas that may arise from what others share. This process will ensure all participants get an opportunity to make an equal contribution and provides a written record of all ideas generated by the group. This stage will take approximately 15-30 minutes (Potter et al., 2004).

4. **Group discussion:** Participants will be invited to seek further clarity on any of the ideas that colleagues have produced that may not be clear to them. The researcher's task will be to ensure that each person is allowed to contribute, and that discussion of all ideas is thorough without spending too long on a single idea. It is important to ensure that the process is as neutral as possible, avoiding judgment and criticism. The group may suggest new items for discussion and combine items into categories, but no ideas should be eliminated. This stage will last for about lasts 30-45 minutes (Potter et al., 2004).

5. **Voting and ranking:** This will involve prioritising the recorded ideas in relation to the original question. Following the voting and ranking process, immediate results in response to the question will be available to participants so the meeting concludes having reached a specific outcome (Potter et al., 2004).

3.8.4 Data analysis for NGT discussion

Gallagher et al. (1993) have indicated that NGT data analysis can be conducted quantitatively or qualitatively, with the quantitative analysis facilitating the ranking and the qualitative analysis providing a better understanding of the issue discussed. The data will be combined and qualitatively categorised into themes and be ranked quantitatively (in-depth discussion follows in Chapter Seven).

Table 3.2: Summary of study methodology

Phases	Study	Population and sampling	Data collection	Data analysis
Phase One: section A: Quantitative study	A descriptive survey was conducted to describe factors associated with physical and verbal incidents and its management.	All-inclusive method was used to select nurses (n=124) for the study.	Survey using 53-item questionnaire.	Descriptive statistics were used to measure frequencies and standard deviation. Inferential statistical analysis was done using the chi-square test and Mann-Whitney U test to determine associations.
Section B: Qualitative study	Semi-structured interviews were conducted to explore and describe experiences of nursing staff caring for violent patients in acute wards.	Purposive sampling was used to select 14 participants who had experienced violence.	Semi-structured interviews	Data were analysed following the six steps of thematic analysis from Braun and Clark (2006).
Phase Two:	A systematic review was conducted to examine the effects of stress reduction interventions for nurses, working with violent patients, in acute psychiatric units and to identify the key elements of the interventions.	Type of studies included: peer-reviewed articles; studies published in English; randomised controlled trials; quasi-experimental studies; qualitative studies; systematic reviews; studies discussing implementation/evaluation of interventions.	Information extracted using data extraction tool (Appendix: v) included: author, year, country, design, intervention, setting, sample, outcome scales and findings.	A textual narrative data synthesis was undertaken to analyse extracted data
Phase Three	Design and early development of the intervention. The researcher		Results from phases one and two were	

followed two operations, namely designing an observational system and specifying procedural elements of an intervention as suggested by (Rothman and Thomas, 1994). Nominal group technique: A face-to-face NGT was conducted following steps by Potter et al. (2004) to validate the developed draft of the intervention strategy	A total of 10 experts in psychiatry were selected using purposive sampling to participate in group discussions.	triangulated and concluding statements were developed. The researcher presented the draft of the strategy to the experts and the posed a question on how they think support can be provided and what should be included in the strategy.	Data were analysed quantitatively, categorised, and ranked according to their importance.

3.9 Ethics

a) Permission - Ethics approval was obtained from the Biomedical Research Ethics Committee of the University of the Western Cape (Ref: BMI 18/6/18) (Appendix: i). A request for permission was submitted to the Department of Health Western Cape and permission was granted (Reference: WC_201809_005) (Appendix: v). Permission was sought from all selected hospitals once the Department of Health approved the research study and permission was granted (Appendix: v). The researcher observed the following principles throughout the study:

b) Principle of respect for persons - All participants are autonomous thus they have a right to self-determination. The right to self-determination means that the participants have the rights to voluntarily decided to participate in the study or not (Brink et al., 2012). Participant information sheets (Appendix: ii) and consent letters (Appendix iii) were given to each participant explaining the purpose, ethical considerations, and guidelines for participation on the study. The researcher made it clear to all participants that participation in the study is voluntary.

c) Informed consent - The researcher ensured that the participants have adequate information about the study, understood the information and have the freedom to consent or decline participation voluntarily prior data collection (Polit & Beck, 2012). Informed written consent was sought from all participants (Appendix: iii), and that included consent for the use of audio recordings (Appendix: iii).

d) Principle of beneficence - Participants in the study have rights to be protected from any harm (Brink et al., 2012). The researcher ensured that participants were not subjected to unnecessary risk of harm or any discomfort during the study. The researcher explained to participants that they have a right to withdraw at any time if they feel uncomfortable without any prejudice. The researcher made necessary arrangements with relevant hospitals prior commencing with study for participants to be referred to the Independent Counselling and Advisory Service (ICAS), which is a free service for all government employees should the need for counselling arise. No participant required to be referred for counselling during the study

e) Principle of justice - All participants have rights to fair selection and treatment (Brink et al., 2012), and a researcher has to treat participants who decided to withdraw from the study with respect (Polit & Beck, 2012). Participants were selected for reasons related directly to the study problem. The researcher respected the participants' right to privacy and confidentiality by ensuring that participants decide to what extent the information may be shared with other institutions and be published.

f) Right to privacy – The researcher ensured that the study is not intrusive in any way and that privacy and confidentiality were always maintained. Participants had the right to expect that their data be kept in strict

confidence. The researcher ensured that interviews were conducted in a private and quiet room. The researcher only collected relevant information from the participants.

g) Confidentiality and anonymity- The researcher ensured that the information that was shared by participants would not be publicly reported in any manner that expose their identity (Polit & Beck, 2012). The researcher ensured that names of participants were not linked to the data collected to ensure anonymity. The questionnaires were coded and not linked to any completed consent form. All the data collected were locked in a safe place to maintain confidentiality.

h) Right to full disclosure-The researcher fully described the nature of the study, the person's right to refuse participation, the researcher's responsibility and the likely risks and benefits of taking part in the study (Polit & Beck, 2012). The researcher ensured that it was clear to participants that there will be no personal gain by participating in the study.

3.10 Summary

This chapter discussed the multimethod approach applied in the study. Research methodology for phases one, two and three were discussed in detail. Additionally, the research setting, research design, study population, sampling method data collection instruments, reliability and validity, data collection process and ethical considerations were discussed. The next chapter will focus on presentation of results from quantitative study (Paper one).

CHAPTER FOUR

4. PAPER 1 PRESENTATION OF QUANTITATIVE RESULTS

4.1 Introduction

This chapter presents findings from Phase One (Study One) which addresses objective 1.1 of the study which was to: describe factors associated with physical and verbal violent incidents and the management of incidents.

4.2 Methodology

A quantitative, descriptive survey design was conducted in acute units in three psychiatric hospitals in the Western Cape. Purposive sampling was used to select participants. A 53-itemed, Likert type Workplace Violence Survey Questionnaire was used to survey experiences of physical and verbal abuse in the workplace over the last twelve (12) months. Data were analysed using SPSS version 25.

4.3 Study Outcome

This article has been submitted for publication in a peer-reviewed journal and is currently under second review after addressing comments from reviewers (Appendix xii).

Bekelepi, N., & Martin, P.D (2019). Self-reported incidents of physical violence and verbal abuse by nurses in acute psychiatric units. *Curationis*.

Self-reported incidents of physical and verbal violence by nurses in acute psychiatric units.

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Article submitted to the Journal: *Curationis* (under review- second round).

ABSTRACT

Background: Acute psychiatric units are found to be stressful working environments due to the nature of illness patients present with. The study aims to describe nurses' self-reported incidents of physical violence and verbal abuse in acute psychiatric units in Western Cape, South Africa.

Objectives: To describe factors associated with physical and verbal violent incidents and the management of incidents in acute psychiatric units in Western Cape, South Africa

Design: A descriptive, survey design.

Setting: Acute wards in three psychiatric hospitals in the Western Cape, South Africa.

Population and sampling: 103 nurses in acute psychiatric units participated.

Method: A questionnaire was used to collect data. Association between gender, category and experience of violence was done using the Chi-square test. Mann-Whitney U test done to identify associations between years of employment and the likelihood of experiencing physical violence and verbal abuse.

Results: Overall physical violence n=35(34.3%) and verbal abuse n=83 (83%). Most of the female respondents reported both physical violence (74.2%, n=26) and verbal abuse (72.2%, n=60), with (56.2%, n=18) of professional nurses reporting physical violence. Years of employment was statistically significantly associated with the likelihood of a nurse experiencing physical violence (p=.007).

Conclusion: Most respondents in this study were females. They were also the group who experienced physical violence and verbal abuse. Years of service were associated with the likelihood of experiencing physical violence. Most respondents reported dissatisfaction with the manner in which incidents are being handled. Management should ensure that staff get training on handling difficult patients, thereby ensuring a safe environment for staff and patients.

Contribution statement: The knowledge gained in this research will add to existing knowledge about the challenge of violence experienced by nurses in the workplace and might influence decision makers on finding ways to mitigate the problem and provide support for nurses.

Key words: acute psychiatric unit; nurses – professional and non-professional; physical violence; verbal abuse

Introduction and background

Globally, workplace violence in healthcare is a major public health concern. The prevalence of workplace violence towards nurses is significantly high in psychiatry settings compared to all other healthcare settings (Dean et al. 2021; Odes et al. 2021). On average, nurses are three times more likely to experience violence in the workplace compared to their counterparts (World Health Organisation, 2010; Liu et al. 2019). They have close contact with patients and their families which results in numerous interactions that can place them at risk of being exposed to violent incidents (Niu, Kuo, Tsai, Kao, Traynor & Chou, 2019). In a study done in Saudi Arabia, Al-Otaibi, Gamal & Edesouky (2016) reveal that nurses working in psychiatric settings had the highest rate of exposure to violence (84%). According to Lozzino et al. (2015), about 20% of patients admitted to acute psychiatric ward exhibit unpredictable violent behaviour. Sobekwa & Arunachallam (2015) stated that nurses are responsible for admitting, treating, and managing mentally ill patients who present with different mental disorders in mental health institutions and are therefore exposed to different challenges in their work environments. Staff have to use limit setting to control patient disruptive behaviour, which can lead to the risk of evoking negative feelings among patients (Salzamann-Erikson, 2017). Working in this environment can be demanding and its essence is intimate and often intense interaction with mentally ill people that includes confronting difficult and challenging behaviours. The unsafe work environment of mental health nurses not only impacts work stress but also reduces life satisfaction (Itzhaki et al. 2015). These limit setting include the locking of the acute psychiatric units, which limit patients from freely entering and leaving the unit because of restrictions and disease characteristics (Niu et al. 2019). Maguire et al. (2014) concludes that limit setting is necessary in a psychiatric ward to ensure the wellbeing and safety of staff and patients.

Nurses experience negative effects such as increased stress levels, decreased work satisfaction and had adverse long-term health consequences following an exposure to violence (Itzhaki et.al., 2018; Friis et.al., 2018). The emotional effects of violence on nurses include but are not limited to psychological consequences with a high rate of stress and other sequelae such as depression, PTSD, and burnout (Nguluwe et al. 2014; Stevenson et al, 2015; d'Ettorre & Pellicani 2017). In a study conducted by (Joubert & Bhagwan 2018) in the KwaZulu-Natal Province of South Africa revealed that nurses in acute psychiatric wards experienced increased levels of burnout and frustration due to working under stressful situations. Findings further revealed that nurses experience complex challenges in acute psychiatric wards as they are always faced with aggressive and unpredictable patient behaviour. In their study conducted in Gauteng Province, South Africa by Nguluwe

et al. (2014), findings showed that the effects of violence on emotions of nurses working in acute psychiatric wards are negative feelings. In the long run, these nurses who have unresolved psychological and emotional trauma may present with symptoms of altered mental health (Nguluwe et al., 2014). In a study conducted by Sobekwa and Arunachallam, (2015) in an acute ward in one of the psychiatric hospitals in Cape Town, participants perceived their working environment as unsafe. They further reported shortage of staff as one of the challenges they face in acute ward as the staffing does not compliment patient ratio.

Even though much research on workplace violence has been done globally for decades in psychiatric hospitals and in South Africa in particular. There is a scanty information on the violence experienced by nurses working in acute psychiatric wards in psychiatric hospitals in the Western Cape, therefore, with this study the researcher aims to bridge with the knowledge that will be generated which will help policy makers and management of these institutions in coming up with strategies that will assist in managing the situation.

Problem statement

Patients are admitted in acute wards to manage their psychotic symptoms. These acute psychotic symptoms may include hallucinations, delusions, and lack of insight into their mental illness. These patients often display violent behaviours towards nursing staff. In a systematic review, Lozzino, Ferrari, Nielssen and de Girolamo (2015), revealed that about 20% of patients admitted in acute psychiatric wards may commit an act of violence. This makes the role of nurses caring for these patients more demanding and challenging. Boafo et al. (2016) reported that most incidents of violence against nurses are not reported due to no action being taken to investigate or no action taken against the perpetrator of violence. studies also show that nurses working in psychiatric setting perceive violence as part of their working environment (Bekelepi et al. 2022; Agbornu et al. 2022). Therefore, this study aims to describe nurses' self-reported incidents of physical violence and verbal abuse in acute psychiatric units.

Objectives of the study

To describe factors associated with incidents of physical violence and verbal abuse, and the management of incidents.

Definitions of key concepts

Violence

The definition of violence is consistent with the WHO definition which alludes to violence being the intentional use of physical force or power, threatened or actual, against oneself, another person or against a group or community which either results in or has high likelihood of resulting in injury, death, or psychological harm (WHO, 2002).

Verbal abuse

Verbal abuse was defined as any annoying or unpleasant act (words, attitude, or actions) that creates a hostile work environment (Magnavita & Heponiemi, 2012).

Physical violence

For the purpose of this study physical violence refers to reported incidents of physical violence, and verbal abuse refers to alleged reported incidents of verbal abuse by respondents. Nurses- included professional and non-professional nurses who are registered with the South African Nursing Council to practice nursing.

Nurses- included professional and non-professional nurses who are registered with the South African Nursing Council to practice nursing.

Non-professional nurse

An individual responsible for assisting in the delivery of nursing care according to their scope of practice, under direct supervision of a professional nurse (Nursing Act 33 of 2005). In this study, a non-professional nurse refers to nurses (enrolled nurse and nursing assistant) registered with the South African Nursing Council to obtain a practice licence in order to provide nursing care to mentally ill patients under supervision of professional nurses.

Research method and design

A cross-sectional, quantitative, descriptive survey design was conducted in acute units in three psychiatric hospitals in the Cape Town metropolitan area, Western Cape Province, South Africa. This design was most suited to describe incidents of physical violence and verbal abuse as reported by nurses working in acute care settings the three psychiatric hospitals.

Setting

There are four designated psychiatric hospitals in the Western Cape, of which only three agreed in taking part in the study. The research study was conducted in six acute units of the three psychiatric hospitals in Cape Town, South Africa. These hospitals provide mental health services for persons with acute psychiatric disorders and intellectual disabilities to the larger population of the Western Cape. The acute wards are closed wards that admit patients who are mostly psychotic and have high risk of displaying violent behaviour. The bed capacity of the three hospitals is 1504, with total number of 856 nurses. The staff population that works in these three hospitals comprises of the multi-disciplinary team of nurses, doctors, psychologist, occupational therapist, and physiotherapist.

Study population and sampling strategy

The population of the study included all categories of nurses working in the three participating hospitals. An all-inclusive sampling was used and all categories of nurses working in the acute wards were recruited to participate in the study. The inclusion criteria required all nurses who had experienced violence while working in acute psychiatric wards, regardless of how long they had worked in the ward. Nurses who are involved

directly in bedside caring of psychiatric patients. All categories of nurses i.e. professional nurses and non-professional nurses (enrolled nursing assistants and enrolled nurses) were included.

Data collection method

Data were collected using self-administered questionnaires. The questionnaire was adopted from a previous similar study by World Health Organisation. The 53 itemed, Likert type Workplace Violence Survey Questionnaire, developed by the WHO, in conjunction with International Council of Nurses and Public Services International (2003) to survey experiences of physical and verbal abuse in the workplace over the last 12 months was used in this study (WHO, ILO, ICN, PSI, 2003). The questionnaire has been used in several studies across different countries such as Northern Taiwan (Niu et al, 2019), including South Africa (Steinman, 2003). Permission was sought from WHO to adapt some sections of the questionnaire that was relevant to the study for the survey. The overall Cronbach's Alpha of the questionnaire was 0.85. The questionnaire was adapted and modified to the study needs. The questionnaire had four sections i.e. section A: demographic data, section B: report on physical workplace violence; section C: report on verbal abuse in the workplace and section D: participant's opinions on workplace violence. Data were collected between March 2019 and May 2019.

A total number of 124 respondents received the self-report questionnaire along with written information about the study and consent forms. Of the 124 questionnaires, 114 (91.9%) were returned. After the exclusion of 11 questionnaires which had missing data, n=103 (83.1%) were analysed.

Data analysis

SPSS statistical version 25 was used for data entry and statistical analysis. Descriptive statistics for demographic data and physical violence and verbal abuse were calculated. Descriptive statistics were presented as a percentage and means. Frequency and percentages were used to quantify the type of violence, incident place, consequences for the alleged perpetrator, and the response of the nurses who experienced violence. The Chi-square test and Mann-Whitney U test was used to assess association between demographic variables (gender, nursing category, experience) and physical violence and verbal abuse.

Ethical considerations

Ethics approval was obtained from the Bio Medical Research Ethics Committee in one of the public universities in Cape Town, Western Cape (Reference: BM18/6/18), and the Western Cape Department of Health (Reference: WC_201809_005). Permission to conduct the study was obtained from the Chief Executive Officers of the selected psychiatric hospitals. Informed consent was obtained, and voluntary participation in the study was explained. Participant information sheets were given to all participants which explained the aim, ethical considerations, and guidelines for taking part in the study. Participant names were not linked to the data to ensure anonymity.

Results

Demographic information

The total number of respondents was n= 103 which is 83.1% response rate. The respondents' age ranged between 24 and 60 with the mean age being 40.89 (sd 10.36) years. Most of the respondents were female n=74 (71.8%) and n= 29 (28.2%) were males, more than half n= 60 (61.22%) were professional nurses, and n= 38 (38.7%) were non-professional nurses. The type of service the respondents worked in were 88 (97.7%) in general adult psychiatric with type of unit n= 100 (97.1%) in acute wards. The mean number of years of employment was 12.83 (sd 10.725), and for years worked in a unit was 6.03 (sd 5.356) and total years as nurse was 15.99 (sd 12.207) (Table 4.1).

