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# The effects of including nurse-led cognitive behavioural therapy groups compared to a standard nursing programme for inpatients with mood disorders

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# THE EFFECTS OF INCLUDING NURSE-LED COGNITIVE BEHAVIOURAL THERAPY GROUPS COMPARED TO A STANDARD NURSING PROGRAMME FOR INPATIENTS WITH MOOD DISORDERS

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A research dissertation submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Master of Science in Nursing

Johannesburg, July 2017

# DECLARATION

I, Hester Maria Petronella Visagie, declare that this research dissertation is my own work. It is being submitted for the degree of Masters of Science in Nursing at the University of Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.

…….. day of 2017

# DEDICATION

I dedicate this work to the following people:

My husband, Peet, my children, Hennie, Zarinah and Bianca who motivated and supported me from the beginning to the end

My parents, Hennie and Sarah, who provided me with the foundation to pursue and strive

# ABSTRACT

**Background:** The delivery of cost effective quality mental health care services pose a significant challenge in the South African public sector due to limited resources and unequal access to specialised mental health care services. Professional mental health care nurses are well placed to provide psycho-social interventions, seeing that they play a vital role in the nursing care processes and as part of the multi-disciplinary inpatient treatment team. Cognitive behavioural therapy is described as the psychological therapy with the most solid evidence base pertaining to efficacy and effectiveness when treating mood disorders, specifically depressive disorders (Westbrook, Kennerley and Kirk, 2011:18). Anecdotal reports from patients and nursing personnel highlighted limited therapeutic interventions. Despite available evidence, cognitive behavioural group therapy does not form part of standard nursing care programmes in inpatient units for patients with mood disorders and depressive disorders.

**Aim and objectives:** The purpose of the study was to examine whether nurse-led cognitive behavioural therapy groups in the standard nursing care programme would promote change in the core beliefs, coping behaviour and depressive symptoms of patients admitted to an inpatient unit for mood disorders and depressive disorders. The objectives were to: To obtain base-line data of the patient outcomes before and after the standard nursing programme; to compile appropriate measurable evidence based intervention for patients with mood disorders and depressive symptoms (Nurse-led Cognitive Behavioural Therapy Manual); examine whether statistically significant differences exist between the standard nursing programme and the nurse-led CBT nursing programme; assess the effectiveness of the nurse-led CBT group intervention programme and to discuss the field notes and supporting observations made during the intervention programme and recommendations for psychiatric nursing practice in the unit and future research.

**Method:** A quantitative, quasi-experimental design was utilised (pre-test / post-test with a control group and experimental group). A non-probability convenient sampling method was used to select patients who were admitted with mood disorders and depressive symptoms from April 2015 to November 2015 (n=35) to participate in the study. One group (Control group, A) received the standard nursing programme and treatment as usual. Group (B) received the nurse-led cognitive behavioural group therapy sessions (experimental group). The validated and tested Beck Depression Inventory Scale - BDI was applied to assess and measure the existence and severity of depressive symptoms. The BDI scale consists of 21

questions and measured symptoms of depression according to categories relating to cognitive, affective, somatic and behavioural domains.

**Results:** Although the statistically significant differences between groups were small and therefore could not be generalised to a larger population, the results were important for clinical practice. According to the findings of this study, there is a higher prevalence of mood disorders and depressive disorders amongst single, older and white Afrikaans-speaking females, which are not only important for practice but also for future planning and research.

**Relevance of the study:** The results of this study showed that nurse-led cognitive behavioural (CBT) group sessions had positive effects on the patient's well-being by relieving the symptoms of depression and to provide the opportunity to develop life skills. Participation and facilitation of the nurse-led CBT groups' added value to professional mental health care nursing practice and the therapeutic milieu.

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# LIST OF ABBREVIATIONS

| | |
|---|---|
| BDI | – Beck Depression Inventory |
| CBT | – Cognitive Behavioural Therapy |
| Ho | – Null hypothesis |
| $Ho_1$ | – Research hypothesis |
| MDT | – Multi-disciplinary Team |
| MHC | – Mental Health Care |
| MHCN | – Mental Health Care Nursing |
| OT | – Occupational Therapy |
| PMHCN | – Professional Mental Health Care Nurse-led |

# CHAPTER ONE

## 1. OVERVIEW OF THE STUDY

### Introduction

Chapter one provides an overview of the current study. It includes a description of the background, its purpose, the problem statement, research questions to be addressed, as well as the objectives of the study. In addition, the researcher describes the paradigmatic perspectives, including a brief overview of the methodology employed. It therefore entail a discussion on the design, data collection methods, the population and sampling procedures as well as a short description of the data collection tool and intervention used in the study. The ethical considerations, including the validity and reliability of the study have also been briefly discussed.

## 1.1 BACKGROUND OF THE STUDY

Irrespective of the existing evidence base for the effective treatment of mood disorders, cognitive behaviour group therapy remains underutilised in inpatient units for mood disorders in the South African Public Service (Chetty & Hoque, 2013:30).

The delivery of cost effective quality mental health care services pose a significant challenge to the South African public sector due to limited resources and unequal access to specialised mental health care services. According to Patel, Maj, Fisher, De Silva, Koschorke and Prince (2010:169) there is an existing, prominent treatment gap for patients with mood disorders. This applies to approximately 50% of all countries worldwide and even more so in third world countries. Therefore, recent initiatives aim to improve health care service delivery to patients with mental disorders.

While inpatient units provide care for people experiencing acute mental health illness (Mullen, 2009:83), mental health care professional nurses play a vital role in the treatment process of patients with mood disorders in acute inpatient settings. Current trends in mental health care nursing resort to the delivery of custodial care and rely primarily on an observational culture and risk management practices in order to manage dysfunctional emotional expression and behavioural responses. The South African Nursing Council as the regulatory body of nursing in South Africa however, has provided practice guidelines which states that nurses with an additional

and specialised mental health care nursing qualification should offer high quality and evidence based patient care (South African Nursing Council, 2012).

Irrespective of the effectiveness of psychotherapeutic interventions in treating mood and depressive disorders, the delivery of psycho-social interventions by mental health care professional nurses in these units has not been explored. Furthermore, cognitive behavioural group therapy (CBT) is increasingly seen as an evidence base treatment method for patients with mood disorders in inpatient units. However, the underutilisation of cognitive behavioural group therapy is of great concern, especially when considering cost-effective quality service delivery.