Table 4.1: Demographic data of respondents (n= 103)

Item	**Statistic**
Age (mean in years, sd) (n=92)	40.89 years (sd 10.36)
Gender (n, %)	
Female	74 (71.8)
Male	29 (28.2)
Nurse category (n, %) (n= 98)	
Professional nurses	60 (61.2)
Non-Professional nurses	38 (38.7)
Type of service (n, %) (n= 90)	
Child and adolescent	2 (2.2)
General adult psychiatry	88 (97.7)
Experience (mean, sd)	
Years of employment (n=99)	12.83 years (sd 10.73)
Years worked in unit (n= 93)	6.0 years (sd 5.36)
Total years as nurse (n=100)	15.9 years (sd12.21)

Sd=standard deviation

Frequencies of physical and verbal attacks for three hospitals

The total number of respondents were 124 (n= 103 (83.1%) response rate). The respondents' age ranged between 24 and 60 with the mean age being 40.89 (sd 10.36) years. Most of the respondents were female n=74 (71.8%) and n= 29 (28.2%) were males; more than half n= 60 (61.22%) were professional nurses, and n= 38 (38.7%) were non-professional nurses. The type of service the respondents worked in were 88 (97.7%)

in general adult psychiatric with type of unit n= 100 (97.1%) in acute wards. The mean number of years of employment was 12.83 (sd 10.725), and the mean number for years worked in a unit was 6.03 (sd 5.356), and the mean number for total years as nurse was 15.99 (sd 12.207). (Table 4.2)

Table 4.2: Frequencies of physical and verbal attacks

Type of violence	Frequency (n)	Percentage (%)
Physical violence		
Physically attacked (Past 12 months)	35	34.0%
Perpetrator (Patient)	35	34.0 %
Attacked without weapon	32	31.1 %
Attacked with weapon	2	1.9 %
Attacked more than once	17	16.5%
Attacked once	14	13.6 %
Very worried about violence	44	42.7 %
Verbal abuse		
Verbally attacked (Past 12 months)	83	83 %
Perpetrator (Patient)	81	78.6 %
Staff member	2	1.9 %
Relatives	4	3.9 %
Management	3	2.9 %
Verbally attacked all the time	25	30.1 %
Sometimes	51	61.4 %

Factors associated with the incidents of physical and verbal violence

Of the total number of respondents n= 35 (100%) reported to have experienced physical violence, n= 9 (25.7%) were males while majority n= 26 (74.2%) were female. With nursing category, slightly more than half of respondents n=18 (56.2%) reported to have experienced physical violence were professional nurses, less than half n= 14 (43.7%) who reported to have experienced physical violence were non-professional nurses. The Chi-square test showed no significant association with experiencing physical violence and category of the respondent. With the reported verbal abuse, n=31(51.6%) were professional nurses, while n=47(60.2%) were non-professional nurses. There was no significant association with experiencing verbal abuse and the category of respondent. The Mann-Whitney U test showed a significant association between all categories of nurses and years of employment and the likelihood of experiencing physical violence

(p=.007), while there was no significant association in experiencing verbal abuse and years of employment for any category of nursing (p=. 354) (Table 4.3).

Table 4. 3: Factors associated with the incidents of physical violence and verbal abuse

	Alleged physical assault (n=35)			**Alleged verbal abuse (n=82)**		
	Statistic	**Test**	**p-value**	**Statistic**	**Test**	**p-value**
Gender						
Male	9(25.7%)	X^2=.081	.776	23(27.7%)	X^2=	.530
Female	26 (74.2%)			60(72.2%)		
Category of staff						
Professional nurse	18 (56.2%)	X^2= .636	.425	31 (51.6%)	X^2=.633	.426
Non-Professional nurse	14 (43.7%)			47 (60.2%)		
Experience (n=34)						
Total years as nurse	21.50 (13.7)			16.65 (12.4)		
Years worked in unit	7.93 (6.0)			6.41 (5.5)		
		U= 2.707	.007*	13.51 (11.2)	U= .928	.354
Years of employment	17.85 (12.5)					

Chi square X, Mann-Whitney U test

Management of incidents

Most of the respondents n=81 (81%) reported that they were encouraged to report any incidents of violence to management or supervisor, and the encouragement was mostly done by hospital management (88.4%, n=69). Of the n=31 (100%) respondents, n=14 (45.1%) reported that incidents of physical violence were investigated, and n= 14 (93.3%) reported that investigations were done by management. Only n=6 (26.0%) respondents reported that counselling was provided, and n=16 (59.2%) reported that opportunity to speak about the incident was provided. With regard to consequences for the perpetrator, n=11 (37.9%) reported that there was no action taken against the perpetrator of violence by hospital management. On a personal level, out of n=35 (100%) respondents who had experienced physical violence, n=30 (85.7%) reported the incident, but only n= 16 (45.7%) completed the incident form to report it, while n=8 (23.4%) took some time off work following the physical violence incident. In terms of satisfaction with the way management handled incidents of physical violence, n=10 (33%) respondents were satisfied while n=11 (36.6%) were not satisfied.

With regard to management of verbal abuse incidents, n= 20(26.3%) respondents reported that incidences were investigated. Of those n=17(89.4%) of respondents reported that incidents were investigated by

management, n= 10(20.4%) reported that counselling was provided, n=26(50.9%) reported that opportunity to talk about the incident was provided by the supervisors, n= 35(61.4%) while n=15(26.3%) reported that verbal warnings were issued to perpetrators.

In response to verbal abuse, n=17(21.4%) reported the incident, n= 8 (10.1%) completed incident form, while n=16(20.2%) reported to no action taken against the perpetrator. In terms of satisfaction with handling of incidents by management, n=22(39.2%) reported that they were satisfied while n=18(32.1%) were not satisfied (Table 4.4).

Table 4.4: Management of incidents (hospital and person)

Action	Physical violence (n, %)	Verbal abuse (n=%)
Hospital management		
Encouraged to report incidents	81 (81.3)	
Encouraged by management	69 (88.4)	
Incident investigated	14(45.1)	20(26.3)
Investigated by management	14(93.4)	17(89.4)
Opportunity to speak about incident	16(59.2)	26(50.9)
No action taken against attacker	11 (37.9)	35 (61.4)
Counselling provided	6 (26.0)	10 (20.5)
Personal		
Reported incident	30 (85.7)	17 (21.5)
Completed incident form	16 (45.7)	8 (10.1)
Satisfied with management of incident	10 (33)	22 (39.2)
Dissatisfied with management of incident	11 (36.6)	18 (32.1)

Discussion

The aim of the study was to describe nurses' self-reported incidents of physical and verbal violence. This study finding showed that verbal abuse was more prevalent than physical abuse (83%). The findings are similar to those of the study by Niu et al. (2019) where verbal abuse (78.8%) was reported more compared to

physical violence. These findings are similar to the studies by (Banda et al. 2016; Baby et al. 2014) which showed that verbal abuse was the most common form of violence reported by nurses. The current study showed that patients are the frequent perpetrators of both physical and verbal violence which is consistent with findings by Kobayashi et al. (2020) where patients were identified as most frequent perpetrators of physical violence. Participants in the current study expressed that they worry more about physical violence in their workplace which is consistent with the study by Agbornu et al. (2022)

Findings revealed that of the respondents in the study, females were mostly indicated to have been both physically attacked (74.2%) and verbally abused (72.2%). These findings are similar to the study by Alyaemni and Alhudaithi (2016) who noted that female nurses reported more verbal abuse than their male counterparts. In contrast, a study by Renwick et al. (2019) found that experience of physical violence was associated with being male and being longer in the nursing category. However, in the current study there was no statistically significant associated with gender and experiencing physical violence or verbal abuse, meaning that both male and female nurses had equal risk of exposure to patient violence.

The current study findings allude to professional nurses being more likely to experience physical violence (56.2%) than non-professional nurses. This could be that professional nurses are being trained in handling aggressive patients and are therefore assigned to manage patients in acute psychiatric units. This finding is consistent with the findings of the study by Stevenson et al (2015) in which professional nurses reported to have experienced verbal and physical violence. There were no statistically significant differences between the nursing category and experiencing physical violence and verbal abuse. The current study findings showed statistically significant association with years of employment and likelihood of experiencing physical violence (p=.007). This finding is consistent with the study of Akanni et al. (2019) which revealed that there was an association in having longer years of experience as a nurse and experiencing physical violence. The more experience the nurse had, the more he or she was vulnerable to physical violence.

Management of incidents by hospital management and the person experiencing violence, the current study findings showed majority of respondents reported that they were encouraged by management to report incidents. This is similar to study by Niu et al. (2019) which reveal that majority of participants reported that they were encouraged to report violence in the workplace. In response to physical violence, respondents in the current study reported that incidents of violence were investigated by management and this finding is similar to that of the study by Alyaemni and Alhudaithi (2016) in which participants reported that incidents were investigated. Respondents were provided with counselling and opportunity to speak about incidents, and this is similar to results from studies by Niu et al. 2019) and Alyaemni and Alhudaithi (2016). According to Stevenson et al. (2015), nurses need to reflect on their feelings after an incident, so they can discuss and share their emotional feelings with family or colleagues. Findings in the current study show that (37.9%) of respondents reported that no action was taken against the perpetrator of physical violence by hospital

management which is similar to the findings of a study by Niu et al. (2019), which reported (33.5%) of participants indicated that no action was taken against perpetrators of violence. On a personal level, respondents indicated that in response to physical violence, they reported the incident (85.7%), and of those who reported the incident only (23.4%) completed incident forms. Similar to this, a study by Banda et al. (2016) showed that nurses reacted to incidents of violence by reporting to a manager and completed incident forms.

In response to verbal abuse, current findings showed that verbal warning was issued against perpetrators, respondents reported the incident and completed incident form. Majority of respondents reported that they were not satisfied with the way hospital management handled incidents of violence. The current findings are consistent with other studies by Niu et al. 2019 and Alyaemni and Alhudaithi (2016).

Strength and limitations

This study adds to the already existing body of knowledge which describes the occurrence of violence as experienced by nurses working in psychiatric settings. The population of the study included only nurses working in acute psychiatric units of three psychiatric hospitals in the province, findings cannot be generalised to other long-term psychiatric units and other psychiatric institutions in the country. The small number of respondents that reported an experience of violence makes it difficult to draw firm conclusions. Respondents had to answer recall questions which would depend completely on their memory, and recall bias is possible.

Recommendations

It is recommended that management should make an effort to come up with strategies that will reduce the incidence of violence towards nurses in their workplace. It is important to educate and encourage staff about importance of reporting incidents of violence and ensuring that the process of completing incident form is made simple and easy to follow. Provide support to staff that have experienced incidents of violence. This could impact on staff performance of their duties which will in turn improve quality patient care.

Conclusion

The findings of this study are consistent with several studies which alluded to violence against nurses in psychiatric units. The findings revealed that verbal abuse being the most reported by respondents, and female nurses being the most reported experience of violent incidents. The significant association in years of employment as a nurse and the experience of physical violence by professional nurses is a concern especially, nurses who are frontline workers in acute psychiatric units. It is important that psychiatric settings simplify the reporting process and encourage staff to report all types of violent and verbal abuse incidents, which will help in developing strategies in preventing and managing violent behaviours in the workplace. If a safe environment is to be created in psychiatric inpatients settings, violence perpetrated by patients has to be

uncovered and be discussed openly. If that does not happen the wellbeing of staff and quality of care are compromised.

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Competing interests

The authors declare that they have no financial or personal relationship that may have inappropriately influence the writing of this article.

Author contribution

N.B. (PhD student) contributed to the data collection and data analysis; N.B and P.M. contributed to preparation of final version of the manuscript; P.M. supervised the project. All authors read and approved final manuscript.

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Data sharing is not applicable to this article, as no new data were created or analysed in this study

Disclaimer

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CHAPTER FIVE

5. PAPER TWO FINDINGS: EXPERIENCE OF VIOLENCE, COPING AND SUPPORT

5.1. Introduction

This chapter present findings from phase one (study two) which address objective 1.2 of the study. A qualitative research study was conducted to explore and describe experience of violence by nurses working in acute psychiatric wards.

5.2. Methodology

A qualitative, explorative, descriptive design was used through means of semi-structured interviews, from 14 participants working in acute wards in three psychiatric hospitals in the Western Cape, until data saturation. A purposive sampling strategy was used to select participants for the study. Data analysis was conducted following six steps of thematic analysis by Braun and Clarke (2006).

5.3. Study Outcome

The findings of this qualitative study has been published in a peer review journal (South African Journal of Psychiatry).

Bekelepi N, Martin P. Experience of violence, coping and support for nurses working in acute psychiatric wards. *South African Journal of Psychiatry*, 2022; 28(0), a1700

Experience of violence, coping and support for nurses working in acute psychiatric wards

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Background: Acute psychiatric wards are stressful working environments because of the nature of the mental illness of patients admitted. These patients present with a variety of complex psychiatric problems and social control that require skilled and competent nurses to manage them. The shortage of nurses, especially with advanced psychiatric qualifications or necessary experience, may create challenges for nurses as they navigate this stressful working environment.

Aim: The aim of this study was to explore and describe nurses' experience of patient violence, coping strategies and received support whilst working in acute wards in psychiatric hospitals.

Setting: This study was conducted in six acute wards of the three psychiatric hospitals in Cape Town, South Africa.

Methods: A qualitative, explorative, descriptive design was conducted using semi-structured interviews to obtain data from 14 nurses working in acute wards in three psychiatric hospitals in the Western Cape.

Results: Five themes were generated using thematic analysis: violence perceived to be 'part of the job', contributing factors to patient violence, physical and psychological effects on nurses, adaptive and maladaptive coping strategies and perceived support from stakeholders.

Conclusion: Participants normalised patient violent behaviour as being part of the job to minimise the physical and psychological effects of the traumatic experience. Adaptive and maladaptive coping strategies were used to cope with the traumatic experiences of being assaulted by patients. Recommendations allude to practising self-care and attendance of training in the management of aggressive patients for nurses, to enhance a variety of adaptive coping strategies.

Keywords: acute ward; coping; experience; nurse; support; violence.

Introduction

The incidence of violence towards healthcare staff in psychiatric wards, including nurses, is repeatedly depicted as high in comparison with other health care environments.[1] However, many healthcare staff members consider patient violence to be a routine part of their work, thus normalising violence.[2] Violence is defined as the:

> [*I*]ntentional use of physical force or power, threatened or actual, against oneself, another person or against a group or community which either results in or has a high likelihood of resulting in injury, death,psychological harm.[3]

Nurses, as front-line workers working in acute psychiatric wards, are in close contact with patients and their families, resulting in numerous interactions that make them at risk of encountering violent incidents.[2,4] Patient physical assault of staff members is disturbingly prevalent in psychiatric settings,[5] with 36.4%[6] and 95%[7] of nurses experiencing physical assault. Lozzino et al.[8] purported that one in five patients admitted to acute psychiatric wards may commit an act of violence, which may impact the quality of care.

Being exposed to routine violence can overwhelm the usual coping strategies used by nurses and reduce cognitive, emotional and behavioural performance that might negatively affect the quality of care.[9] The present study aimed to explore and describe nurses' experiences of patient violence in acute psychiatric wards, coping strategies and perceived support following violent incidents.

Research methodology

Study design

A qualitative, exploratory and descriptive design was used inthis study.

Setting

This study was conducted at six acute wards of three psychiatrichospitals in Western Cape. The wards are 30-bedded wards.Most of the patients were admitted involuntarily as they presenta danger to themselves and others.[10]

Study population and sampling strategy

The study population included all nursing categories (professional nurses, enrolled nurses and enrolled nursing assistants) working at the participating hospitals. A purposivesampling was used to select 14 nurses from the nursingcategories working in acute wards providing direct patient care and who had experienced physical violence from patients.

Data collection

Data were collected from August to October 2019. Twelve females and two males participated in the study. A semi- structured interview guide was used with the following questions. (1) Can you describe your experience of being assaulted by a patient? (2) Describe how you felt after the incident. (3) What help did you receive after the incident of assault? Probes were used to elicit clarity on responses. The interview guide was piloted with two participants, who wereworking in an acute ward in one of the selected psychiatric hospitals, to check if the questions were clear and whether they elicited information to meet the aim of the study. The interviews were conducted in a private room in the research settings. All interviews were audiotaped with the permissionof the participants.

Trustworthiness was enhanced by the use of Lincoln and Guba's framework as cited in Creswell,[11] which included criteria of credibility, transferability, dependability and confirmability. Member checking was done by sending transcripts to participants for validation if there was information that they wanted to add or remove if it did not reflect their experience. The research supervisor acted as an independent coder. The researcher bracketed preconceived ideas about violence by psychiatric patients to ensure that thefindings only represented the views of the participants. To ensure the confirmability of results, excerpts from the transcribed interviews were used in the description of the findings.

Data analysis

All audio-recorded interviews were transcribed verbatim.Transcribed data were imported into Atlas.ti 8 software.Thematic analysis following the criteria by Braun[12] was used

to analyse the data. Five themes were generated depicting nurses' experience of patient violence, coping and perceivedsupport whilst working in acute wards at three psychiatric hospitals.

Ethical considerations

Ethics approval was obtained from the BioMedical ResearchEthics Committee in one of the public universities in Cape Town, Western Cape (Reference No.: BM18/6/18) and the Western Cape Department of Health (Reference No.: WC_201809_005). Permission to conduct the study was obtained from the head of each hospital. Informed consent was obtained from all the participants, and participants wereinformed that participation in the study was voluntary. Participant information sheets were disseminated to all participants explaining the aim, ethical considerations and guidelines for participation in the study. The researcher ensured that the names of participants were not linked to thedata to ensure anonymity. Transcriptions were kept locked ina safe place to maintain confidentiality.

Results

Participants' demographic information is provided in Table 1.Most of the participants were female. The participants' registration category as a nurse with the South African Nursing Council varied.

TABLE 1: Participants' demographic data.

Participant	Gender	Age (years)	Years of experience	Nursing category
LP1	Female	28	5	Professional nurse
LP2	Female	44	18	Professional nurse
LP3	Female	58	33	Professional nurse
LP4	Female	28	4	Enrolled nursing assistant
LP5	Female	57	33	Enrolled nurse
SP6	Female	37	7	Enrolled nursing assistant
SP7	Female	31	4	Enrolled nursing assistant
SP8	Female	56	30	Professional nurse
VP9	Male	34	5	Enrolled nursing assistant
VP10	Female	43	5	Professional nurse
VP11	Female	56	29	Professional nurse
VP12	Male	39	9	Enrolled nursing assistant
SP13	Female	35	4	Enrolled nursing assistant
SP14	Female	35	10	Professional nurse

Themes and categories

Five themes and 16 categories emerged from the analysis of the data and are depicted in Table 2.

TABLE 2: Participant themes and categories.

Themes	Categories
1. Violence perceived to be part of thejob	• Justified patient violent behaviour as patients were perceived to be right. • Being violent was seen as part of the illness. • Dealing with patients' violent behaviour was seen as an expectation of the job. • Hesitant in reporting incidents because of the way they were dealt with.
2. Contributing factors to patient violent behaviour	• Inability to access nicotine because of smoking policy changes. • Diagnosis, history and the type of patient
3. Physical and psychological effects on nurses	• Physical injuries and psychosomatic effects of the trauma were reported by participants. • Physiological and psychological signs and symptoms in response to violence by patients.
4. Adaptive and maladaptive coping strategies	• Sharing ways of dealing with traumatic experiences at work and finding help to cope with the situation. • Using humour to cope with violent incidents. • Hypervigilant around patients. • Minimising the effects of violence and withdrawal from patients.
e. Perceived support from stakeholders	• Formal support received from supervisors. • Support from family and colleagues. • Perceived lack of support from management, which when given was perceived to be unsatisfactory. • Interrogation following an incident. • Training on management of aggressive patients after incidents.

Theme 1: Violence perceived to be part of thejob

Participants appraised the environment by justifying the violent behaviour displayed towards them by patients as an inherent attribute of working in acute psychiatric wards. Thenature of the work raised an expectation amongst the participants that they may be exposed to violent behaviour or incidents displayed by patients who could not be held accountable for their behaviour. This has been noted by theparticipants who said:

> 'But I mean the patient is psychotic … it is part of her illness.'LP3 (female, 58 years, professional nurse)

> 'You must know how to treat your patients and the patient isright all the time.' LP3 (female, 58 years, professional nurse)

Violent incidents were experienced as challenges as participants normalised the patient's behaviour. Regardless of the working

environment, participants did not feel the need to be moved to another ward.

'Because it's part of your job … You must just carry on with yourduties.' VP11 (female, 56 years, professional nurse)

'… [*F*]or me it's like I know I am working in this kind of environment, so it can happen at any time.' SP6 (female, 37 years,enrolled nursing assistant)

'No, I didn't even think of going out of the unit, yeah, I was justholding on and waiting for the next challenge to come.' VP10 (female, 43 years, professional nurse)

Violence was an expectation that was deemed to be part of the unsafe working environment.

'I don't feel safe as I did …. in psychiatry you can never feel safe,but now I'm more cautious.' LP1 (female, 28 years, professional nurse)

Theme 2: Contributing factors to patient violent behaviour

The changes in hospital smoking policy, patient diagnosis and type of admission were identified as factors contributingto patient violent behaviour. Participants reported that when patients were unable to access cigarettes, they became violent.

Participants felt the restrictions that had been posed by the implementation of the new rules on smoking times had contributed to patient violent behaviour, as noted by the following participants:

'I remember on that particular night he wanted a smoke, and wehave rules in the unit … and it wasn't a smoking time.' LP2 (female, 44 years, professional nurse)

'First of all, our patients are addicted to tobacco … if I can say …let me just say psych patients are addicted to tobacco … So … they can't cope without smoking.' VP9 (male, 34 years, enrolled nursing assistant)

Participants identified various mental illnesses and associated symptoms as contributing to patient violent behaviour. Accompanying the mental illness were patients who had a history of violent behaviour towards staff members.

'Yes, definitely, there is a difference; most of our patients come now with substance-induced psychosis and display challengingbehaviour.' VP10 (female, 43 years, professional nurse)

'Oh … is mostly the aggression … especially with bipolar moodpatients when they do not like you, they don't like you, that wasone of them and the other thing is when they are delusional.' LP3(female, 58 years, professional nurse)

'We had this one patient, who is one of our chronic [*patients*], thathas a tendency of choking people whether [*it*] is patient or staff member, that was the patient's habit.' LP2 (female, 44 years, professional nurse)

Involuntary admission of patients who were a danger to themselves and others was identified as contributing to violence towards the participants.

'The patient was aggressive and because she was an involuntaryadmission, she was not keen to come in.' LP4 (female, 28 years, enrolled nursing assistant)

Theme 3: Physical and psychological effects on nurses

Post-exposure to experiencing patient violence manifested inphysical and psychological effects on nurses.

Participants reported having suffered injuries, such as bruises, bites and punches during physical attacks by the patients. These attacks were unexpected as they occurred suddenly without provocation. Some of the attacks left participants permanently physically disabled.

'She grabbed my finger and she bit me on my thumb, and she didn't let go. I could feel the teeth in my flesh, and we couldn't let go.' SP8 (female, 56 years, professional nurse)

'I never thought in my mind that I would ever be assaulted by apatient, and I'm permanently disabled. I'm limping and I'm not well at all.' VP12 (male, 39 years, enrolled nursing assistant)

'As I was talking to her, she did not answer, instead she punchedme in the stomach.' SP7 (female, 37 years, enrolled nursingassistant)

Participants described the trauma experienced during a violent incident where they were attacked by patients. Participants reported trauma-related thoughts of pendingdeath and accompanying anxiety following the violent incident.

'Yhoo! I actually thought I'm gonna die, I'm not lying, like I saidwe were, I was … I was standing up straight but from behind hegot and … as he held me, we were going down on the floor (participants demonstrated).' LP1 (female, 28 years, professionalnurse)

'I think I was feeling so hot and bothered, sweating, anxious, hmm … overwhelmed, still in disbelief.' LP2 (female, 44 years, professional nurse)

'I was a bit nervous, but I couldn't allow him to see that I was nervous, he came to me to apologise after the incident, but the first 3 days I felt that … you know that … that jittering feeling you get in your stomach.' LP2 (female, 44 years, professional nurse)

Participants described the fear they experienced when they were attacked by patients. The inability to access help further exacerbated the feelings of hopelessness as the people who were meant to protect them, such as the security officers, were deemed unable to do so. An intense emotional state of anger and of being violated resulted in a participant being absent from work for a lengthy period of time to deal with the effects of the incident.

'Oh yeah … I felt hopeless, that was one of the things, hopeless because I couldn't really protect myself or the security couldn't help me.' LP3 (female, 58 years, professional nurse)

'I was scared because maybe … I don't know what is on the patient's mind, I don't know what can happen again, or what.' SP6 (female, 37 years, enrolled nursing assistant)

'Yoh! I was angry, I was really angry, I felt so violated and I felt so

… [*sighs*] I'm not coming to work for a whole month.' SP8(female, 56 years, professional nurse)

Theme 4: Adaptive and maladaptive coping strategies

The study participants shared their ways of coping with the traumatic experience. These included talking to colleagues about their experiences and humour as adaptive coping strategies, minimising the seriousness of the incidents and the effects and withdrawal from patients as a maladaptive coping strategy. They further alluded to time being a healer of traumatic experiences.

'I did cope well because I did speak to my colleague about it.' LP5 (female, 57 years, enrolled nurse)

'Yeah … that's how you relieve your stress …. we also joke aboutit afterwards.' LP3 (female, 44 years, professional nurse)

'What is also helping me is that I talk about it a lot even with mycolleagues … and even talking to strangers like you do helps in away.' VP11 (female, 56 years, professional nurse)

'It wasn't as bad as I thought it would be afterwards … I wasn't very traumatised, I would say, but we were just taking safety precautions, yeah.' LP1 (female, 28 years, professional nurse)

Participants reported that they tended to be hypervigilant when around patients and distanced themselves from some known patients with violent behaviour. They also reported that they became cautious when patients became overfamiliar,so withdrawal was used as a form of coping in situations likethese.

'It made me, ah … keep a distance from them, yes, because sometimes the patients just want to come to you and maybe grabyou.' LP5 (female, 57 years, enrolled nurse)

Theme 5: Perceived support from stakeholders

Some participants reported a lack of support following an incident, whilst others reported that they were not satisfied with the support provided, as top management seemed not to care about their well-being. Some participants reported that they have received support from managers, family, friends and colleagues as they felt these people were always available to talk to.

'My operational manager was quite supportive … She was also angry that we have worked so hard, and we care for those people, and this is what happened and that they hurt you for noreason, but she gave me a lot of support really.' SP8 (female, 56 years, professional nurse)

'But my children were very supportive then and even now.' VP11(female, 56 years, professional nurse)

'I got all the support I needed, right, but what hurt me, top levelfrom the area manager, I didn't … you know, I feel that is very important as a person working in a hospital, just that little phonecall … you know, and that hurt because that I didn't get, that was the only thing.' LP1 (female, 28 years, professional nurse)

The apparent, perceived lack of management support made participants feel that they were the cause of patient attacks onthem. Incidents were not reported to management, as participants reported being interrogated about theircontributing role to the violent behaviour by patients.

'The action they take when they investigate the incidents, they always ask staff "what have you done to the patient?" Althoughthey know the patients that we are dealing with, and people arereluctant to report incidents because they know they will be cross-questioned.' VP9 (male, 39 years, enrolled nursing assistant)

'I would be lying if I'm saying the manager ever phones to checkup on me when I told them I have depression.' SP13 (female,35 years, professional nurse)

Prior to working in an acute psychiatric ward, training on themanagement of violent patients was identified as a need. One participant reported being sent for training on management of violent patient behaviour after an incident.

> 'I was only sent for training after the incident … maybe it was done for the future as well, as that could happen again.' LP4 (female, 28 years, enrolled nursing assistant)

Accessibility to the staff support programme, Independent Counselling and Advisory Services (ICAS), was limited when participants experienced violent incidents. They reported requiring immediate intervention, which was perceived to be unavailable. Some participants organised their own counselling. The need for an in-house, hospital- based psychologist was identified to provide immediate support to staff members who had experienced violence.

> 'My experience with ICAS is when you phone them, you want tosee them tomorrow or they make an appointment. I want somebody to be there now… then they come to see you, by that time I'm away.' SP8 (female, 56 years, professional nurse)

> 'I did organise the counselling myself outside of the facility, butthe facility itself did not.' VP10 (female, 43 years, professional nurse)

> 'I think it was going to be better if maybe at the hospital we havepsychologists that are there for the staff.' VP10 (female, 43 years,professional nurse)

Discussion

Nurses in this study detailed their traumatic experience following exposure to patient's violence in the acute ward, alluding to these incidents as expected when working in acute units. Participants identified perceived factorscontributing to incidents, the effects of these incidents and various individual and organisational support strategies.

Nurses working in psychiatric settings are frequent victims of workplace violence, most of which are perpetrated by patients.[13] In the current study, participants perceived the culture of the psychiatric ward as one where patient violencewas accepted as part of the job and unavoidable, often justifying this behaviour of patients as part of their mental illness. This may hinder the reporting of these incidents, as they deemed them not important. Moylan et al.[14] stated that when staff members see violence as part of the job, they do not recognise the need for reporting, which may have an impact on the provision of support. Zuzelo et al.[15] alluded that being exposed repeatedly to violence may increase the likelihood of desensitisation. Despite being assaulted by patients, the participants reported that they were expected tocontinue with work. Similarly, participants in Yang et al.'s study[16] reported that their expected roles as nurses had to continue caring and maintaining contact with patients who assaulted them.

Participants identified various contributing factors to patientviolence in the acute wards. These included changes in smoking policy that had an impact on the accessibility of nicotine in hospital settings. Similar findings were reported in a study on a trial of smoke-free policy in an acute mental health unit where participants reported an increase in physical injuries because of patient violence.[17] Although not all patients or even patients with a history of violent behaviour may display violent behaviour,[16] the participants reported that in their experience, patient diagnosis and associated symptoms were contributing factors to patient violence. These findings are consistent with that of Nguluweet al.,[18] where participants reported mental illness as one of the reasons for patient violence. Most participants in the study reported that these violent incidents by patients happened suddenly without any provocation, and patients were seen as unpredictable. Similarly, Yang et al.[16] reported that patients are unpredictable, and these assaults occur suddenly during ordinary contact.

Looking at the forms of physical violence experienced, the findings alluded that participants were punched, choked, kicked or slapped. Similar findings were reported by Nguluwe et al.,[18] where participants reported being beaten, slapped, bitten, grabbed and pushed. In this study, participants suffered physical injuries such as fractured bones, bruises, torn tissues and permanent physical impairment. Consistent with this, Stevenson et al.[2] reported that participants were suffering from negative physical health following an exposure to physical violence, such as bruises, bites, musculoskeletal shoulder and knee injuries, headaches and muscle tensions.

Fear, shock, anger and disbelief following an exposure to violence were reported in this study. Fear was described by the participants as they felt helpless and did not know what the patients were capable of and what could happen if they failed to manage the situation. Similarly, Maluleke et al.'s study[19] showed that when nurses experience violence, they become fearful of patients and make protecting themselves apriority, which may impact patient care. Anger towards perpetrators of violence was also reported, which made participants feel like staying at home and not facing thepatients. Stevenson et al.[2] also reported anger towards patientsfollowing an incident and that it was most prevalent if staff members perceived that the patient could have controlled their behaviour. More than fear, some participants reported having suffered from mental illnesses such as depression andpost-traumatic stress disorder (PTSD) after being assaulted bya patient. Similarly, Dean et al.[20] reported that participants showed signs of depression, anxiety, burnout and PTSD which affected their personal and professional lives.

Coping is defined as 'constantly changing cognitive and behavioural efforts to manage specific demands that are appraised as exceeding the resources of a person'.[21] Happell et al.[22] suggest that if stressors cannot be avoided in the working environment, nurses need to be assisted with developing adaptive coping strategies to improve their lives.Participants in this study used adaptive or maladaptive coping strategies to mitigate the effects of violent trauma theyexperienced. Peer support by talking about the experience assisted participants to cope with the traumatic experience. Similarly, participants in Niu et al.'s study[4] reported that talking to family and friends released their emotions after anexposure to violence. Withdrawal as a form of coping was reported by participants to ensure their safety. This type of coping may have a negative effect on the quality of care rendered to patients as staff members avoid interacting withthe patients that assaulted them. Similarly, participants in Stevenson et al.'s study[2] reported that to ensure their safety, they physically distanced themselves from patients when they were assigned to provide nursing care to the perpetrator.[2]

Some participants in the study reported receiving support (phone calls and messages) from their supervisors, family and friends following a violent incident. Others verbalised their disappointment in the lack of support from top management following a violent incident. Consistent with this study, Stevenson et al.[2] reported that nurses described feeling angry, unsupported and blamed by their managers, whilst others reported that the managers showed support bymeans of phone calls which were perceived to be thoughtful.Similarly, Yang et al.[16] reported that participants sought informal support from other staff members as managers at times did not fulfil their need for support.

It became evident in the current study that participants underutilised the existing formal support for which theygave reasons. Some participants said it is the responsibility oftheir managers to provide the support required when exposed to violence and noted the timing of referrals and theresponse from the service provider. Although the hospitals paid for staff support services, it was deemed unavailable, and recommended that hospitals have a hospital-based psychologist. They believed that psychologists would have abetter understanding of the challenges they encounter. Participants in this study indicated to have organised their own counselling because of a perceived lack of support as they could not cope after the violent experiences. Similarly, Zhao et al.[23] reported that participants received support fromcolleagues, family and friends following an exposure to violence but a lack of support from management. Staff support procedures following a violent incident were noted by Cooper et al.[24] as a concern. The timing of follow-up was hindered by staff members being off duty after the incident. Support may not have been needed upon return to work.

Training of staff members on management of aggressivepatients prior to working in the acute ward was deemed necessary. However, training as a preventative measure wasunderutilised, with only one participant reporting having been sent for training in management of aggressive patients following an assault. Timori et al.[25] expressed the need for training to manage patients in acute wards to reduce the riskof injuries.

Conclusion

Nurses working in acute psychiatric wards experienced physical violence from the patients; however, they normalised the behaviour. Adaptive and maladaptive coping strategies were used in coping with traumatic experience. Recommendations allude to the use of self-care and organisational support by means of the training in the management of aggressive patients to enhance adaptive coping strategies.

Limitations

Because of time constraints and limited resources, this studyonly included acute wards in three psychiatric hospitals,which limit the generalisability of the findings. Secondly, thesample of the study was mostly female nurses. These findings should be treated with caution as coping strategies might bedifferent for both genders.

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Competing interests

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Authors' contributions

N.B. contributed to the data collection and data analysis. N.B.and P.M. contributed to preparation of the final version of the manuscript. P.M. supervised the project.

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Data availability

Data can be made available upon request from the corresponding author (N.B.).

Disclaimer

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CHAPTER SIX

6. PAPER THREE FINDINGS: STRESS REDUCTION INTERVENTIONS

6.1. Introduction

This chapter present the findings from phase two (paper three) systematic review which addressed objective 2.1 and 2.2 of the study. It includes a background, objectives, review questions, methodology and results.

6.2. Methodology

A comprehensive search was done from the following databases*:* Academic Search Complete, CINAHL (Cumulative Index for Nursing and Allied Health Literature), Google Scholar, Health Source: Nursing/Academic Edition (EbscoHost) MEDLINE, PubMed, and Wiley Online Library, for the period from 2010 to 2021. The following standardised instruments: JBI critical appraisal checklist for Randomised Controlled Trials and JBI critical appraisal checklist for quasi-experimental studies were used for critically appraisal of selected studies. Collected data was synthesised using a textual narrative qualitative data synthesis.

6.3. Study Outcome

The findings of the systematic review have been published in a peer-reviewed journal. (Health SA Gesondheid)

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Support interventions for nurses working in acute psychiatric units: A systematic review

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Diverse support interventions have been implemented to provide support for nurses working in acute psychiatric settings. These interventions aimed at modifying thepsychological and social factors, as they either prevent stress responses or reduce its effects to improve the psychological well-being of staff. This study aimed to examine effective stress reduction interventions for nurses and to identify key elements of these successful interventions. Studies included in this review were conducted in acute psychiatric settings. A comprehensive search of electronic databases was conducted for support intervention studies between 2010 and 2021. The search yielded 315 studies that were reduced to seven studies after being reviewed by two independent reviewers. The studies were coded, and key elements were identified. Seven studies that were included consisted of a randomised controlled trial, quasi-experimental design and single-group design. Interventions included mindfulness-based stress reduction, burnout prevention programmes, communication skills, educational programme, group intervention, resilience training programme and stress management. Four key elements emerged from these interventions, namely, educational support, interpersonal skills, psychological support and adaptive coping. The findings highlighted the diverse interventions in supporting psychiatric nurses to cope with stress. However, there is a dearth of studies in acute psychiatric settings that were mostly done in emergency settings. Knowledge gained from this review may assist with practice improvement as managers can implement the identified interventions.