Patients admitted to the psycho-therapeutic (acute admission) unit experienced severe emotional distress. Unfortunately, the standard nursing care programme of the unit provided limited therapeutic intervention. According to anecdotal reports received from patients and mental health care professional nurses the environment is characterised by monotony, causing feelings of lassitude, tediousness and distress.

Furthermore, the inclusion of cognitive behavioural group therapy facilitated by mental health care professional nurses in the standard nursing care programme (MHCPNs') could significantly impact the quality of mental health care in inpatient units for mood disorders (Patel *et al,* 2010:169).

**Mood Disorders**

Traditionally mood disorders were defined and conceptualised based on the biomedical model. According to this approach mood disorders, depressive disorders and associated symptoms are rooted in biological causes involving imbalances of neurotransmitters. The importance of the biomedical model is further emphasised through clinical trials pertaining to the effectiveness and efficacy of psychotropic drugs in the treatment of mood disorders, depressive disorders and associated symptoms. These trials provided the biomedical model with a solid evidence-base supportive of this theoretical approach (Deacon, 2013:850). Mental health care nursing also relies on the biomedical model for diagnostic and treatment purposes. Since emotional distress is a deeply seated human experience, the biomedical model in itself cannot explain the uniqueness of this phenomenon (Uys & Middleton, 2014:195). Mood disorders are pathological disorders and were previously also referred to as affective disorders. Although affective disturbances in mood disorders are prominent features, mood disorders are also accompanied by associated

impairment in psycho-motoric and hypothalamic functions (Videbeck, 2011:281). Mood disorders and depressive disorders are often characterised by significant alterations in affect, cognitive functions as well as behavioural responses. Mood disorders also have an adverse impact on the occupational and social functioning of the individual (Sadock, Sadock & Ruiz, 2015:347).

The conceptual framework of this study was based on the cognitive behavioural model. According to this model, psychopathology stems from dysfunctional ways of thinking. Beck (1967) theorised that it is not the external event itself causing emotional distress, but rather the patients' thoughts and perceptions regarding the event (Westbrook, Kennerley & Kirk, 2011:4). This model postulates that an individual develops cognitive structures through information processing. These cognitive structures are based on early life experiences and interaction with significant others whilst developing schemas, core beliefs and automatic thoughts (Westbrook *et al,* 2011:9). According to the cognitive behavioural model, mood disorders are characterised by the following domains: cognitive, affective, somatic and behavioural domain. These domains are interrelated which pose a significant clinical aspect when considering treatment interventions (Westbrook *et al,* 2011:6). On this premise the treatment intervention utilised throughout this study incorporated the principles of cognitive behavioural therapy.

## 1.2 PROBLEM STATEMENT

Despite available evidence, cognitive behavioural group therapy does not form part of the standard nursing care programme in the psycho-therapeutic (acute inpatient) unit. Mullen (2009:84) states that the implementation of psychosocial interventions can provide structured, pro-active treatment in acute inpatient units for mood disorders, although, anecdotal reports from patients and nursing personnel highlighted limited therapeutic intervention causing a monotone environment, resulting in feelings of lassitude, tediousness and distress.

The effectiveness of the existing nursing care programme has not been examined and baseline data for comparing a nurse-led programme was not available. Therefore, the need arose to assess nurse-led therapeutic interventions, including the effectiveness thereof on the nursing care programme of the inpatient unit.

The following **research questions** were asked:

- Will nurse-led cognitive behavioural group therapy compared to the standard nursing care programme promote change in depressive symptoms for example sadness, core beliefs and coping behaviour of patients with depressive features?
- Will nurse-led therapy groups benefit the nursing programme in relieving feelings of tediousness and distress amongst patients with mood disorders and depressive disorders?
- Will the nurse-led CBT programme add value to psychiatric nursing in the future?

## 1.3 PURPOSE

To examine the effects of the inclusion of nurse-led cognitive behavioural therapy groups compared to a standard nursing programme for inpatients with depressive symptoms of mood disorders.

## 1.4 OBJECTIVES

- To obtain base-line data of the patient outcomes before and after the standard nursing programme.
- To compile appropriate measurable evidence based interventions for patients with mood disorders and depressive symptoms (Nurse-Led Cognitive Behavioural Therapy Manual).
- To examine whether statistically significant differences exist between the standard nursing programme and the nurse-led CBT nursing programme.
- To assess the effectiveness of the nurse-led CBT group intervention programme.
- To discuss the field notes and supporting observations made during the intervention programme, including the recommendations for psychiatric nursing practice in the unit as well as future research possibilities.

## 1.5 SIGNIFICANCE OF THE STUDY

Current trends in mental health care nursing focus on the containment of problematic behaviour as well as risk assessment. Mental health care professional nurses tend to provide care in response to specific behaviour rather than implementing pro-active interventions, despite the implementation of psychosocial interventions providing structured, pro-active treatment in acute inpatient units for mood disorders (Mullen, 2009:83). Although available evidence exist, cognitive behavioural group therapy does not form part of standard nursing care programmes for patients with mood and depressive disorders in inpatient units.

Therefore, mental health care professional nurses play a prominent role in caring for patients with mood disorders, depressive disorders and associated symptoms in inpatient units. Professional mental health care nurses should thus be able to access and implement evidence based therapeutic interventions in order to deliver quality mental health care services (Smith, 2012:54). Including cognitive behavioural therapy as a treatment intervention, facilitated by professional mental health care nurses could have a significant impact on the quality of mental health care in the acute inpatient unit for mood and depressive disorders (Patel *et al,* 2010:169).

Professional mental health care nurses in a psycho-therapeutic (acute inpatient) unit deliver a 24-hour service. Therefore these professional nurses are in the ideal setting to provide such a service. Implementation of cognitive behavioural therapy in inpatient units by professional mental health care nurses can further contribute to the delivery of quality mental health inpatient care for patients with depressive disorders. Furthermore, cognitive behavioural therapy groups could provide cost-effective quality mental health care services to patients with mood and depressive disorders in inpatient units.

However, although mental health care professional nurses play a vital role in the treatment process, nurse-led therapeutic interventions remain underutilised in acute inpatient units for mood disorders (Chetty & Hoque, 2013:30, Mullen, 2009:83). The outcome of the current study could therefore be used to make recommendations pertaining to the effectiveness of nurse-led cognitive behaviour therapy groups in the treatment of patients with mood disorders, especially those suffering from depressive disorders and associated symptoms. Data obtained in the study could also serve as baseline data for mental health care nursing practice in an inpatient unit as well as for future research and training possibilities.