Contribution: This is the first systematic review focusing on supportive interventions for nurses in acute psychiatric settings. The knowledge gained from this review will add to the existing research knowledge base in the field.

Keywords: acute mental health; emotional support; intervention programme; nurse; mental health unit; psychiatric hospital; supportive intervention; workplace violence.

Introduction

The psychiatric setting can be a stressful working environment for nurses caring for people with mental illness (Foster, Wood & Clowes 2020:2). Within this environment, patients admitted to acute psychiatric units compound the stress experienced by nurses as they are often admitted with unpredictable violent behaviour (Lozzino et al. 2015:15). Researchers have alluded to mental health consequences for nurses caring for patients presenting with violence that include burnout (Morse et al. 2012:344), poor mental and physical health (Kelly et al. 2016:711) and compromised well-being (Edward, Hercelinsyj & Giandinoto 2017:216).

Diverse psychosocial interventions are implemented to provide support for nurses working in psychiatric settings (Foster et al. 2018; Guay, Goncalves & Boyer 2016; Inoue, Kaneko & Okamura 2011). These interventions are aimed at modifying psychological and social factors (Ruddy & House 2005:3) as they either prevent or reduce the effects of stress to improve the psychological well-being of staff. The interventions include but not limited to mindfulness-based stress reduction (MBSR) programme (Kabat-Zinn 2003), mindfulness-based cognitive therapy (Segal, Williams & Teasdale 2013), resilience training programmes (Foster et al. 2018), educational programmes (Guay et al. 2016) and yoga programmes (Mandal et al. 2021).

Several studies (Brady et al. 2012; Guay et al. 2016; Sailaxmi & Lalitha 2015) explored the impact of psychosocial interventions on the mental health well-being of nurses working in psychiatric settings and have showed a positive impact. Mindfulness-based stress reduction interventions have showed positive results with various programmes offering brief time-limited interventions aimed at improving psychological well-being. A structured yoga programme that composed of 12 weeks of 20 sessions showed positive effects in reducing stress and improving quality of life

among nursing staff(Mandal et al. 2021:8).

Mindfulness-based stress reduction programmes have showed impact in reducing the levels of anxiety and depression (Yang, Tang & Zhou 2018:192) and perceived stress and burnout among psychiatric nurses (Edwards 2015:62). Studies on the effectiveness of stress management training programmes that are aimed at improving the psychological well-being of nurses showed positive effects of the interventions by improving copingstrategies among nurses (Alkhawaldeh et al. 2019:130; Pahlevani et al. 2015:316).

A review by Foster et al. (2019:80) confirmed that resilience training programmes were beneficial for nurses working in mental health settings. While these interventions share common aims, which are, to reduce perceived stress, improvecoping skills, as well as improve psychological well-being ofnurses, they tend to differ, in terms of delivery and theduration of the programme. However, literature showed thatthere is a paucity of studies on supportive interventionsconducted in acute psychiatric settings; studies were mostly conducted in emergency settings that motivated the researcher to conduct this systematic review to examine effective interventions in supporting nurses working in acute psychiatry and to identify aspects (key elements) within the interventions that were deemed effective. In this review, the researcher intends to compare and summarise findings from studies that address the range of supportive interventions for nurses working in acute psychiatric settings.

Review objectives

The main objective of this review was to examine effective stress reduction interventions for supporting nurses exposedto patient violence in acute psychiatric units. The second objective was to identify the key elements of such interventions that support nurses to cope and improve their well-being.

Review questions

- What are the stress reduction intervention programmes for nurses exposed to patient violence in acute psychiatricunits?
- What are the key elements of these effective interventions?

Method

This review was conducted using standard systematic review methodology following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols (PRISMA-P) 2015 statement (Moher et al. 2015).

Eligibility criteria

Inclusion and exclusion criteria

Articles were only considered for inclusion if they included nurses (professional and non-professional) working in acute psychiatric units, as well as general hospitals. Studies were also eligible if the population involved other healthcare workers, which included nurses as part of the sample. Studies had to be published between 2010 and 2021; the literature showed that most studies that focussed on psychological interventions were conducted during this time. Studies had to be written in English. Studies that aimed at providing formal and informal, individual or group support to nurses working in acute care were also included. Only studies that were conducted in acute psychiatric units in both general and psychiatric hospitals were included.

All study designs were considered published in peer- reviewed journals, randomised controlled trials, quasi-experimental studies, systematic reviews or evaluationstudies aimed at providing support for nurses. However, studies with the following criteria were excluded: non- English, if nurses were not included in the population, setting was not an acute psychiatric care unit, scoping reviews, narrative reviews, literature reviews and protocols.

Search strategy

The search strategy was aimed at locating published, as well as unpublished studies. The researcher conducted a search on Medical Literature Analysis and Retrieval System Online (MEDLINE) and Cumulative Index for Nursing and Allied Health Literature (CINAHL) to identify articles related to the topic. The following multiple search terms, and any other synonyms, in combination with Boolean operators, were used in the search of all databases, including (intervention OR 'intervention programme' OR 'intervention strategy' OR 'supportive intervention' OR 'staff support programme' OR 'programme') AND (emotional support). AND ('acute mental health' OR 'psychiatric ward'OR 'psychiatric hospital' OR 'mental health unit') AND (nurs* OR 'nurses' OR 'nursing'). A comprehensive search was done from the following databases: Academic Search Complete, CINAHL, Google Scholar, Health Source: Nursing/Academic Edition (EbscoHost) MEDLINE, PubMed and Wiley

Online Library. The researcher screened the reference list of all identified articles for possible additional studies that could have been missed during the search. The search generated 315 articles.

Critical appraisal

The two independent reviewers (N.B. and P.M.) critically appraised the seven selected articles, for methodological quality, using the following standardised instruments: The Johanna Briggs Institute (JBI) critical appraisal checklist for Randomised Controlled Trials and JBI critical appraisal checklist for quasi-experimental studies. Quality assessment was performed by reviewers independently (N.B. and P.M.) (Table 1 and Table 2). The reviewers discussed any disagreements to reach consensus or third reviewer was involved.

TABLE 1: Quality score for quasi-experimental studies using JBI appraisal checklist for quasi-experimental studies.

Author and year	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Score	Quality
1. Chen et al. (2010)	Y	N	N	Y	Y	Y	Y	Y	Y	7	Moderate
2. Sailaxmi and Lalitha (2015)	Y	Y	N	N	Y	Y	NA	Y	Y	6	Moderate
3. Alenezi, McAndrew and Fallon (2019)	Y	Y	N	Y	Y	U	Y	Y	Y	7	Moderate
4. Ghazavi, Lohrasbi and Mehrabi (2010)	Y	Y	N	Y	Y	Y	Y	Y	Y	8	High
5. Foster et al. (2018)	Y	Y	N	N	Y	NA	NA	Y	Y	4	Low

Source: Adapted from Mansoor, K. & Khuwaja, H.M.A., 2020, 'The effectiveness of a chronic disease self-management program for elderly people: a systematic review', *Elderly Health Journal* 6(1), 51–63

Y, Yes; N, No; U, Unclear; NA, Not Applicable; Q, Question.

Score grading: (1–4 low); 5–7 (moderate); 8–9 (high).

TABLE 2: Quality score of randomised controlled trials using JBI appraisal checklist for randomised controlled trial.

Author and year	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Score	Quality
Yang, Tang and Zhou (2019)	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	11	High
Inoue, Kaneko and Okamura (2011)	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	11	High

Source: Adapted from Mansoor, K. & Khuwaja, H.M.A., 2020, 'The effectiveness of a chronic disease self-management program for elderly people: a systematic review', *Elderly Health Journal* 6(1), 51–63

Y, Yes, N, No, U, Unclear, Q, Question.

Score grading: 1–5 low; 6–8 moderate; 9–12 high.

Data extraction

Two independent reviewers (N.B. and P.M.) extracted data forthe review. The following information was extracted: authors,year, country, design, intervention, setting, sample, outcome scales, and findings. The reviewers resolved disagreements through discussion or with the involvement of a third reviewer.

Data synthesis and reporting

A textual narrative qualitative data synthesis was undertakenfor the extracted data because of the heterogeneity of the interventions and outcomes measured. This type of analysis is suitable for synthesizing evidence of different studies (Barnett-Page & Thomas 2009). The PRISMA statement was used as a guideline to report the systematic reviews of these interventions.

Ethical considerations

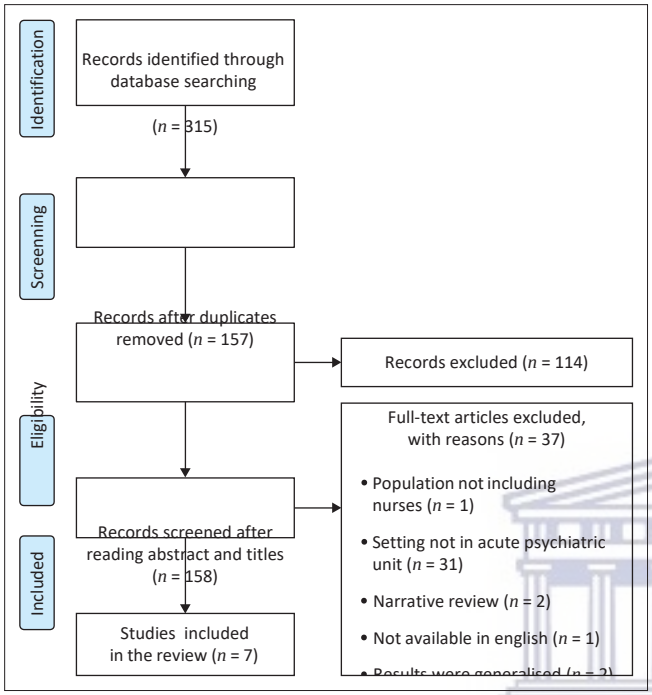
Ethical clearance was obtained from Biomedical Science Research Ethics Committee (reference number: BM18/6/8) of the University of the Western Cape, this systematic reviewforms part of the process towards completion of the PhD.

Results

Study selection

A total of 315 articles were generated from all databases searched. All identified articles were collated and imported to reference manager software Endnote X7.8, which automatically identified duplicates. Following the removal of

157 duplicates, 158 articles remained for the screening process of the titles and abstracts, against the inclusion criteria, which was undertaken by two independent reviewers (N.B. and P.M.). A total of 114 articles were foundnot relevant for the review based on the title and abstract screening and were excluded. The remaining 44 articles wereretrieved and reviewed by two independent reviewers (N.B.and P.M.), against the inclusion criteria to make the final decision whether the article will be included in the review, nd a further 37 articles were excluded. Reasons for theexclusion of articles were recorded and are displayed inFigure 1. There were seven articles that were deemed suitablefor inclusion in the review. Disagreements between the reviewers were resolved through discussion. Figure 1outlines the search process, results and reasons for the exclusion of articles.



Source: Moher, D., Liberati, A., Tetzlaff, J. & Altman., D.G., 2009, 'Preferred reporting itemsfor systematic reviews and meta-analyses: The PRISMA statement', *PLoS Medicine* 3(2), 123–130. https://doi.org/10.1016/j.jclinepi.2009.06.005

FIGURE 1: Preferred reporting items for systematic reviews, and meta-analysis 2009 flow diagram detailing the search and selection process of studies included in the review

Characteristics of the included studies

The seven included studies were conducted between 2010 and 2019 in various countries (Table 3). All studies were conducted in acute psychiatric care settings. The number of recruited participants in the studies ranged from 16 to 296. The included studies consisted of two randomised controlledtrials, four quasi-experimental studies and one single group pre-test–post-test design. The identified interventionsincluded MBSR, a burnout prevention programme, a communication skills programme, an education and trainingprogramme, a group intervention programme, a resilience training programme and a stress management programme that were reported as being effective in improving psychological well-being.

The second objective of this review was to identify key elements of the effective interventions. There were four key elements that emerged from the analysis of the interventionsof the included studies: educational support, interpersonal skills, psychological support and adaptive coping.

Educational support

Most studies used educational sessions as a mode of deliveryof the intervention; these sessions were facilitated by trained professionals. Providing educational sessions in groupsettings were effective elements of interventions to impart knowledge among participants about healthy ways of dealing with stress related to the exposure to violent behaviour displayed by patients in the workplace. The education programme aimed to 'assist psychiatric nurses in determining their abilities and be able to identify what hinders them from developing and improving their job satisfaction' (Chen et al. 2010:88). Education on potentiality has demonstrated to have increased chances of an individualto achieve their potentiality. In Sailaxmi and Lalitha (2015:4)and Yang

et al. (2018:191), participants from their respective studies were encouraged to share their experiences among each other in the group in a form of case scenarios and have robust discussions in which they each learnt from each other's experiences. These discussions included stress management techniques that were being used by individualsto cope with stress. The findings showed a significant reduction in nurses' perceived stress levels following theintervention, which indicate that these stress management techniques were feasible. A study by Inoue et al. (2011:6) aimed at providing support for nurses exposed to violence toimprove their mental health. The results showed that by sharing knowledge in group discussions, nurses gained moreconfidence on how to handle future violent incidents, and intervention had a positive effect in alleviating stress.

Interpersonal skills

Ghazavi, Lohrasbi and Mehrabi (2010:399) identified communication skills as necessary to assist nurses to becomemore aware of their communication errors when interacting with patients. They also suggested that there should be regular educational training on communication. The results showed that teaching communication skills using the psychoeducation method decreases perceived stress for nurses working in psychiatric wards (Ghazavi et al. 2010:399).Communication breakdown between nurses and patientscan result in exposure to violent incidents.

Psychological support

Inoue et al. (2011:6) discuss various measures of dealing withviolence in a psychological group setting. This type of groupallowed participants an opportunity to handle the after- effects of being exposed to violent incidents, their emotions and to manage stress. It created a conducive environment where nurses could speak freely and share the negative or positive experience. The results showed that participants had gained confidence in dealing with their feelings following a violent incident. Following the implementation of theintervention, the psychotherapy group had an effect on participants' anxiety about possible violent incidents and thedepression that results from such anxiety seemed to have been alleviated. A study conducted by Yang et al. (2018:190) implemented psychological intervention to provide support to psychiatric nurses. The service included MBSR, which wasdivided into mindfulness meditation, relaxation and mindfulness breathing exercise. This has been shown to improve mental health and well-being of psychiatric nurses (Yang et al. 2018:193).

Adaptive coping

Studies by Chen et al. (2010) and Inoue et al. (2011) alluded tothe content of educational sessions held that included discussions on coping strategies in dealing with violencefrom psychiatric patients and the impact on nurses' psychological well-being. Various strategies were discussed in groups and yielded positive results in terms of alleviatingany symptoms that participants were suffering from prior tothe implementation of the intervention (Inoue et al. 2011). Coping ability is seen as an important aspect of potentiality education (Chen et al. 2010). Problem-solving skills are regarded as an important element for nurses to be able to cope with stressful situations in their working environment (Ghazavi et al. 2010; Sailaxmi & Lalitha 2015). Results showed a significant impact on stress reduction and how nurses copewith challenges using positive coping mechanisms (Sailaxmi & Lalitha 2015:3).

Discussion

The aim of this systematic review was to examine effective stress reduction interventions to support nurses exposed to violent incidents and to identify key elements of these interventions. The focus of the interventions included in thisreview was not on violence exhibited by the patient butrather on support provided for nurses working in acute psychiatric settings. Some of the studies examined the effect of MBSR programmes and group psychotherapy in reducing perceived stress of nurses who experienced violence in the workplace. The current review found that mindfulness meditation, relaxation techniques and mindfulness exercisessignificantly reduce perceived stress and burnout amongpsychiatric nurses (Inoue et al. 2011:6; Yang et al. 2018). This is consistent with a previous study that reported adecrease in stress levels, reduction in burnout symptomsand depressed mood (Craigie et al. 2016:770). Guillaumie, Boiral and Champagne (2017:1028) reported that support intervention improved psychological well-being and performance of nurses at work. Cohen-Katz et al. (2005a, 2005b), Raingrunber & Robinson (2007), Richards et al. (2006)in Guillaumie et al. (2017:1023) state that mindfulness facilitated a state of calmness and communication with patients, mainly because it helps participants maintain emotional balance and experience less frustration and anger at work. On the other hand, a study by Watanabe et al. (2019:190) showed no significant effects of the MBSR, statingpossible reasons as may be the duration and timing of a programme, training being administered by untrainedtherapists and participants possibly having been resilient.

Four key elements were identified in the analysis of the sevenselected studies. Educational support was widely used in most studies as a mode of sharing knowledge and experiencewith participants, facilitated by trained professionals who have knowledge of the phenomena of interest. McDonaldet al. (2012:382) state that trained facilitators played a huge role during group sessions as they become teacher, challenger,encourager, nurturer and motivator. Providing educational sessions in group settings was an effective

element of interventions to facilitate sharing of information on ways of coping with stressful situations in the workplace. It empowers participants with knowledge that helped them control and overcome any negative thoughts (Foster et al. 2018:1477). Thefindings of this review are consistent with other studies that employed educational sessions in the form of a workshop asa means of disseminating information among groups and have shown an effect on staff confidence in coping with stressful situations in the workplace (Lamont & Brunero2018; McDonald et al. 2012:382).
Sharing of experiences during group sessions allowed nurses an opportunity to learn from one another and is

viewed as an advantage. Group discussion is a method whereby participants have a platform to express, present and argue their knowledge, experiences, opinions and feelings (Rahman et al. 2011). It gives them an opportunity to respond to others' ideas while reflecting on their own in an effort to build their knowledge and understanding of the matter at hand. Findings from a pilot study on the effectiveness of psychotherapeutic groups where participantsshared experiences showed a reduced risk of burnout and became more aware of their emotions (Floriana, Luca & Simona 2016:61).

Effective communication skills were deemed the most important aspects of the interventions in empowering psychiatric nurses, as they spent most of their time interactingwith patients. It plays a role in building nurse–patient relationship and creating an understanding between a nurseand a patient (Alshammari, Duff & Guilhermino 2019:2; Yao et al. 2021:178). A study by Ghazavi et al. (2010:399) demonstrated that improved communication skills of nursessuccessfully reduced stress levels and that was sustained fora month after the training. In addition, participants in their study were doing better in communication following the implementation of a communication-based group intervention(Baby, Gale & Swain 2019:177). Furthermore, a review by Tolliet al. (2017:2821) showed that training interventions were more likely to increase the confidence of the staff in managingviolent incidents and enhance their communication skills.