## 1.6 RESEARCH ASSUMPTIONS

A paradigm is a worldview, a general perspective on the complexities of the real world (Polit & Beck, 2012). The research was therefore based on the following meta-theoretical, theoretical and methodological assumptions:

### 1.6.1 Meta-theoretical assumptions

Meta-theoretical assumptions are the “statements that describe concepts or connect two concepts that are factual, accepted as true and represent values, beliefs and/or goals of the researcher” (Smith). It reveals the researcher’s view of a person,

environment, nursing and health or illness. The researcher's meta-theoretical assumptions with regards to these concepts can be described as follows:

- **The person**

  The mentally-ill patient can be described as a person in personal, relational and psycho-social turmoil. In addition, the person with depression experiences a complex class of symptoms which is characterised by cognitive, affective, somatic and behavioural domains (Smith, 2012:51). These patients are no longer able to fulfil their societal roles and frequently experience suicidal ideation.

  The mental health care nurse should therefore consider the family and social environment of the patient in order to offer holistic care. To provide quality mental health care, the nurse should however, work in an environment with appropriate and relevant protocols and guidelines as well as an accessible support system to foster continued professional development and treatment of the patient (Smith, 2012:54).

- **Environment**

  The environment includes any aspect of the patient, family or institutional setting that can be manipulated by the nurse, a loved one or the institution in order to enhance comfort (Dowd, 2010:711). In this study, environment refers to the psycho-therapeutic (acute inpatient) unit for people with mood disorders, anxiety and depressive symptoms. A multi-disciplinary team is responsible for the psychological treatment of the patients while the mental health care nurses provide a therapeutic environment for improving recovery.

  The current study was conducted in a psycho-therapeutic (acute inpatient) unit for patients with mood disorders in the Free State, South Africa. Admission to the unit is voluntary, thus indicating it is an open unit. Patients can therefore move freely in and around the building. The unit provides patients with a therapeutic environment representing certain aspects of their social environment. Since patients admitted to the unit experience acute emotional distress, the aim of admission is therefore to provide them with a safe, controlled environment which will enable them to learn functional coping skills.

- **Nursing**

  According to the International Council of Nurses (2014), nursing is defined as "autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. It includes health promotion, prevention of illness, and the care of the ill, disabled and dying people".

  Mental health care professional nurses play a fundamental role in the treatment of patients in inpatient units for mood and depressive disorders. Therefore, establishing a therapeutic relationship is seen as the cornerstone of mental health care nursing (Mullen, 2009:83; 86).

- **Mental health**

  The World Health Organisation (WHO) defines health as the state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity (Official Records of the World Health Organisation, 1948). Mental, physical and social health is not only essential components of life, but is also interrelated. Mental health is central to all human beings and society as a whole (Department of Health, Matsoso, 2013:5). When admitted to the inpatient unit, patients have an altered mental state affecting many aspects of their lives and overall mental wellbeing. Mental health care nurses that are competent and skilled professionals, will play a vital role in assisting patients in the process of moving from being ill to being healthy.

### 1.6.2 Theoretical Assumptions

Meleis (2005:12) described a theory as "… an organised, coherent and systematic articulation of a set of statements related to significant questions in a discipline that are communicated in a meaningful whole". For the purpose of this study Beck's theory (Beck, 2008:970) was used and the cognitive behavioural therapy model served to underpin this study. According to the cognitive model, psychopathology stems from dysfunctional ways of thinking. Beck (1967) theorised that it is not the external event itself causing the emotional distress, but rather the patient's thoughts and perceptions regarding the event (Westbrook *et al,* 2011:4). This model postulated that an individual develops cognitive structures through information processing. These cognitive structures are based on early life experiences and interaction with significant others through which the patients develop schemas, core beliefs and automatic thoughts (Westbrook *et al,* 2011:9). As previously mentioned, the cognitive behavioural model characterise mood disorders by dysfunction in the

cognitive, affective, somatic and behavioural domains. Since these domains are interrelated it poses a significant clinical aspect, especially when considering treatment interventions (Westbrook *et al,* 2011:6). Based on the treatment intervention utilised throughout this study, the principles of cognitive behavioural therapy were incorporated.

Cognitive structures are developed through information processing and these structures entail core beliefs (schemas) about one self, the world and the future. Mostly, schemas are not part of the patient's immediate conscious awareness. However, schemas can be accessed through specific techniques. This theory therefore postulates that patients with depression have negative thoughts and perceptions about themselves, their world and their future – the negative cognitive triad. For example, a patient with a negative view of the self thinks "I'm useless"; a negative view of the future will for example be "I'm doomed, I will never get better".

Demographical information obtained during the study included age, gender, ethnic group, level of education, employment and marital status. These attributes could probably play a role in patients with depressive symptoms since some of the factors causing depressive disorders include cognitive vulnerabilities and adverse life events which could result in the deterioration of their daily functioning.

The operational definitions used throughout this study are as follow:

- **Depression (Depressive symptoms)**

  For the purpose of this study depression is defined as a clinical condition characterised by disturbances in affect (DSM 5TM), associated with volitional, cognitive, behavioural and autonomic symptoms (Smith, 2012:51). A patient suffering from depression feels intensely sad and hopeless and their thought patterns, feelings, behaviour, as well as interaction with others are affected. The symptoms of depression can cause severe emotional distress and physical disability to such an extent that patients can no longer fulfil daily living activities.

- **Mental Health Care Nursing**

  Mental health care nursing can be described as an interpersonal collaborative process between the mental health care professional nurse and the patient. Knowledge and skills related to counselling principles are implemented to assess intrapersonal and interpersonal dynamics whilst aiming to implement therapeutic

interventions which has the potential to facilitate and enhance healthy lifestyle functioning to an optimum level of functioning (Uys & Middleton, 2014:17).

- **Professional Mental Health Care Nurse**

  According to the World Health Organisation European Strategy for continuing education for nurses and midwives (2003:43) a nursing specialist is defined as a professional nurse who has obtained a post-basic qualification in a specific clinical field of nursing, such as mental health care nursing. Knowledge and skills in a speciality field is thus applied to address specific patient needs as well as to improve the quality of nursing care. According to the South African Nursing Act, Act no. 33 of 2005 (p 25), a professional nurse is a person qualified and competent in delivering comprehensive nursing care whilst assuming responsibility and accountability for care rendered.

- **Nurse-led programme (Appendix A)**

  For the purposes of the current study the standard nursing programme were revised. An evidence based measurable psycho-social intervention were applied, and cognitive behavioural therapy groups had also been included in the programme (9 sessions). The sessions were facilitated by the researcher and the mental health care professional nurses of the unit (Chetty & Hoque, 2013:30).