Current findings show that discussions about adaptive copingstrategies among nurses yielded positive results in empoweringnurses on ways of coping with stressful situations in their workplace. The results showed a significant decrease in perceived stress and improved coping skills (Ghazavi et al. 2010; Sailaxmi & Lalitha 2015:3). Findings from a study by Foster et al. (2018:1477) indicated improved coping self- efficiency of nurses, decreased mental distress and improvedcognitive and behavioural resilience strategies. Similarly, Mandal et al. (2021) evaluated the effect of a yoga programmein reducing perceived stress and improving coping skills andrevealed that yoga sessions led to increased coping ability andalso had a positive effect on stress reduction.

TABLE 3: Summary of selected studies for review.

Authors/year/country	Design	Intervention	Setting	Sample	Outcome scales	Findings
Chen et al. (2010), Taiwan	Quasi-experimental research design Quality: High	Education programme: 43.5-h-long lessons (8-week). (1) Potentiality & intention and cultivation of creativity; (2) intention and cultivation of absorption and organisation ability; (3) intention and cultivation of stability and coping ability; and (4) intention and cultivation of control ability and potentiality.	Three psychiatric hospitals in Taipei, Taoyuan and Hualien	Fifty-nine psychiatric nurses from three psychiatric hospitals in Taipei IG = 26 CG = 33	Lee's Index of Work Satisfaction (IWS) Williams' (1980) Creativity Assessment Packet and clinical expertise.	Job satisfaction: IG 3.33↑ versus CG3.16 Potentiality: IG3.22↔CG3.15
Inoue et al. (2011), Japan	Randomised controlled trial Quality: High	Group intervention approach programme: Program composed-psychotherapy based discussion, including topics on coping with violent speech, violence or psychological impacts and stress management, behavioural therapy. Duration: four sessions weekly for 4 weeks, 90 min	Five psychiatric hospitals in the Chugoku and Kyushu district – acute psychiatric care and chronic psychiatric care	Sixty-two psychiatric nurses IG = 30 CG = 32	Impact of Event Scale Revised (IES-R) Profile Mood State (POMS)	At baseline: IG ↔CG Immediately after intervention: IG 4.91 ↑CG 3.65 1 month after intervention: IG 5.21 ↑CG 5.00 Immediately after intervention: IG 4.95 ↑CG 5.23 1 month after intervention: IG 4.16 ↑CG 6.10
Foster et al. (2018), Australia	Single group pre-test-post-test design Quality: Low	Promoting adult resilience programme: Seven modules delivered face to face, weekly. Components include identifying strengths and understanding resilience, understanding and managing stress, challenging and changing negative self-talk, drawing strength from adversity, promoting positive relationships, managing conflict, creating solutions for well-being.	Two acute adult inpatient units	Twenty-four registered nurses	DASS 21 Scale Satisfaction with Life Scale and Ryff's Scale of Psychological Well-being	Low levels of stress were observed 3 months after the programme
Sailaxmi and Lalitha (2015), India	Quasi-experimental one group pretest-posttest design Quality: Moderate	Stress management programme Ten consecutive, 1 h sessions Five sessions in a week for 2 weeks Sessions focused on stress education, problem solving, time management, taking time off, communication skills, assertiveness training, responding to criticism, negotiation skills and humour.	Psychiatric hospital at Bangalore Psychiatry special wards, emergency unit, closed psychiatry wards and open psychiatry wards.	Fifty-three nurses	The DCL Stress scale (The De Villiers, Carson & Leary Stress Scale; Carson et al. 1995)	Pre-intervention 57.45 Immediately following intervention ↓41.06 Four weeks after the intervention. ↓26.43
Yang et al. (2018), China	Randomised controlled trial Quality: High	Mindfulness-based stress reduction therapy (MBSR) Once a week for 8 weeks. Practised at home or during the session. First stage, relaxation preparation – rest posture using relaxing Chinese music; Second stage, mindfulness breathing Third stage- mind-fulness meditation,	Three general hospitals in Hunan province of China	Hundred psychiatric nurses IG = 50 CG = 50	Symptom Checklist-90 (SCL-90) scale, Self-Rating Depression Scale (SDS), Self-Rating Anxiety Scale (SAS), Nursing Stress Scale.	SCL-90 Before IG 136.7↔ CG 134.5 After IG 119.6↓ CG 132.6 Self-Rating Depression Scale (SDS), Before IG 45.8↔ CG 43.3 After IG 35.4 ↓ CG 41.2 Self-Rating Anxiety Scale (SAS), Before IG 44.8 ↔CG 46.2 After IG 36.4↓ CG 45.1 Nursing Stress Scale. Before IG 83.9 ↔ CG 84.8 After IG 68.2↓ CG 83.1

Table 3 continues on the next page →

TABLE 3 (continues....): Summary of selected studies for review.

Authors/year/ country	Design	Intervention	Setting	Sample	Outcome scales	Findings

Alenezi et al. (2019), Saudi Arabia	Quasi-experimental study utilising non-equivalent pretest-posttest design Quality: Moderate	Burnout prevention workshop Education on burnout: Tips for creating space for relaxation; Self-care activities Stress reduction management; Progressive muscle relaxation; Social skill training; Communication skills training. Intervention delivered over 2 days' (6 h per day) three group running simultaneously	Al Amal Complex for Mental Health in Riyadh.	Two hundred and ninety six nurses IG = 154 CG = 142	Maslach Burnout Inventory (MBI) measured the effects of the workshop at 1-, 3- and 6-month intervals after completion of the programme.	Prior intervention- total burnout score IG 71.13↑ CG 66.28 1-month post intervention IG 63.15 CG 67.93↑ 3-month post intervention IG 64.88 CG 68.74↑ 6-month post intervention IG 66.15 CG 69.99↑
Ghazavi et al. (2010), Iran	Quasi-experimental study design Quality: High	Communication skills training Group psychoeducation Six sessions in 3 weeks – delivering lecture, problem solving, brain storming, sharing the experiences of the members and discussion and using personal computers and whiteboard 1.5 h per session	Active psychiatry wards. emergency or acute, chronic, or specialised men and women ward of psychiatry in two psychiatric hospitals	Forty-five psychiatric nurses IG 23 CG 22	Researcher designed questionnaire based on Tuft-Anderson's questionnaire, psychiatric nurses occupational stress scale (PNOSS) before, after and 1 month after the intervention.	Before intervention IG 63.3↔ CG 63.2 Immediately after intervention IG 54.9 ↓ versus CG 63.9 One month after intervention IG 54.8↓ versus CG 64.3

Source: Adapted from Gilbertson-White, S., Saeidzadeh, S., Yeung, C.W., Tykol, H. & Vikas, P., 2017, 'Palliative and supportive interventions to improve patient-reported outcomes in rural residents with cancer,' *The Journal of Community and Supportive Oncology*. https://doi.org/10.12788/jcso.0348

IG, Intervention Group; CG, Control Group; ↔, no significant difference; ↑, significant increase; ↓, significant decrease.

Limitation of the study

The limitation of this review includes its inclusion criteria that only focuses on published studies on psychosocial interventions for nurses in acute psychiatric settings. It is possible that more literature exists on interventions meant toprovide support for nurses in psychiatry. Studies limited to the English language only could limit access to more information that is published in other languages. Lastly, the lack of control group in some of the studies to compareresults should be viewed with caution.

Conclusion

This systematic review highlighted diverse psychosocial interventions with different practices in providing support topsychiatric nurses working in stressful environments that have the potential of leading to adverse psychological consequences for nurses. However, there were fewer studiesthat met the inclusion criteria of the review, which were donein acute psychiatric care; most studies that were excluded were done in emergency settings. Four key elements of successful interventions to support nurses exposed to violent incidents were identified. Diverse psychological interventions utilised educational group sessions which increased the understanding of participants about challenges in their workenvironment and how to cope in a positive way with these challenges that impacted positively on their mental health, well-being and job satisfaction. The knowledge gained from this review may assist with practice improvement asmanagers can implement some of the interventions identifiedto support nurses.

Implications of the study

Nurses working in acute psychiatric settings face many challenges when providing care for patients. The findings ofthis review highlighted the positive impact of these psychosocial interventions by providing support for the nurses working in acute psychiatric settings. The knowledgegained from this review will add to the existing research knowledge base in the field. The interventions identified for this review were only focused on support and not on nurses'exposure to violence in acute psychiatric settings. Futureresearch should be conducted, which will focus on nurses' exposure to violent incidents while caring for patients and itsimpact on their well-being.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced themin writing this article.

Authors' contributions

N.B. (PhD student) undertook this systematic review as partof her PhD studies. N.B. was responsible for conducting thisresearch and compiling of manuscript, and P.M. was the supervisor and gave guidance throughout the process and contributed as the second reviewer. N.B. and P.M. contributedto the finalisation of the manuscript.

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Data availability

The data that support the findings of this study will be available from the corresponding author, N.B., upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those ofthe authors and do not necessarily reflect the official policy orposition of any affiliated agency of the authors.

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CHAPTER SEVEN

7. DESIGN AND DEVELOPMENT OF THE EMOTIONAL SUPPORT STRATEGY

7.1 Introduction

This chapter presents the findings generated from the process of developing the emotional support strategy. After the researcher gathered the required information from the quantitative study (survey), qualitative study (sem-structured interviews) and systematic review, she triangulated the findings and developed concluding statements. Triangulation was used to integrate findings from the data collected from Phase One and Phase Two. Triangulation refers to the process of integrating findings obtained from multiple sources using different data collection methods. It increases the validity and credibility of the study by allowing convergence of different perspectives (Yeasmin & Rahman, 2012).

7.2 Design objectives

The design objective is to develop an emotional support strategy for nurses working in acute psychiatric units. This intervention strategy will assist the emotional wellbeing of nurses through increased adaptive coping.

The developed intervention should:

- Provide required support for nurses to be able to cope with stressful experiences they encounter in the workplace.
- Empower nurses with necessary skills and knowledge to be able to handle challenging behaviour of patients.
- Accommodate nurses in their busy schedule and be user friendly.

7.3 Specifying procedural elements of intervention

Specifying procedural elements of intervention is the second operation in the design phase. The procedural elements of the intervention should be explained in detail so that other researchers can easily replicate it (Fawcett et al., 1994). The findings from Phase One of the study which consisted of problem analysis and project planning, showed that nurses working in acute psychiatric unit experience both physical and verbal violence, which they perceive as part of the job. Phase Two of the study involved information gathering and synthesising and identifying functional elements of successful models (Rothman & Thomas, 2013). The researcher, with the supervisor of the study, conducted systematic review to examine different types of support intervention for nurses working in acute psychiatric setting and key elements of successful interventions were retrieved. The findings from the two phases were triangulated and concluding statements were formulated which were used as a guide to develop a framework of the intervention. The researcher conducted the workshop with experts in psychiatry where findings were presented and deliberated on. In the concluding statements it emerged that nurses required psychological support to cope with patient violence (Table 7.1).

Table 7.1: Concluding statements

Objective: To design an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards. *Social support theory (stress and coping perspective, Lakey & Cohen, 2000): Stress and coping perspective assumption is that social support reduces the effects of stressful life events on health through either supportive action of others or belief that support is available when needed.*	
Theoretical framework	**Concluding statements**
Perceived support refers to recipient's perception that support is available when needed	✚ Psychological support was required to deal with the perceived violence from physical and verbal abuse which were apparent as being part of the job.
Coping is a process that develops in response to an individual perceiving an environment or circumstance as stressful. It can be adaptive or maladaptive coping. **Stress** refers to the relationship between the environment and individual in which demands tax or exceed available coping resources. **Health** is a state of being free from illness or injuries. Support reduces the effects of stressful life events on the health of an individual.	✚ Respondents required educational support to understand contributing factors to patient violence behaviour and how to be educated on how to cope after experiencing physical violence by patients. ✚ Adaptive and maladaptive coping strategies were used by respondents to cope with patient violence which included an opportunity to speak about incidents. ✚ A supportive environment which included the utilisation of interpersonal skills, counselling and support from management were deemed supportive to cope with patient violence.

The researcher developed the first draft of the strategy through a workshop with assistance of the supervisor as well as an expert in intervention development. The aim of the workshop was to deliberate on the findings and concluding statements that emanated from the first two phases of the study. The draft of the strategy was developed based on the outcome of the workshop and literature. The next step was to conduct a nominal group technique (NGT) with managers in the hospital. The draft was then presented for review and validation by a group of experts in the field who participated in the NGT. The draft of the strategy consisted of the following: aim of the strategy, rationale, scope, objectives, principles, components, and proposed outcomes of the strategy.

7.4 Nominal group technique process

The nominal group technique methodology was used to validate the proposed draft of emotional support strategy by a group of experts in the field of psychiatry. The researcher conducted a workshop with nursing managers from the participating hospital A. Due to Covid-19 restrictions the researcher was unable to gain access to hospital B & C, and only had access to hospital A to conduct NGT since she is employed in the institution.

Setting

The researcher approached the head of nursing to request permission to hold a workshop in the hospital. The researcher with the assistance of the HRD (Human Resource Development) nurse arranged the venue where the workshop was to be held.

Sampling

Participants for the nominal group technique were nurse managers who were purposively selected to participate as they are experts in psychiatry and have experience in providing support for staff who have been exposed to violent behaviour. The researcher forwarded an invitation to these managers via the HRD nurse, and all participants worked in the hospital (Table 7.2). Other managers could not honour the invites due to other commitments in the hospital.

Table 7.2: Demographic of NGT participants

Designation	Gender	Working experience	Area	Qualifications
Deputy Director Nursing	Male	20 years	Nursing Administration	Advanced Psychiatric Nursing, Nursing Administration
Operational Manager (1)	Female	11 years	Female acute	Advanced Psychiatric Nursing
Operational Manager (2)	Male	23 years	Male acute	Advanced Psychiatric Nursing
Operational Manager (3)	Male	30 years	Therapeutic unit	Diploma in Nursing
Operational Manager (4)	Female	26 years	Male adult unit	Advanced Psychiatric Nursing

Operational Manager (5)	Female	31 years	Female Forensic	Diploma in Nursing
Operational Manager (6)	Female	26 years	IDS	Advanced Psychiatric Nursing, Nursing Management
Operational Manager (7)	Female	16 years	Male adult unit	Advanced Psychiatric Nursing
Operational Manager	Female	16 years	IDS	Diploma in Nursing
Occupational Health and Safety Nurse	Female	23 years	Nursing Administration	Diploma in Nursing
HRD nurse	Male	12 years	Nursing Administration	Advanced Psychiatric Nursing

Nominal group technique method

The researcher facilitated the group throughout the session. The researcher presented the drafted strategy to the group of ten (10) managers on the 14 February 2022, and it was reviewed. The participants thanked the researcher for the presentation and commended the work done to develop this strategy. They all agreed that the proposed strategy will be of value in providing support to nurses. They felt this strategy would bridge the gap that is currently existing in utilisation of the existing support intervention. In addition, they gave valuable input, asked questions, and sought clarity where necessary. The managers felt the developed strategy will be helpful in providing support for nurses experiencing patient violence.

The meeting room

Before the meeting started, the researcher made sure that the room was neat and tidy and big enough to accommodate five to ten participants. The Covid-19 restrictions were adhered to in terms of seating arrangement and the room had proper ventilation. The tables were organised in a U-shape with the flip chart at the open end of the U.

Preparations for workshop

The researcher provided each participant with writing paper, explained the aim of the workshop, and gave a brief summary of the findings from the first two phases of the study. Participants were requested to give consent to audio record the session.

i) Introduction

The researcher welcomed the participants and thanked them for agreeing to participate in the group. The aim of the workshop and procedure to be followed were explained. The aim of the workshop was to develop the emotional support strategy that will be used to support nurses working in acute psychiatric units. The duration for this stage was 10 minutes (Potter et al., 2004).

ii) Silent generation of ideas

The researcher provided each participant with a page which had the following questions:

- How do you suggest nurses working in acute unit be supported emotionally?
- What should be included in the emotional support strategy?

The participants were given an additional page to write down their responses based on the question asked. Participants were requested to write ideas in brief phrases or statements. Discussion or sharing of ideas among group members at this stage was discouraged. The duration for this stage was about 15 minutes (Potter et al., 2004).

iii) Sharing of ideas

At this stage participant were given opportunity to share the ideas they noted down. The researcher then recorded all the ideas from each participant on the flip chart using direct words spoken by participants. The round robin process continued until all ideas were presented. At this stage, participants were informed that no debate of ideas is allowed, and participants were encouraged to write down any new ideas from what was shared with others. During this process all participants had equal opportunity to make their contribution, and this provided written record of all generated ideas by the group. The duration for this stage was +- 30 minutes (Potter et al., 2004).

iv) Group discussion

After all ideas were noted on the flip chart, the researcher invited all participants to discuss and clarify each idea that was presented, and that were not clear to them. Each group member had an opportunity to contribute to the discussion and all ideas were thoroughly discussed to gain clarity. Participants were encouraged to feel free and voice their opinions on ideas and avoid judging others. No ideas that were discarded in the process.

This assisted participants in getting a clear understanding of the meaning and logic behind each idea and its importance as it is clarified. The duration for this stage was +- 30 minutes (Potter et al., 2004).

v) **Voting and ranking of ideas**

Each participant voted privately when prioritising the ideas. The researcher provided each group member with index cards. Then each participant selected the five (5) most important ideas from the eight (8) ideas that were listed and had to write it on the index card. Participants had to rank all the ideas selected with the most important receiving a ranking of 5 and the least important being ranked 1. After each member had selected their 5 items and wrote them on separate cards, they had to spread all the cards in front of them and then decide which one is the most important idea. Participants had to write number "5" in the lower right-hand corner of the index card. From the 4 remaining cards they had to choose which is the least important idea and write number "1" in the lower right-hand corner. Then again, from the three index cards remaining they had to choose the most important idea and write number "4" in the lower right-hand corner. From the remaining two index cards, they had to choose the least important idea and write number "1" in the lower right-hand corner. For the remaining card, number "3" was written in the lower right-hand corner. Then the researcher tallied all the voting on the flip chart (Potter et al., 2004) (Table 7.3).