- **Standard nursing programme (Appendix J)**

  The standard nursing programme was the existing daily programme presented by the multi-disciplinary team and mental health nursing care. Nursing care policies (Burger & Mtyongwe, 2015) guided the current nursing care in the standard nursing care programme of the unit based on the conceptual model as described by Uys & Middleton (2014:16).

- **Inpatient unit**

  An inpatient unit for the context of this study refers to an acute admission unit for patients with mood disorders in a specialised psychiatric institution in the Free State (South Africa). Patients in the unit are admitted for comprehensive multi-disciplinary assessment and associated treatment interventions. Admission to the unit is approximately three (3) weeks and includes pharmacotherapy, mental health care nursing, psychology, occupational therapy, social work as well as physiotherapy.

- **Cognitive Behavioural Therapy**

  Cognitive behavioural therapy (CBT) is a collaborative interactive process between the therapist and the patient. It is a directive structural approach applied in the treatment of mental health disorders, specifically mood disorders and is based on the theoretical framework that a patient's mood and behaviour are not only determined by external life events, but also by the meaning assigned to life experiences (Beck, Rush, Shaw & Emery, 1979).

### 1.6.3 Methodological Assumptions

Polit and Beck (2004:711) defined methodological assumptions as "the basic principles that are accepted as being true based on logic or reason, but without proof or verification". The current research was based on the traditional positivism which underlies the scientific approach supporting the belief that reality exists in a fixed and orderly manner and can therefore be studied without bias (Polit & Beck, 2004). The study followed a systematic and disciplined way of acquiring the information by using a formal research instrument. Thus, the reality of patients' depressive symptoms had been sought before and after the implementation of an intervention.

The data gathered was quantitative or numeric and was analysed with both descriptive and statistical measures. The results conveyed an understanding of mental health care nursing in an acute inpatient unit for mood and depressive disorders and it was hypothesised that inpatients with mood and depressive disorders participating in cognitive behavioural group therapy showed a marked decrease in the level of severity of depressive symptoms, especially after the intervention as tested with the Beck Depression Inventory Scale.

- **Beck Depression Inventory Scale (BDI)**

  The Beck Depression Inventory Scale (Beck, 1961; revised 1978 and BDI II, 1996) was applied to assess and measure the existence and severity of depressive symptoms as described by The Diagnostic and Statistical Manual of Mental Disorders (*5th ed.*; DSM-5; American Psychiatric Association, 2013). The BDI scale is a self-assesment questionnaire, consisting of 21 questions (Raab, Mackintosh, Gros & Morland, 2015:566) and measures symptoms of depression according to categories relating to cognitive, affective, somatic and behavioural domains (Smarr & Keefer, 2011:462). For the purpose of this study the findings will be discussed according to the abovementioned key factors.

According to Beck and Steer (1984: Abstract), the Beck Depression Inventory Scale (BDI) is a validated and tested self-assessment scale and is utilised to assess the presence and severity of depressive symptoms. It is reported as reliable irrespective of population. The internal consistencies of both versions, the 1961 and 1978 versions, were studied in two different samples of psychiatric patients. The alpha coefficient for the 1961 version was found to be (.88), whilst it was (.86) for the 1978 version.

The Beck Depression Inventory was initially developed in the 1960s in order to establish the presence and severity of depressive symptoms and its main focus of rating was on the cognitive and behavioural aspects of depression. Subsequently, the Beck Depression Inventory Scale was revised during 1996. Assessment related to somatic aspects of depression as well as focussing on the presence of symptoms as experienced for the past two weeks, was increased. Internal consistencies were found to be high and the validity of the scale was established through correlation studies with different depression assessment scales (Sadock, Sadock & Ruiz, 2015:227).

- **The intervention**

  The nurse-facilitated cognitive behaviour group therapy sessions conducted during the study was based on a structured manualised programme. The manual was based on the principles of cognitive behaviour therapy as presented by various researchers (Muñdoz & Miranda, 2000; Riggenbach, 2013; Rosomon, 2008; Yalom & Leszcz, 2005). Sessions were facilitated by the researcher and professional mental health care nurses observed group interaction processes. Content validity of the intervention programme was based on theory and formulated in view of the literature. The researcher has many years of experience and gained extensive knowledge in the field of nursing, and content validity was thus further ensured by experienced specialists in the fields of advance psychiatric nursing and clinical psychology examining the programme. The compilation of the manual was supervised and mentored by clinical experts in the field of nursing education; advance psychiatric nursing and clinical psychology.

## 1.7 OVERVIEW OF RESEARCH METHODOLOGY

A brief outline of the research methodology is included in this chapter, since it will be discussed in more detail in Chapter three.

- **Research design and method**

  In order to comply with the purpose of the study a quantitative, quasi-experimental design was applied, and data obtained through conducting a two part questionnaire, before and after the intervention.

- **Population and Sample**

  The target population included all patients admitted with mood disorders and depressive symptoms in an acute inpatient unit for mood disorders in the Free State. An estimate of (N=115) admissions per year during 2013-2014 were recorded. A non-probability convenient sampling method was used in order to include all patients admitted to the unit with mood disorders and depressive symptoms to participate in the study during the time of research in 2015.

- **Sampling frame**

  Participants in the control group (group A), were recruited from April 2015 to July 2015, and the experimental group (group B), from August 2015 to December 2015. Participants were recruited on admission 12.

- **Inclusion criteria**

  The following inclusion criteria were used in determining the characteristics of the population sample:

  - All patients admitted to the unit with mood disorders, depressive disorders and associated symptoms.
  - Participants had to have an adequate grasp of English.
  - Patients below eighteen (18) years were excluded.
  - Patients with psychotic features were excluded, for example major depressive disorder with psychotic features. However, patients with psychotic disorders are generally not admitted in the research unit. Although cognitive behaviour therapy can be used as a treatment intervention for patients with psychotic symptoms, the focus of such an intervention is mostly based on “relapse prevention”, as well as specific belief systems related to delusions and perceptual disturbances (Smith, Nathan, Juniper, Kingsep and Lim, 2003:11).

- **Sampling method**

  A non-probability convenient sampling method was used. All patients admitted with mood and depressive disorders from April 2015 to July 2015 (n=20) were

invited to participate in the study in order to obtain baseline data. This group (Group A) received treatment as usual and therefore served as the control group.