Table 7.3: Ranking of ideas after voting

Ideas	Number of votes
• Debriefing to be provided immediately following violent incident	38
• Provide spiritual support for staff	34
• Training of staff on management of aggressive patients	26
• Awareness and accessibility of staff support	20
• Integrate mindfulness and yoga into the staff wellness programme in the hospital	20
• Educate staff about importance of reporting incidents of violence	18
• Give staff time off following an incident and opportunity to be moved from the unit where the incident occurred	10

After the session, the researcher provided the participants with refreshments during the break as a token of appreciation. Then the group met after the break to finalise the session. In this session, participants were given

opportunity to verify their ranked ideas which were deemed suitable to be included in the final strategy. According to Gallagher et al. (1993), nominal group technique data can be analysed quantitatively or qualitatively, with the quantitative analysis facilitating the ranking and the qualitative analysis providing a better understanding of the issue discussed. The findings from this NGT were analysed quantitatively and were carried out on the list of responses to the question and rank orders of priorities. The ideas were categorised, and scores were calculated. All participants were thanked by the researcher at the end of the session for taking time from their busy schedule to participate in the group. The researcher thanked them for their valuable input during the discussions. The researcher also thanked the head of nursing for granting her this opportunity to conduct the workshop with nurse managers. Participants commended the researcher for the work done to identify the gap and for developing this much-needed support strategy for staff. Most participants showed interest in being part of the team that will be implementing the strategy once adopted by the institution. The session then came to an end.

Suggested changes in the strategy:

From the workshop, participants were satisfied with the proposed strategy and suggested the following to be added in the final version:

- Awareness and accessibility of strategy
- Staff to be made aware of the strategy and the strategy to be easily accessible
- Involvement of occupational health nurse
- Feasibility of implementation of the strategy
- Staff to be trained on implementation of strategy
- Strategy to be presented to the relevant authorities in the department
- Strategy should be integrated in existing staff wellness programmes

Final draft of emotional support strategy

The researcher named the developed strategy *(*re.C.H.A.R.G.E) which stands for Communication, Health Awareness, Resilience, Gratitude, Educate. The re.C.H.A.R.G.E has no significant meaning but rather focus on improving coping skills and emotional wellbeing of nurses exposed to violent behaviour acute care units. The strategy is attached as a booklet (Appendix: x).

Implementation of the strategy

The implementation of this strategy will require collaborative work from all different stakeholders involved. This will ensure that the strategy is implemented effectively, and any challenges encountered are being attended to efficiently. The proposed strategy needs to be presented to the provincial department of health to be approved for implementation in acute psychiatric settings in the province. This will also give an opportunity for policymakers to develop policies that will guide the incorporation of this strategy into the

existing wellness programmes that the Department of Health in Western Cape Provincial Government is implementing for staff.

Staff training

For the implementation of this strategy to be successful, staff that will be facilitating its rollout should get training. Training of staff should be ongoing and would also market the strategy to staff members that will promote its utilisation. It emerged from the literature that existing support interventions are underutilised.

7.5 Summary

This chapter discussed the process of the development of the re.C.H.A.R.G.E strategy. The development of this strategy was informed by findings from the mixed method approach and systematic review that was conducted by the researcher. The development of the strategy was done in collaboration with experts, and the draft was reviewed and validated through workshop. The following chapter will focus on overall summary, limitations, recommendations and conclusion of the study.

Table 7.4: Process of developing an intervention strategy

Phase one			Phase two	Phase three	
	Quantitative	**Qualitative**	**Systematic review**	**Workshop/NGT**	
	Objective 1.1: To describe factors associated with physical and verbal violent incidents and the management of incidents	**Objective 1.2:** To explore and describe experience of violence by nurses caring for violent patients in acute wards.	**Objectives 2.1**: To examine the effects of stress reduction interventions for nurses working with violent patients in acute psychiatric units **2.2:** To identify key elements of the interventions in supporting nurses to cope and improve their well-being.	**Objective 3.1:** To develop an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards	
Concepts of the framework	**Results**	**Results: Themes**	**Results: Key elements**	**Concluding statements**	**Components of the strategy**
Perceived support. It refers to recipient's perception that support is available when needed **Coping**-is a process that develops in response to an individual perceiving	Most female respondents reported both physical violence n=26 (74.2%) and verbal abuse n=60 (72.2%) Results showed that participants with more years of employment were most likely to experience physical violence	**Violence perceived to be part of the job** -justifying patient behaviour -expecting violence given nature of working environment **Contributing factors to patient violent behaviour**	**Educational support** - group discussions -brain storming -psychoeducation - educational leaflets - sharing of experiences through group discussions - case based discussions **Interpersonal skills** -communication skills	Psychological support was required to deal with the perceived violence from physical and verbal abuse which were perceived as being part of the job Respondents required educational	**Communication** -Improved communication skills -Verbal and non-verbal communication -Develop positive nurse-patient relationship **Health Awareness**

an environment or circumstance as stressful. It can be adaptive or maladaptive coping **Stress**- refers to the relationship between the environment and individual in which demands tax or exceed available coping resources **Health**- state of being free from illness or injuries. Support reduces the effects of stressful life events on health of individual	n=16 (59.2%) reported that opportunity to speak about the incident was provided n=8 (23.4%) took some time off work following the physical violence incident. n=17 (73%) respondents reported that no counselling was provided, n=11 (36.6%) was not satisfied with the way management handled incidents of physical violence in terms of investigating the incident, providing support and there were consequences for the perpetrator	-changes in smoking policy - history of substance abuse - involuntary admission - patient diagnosis **Physical and psychological effects on nurses** -physically assaulted -physical and psychosomatic effects of trauma Physically impaired -suffering from depression **Adaptive and maladaptive coping strategies** -sharing of experience -seeking professional help -Minimising extent of injuries -lack of trust -avoiding close contact with pati*ents* **Mixed perceived support from stakeholders**	- negotiation skills **Psychological support** -group psychotherapy -mindfulness exercises -mindfulness meditation -relaxation technique **Adaptive coping** -coping skills -problem solving skills	support to understand contributing factors to patient violence behaviour and how be educated on how to cope after experiencing physical violence by patients Adaptive and maladaptive coping strategies were used by respondents to cope with patient violence which included an opportunity to speak about incidents A supportive environment which included the utilisation of interpersonal skills, counselling and support from management were deemed supportive to cope with patient violence	-Improved emotional wellbeing -Strong mind-body connection -Reduced stress levels -Self-awareness -Self-care practices -Enhanced mindfulness and mental wellbeing **Resilience** -Improved adaptive coping skills Promotes a strong mind-body connection - Cultivate positive emotions **Gratitude** -Positive emotions and thoughts **Educate** -Improves staff confidence -Improves knowledge about risk factors - Sharing of information on ways of coping with stressful situations

		-received formal support -support provided by members of MDT, family, and colleagues -perceived lack of support -provided support unsatisfactory			

CHAPTER EIGHT

8. SUMMARY, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

8.1 Introduction

This chapter presents the main findings and its contribution to the field, limitations of the study, recommendations for nursing education and practice, future research, and conclusion. The main aim of this study was to develop an intervention strategy to provide emotional support for nurses caring for violent patients in acute units in psychiatric hospitals in the Western Cape, South Africa.

8.2 Objectives of the study:

1.1. To describe factors associated with physical and verbal violent incidents and the management of incidents.

1.2. To explore and describe experience of violence by nurses caring for violent patients in acute wards.

2.1. To examine the effects of stress reduction interventions for nurses working with violent patients in acute psychiatric units.

2.2. To identify key elements of the interventions in supporting nurses to cope and improve their wellbeing.

3.1. To develop an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards.

8.3 Summary of key findings

To achieve the main aim of this research study, the researcher first adopted three phases of intervention research design and development (Rothman and Thomas, 1994). The first phase of the study, which entails problem analysis and project planning, a mixed method approach was employed to collect data.

Objective 1.1: To describe factors associated with physical and verbal violent incidents and the management of incidents.

A quantitative descriptive survey was conducted to describe factors associated with physical and verbal incidents and its management. A sample of 124 participants were recruited using an all-inclusive method to take part in the study. The researcher adopted some parts of the self-administered questionnaire, which was developed by WHO, ILO and PSI (2003). The permission to utilise the questionnaire was granted. The data collected were analysed using SPSS version 25 with the assistance of a statistician, to collect basic descriptive workplace violence as experienced by nurses working in acute units. Inferential statistical analysis was done using the Chi-square test and Mann-Whitney U test to determine the association between demographic data and likelihood of exposure to violence.

The findings showed that verbal abuse was the most prevalent type of violence experienced by nurses in acute units. Having more years of employment was associated with the likelihood of experiencing physical violence

(p=.007). Also, findings revealed that professional nurses were likely to experience physical violence which could be due to fact that they are trained to manage aggressive patients and expected to handle difficult situations. Incident reporting was encouraged by management and investigated.

Objective 1.2: To explore and describe experience of violence by nurses caring for violent patients in acute wards.

Semi-structured interviews were conducted with nurses who have experienced violence in acute units. The researcher developed an interview guide. A total of fourteen (14) participants who have experienced violence were recruited by means of purposive sampling. Collected data were analysed following thematic analysis steps by Braun & Clarke (2006). The findings of the study showed that: i) participants perceived violence as part of the job ii) participants utilised both adaptive and maladaptive coping strategies in dealing with violent incidents iii) participants reported perceived lack of support from management following a violent incident. iv) participants reported contributing factors to patient violence v) participants reported suffering from physical and psychological sequalae following violent incidents. The findings also alluded to underutilisation of formal support by participants for which reasons were provided.

Objective 2.1: To examine the effects of stress reduction interventions for nurses working with violent patients in acute psychiatric units.

2.2 To identify key elements of the interventions in supporting nurses to cope and improve their wellbeing.

Phase Two of the study which entails information gathering, the researcher conducted a systematic review using various databases from the period 2010-2019. Seven studies met the inclusion criteria for the review. These studies included two randomised controlled trials, four quasi-experimental studies and one single group pretest-posttest design. Textual narrative data synthesis was undertaken to analyse extracted data. The findings of the review showed that interventions significantly reduce perceived stress and burnout among psychiatric nurses. The key elements / themes identified from the reviewed studies were educational support, interpersonal skills, psychological support, and adaptive coping.

Objective: To develop an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards.

Phase 3 of the study dealt with the designing and developing of an intervention strategy to provide emotional support for nurses working in acute units. The findings from the first two phases were triangulated and concluding statements were generated:

- Psychological support was required to deal with the perceived violence from physical and verbal abuse which, in turn, were perceived as being part of the job
- Educational support to understand contributing factors to patient violent behaviour and how to be educated on how to cope after experiencing physical violence by patients.

- Adaptive and maladaptive coping strategies were used by respondents to cope with patient violence which included an opportunity to speak about incidents.
- Supportive environment which included the utilisation of interpersonal skills, counselling and support from management were deemed supportive to cope with patient violence.

The first draft of the re.C.H.A.R.G. E strategy was developed through collaboration with experts in the field of psychiatry based on the findings of the study and literature review. The developed strategy will be used in conjunction with current existing interventions available for nurses in psychiatric hospitals. The aim of this strategy is to improve the emotional wellbeing of nurses working in acute care setting through improving their adaptive coping strategies using emotional support strategies. This strategy is suitable for any nurse who is exposed to violent incidents. The strategy can be used in informing policymakers on strategies of emotional support. The researcher hopes that this strategy will be adopted by the relevant authorities and be implemented in all psychiatric hospitals. The strategy is attached in a form of booklet (Appendix x: re.C.H.A.R.G.E. Strategy)

8.4 Limitations

The study focused purposely on certain population of nurses and was conducted in three psychiatric hospitals in the Western Cape Province. This limits the ggeneralisabilityy of the results to other hospitals and other provinces in the country. The developed strategy was not piloted to determine its implementation feasibility as it was not part of the scope for this PhD study.

8.5 Recommendations

8.5.1 Nursing practice

The developed strategy has to be piloted to determine its implementation feasibility and staff should be trained to be able to facilitate its implementation. The use of this strategy will improve emotional wellbeing of nurses which will impact quality of care. Incorporation of this newly developed intervention strategy into the existing support interventions will assist in bridging the identified gap. The findings of this study will add to the already existing knowledge base in the mental health nursing practice about strategies that are used in managing violence in workplace. The developed strategy may be used by hospital management as guideline to lobby policy makers in formulating policies for staff support.

8.5.2 Nursing education

Ongoing training of staff on the implementation of the re.C.H.A.R.G. E strategy, will not only improve its utilisation but will encourage staff to take their self-care practice seriously. As it emerged from the findings about the underutilisation of existing formal support, staff should be motivated and be made aware of available resources for support. If staff are educated about the importance of prioritising self-care, it would have an

impact on their wellbeing and improve their work performance. Nursing students can be taught in the curriculum how to prioritise self-care before they are in mental health nursing practice.

8.5.3 Nursing research

For future studies, research should be conducted on a larger scale including all psychiatric hospitals in the province and other provinces to increase the generalisability of the findings. Future research could also look at barriers that lead to underutilisation of available formal support and measures that could be put in place to improve utilisation of available support. Future research could be conducted to determine the feasibility for the implementation and evaluation of the developed intervention strategy. Further research could be done for implementation and evaluation of the developed strategy in a different setting.

8.6 Conclusion

This chapter presents an overview of the findings from the three phases of the study. The main aim of this study was to develop an intervention strategy which has been achieved. Nurses working in psychiatric hospitals experience violent behaviour exhibited by patients they care for which could impact their physical and psychological wellbeing which, in turn, has a negative impact on quality of care rendered to patients. The re.C.H.A.R.G. E strategy will improve the emotional wellbeing and adaptive coping skills of nurses working in acute units.

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APPENDICES

Appendix i: Research ethics clearance letter

UNIVERSITY of the WESTERN CAPE

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20 September 2019

Ms N Bekelepi
School of Nursing
Faculty of Community and Health Sciences

Ethics Reference Number: BM18/6/8

Project Title: Development of an intervention strategy to provide emotional support to nurses caring for violent patients in acute awards in psychiatric hospitals in the Western Cape.

Approval Period: 20 September 2019 – 20 September 2020

I hereby certify that the Biomedical Science Research Ethics Committee of the University of the Western Cape approved the scientific methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

BMREC REGISTRATION NUMBER -130416-050

FROM HOPE TO ACTION THROUGH KNOWLEDGE

Appendix ii: Information sheet

UNIVERSITY OF THE WESTERN CAPE

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INFORMATION SHEET

Project Title: Development of an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards in psychiatric hospitals in the Western Cape.

What is this study about?

This is a research project being conducted by Ms Ntombiyakhe Bekelepi a PhD candidate at the University of the Western Cape. We are inviting you to participate in this research project because you are working in an acute setting in psychiatric hospital and are exposed to violent and aggressive patients. Your input in what can be offered by way of emotional support will add value to this study. The aim of this research project is to develop an intervention strategy to provide emotional support to nurses caring for violent patients in acute wards in psychiatric hospitals. The information obtained in the study will guide the researcher to the aim of this study.

What will I be asked to do if I agree to participate?

You will be asked to participate in an individual interview and you will be asked to discuss certain questions posed. The interview may last for 40 to 60 minutes and would be conducted at a place and time convenient to you. During the interview, there is no right, or wrong answer and you are free to express yourself as much as you can. Your consent will be sought to audio-tape the interview. Later in the study your views will be sought to draft guidelines on development of an intervention strategy to provide emotional support for the staff.

The research will involve survey and interview, questions will be asked about your experience of violence in the unit you are working in.

Would my participation in this study be kept confidential?

To ensure anonymity, the questionnaires for the survey and interview transcripts will be coded and will not contain information that may personally identify you. Your name will not be associated with any experience you share during the study. The researcher will be able identify the collected data through the given codes. False names will be used to report findings of the study.

To ensure confidentiality, only the researcher will have access to your name when you sign the consent form, and this will be kept under lock and key. All data generated in this study will be password protected so that

only those involved in this study will have access to it. The computer used for this study will also be password protected.
In case of writing any report or article from this study, your identity will be protected to the maximum extent possible.

Audio taping

This research project involves making audiotape of you. The reason for audiotape is to record all the interview information and transcribe accurately without missing or adding to the original information given by the participants. Only the researcher will access to the identification key/code or password and will be able to link your information to your identity. The audiotape will be locked in the filing cabinets and storage areas using identification code or the information will be transferred into the computer and will be protected with password in which only the researcher and the supervisor will have access to it, once the information in the audiotape is transferred the audio-recording will be destroyed. As a participant in the study it is within your right to decline being audio-recorded during the interview, you will not be penalized for that. From the beginning of the interview, you will be given consent form where you indicate if you agree or not agree to be audio-taped.

What are the risks of this research?
There may be psychological or emotional risks associated with participating in this study. The researcher will minimize such risk. However, if you feel emotional while sharing your past traumatic experiences of violence, you will have the services of a counsellor without any cost to you. If you encounter any discomfort during the interview, the process will stop immediately and rescheduled as appropriate.

What are the benefits of this research?
This research is not designed to help you personally, but the results may help the investigator learn more about the current situation. We hope that, in the future, this study will help in bringing about change and additional support for nursing staff.

Do I have to be in this research and may I stop participating at any time?
Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify

What if I have questions?
This research is being conducted by *Ms Ntombiyakhe Bekelepi from School of Nursing*. If you have any questions about the research study itself, please contact *Ms N Bekelepi* at: 0738701060 or email to 2438269@myuwc.ac.za .Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Prof J Chipps
Head of Department
School of Nursing
University of the Western Cape
Private Bag X17
Bellville 7535
jchipps@uwc.ac.za

Prof Anthea Rhoda
Dean of the Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X17
Bellville 7535
chs-deansoffice@uwc.ac.za

This research has been approved by the University of the Western Cape's Research Ethics Committee.
REFERENCE NUMBER: BM 18/6/18

Biomedical Research Ethics Committee Office
University of the Western Cape
Private Bag x17
Bellville 7535
Tel: +27 21 959 2988
Email: research-ethics@uwc.ac.za

Appendix iii: Informed consent

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-9599345, ***Fax:*** 27 21-9592679

E-mail: 2438269@myuwc.ac.za

CONSENT FORM

Title of Research Project: Development of an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards in psychiatric hospitals in the Western Cape.

I……. voluntarily consent to participate in the above- mentioned study. The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve, and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

The study will involve making of audio tapes of the interviews. Only the researcher and supervisor will have access to the audio tapes. As participant in the study you a right to agree or not agree in being audio-taped during the interview, you will not be penalized for that. The interview recordings will be transferred into the computer which is password locked and the audio recording will be immediately destroyed. As participant you may indicate if you give permission to be audio- taped by ticking the box below:

☐ I agree to be audiotaped during my participation in the study.

☐ I do not agree to be audio-taped during my participation in the study

Participant's signature……

Witness: Ntombiyakhe Bekelepi

Date……

Should you have any questions regarding the study or wish to report any problems you have experienced related to the study, please contact study coordinator:

Study coordinator: Dr P Martin

University of the Western Cape

Private Bag X 17, Bellville

7535

Tel no: 021 959 9345

Appendix iv: Correspondence from World Health Organization

Fwd: ID: 267830 Permission authorization for WHO copyrighted material

Inbox

NTOMBIYAKHE BEKELEPI <2438269@myuwc.ac.za> Wed, Sep 26, 2018, 8:22 PM

to me, Ntombiyakhe.Bekelepi

---------- Forwarded message ---------
From: <permissions@who.int>
Date: Wed, 26 Sep 2018, 10:16
Subject: ID: 267830 Permission authorization for WHO copyrighted material
To: <2438269@myuwc.ac.za>
Cc: <permissions@who.int>

Dear Ms Bekelepi

Thank you for your request for permission to reproduce, reprint or translate certain WHO copyrighted material.

On behalf of the World Health Organization, we are pleased to authorize your request to reproduce the WHO materials as detailed in the form below, subject to the terms and conditions of the non-exclusive licence below.

If you have questions regarding this authorization, please contact permissions@who.int.

We thank you for your interest in WHO published materials.

Kind regards,
WHO Permissions team

Appendix v: Department of health approval letter

Western Cape Government
Health

Health impact assessment
Health research sub-directorate
Health.Research@westerncape.gov.za
Tel: +27 21 483 9366; Fax: +27 21 483 9845
5th Floor, Norton Rose House, 8 Riebeek Street, Cape Town, 8001
www.capegateway.gov.za

REFERENCE: WC_201809_005
ENQUIRIES: Dr Sabela Petros

University of Western Cape

Robert Sobukwe Road

Bellville

Cape Town

7535

For attention: Ms Ntombiyakhe Bekelepi

Re: **Development of an Intervention Strategy to Provide Emotional Support for Nurses Caring for Violent Patients in Acute Wards in Psychiatric Hospitals in the Western Cape.**

Thank you for submitting your proposal to undertake the above mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact the following person to assist you with any further enquiries in accessing the following sites:

Stikland Hospital	**Ms Soraya Fredericks**	**021 940 4400**
Valkenberg Hospital	**Ms Estelle Malgas**	**021 826 5805**
Lentegeur Hospital	**Ms Nadine Jacobs**	**021 370 1105**

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. By being granted access to provincial health facilities, you are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within

Appendix vi: Questionnaire

QUESTIONNAIRE ON WORKPLACE VIOLENCE

INSTRUCTIONS
Please answer ALL questions by ticking boxes with an [X] or writing in the space provided.

1. **SECTION A: PERSONAL AND WORKPLACE DATA**

1.1 Gender

Male	
Female	

1.2 Age……

1.3 Marital status

Single	
Married	

1.4 Which category best describe your current position

Professional nurse	
Enrolled nurse	
Enrolled nursing assistant	

1.5 Years of experience as a nurse……

1.6 Educational level

Matriculation	
Post matriculation (Diploma, Degree, Masters)	

1.7 Do you work in shifts?

Yes	
No	

1.8 How worried are you about violence in your workplace? (Please rate; 1= not worried at all; 5= very worried)

1	2	3	4	5

1.9 Are there procedures for the reporting of violence in your workplace?

Yes	
No	

1.9.1 If yes, do you know how to use them?

Yes	
No	

1.10 Is there encouragement to report workplace violence?

Yes	
No	

1.10.1 If yes, by whom?

Management/employer	Union	Own family/friends	Colleagues	Association	Other

2. SECTION B: PHYSICAL WORKPLACE VIOLENCE

2.1. In the past 12 months, have you been physically attacked by patient in your workplace?

Yes	
No	

2.1.1. If yes, please think of the last time that you were physically attacked in your workplace. How would you describe the incident?

Physical violence without a weapon	
Physical violence with weapon	

2.1.2. Do you consider this to be a typical incident of violence in your workplace?

Yes	
No	

2.1.3. Who attacked you?

Patient	
Staff member	
External colleague/worker	
Relatives of patient	
Management /supervisor	
General public	
Other	

2.1.4. Where did the incident take place?

Inside the ward	
Outside (on way to work/health visit)	
At patient's home	
Other	

2.1.5. At what time did it happen?

07:00-before 13:00	
13:00- before 18:00	
18:00- before 24:00	
24:00- before 07:00	
Do not remember	

2.1.6. On which day of week did it happen?

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

Sunday	
Don't remember	

2.1.7. How did you respond to the incident? Please tick all relevant box

Took no action	
Told the person to stop	
Told friends/family	
Told a colleague	
Transferred to another position	
Sought help from association	
Completed incident/accident form	
Completed a compensation claim	
Tried to pretend it never happened	
Tried to defend myself physically	
Sought counselling	
Reported to senior staff member	
Sought help from union	
Pursued prosecution	
Other	

2.1.8. Do you think the incident could have been prevented?

Yes	
No	

2.1.9. Were you injured because of the violent incident?

Yes	
No	

2.1.9.1. If yes, did you require formal treatment?

Yes	
No	

2.10. Listed below are the list of problems and complaints that people sometimes have in response to stressful life experience like the event that you have suffered.
For each item, please indicate how bothered you have been by these experiences since you were attacked. Please tick one option per question.

Since you were attacked, how bothered have you been by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
a) Repeated, disturbing memories, thoughts, or images of the attack?					
b) Avoiding thinking about or talking about the attack or avoiding feelings related to it?					
c) Being "super-alert" or watchful and on guard?					
d) Feeling like everything you did was an effort					

2.11. Did you have to take time off from work after being attacked?

Yes	
No	

2.11.1 If yes, for how long?

One day	2-3 days	One week	2-3 weeks	1 month	2-6 months	7-12 months

2.12. Was any action taken to investigate the cause of the incident?

Yes	
No	

2.12.1. If yes, by whom:

Management/employer	union	Association	Community group	Police	Other

2.12.2. What were the consequences for the attacker?

None	Verbal warning issued	Care discontinued	Reported to police	Aggressor prosecuted	Don't know	Other

2.13. Did your employer or supervisor offer to provide you with:

	Yes	No
Counselling		
Opportunity to speak about/report it		
Other support		

2.14. How satisfied were you with the manner in which the incident was handled? Please rate: 1= very dissatisfied, 5= very satisfied.

1	2	3	4	5

2.15. If you did not report or tell about the incident to others, why not? Please tick every relevant box

It was not important	
Felt ashamed	
Felt guilty	
Afraid of negative consequences	
Useless	
Did not know who to report to	
Other, please specify	

2.16. In the last 12 months, have you witnessed incidents of physical violence in your workplace?

Yes	
No	

2.16.1. If Yes, how often has this occurred in the last 12 months?

Once	
2-4 times	
5-10 times	

Several times a month	
About once a week	
Daily	

2.17. Have you reported an incident of workplace violence in the last 12 months? (witnessed or experience).

Yes	
No	

2.17.1. If Yes, have you been disciplined for reporting an incident of workplace violence?

Yes	
No	

3. SECTION C: PSYCHOLOGICAL WORKPLACE VIOLENCE (Emotional abuse).

3.1 In the last 12 months, have you been verbally abused in your workplace?

Yes	
No	

3.2 How often have you been verbally abused in the last 12 months?

All the time	Sometimes	Once

3.3 Please think of the last time you were verbally abused in your place of work. Who verbally abused you?

Patient/client	
Staff member	
Relatives of the patient	
Staff member	
Management/supervisor	
External colleague/worker	
General public	
Other	

3.4 Do you consider this to be a typical incident of verbal abuse in your workplace?

Yes	
No	

3.5 Where did the verbal abuse take place?

Inside the ward	
Outside (on way to work/health visit)	
At patient's home	
Other	

3.6 How did you respond to the verbal abuse? Please tick all relevant boxes

Took no action	
Told the person to stop	
Told friends/family	
Told a colleague	
Transferred to another position	

Sought help from association	
Completed incident/accident form	
Completed a compensation claim	
Tried to pretend it never happened	
Tried to defend myself physically	
Sought counselling	
Reported to senior staff member	
Sought help from union	
Pursued prosecution	
Other	

3.7 Listed below are the list of problems and complaints that people sometimes have in response to stressful life experiences like the event you suffered. For each item, please indicate how bothered you have been by these experiences since you were abused. Please tick one option per question.

Since you were abused, how bothered have you been by:	Not at all	A little bit	moderately	Quite a bit	Extremely
a) Repeated, disturbing memories, thoughts, or images of the abuse?					
b) Avoiding thinking about or talking about the abuse or avoiding feelings related to it?					
c) Being "super-alert" or watchful and on guard?					
d) Feeling like everything you did was an effort					

3.8 Do you think the incident could have been prevented?

Yes	
No	

3.9 Was any action taken to investigate the causes of the verbal abuse?

Yes	
No	
Don't know	

3.9.1. If yes, by whom: please tick every relevant box

Management/employer	union	Association	Community group	Police	Other

3.10 What were the consequences for the abuser?

None	Verbal warning issued	Care discontinued	Reported to police	Aggressor prosecuted	Don't	Other

3.11 Did your employer/supervisor offer to provide you with:

	Yes	No
Counselling		
Opportunity to speak about/report it		

Other support		

3.12 How satisfied were you with the manner in which the incident was handled? Please rate: 1= very dissatisfied, 5= very satisfied.

1	2	3	4	5

3.13. If you did not report or tell about the incident to others, why not? Please tick every relevant box

It was not important	
Felt ashamed	
Felt guilty	
Afraid of negative consequences	
Useless	
Did not know who to report to	
Other, please specify	

4. SECTION D: OPINIONS ON WORKPLACE VIOLENCE

4.1 In your opinion, what are the three most important contributing factors to physical violence in your work setting?

……
……
……

4.2 In your opinion, what are the three most important contributing factors to psychological (non-physical) violence in your work setting?

……
……
……

4.3. In your opinion, what are the three most important measures that would reduce violence in your work setting?

……
……
……

THANK YOU FOR YOUR PARTICIPATION

Appendix vii: Interview guide

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-9599345, ***Fax:*** 27 21-9592679

E-mail: 2438269@myuwc.ac.za

Interview guide

Project Title: Development of an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards in psychiatric hospitals in the Western Cape.

QUESTIONS	PROBES
1. Can you describe your experience of being assaulted by patient	• What do you think led to the incident? • What happened during the incident?
2. Describe how you felt after the incident?	• How did you deal with the incident? • How did you cope after the incident? • How did this whole thing affect you personally?
3. What kind of help did you receive after the assault?	• Who provided the support? • What kind of support did you receive? • Were you satisfied with the support? you have received after the incident? • Was there anything that you felt was necessary to support that did not happen?

Appendix viii: Critical appraisal tool

JBI Critical Appraisal Checklist for Systematic Reviews and Research Syntheses

Reviewer_____Date_____

Author _____Year_____Record Number_____

		Yes	No	Unclear	Not applicable
1.	Is the review question clearly and explicitly stated?	☐	☐	☐	☐
2.	Were the inclusion criteria appropriate for the review question?	☐	☐	☐	☐
3.	Was the search strategy appropriate?	☐	☐	☐	☐
4.	Were the sources and resources used to search for studies adequate?	☐	☐	☐	☐
5.	Were the criteria for appraising studies appropriate?	☐	☐	☐	☐
6.	Was critical appraisal conducted by two or more reviewers independently?	☐	☐	☐	☐
7.	Were there methods to minimize errors in data extraction?	☐	☐	☐	☐
8.	Were the methods used to combine studies appropriate?	☐	☐	☐	☐
9.	Was the likelihood of publication bias assessed?	☐	☐	☐	☐
10.	Were recommendations for policy and/or practice supported by the reported data?	☐	☐	☐	☐
11.	Were the specific directives for new research appropriate?	☐	☐	☐	☐

Overall appraisal: Include ☐ Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

_____

THE JOANNA BRIGGS INSTITUTE

JBI Critical Appraisal Checklist for Quasi-Experimental Studies (non-randomized experimental studies)

Reviewer_____Date_____

Author _____Year_____Record Number_____

	Yes	No	Unclear	Not applicable
12. Is it clear in the study what is the 'cause' and what is the 'effect' (i.e. there is no confusion about which variable comes first)?	☐	☐	☐	☐
13. Were the participants included in any comparisons similar?	☐	☐	☐	☐
14. Were the participants included in any comparisons receiving similar treatment/care, other than the exposure or intervention of interest?	☐	☐	☐	☐
15. Was there a control group?	☐	☐	☐	☐
16. Were there multiple measurements of the outcome both pre and post the intervention/exposure?	☐	☐	☐	☐
17. Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?	☐	☐	☐	☐
18. Were the outcomes of participants included in any comparisons measured in the same way?	☐	☐	☐	☐
19. Were outcomes measured in a reliable way?	☐	☐	☐	☐
20. Was appropriate statistical analysis used?	☐	☐	☐	☐

Overall appraisal: Include ☐ Exclude ☐ Seek further info ☐

Comments (Including reason for exclusion)

_____

_____

_____

THE JOANNA BRIGGS INSTITUTE

JBI CRITICAL APPRAISAL CHECKLIST FOR RANDOMIZED CONTROLLED TRIALS

Reviewer _____ Date_____

Author_____ No Unclear NA

_____

_____

Year_____ Record

Number_____ Yes

1. Was true randomization used for assignment of participants to treatment groups?	☐	☐	☐	☐
2. Was allocation to treatment groups concealed?	☐	☐	☐	☐
3. Were treatment groups similar at the baseline?	☐	☐	☐	☐
4. Were participants blind to treatment assignment?	☐	☐	☐	☐
5. Were those delivering treatment blind to treatment assignment?	☐	☐	☐	☐
6. Were outcomes assessors blind to treatment assignment?	☐	☐	☐	☐
7. Were treatment groups treated identically other than the intervention of interest?	☐	☐	☐	☐
8. Was follow up complete and if not, were differences between groups in	☐	☐	☐	☐

terms of their follow up adequately described and analyzed?				
9. Were participants analyzed in the groups to which they were randomized?	☐	☐	☐	☐
10. Were outcomes measured in the same way for treatment groups?	☐	☐	☐	☐
11. Were outcomes measured in a reliable way?	☐	☐	☐	☐
12. Was appropriate statistical analysis used?	☐	☐	☐	☐
13. Was the trial design appropriate, and any deviations from the standard RCT design (individual randomization, parallel groups) accounted for in the conduct and analysis of the trial?	☐	☐	☐	☐

Appendix ix: Data extraction tool

Data extraction tool

Author/s /year/ country	Design	Intervention	Setting	Sample	Outcome scales	Findings

Appendix x: re.C.H.AR.G.E strategy

re.C.H.A.R.G.E. STRATEGY

By: N Bekelepi & P. Martin

Preface

This strategy is the first draft of an emotional support strategy called re.C.H.A.R.G.E (Communication, Health Awareness, Resilience, Gratitude, Educate) which is meant for the provision of emotional support for staff working in acute psychiatric units as a result of exposure to violence in the workplace. This strategy was developed through a collaborative process with stakeholders and experts in the field of mental health utilising interviews and workshops. The re.C.H.A.R.GE strategy forms part of a PhD project titled "**Development of an intervention strategy to provide emotional support for nurses caring for violent patients in acute wards in psychiatric hospitals in the Western Cape".**

The implementation of this strategy will vary according to a nurse's individual emotional needs.

Features of the strategy:

- Suitable for nurses working in acute psychiatric settings
- Suitable for nurses who are exposed to violent incidents
- Informs policy makers about appraoches for emotional support of nurses
- Recommends approaches that can be used to aid adaptive coping

Acknowledgements

With sincere gratitude, I would like to thank my supervisors Prof P. Martin and Prof Chipps for their constant support and guidance throughout the process of developing this strategy. My thanks goes to Mr Kordom for his valuable contribution. I also wish to thank all participants from the hospitals who made time to be part of this process and willingly offered valuable input.

Abbreviations/Acronyms

ANA- American Nurses Association

MBSR- Mindfulness-Based Stress Reduction

re.C.H.A.R.G. E – Communication, Health Awareness, Resilience, Gratitude, Educate

WHO - World Health Organisation

Table of contents

1. Background

Nurses caring for patients in acute psychiatric settings experience violent behaviour displayed by patients. This behaviour may have deleterious effects on the emotional wellbeing of the nurses who care for violent patients; thus nurses need to be supported. This strategy will provide emotional support to improve nurses' emotional wellbeing which will, in turn, impact positively on patient care. Duan et al., (2019) describe emotional support as an emotional experience and satisfaction of individuals who are respected and supported. Emotional support is one facet of social support which represents the expression of concern, compassion, and comfort for an individual during an emotional experience (Reis & Collins, 2000). The main feature of emotional support is the intentional effort displayed by others in a quest to support an individual in coping with perceived stress. In this strategy, emotional support is the feeling of reassurance, sense of belonging and being cared for perceived by nurses working with violent patients in acute psychiatric settings (Cobbs, 1976).

The WHO (2012) reported workplace violence as a major public concern, especially in the nursing profession. The exposure to violent incidents has a serious impact on the physical and mental health of health workers (Alkorashy & Al-Moalad, 2016). Moylan, MacManus, Cullinan & Persico (2016) allude that there is a need for the availability of support services as nurses experience violence which have an impact on their health. Therefore, this strategy is additional and does not replace the support provided by institutions. The re.C.H.A.R.G.E strategy includes the aim, rationale, objectives, scope, components, process of the strategy and proposed outcome.

2. Aim

This strategy aims to improve the emotional wellbeing of nurses working in acute psychiatric care settings by increasing their adaptive coping by means of emotional support strategies.

3. Rationale

The outcome of this strategy will focus on the support of nurses working in acute psychiatric settings which will have a direct impact on their emotional wellbeing. It will empower nurses with skills to navigate their daily struggles in the work environment. The strategy will also assist nurses in understanding patient and environmental factors, its impact and how to cope without changing them. The literature shows that providing emotional support to individuals enhances their wellbeing and their ability to cope with stressful life events (Abu Al-Rub et al, 2009). Improved support in the working environment for nurses may have a positive impact on the retention rate and improve their self-esteem (Abu Al-Rub, Omari & Al Zaru, 2009).

4. Scope

This strategy is specifically designed to provide emotional support for nurses working in acute psychiatric settings who are exposed to violent incidents. It focuses on improving their coping skills which will have an impact on their emotional wellbeing.