Subsequently all patients admitted with mood and depressive disorders from August 2015 to November 2015 (n=15) were invited to participate in the nurse-led cognitive behavioural group programme which included treatment as usual (experimental group – group B).

Data was analysed with the SPSS Incorporated (2015) in consultation with a statistician from the University of the Free State. The data collected from the questionnaires were captured on an Excel spread sheet. Hypotheses were formulated using the depressive symptoms as dependent variables, with regards to the nurse-led intervention (independent variable). The differences between pre- and post-tests of the groups, as well as the differences in severity of depressive symptoms after the intervention were identified by using descriptive statistics and comparative non-parametric statistical tests. The results obtained from the test will be discussed in more detail in chapter 4.

## 1.8 VALIDITY AND RELIABILITY OF THE STUDY

According to Polit and Beck (2004:35-36), reliability refers to the accuracy and consistency of information obtained in a study and validity refers to the soundness of the study findings. In other words, whether the findings are cogent, convincing and well grounded. In the current study, validity and reliability was maintained by ensuring that the findings were accurate, unbiased and adequately represented the target population. The study was done in accordance with the procedures and protocols of the Human Research Ethics Committee of the University of the Witwatersrand. The instrument, namely, the Beck Depression Inventory Scale utilised in this study had previously been used and tested for validity and reliability in assessing depressive symptoms in patients with depression, anxiety and mood disorders (Sadock & Sadock *et al,* 2015:227). The researcher was solely responsible for collecting data in order to ensure consistency of the findings.

## 1.9 ETHICAL CONSIDERATIONS

The following ethical principles of research were applied during the research process (Botma, Greeff, Mulaudzi & Wright, 2010:17-24): confidentiality, anonymously, anonymity, beneficence, non-maleficence and justice. Participants were also informed that participation was voluntarily and they could withdraw from the study at

any time. Participants were protected from harm and aware that if they experience any emotional discomfort, they would by referred to a clinician for appropriate support and counselling.

A proposal was presented to the Department of Nursing Education (University of the Witwatersrand, Johannesburg) and Post Graduate Committee. Ethical clearance (M141009) was obtained from the Human Research Ethics Committee (Appendix D) of the University of the Witwatersrand, Johannesburg as well as the institution where the research was conducted (Appendix E).

## 1.10 SUMMARY

This chapter provided an outline of the current study. It included a description of the problem statement, purpose of the study, research objectives and the significance of the study. Furthermore, the assumptions of the researcher had been discussed and the operational terms defined. A brief overview of the research methodology, validity and reliability of the study and the ethical procedures adhered to during the course of this study was also included.

The following chapters will provide a review of the literature, the methodologies, data analysis, the description and interpretation of research findings. The final chapter will state limitations of the study, summary, conclusions and recommendations for clinical nursing practice and further research possibilities.

### 1.10.1 Delineation of Dissertation

**Chapter 2: An in-depth review and discussion of** relevant literature pertaining to depressive disorders and associated psychotherapeutic treatment modalities will be discussed.

In addition, chapter 2 will present an overview related to the role of the professional mental health care nurse and the relevance of group therapy in treating depression in an acute inpatient unit. The theoretical framework underpinning depression as a clinical disorder, as well as the theoretical model formulating the basis of cognitive behavioural therapy will be explored.

**Chapter 3:** **In Chapter 3, the quantitative research design and methodology and research instrument** as well as the manual used in the study will be discussed in detail.

**Chapter 4:** **In Chapter 4** the **results** of the data gathered will be presented.

**Chapter 5:** **In Chapter 5** the **interpretation** of the **findings** of the study will be discussed in light of the theoretical framework and previous empirical studies.

**Chapter 6:** **Conclusions and limitations of the study as well as, recommendations** pertaining to the application and future research possibilities will be discussed in Chapter 6.

# CHAPTER TWO

## 2. LITERATURE REVIEW

### 2.1 INTRODUCTION

Chapter one presented an outline of the study which included an overview of its background, purpose, objectives and significance. The research questions, problem statement and the researcher's methodological and theoretical assumptions were also discussed. Furthermore, the operational terms used in the study were defined and the overview of methodology as well as the applicable ethical considerations had been provided.

The current chapter entails a summary and discussion of Beck's theoretical framework of depression and an overview of the literature regarding the effectiveness of cognitive behavioural therapy (CBT). The role and relevance of nurse-led psycho-social therapy groups will also be explored in relation to inpatient units for patients with mood disorders, depressive disorders and associated symptoms.

### 2.2 MOOD DISORDERS

Mental health disorders pose a significant challenge worldwide. The global burden of mental disorders is large and continues to grow. Health systems throughout the world are struggling to adequately expand/adapt to the needs of people with mental health problems. It is estimated that at least one (1) out of four (4) people are affected by mental disorders at some point in their lives (World Health Organisation, 2013).

Mood disorders, specifically depressive disorders represent a significant category of mental health disorders. According to the World Health organisation (Mental Health Action Plan, 2013:16) depression is estimated to be the leading cause of the disease burden globally. In addition, the associated risk of suicide when experiencing depression contributes significantly to this global challenge. Approximately 900 000 people commit suicide every year ranking suicide as the second (2$^{nd}$) most common cause of death amongst young people (Sadock, Sadock & Ruiz, 2015:1400).

In a world mental health survey conducted by Herman, Heeringa, Moomal, Seedat, Stein and Williams (2009:343) it was found that South Africa, specifically, has a relatively high prevalence of anxiety and mood disorders compared to other

countries. However, these disorders are still undertreated globally, especially in developing countries (Sadock *et al,* 2015:1400).

Unfortunately, inpatient psychotherapeutic services for patients with mood disorders, experiencing emotional distress are scarce in South Africa. This statement is supported by Patel, Fisher, De Silva, Koschorke and Prince (2010:169) and according to these authors there is a dearth in the treatment of patients with mood disorders in inpatient units. Research with patients receiving this type of treatment is also very limited (Johnston, 2013:370).

The importance of the abovementioned is acknowledged by the South African Department of Health as mental, physical and social health are viewed as interrelated vital strands of life. This emphasises the importance of mental health to the overall well-being of all individuals (Department of Health, National Mental Health Policy Framework and Strategic Plan, 2013 -2020).

When considering mood disorders as a fast growing disease burden, the following very important question can be posed: “With the current movement for global mental health, it is timely to review these issues from a South African perspective. If we agree that services need scaling up, what adaptations are needed within our context?” (Sorsdahl, Stein & Lund, 2012:168).

## 2.3 MENTAL HEALTH CARE NURSING

Acute inpatient units for patients with mood disorders provide care for patients suffering from severe emotional distress (Cristia, David, Montgomery & Szamoskozi, 2013:584). Adverse life events often contribute to dysfunctional emotional homeostasis. Confusion and distortions in thinking and perceptions are also evident in these patients (Cristia *et al,* 2013:586). Furthermore, patients often experience suicidal ideation and associated suicidal behaviour posing a serious clinical risk.

Historically the main focus in mental health care nursing (MHCN) had been related to custodial care. According to Mullen (2009:85) custodial care refers to traditional observation of patients, management of problematic behaviour, provisioning in basic needs, incorporation of strict limit setting, provisioning of a safe physical environment as well as administration and monitoring of treatment. In a study conducted by Uys and Middleton (2014:6)it was found that custodial care is an ineffective treatment modality for patients with mental illness.

The core function of a professional mental health care nurse is the empowering of patients experiencing mental illnesses in order to be able to cope with everyday life-stressors as well as altered perceptions, beliefs and related dysfunctional behaviour (World Health Organisation, 2003:6). Current inpatient treatment still evolves around custodial care. Therefore, risk management and observation protocols should nowadays still be a priority in mental health care nursing despite mental health care nursing training and evidence against custodial care. A very important aspect in the treatment of mental health disorders is medication and therefore a medical model of depression still features strongly when referring to the treatment of depression (Mullen, 2009:85).

Some of the factors causing depressive disorders include cognitive vulnerabilities and adverse life events resulting in emotional distress and deterioration in the functioning and activities of daily living. By linking depression with neurotransmitter activity in the brain, and including the resulted effective treatment thereof with anti-depressants led to inpatient unit programmes, as well as mental health care professional nurses relying on medication as the treatment option of choice. Therefore, addressing the causality of mood disorders and depressive disorders solely from this stance limits the potential for specialised psycho-social interventions facilitated by professional mental health care nurses in inpatient units for mood and depressive disorders (Johnson 2014:26).

Psycho-social interventions refer to psychotherapies, for example cognitive behavioural therapy (CBT), stress management, coping skills, relapse prevention and psycho-education. Cognitive behaviour therapy can be described as an active, directive structural approach used in the treatment of mental health disorders, such as anxiety, depression and phobias (Beck, Rush and Shaw, 1979:244). According to the cognitive behavioural approach patients' mood and behaviours are largely shaped by the way they assign meaning to life experiences.

Cognitive behaviour group therapy (CBT) is more and more seen as effective in the treatment of patients with mood disorders, depressive disorders and associated symptoms. However, the underutilisation of CBT for inpatients is of great concern, especially when considering the time and cost-effectiveness thereof. The incorporation of psycho-social interventions can provide structured, pro-active treatment for patients with mood and depressive symptoms in inpatient units (Mullen, 2009:85). The implementation of cognitive behavioural group therapy in inpatient

units can facilitate and contribute significantly to these aspects (Chetty & Hoque, 2013:30).

Furthermore, professional mental health care nurses are well placed in order to provide psycho-social interventions, especially since they play a vital role in the nursing care processes, but also as they form part of the multi-disciplinary inpatient treatment teams. Mullen (2009:85) acknowledges this as he stated: “It is unclear why such efficacious psycho-social interventions that directly address some of the reasons people are hospitalised are not more routinely placed”. However, it remains a challenge for mental health care nurses to provide patients in inpatient units suffering from mood and depressive disorders with psycho-social interventions.

## 2.4 THEORETICAL FRAMEWORK OF THE STUDY

### 2.4.1 **Cognitive Conceptual Diagram of Depression** (Beck, 1993)

According to Beck’s cognitive model of depression, symptoms and dysfunctional behavioural patterns stems from cognitive appraisals related to early life experiences including interactions with significant others. Thus, cognitive structures are developed through information processing. These cognitive structures involve core beliefs (schemas) about oneself, the world and the future. Schemas are mostly not part of a patient’s immediate consciousness. However, a patient can access information related to schema formation through specific psycho-therapeutic techniques. Beck’s theory postulates that patients with depression tend to have negative thoughts and perceptions about themselves, their world and their future – the negative cognitive triad. For example, patients with a negative view of themselves might think “I’m useless”, whilst a negative view of the future could be “I’m doomed, I will never get better”. See conceptual framework Figure 2.1

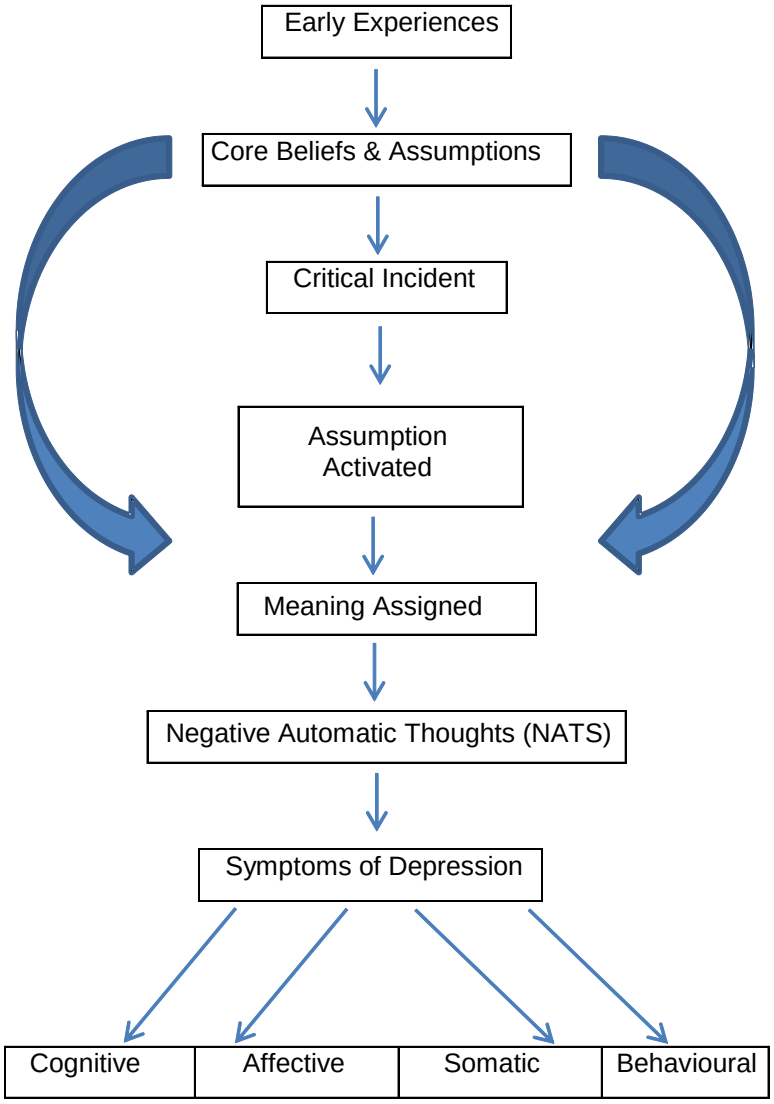


**Figure 2.1: Cognitive Conceptual Framework of Depression by Judith Beck, PhD. (Beck, J.S. 1993) / Beck Depression Model (Beck, 1967)**