5. Objectives

- To provide emotional support for nurses through support groups
- To promote self-care through a range of strategies
- To improve the coping skills of nurses through educating them on causes and management of violent incidents
- To provide a supportive environment to enhance emotional wellbeing

6. Principles

- Improve coping strategies of nurses when dealing with patient violence
- Is evidence based
- Focuses only on acute psychiatric settings
- Focuses on individuals and not the organisational culture and climate
- Focuses on improving nurses' wellbeing and not on decreasing incidents of violence
- Concerns the emotional well-being of an individual but does not include financial support
- Focuses on the adaption of nurses to the environment and not on decreasing patient and environmental factors
- Does not replace psychological support when required
- Does not purport to be personalised psychotherapy

7. Components

The components of the re.C.H.A.R.G.E strategy consist of stress reduction techniques which include mindfulness meditation, debriefing, yoga and relaxation techniques, spiritual support and educational support which focuses on communication skills, coping strategies, training on de-escalation and education with regard to factors contributing to patient violence.

7.1.Stress reduction techniques

Nurses' wellbeing is fundamental to the health of the nation, yet they are working in stressful environments. (ANA, 2018). Stress reduction techniques refer to a variety of activities that are used by organisations to improve employee wellbeing and minimize stress either by addressing the cause of stress or by reducing the impact stress have on individuals (Holman et al., 2018). Improving wellbeing of employees can have a number of benefits which include increased perfomance, improved relationships and recuduced sickness and absenteeism rates (De Neve, Diener, Tay & Xuereb, 2013). It is improtant for hospitals to implement these stress reduction techniques in order to create an environment conducive for nurses and to prevent and alleviate stress (Salem & Ebrahem, 2018). Furthermore, Salem & Ebrahem (2018) allude that while it may be impossible to completely eradicate stress and anxiety on nurses, it is important to enhance their capacity for emotional regulation which may improve emotional wellbeing and their ability to maintain satisfying therapeutic relationships with their patients. Findings from a systematic review conducted as part of this PhD study, alluded to mindfulness meditation as one strategy deemed effective in supporting nurses working in psychiatric settings to cope with stressors in their workplace (Bekelepi & Martin, 2022).

7.2.Communication skills

The attitude of nurses towards psychiatric patients has a significant effect on the type of communication that occurs between them (Weight & Kendal, 2013). Maintaining effective communication between a psychiatric nurse and patients has been considered the main core of care in mental health (Peplau, 1952). Educating staff in communication skills will enhance their knowledge, skills, and confidence in managing and preventing escalation in aggressive patients (Baby et al., 2018). Furthermore, Weltens et al., (2021) indicate that staff need to be trained in communication skills in order to communicate with respect and empathy with patients and let patients be part of the decision making regarding their treatment.

Types of communication

- Verbal communication which involves the use of words in conveying a message to the next person.
- Nonverbal communication does not involve the use of words. It includes gestures such as facial expressions, body language and eye contact. It potrays the emotions and feelings of an individual
-

Box 1: Communication skills

Benefits

- Assists in developing positive nurse-patient relationships.
- Empowers staff with knowledge and skills in handling difficult situations
- Ability to understand verbal and non-verbal communication cues
- Enhances staff knowledge, skills, and confidence in preventing escalation of violent incidents
- Minimises misunderstanding that could result in violent incidents

7.3.Mindfulness

Kabat-Zinn (2003) defines mindfulness meditation as the awareness that arises through paying attention in the present moment and being nonjudgmentally to the unfolding of experience. Mindfulness is useful in preventing and managing stress, anxiety, and burnout, and enhancing resilience (Richards et al., 2010; Taylor et al., 2016). According to Holman et al (2018), mindfulness enhances psychological wellbeing by helping an individual to disconnect negative thoughts and emotions from maladaptive behavioural and emotional responses. Having mindfulness integrated into the daily activities of nurses may encourage them to discuss their stressful situations and thus receive support from colleagues (Wu et al., 2021). Shapiro et al. (2007) recommend that shorter versions of mindfulness meditation be incorporated into the daily schedule of staff due to their work demand and time constraints. It has been reported that shorter versions of MBSR are equally effective in improving the psychological wellbeing of individuals (Ruiz-Fernández et al. 2019; Kriakous et al., 2021) and promoting retention of participants (Shapiro et al., 2007).

Box 2: Mindfulness meditation

Benefits

- Assists nurses to mobilise their inner resources to face their challenges
- Increased awareness of and orienation to overcome pressure and propel through it
- Assists in responding wisely instead of reacting impulsively with negative emotions
- Enhanced mindfulness and mental wellbeing and lower perceived stress
- Increases positive emotions and thoughts
- Assists nurses in managing work-related stress and anxiety

7.4.Debriefing session

Debriefing sessions are developed to reduce stress in those who have experienced traumatic events (Keene, Hutton, Hall & Rushton, 2010). It gives opportunity for staff to show support for one another, share expriences and reduce the possibility of psychological harm by talking about events (Huggard, 2013). Huggard (2013) avows that the best time to do debriefing is immediately after an incident has occurred. The details of the incident are still prominent and all staff involved are still present rather than wait until the end of the shift. On the contrary, Kessler et al. (2014) note the disadvantages of conducting debriefing immediately after the incident. Staff may be not be emotionally ready to discuss the details of the incident. Furthermore, Kessler et al., (2014) identify barriers in implementing debriefing sessions such as lack of trained facilitators and reluctance of staff in participating.

7.5.Yoga and breathing exercise

According to Guerra et al., (2020), yoga has a comprehensive approach towards the mind and body which addresses the physical, mental, and spiritual wellbeing of an individual through diverse psychophysical practices. These practices include physical and breathing exercises, relaxation, and meditation . Yoga improves the health and wellbeing of an individual through the regular practice of specific bodily postures, breath control and simple meditation (Desai et al., 2015). In additon, yoga practices are found to reduce perceived stress, anxiety, improve general health and wellbeing (Saoji, 2016). There are different kinds of

yoga that can be practised to build resilience and promote self-care for nurses such as restorative yoga (promotes mindfulness and activates the connection between the body and heart and does not require flexibility) (Laster, 2005); and yoga nigra (a meditation and relaxation technique designed to introduce physical, emotional, and mental relaxation) (Anderson et al., 2017).

Box 3: Yoga

Benefits

- Reduces stress and muscle tension or improve self-care in nurses

Improves health and wellbeing; physical and physiological health of an individual

Improves cognition as well as cultivate positive emotions such as empathy, compassion, and self-regulation

- Improves physical fitness, cognitive function, and emotional wellbeing.

Promotes a strong mind-body connection, which improves overall mood and wellbeing

- Assists indiviuals with self-care tools to be able to manage and reduce stress

7.6.Spiritual support

Underwood (2011) defines spiritual practice as a daily relationship and connection that one has with the divine being which is manifested by compassionate love, gratitude and sense of deep inner peace. According to Wacholtz & Pargament (2008), spiritual practice within the context of meditation may reduce depression and anxiety, improve spiritual health, and improve quality of life of nurses. It allows one to cope effectively with the effects of adversities. Researchers support spirituality as a positive influence on health promotion, meaningful work, coping and grief, and stress management (Kelley & Chan, 2012; Shinbara & Olson, 2010). A study by Hodge and Sun (2012) shows that increased spirituality of caregivers was positively related to a positive aspect of caring. It also showed that increased spirituality was inversely related to subjective stress. The positive aspects of caring were defined as finding caregiving satisfying and rewarding (Hodge & Sun, 2012). According to White et al., (2011), spiritual practices can be performed individually or in a group such as yoga.

7.7.Support groups

A support group can be defined as a gathering of people with common experiences and concerns who meet together to provide emotional and moral support for one another **(**Gençer, 2019). The benefit of peer support groups is that it provides comfort from knowing that everyone in the group has the same experience about the issue at hand. It allows people to express their feelings without being judged. It has been identified as the most common support strategy which includes closeness and immediate availability for injured staff (Baby et al., 2014).

Box 4: Support group

Benefits

- Provides individuals with an opportunity to be with people who share a common purpose and are likely to understand one another
- Helps individuals feel less lonely, isolated, or judged
- Reduces distress, depression, anxiety, or fatigue
- Encourage individuals to talk freely and honestly about their feelings
- Improves one's coping skills
- Gives individual a sense of empowerment and control
- Gives opportunity to assist others
- Gives opportunity to learn from others

7.8 Education

7.8.1. Coping strategies

Parikh et al., (2004) describe coping as a process of moderating the effects of occupational stress on mental and physical health to prevent distress, burnout, and psychological maladjustment. According to Lazarus and Folkman (1984), coping responses are influenced by the source of stress, individual's appraisal, and the situation in the workplace. Exploring ways of coping can assist in understanding the type of support and skills nurses need to mitigate the negative effects of moral distress. Coping strategies are most commonly used by nurses in problem solving, avoidance and social support (Parikh et al, 2004). These could be adaptive such as problem solving or maladaptive such as avoidance. Lazarus and Folkman (1984) propose two major theory-based functions of coping which are emotion-focused and problem-focused. With emotion-focused

individuals may choose to deny the existence of the threat which allows them to continue with their everyday life by reappraising the situation as non-threatening. While problem-focused coping is an alternative response in which individuals actively seek ways to mitigate or deal with a threat. The latter results in a better outcome because an individual deals with the threat. However, emotion-focused coping may be adaptive coping as it might help to reduce anxiety to a level where an individual is able to find better options of dealing with problems without panic (Lazarus and Folkman, 1984).

7.8.2. Training on de-escalation

De-escalation is described as a psychosocial intervention, which should be used as the first-line response to violence and aggression (National Institute for Clinical Excellence, 2005). It aims to stop the escalation of aggression to either violence or the use of physically restrictive practices (Price, 2015). It involves the use of non-provocative verbal and non-verbal clinician communication to negotiate a mutually agreeable solution to the aggressor's concerns, thereby managing aggressive and violent behaviour in a more humane manner (Rabenschlag et al., 2019). Training staff on de-escalation may reduce the rate of violent incidents, staff injuries and improve their de-escalation skills. Tolli et al., (2017) categorise de-escalation training strategies as either disengagement techniques, communication skills, behavioural symptom management, or restrictive measures.

7.8.3. Contributing factors

Violence in psychiatric settings may be due to the nature of the populations served and mental illness in itself may lead to violent incidents (Mericle & Havassy, 2008). There are factors causing violent behaviour which are grouped in three conceptual models: internal, external and situational/relational. The internal model deals with factors that originate from the patient which include diagnosis, involuntary admission, history of violence and substance abuse. The external model focuses on environmental factors in psychiatric settings to explain aggressive and violent behaviour, such as the ward atmosphere, professional experience of the nurses and preventive strategies in place (Lozzino et al., 2015; Papadopoulos et al., 2012; Dickens et al., 2013); privacy, locked doors, noise level, overstimulation (Cutcliffe and Riahi, 2013). The situational/relational model focuses on staff relationships in the ward. The negative staff-patient interactions often lead to patient aggression and coercive measures. Providing educational sessions to psychiatric nurses about possible contributing factors to violent incidents will assist in identifying early warning signs to act appropriately.

Box 5: Educational

Benefits

- Improves staff confidence in handling violent incidents
- Improves knowledge of patient risk factors relating to aggression
- Facilitates sharing of information on ways of coping with stressful situations

8. Process of the re.C.H.A.R.G.E strategy

8.1.Communication skills training

The recommended communication training can be based on psycho-educational group sessions which will focus on the following topics:

- Communication cues: verbal and non-verbal communication
- Importance of communication when handling violent patients
- Identification of communication barriers and how to manage it
- Discussion on how effective communication assist in conflict management, problem solving, handling aggressive patients

- Role play

8.2. Mindfulness meditation

Mindfulness meditation sessions to be held twice a month for 1h30 minutes to accommodate the staff's busy schedule. A shorter version of MBSR will also allow staff to plan their work schedule. The recommended mindfulness meditation is to be done in a period of two weeks for 1h30, where week one will focus on introduction into mindfulness, cultivating grateful thinking and mindful-S.T.O.P* (S – Stop, T – Take deep and/or mindful breaths, O – Observe surrounding sounds, P – Proceed with activities with a smile), while week two will focus on body scan and exercises, and discussions on how to manage future stress (Phang et al, 2013; Watanabe et al., 2019) .

8.3.Yoga meditation group sessions

The recommended yoga sessions for the staff should include the following:

- Sessions can be held twice a week for an hour to accommodate shift workers
- Different time schedule will allow staff to take part in the meditation session without interfering with their work schedule
- Peaceful and calm rooms should be identified where sessions will be held
- Provide participants with information pamphlets so they can practice at home

The recommended content of the sessions should include the following (Guerra et al., 2020):

- Sessions on yoga practices will include relaxation and self-observation
- Sessions on yoga breathing practices with an emphasis on comfort and tranquillity
- Yoga practices with the emphasis on observation of external objects
- Training in mindfulness meditation

8.4.*Support group*

The activities of this strategy can be conducted in the form of a support group. The institution should train individuals in mindfulness meditation, relaxation techniques so they can facilitate training of other members who will participate in the groups. The group facilitators should be nurses as the findings of the study suggest that participants prefer to have someone that understands the challenges that they are facing. Facilitator familiarity with the context is perceived as encouragement to share experiences (Figure1).

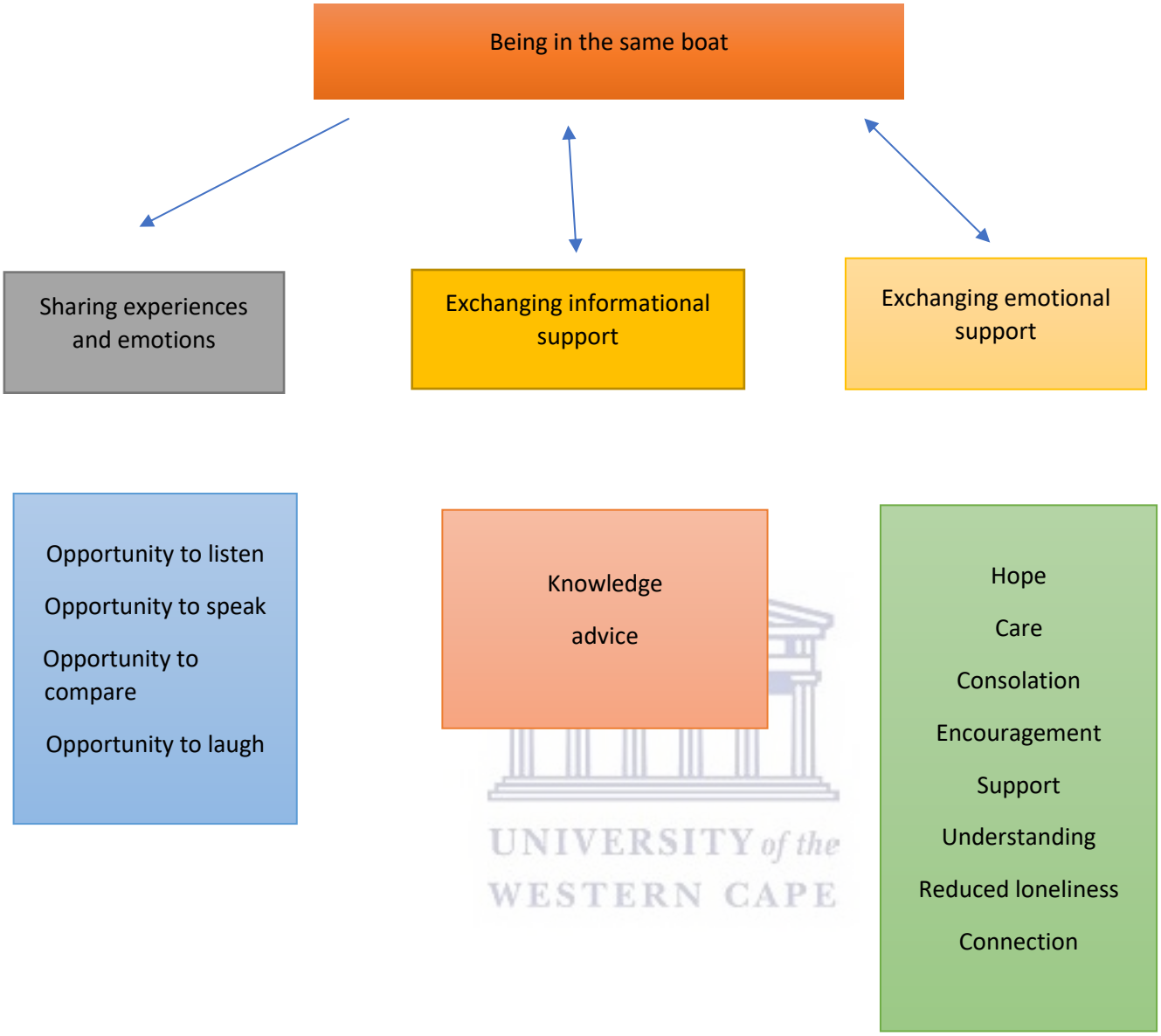

Figure 1: Dimensions of experience in support groups (Ahlberg et al., 2006)

9. Proposed outcomes for the strategy

- Improved adaptive coping skills for nurses experiencing violent incidents in acute care settings.
- Improved emotional wellbeing which ultimately will have a positive impact on quality of care rendered to patients.
- Enhanced self-care practices among nurses working with violent patients

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Appendix xi: Correspondence from Curationis Journal

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to me

****
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****
Dear Miss Bekelepi

Your submission has been received by the journal and will now be processed in accordance with published timelines.

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Appendix xii: Editorial certificates

This letter confirms that the dissertation with the title **"Development of an Intervention Strategy to Provide Emotional Support for Nurses Caring for Violent Patients in Acute Wards in Psychiatric Hospitals in the Western Cape** by Ntombiyakhe Bekelepi (Student no: 2438269) for the fulfilment of the requirements for the degree, Doctor of Philosophy in the School of Nursing, Faculty of Community and Health Sciences, University of the Western Cape has been edited for grammatical and structural concerns by the undersigned language professional. Neither the research content nor the author's intentions were altered in any way during the editing process. The responsibility lies with the author to effect changes and to attend to any anomalies indicated during the editing process. The editor's professional profile can be viewed on LinkedIn. (https://za.linkedin.com/in/gava-kassiem-a7569b39).

Gava Kassiem
Independent Language Specialist/Academic Editor
MA (Linguistics and Language Practice)
Member of Professional Editors' Guild
Member of Pro Lingua
18 July 2022

TO WHOM IT MAY CONCERN

I hereby submit this letter to verify that the article detailed below was duly edited by a qualified and experienced language professional.

Self-reported incidence of physical violence and verbal abuse by nurses in acute psychiatric unit.

by

Ntombiyakhe Bekelepi

No formatting and reference checking were done.

For more information about my professional profile, kindly refer to my LinkedIn page.

Gava Kassiem

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