### 2.4.2 Theoretical Model (Beck) of Depression

Generally patients assume emotional reactions are caused by specific life events. However, according to Beck's theory it is not the event itself causing them to experience emotional distress, but rather the meaning they assign to such an event. Literature on this theoretical approach describe it as the most basic cognitive principle of emotional reactions (Westbrook *et al,* 2011:4).

**Figure 2.2: General Assumption: Precipitating Factors in Emotional Responses**

**Figure 2.3: Basic Cognitive Principle: Precipitating Factors in Emotional Reactions**

The most fundamental theoretical principle of cognitive behaviour therapy (Figure 2.3) is built on the premise that emotions and behaviour are largely shaped and determined by cognitions. Cognitions refer to thoughts, beliefs, perceptions and interpretations about ourselves, our environment, as well as significant life events (Westbrook *et al,* 2011:5). The abovementioned principle therefore postulates that modification of thought patterns to a more functional stance could result in different emotional and behavioural responses (Westbrook *et al,* 2011:5).

When considering emotional responses and related behaviour, Beck's theory emphasises the significant role cognitions play in both aspects. In Figure 2.3 the cognitive principle is illustrated as important, especially when considering emotional responses. However, cognitive behavioural therapy (Beck's theory) also view behavioural responses as significant when dealing with emotional responses.

Emotional responses, cognitions and behavioural responses are thus seen as entwined; directly influencing one another. Moreover, when considering predisposing and precipitating factors related to emotional responses the Beckonian theoretical approach incorporates both the cognitive and behavioural principle in its theory. The behavioural principle behaviour therefore has a direct impact on maintaining and modifying thoughts and emotional responses (Westbrook *et al,* 2011:5). This implies

that modification of behaviour could result in a change in thought patterns as well as a change in related emotional responses.

Based on the abovementioned principle, cognitive behavioural therapy theorises that dysfunctional emotional and dysfunctional behavioural responses feature on a continuum of normal human psychological processes and not as an entity on its own (Westbrook *et al,* 2011:5). This aspect of cognitive behavioural therapy relate closely to the nursing model described by Uys and Middleton (2014:18). These authors also described emotional and behavioural responses on a continuum with dysfunctional emotional and behavioural responses when referring to the functioning level of patients (Westbrook *et al,* 2011:5).

In addition, Videbeck (2011:280) opines that all people experience a wide range of emotions. According to Fry (2015) not all sadness is depression and sometimes feeling low and losing interest in things is a normal human response to life events. Fluctuations in mood are part and parcel of everyday life and experiencing a low mood is not uncommon when faced with challenging life events.

Furthermore, mood disorders comprise of a group of disorders, primarily characterised by disturbance in mood and other related disturbances. The Diagnostic and Statistical Manual of Mental Disorders (DSM 5TM) previously referred to mood disorders as affective disorders. Literature describe the term mood disorder more descriptively since mood disorders are characterised by a prolonged disturbance in mood and not merely by observable affective emotional expression (Sadock & Sadock, 2003:534).

It is important to add that the cognitive behavioural theory focuses on what is happening at a specific point in time in a patient's life, despite cognitive behavioural therapy acknowledging the influence of adverse life events. The focus point is therefore on the current processes maintaining the problem. Although previous life experiences is acknowledged the cognitive behavioural approach focuses on changing dysfunctional cognitions, related emotional responses and behaviour patterns currently incorporated by the patient (Westbrook *et al,* 2011:6).

Furthermore, cognitive behavioural therapy inherited important features from the behavioural perspective and these are included in its theoretical approach. Psychological problems are referred to as the result of different interacting systems

within patients' lives, including their environment. The following significant interactive domains are found: cognitions; emotions, somatic and behavioural. This theoretical principle is clinically significant when exploring mood disorders, depressive disorders and associated symptoms. The interactive principle therefore implies that change in one system will induce change in one or more of the other systems. This aspect represents an important focus point in the treatment rationale of cognitive behavioural therapy (Westbrook *et al,* 2011:6).

For the purposes of this study 21 depressive symptoms had been identified, namely sadness, pessimism, sense of failure, dissatisfaction, guilt, expectation of punishment, self-dislike, self-blame, suicidal ideation, crying (tearfulness), irritability, social withdrawal, indecisiveness, change in body image, work performance, insomnia, fatigue, disturbances in appetite, weight loss/gain, somatic pre-occupation and sexual disturbances. The patients self-assessed these symptoms and the results discussed according to the four interrelated domains.

### 2.4.3 Cognitions, Emotions, Somatic and Behavioural Interactive Domains

#### 2.4.3.1 Formation of core beliefs

Cognitive behavioural therapy distinguishes between three (3) important levels of cognitions, namely core beliefs (schemas), dysfunctional assumptions (DAs) and negative automatic thought patterns (NAT's) (Westbrook *et al,* 2011:9). These cognitions are fundamental factors in the mentioned theoretical model and are closely related to emotional experiences.

Throughout our lifetime we process information about ourselves, our world (environment), our life experiences, future expectations as well as significant others. These cognitive structures (also referred to as schemas) develop from an early age and are shaped by personal experiences, including interaction with significant others. Schemas are thus based on previous learning and consist of our fundamental beliefs (core beliefs) and assumptions. Although schemas represent past experiences, these cognitive structures also play an important role in the organising and structure of new experiences. Core beliefs and assumptions are therefore reinforced by new learning experiences and impact on the development of other beliefs, values and attitudes.

Schemas can be adaptive (functional) or maladaptive (dysfunctional). When exposed to adverse life events information processing can become biased (dysfunctional). Dysfunctional schemas lay dormant during non-stressful periods.

However, these can become active when triggered by stressful life events (Westbrook *et al,* 2011:10).

Automatic thoughts refer to those thoughts that automatically arise when confronted with specific life events or situations. Automatic thoughts are usually based on erroneous logic and information processing. Irrespective of this, automatic thoughts are accepted as logic and concise without questioning or rationally analysing them. These thoughts can be within the conscious awareness of the patient or not. However, patients can be taught to access these thoughts through different therapeutic techniques. The abovementioned cognitive structures are viewed as central to Beck's theory.

Beck's cognitive model of depression is formulated on the above-mentioned principles and the role of cognitions in emotional experiences are central to this approach. According to Beck's cognitive model of depression, a depressed mood is largely determined by specific thought patterns (Tsabalala & Visser, 2011:18). This theory further postulates that patients with depression often see and think about themselves, their world and their future in a negative manner. According to Westbrook *et al,* (2011:12) basic belief systems evolving around a negative theme predispose the patient to depression.

Patients often assume that adverse life events cause dysfunctional emotional experiences such as depression. However, according to Beck the belief and meaning patients assign to external events cause emotional distress. This aspect led to the development of Beck's A – B – C model (Tsabalala & Visser, 2011:18).

In summary, the formation of basic beliefs, assumptions and automatic thoughts refer to life rules incorporated by all individuals. These rules are learned early on in life during developmental stages, through different life experiences and also through interaction with significant others. These experiences are used in order to make sense of the world. Therefore, these rules are utilised in order to integrate and assign meaning to human experiences. Furthermore, these perceptions are shaped into cognitions such as thought patterns, perceptions, how to set goals, how to make sense of life events, as well as how to evaluate and modify behaviour. The discussion below focus on the symptoms of mood disorders and depressive disorders as related to the different domains (Figure 2.4).

| Cognitive | Affective | Somatic | Behavioural |
|---|---|---|---|

**Figure 2.4: Domains: Depressive Symptoms**

### 2.4.4 Cognitive Domain

For purposes of the current literature review depression is characterised by various cognitive symptoms, such as self-dislike, pessimism, sense of failure, expectations of punishment, self-blame, indecisiveness, suicidal ideation and change in body image.

Cognitive impairment is an important diagnostic criterion in the diagnoses of mood and depressive disorders, especially since the patient experiencing depression will have an inability to make decisions. Concentration and memory may also be impaired. In addition, recurrent thoughts about death and suicide may be present. The DSM-5 diagnostic criteria also state that there should be a significant impairment in functioning level compared to previous levels of functioning. Symptoms should thus not be present as a result of substance use or other medical conditions. Furthermore, the condition should not be better explained by means of another mental illness and no episodes of hypomania or mania should be present (American Psychiatric Association, 2013). Feelings of hopelessness often lead to an increased risk pertaining to suicide. These patients also often struggle with cognitive impairment such as memory impairment and an inability to concentrate.

The thoughts of people with depressive disorders are often characterised by dysfunctional thought patterns. Literature on dysfunctional thought patterns describe it as cognitive distortions such as jumping to conclusions, overgeneralisation, all or nothing thinking. For example, people that tend to be good or bad could represent “all or nothing” thinking (Tsabalala & Visser, 2011:19). During the acute phase of depression negative representation are easily accessible. Memories are often intrusive, interpretation has a self-deprecatory nature and ruminative thoughts with a negative theme are common (Brewin, 2006:765).

Rumination refers to a prominent etiological factor in the exploration of the onset of depression. According to Malmberg and Larson (2015:1) rumination and insomnia are considered risk factors for the onset of depression. Both these factors influence the individual’s cognitive functioning. Individuals who reported both rumination and insomnia might be particularly sensitive to the development of depression. According to Lépine and Briley (2011:4) general residual symptoms could cause considerable

distress and cognitive impairment. This often leads to relapse and a decrease in quality of life.

Furthermore, in the acute phase of depression, patients are extremely vulnerable, especially pertaining to negative representations and memories could often be intrusive, leading to the occurrence of ruminative thoughts (Brewin, 2006:765). However, cognitive signs and symptoms may include a decrease in concentration, self-blame, pessimism and self-destructive thoughts (Bhowmik *et al,* 2012:39). Attention could also be impaired (Smith, 2012:51).

Juruena (2012:86) opines that "as the cognitive symptoms of depression worsens, self-doubt increases. People do not trust their decisions, fearing failure or disapproval if the wrong choice is made. Mental slowing and tunnel vision make it difficult to generate new solutions to problems. As anxiety increases, it becomes easier to imagine the worst-case scenario for any solution considered. The magnitude of problems is perceived as great and the consequences overwhelming, and as a result there is often a paralysis in decision making." Furthermore, depression often re-enforce deliberate and repeated negative thinking which pertains to symptoms, problems and life experiences. This process is referred to as "rumination" (Brewin, 2006:776).

Cognitive behavioural therapy also aims to identify unsupportive cognitions and negative automatic thoughts stemming from negative beliefs and assumptions about the self, the world and the future. Negative beliefs and assumptions are based on early life experiences and interaction with significant others. According to the National Institute of Clinical Excellence (NICE, 2007) there is an extensive evidence base for the treatment of mood and depressive disorders with cognitive behaviour therapy. Cognitive behavioural therapy is even described as a first-line therapeutic approach in the treatment of mood and depressive disorders.

A meta-analysis conducted on the efficacy of cognitive behavioural therapy showed a significant medium effect on dysfunctional thoughts in depression. It also confirmed the findings of several other individual studies. Furthermore, these findings remained similar during follow-up studies (Cristea *et al,* 2015:68). Thus, efficacy was sustained even over a long-term period. Based on these results a definite correlation exist between dysfunctional beliefs and a depressed mood (Westbrook *et al,* 2011:17).

### 2.4.5 Emotional (Affective) Domain

When defining depression as a disturbance of affect, characterised by impairment in cognitive, emotional, somatic, volitional and behavioural domains, the abovementioned classification can be well-fitted into the conceptual framework proposed by Beck. A significant contributory factor to the burden of disease is depression not always featuring as a single episode. Depression often becomes chronic, with recurrent episodes, the occurrence of residual symptoms between episodes (Sadock & Sadock, 2003:1561), and also having continuous adverse effects on patients' lives even when successfully treated. Whilst in remission residual symptoms regularly transpire and continue to cause emotional distress as well as impairment in the patients functioning level (Lépine & Briley, 2011:4). Thus, it has a lifelong impact on the physical and emotional wellbeing of the individual (Debjit *et al,* 2012:39).

In order to gain insight into depression as a mood disorder, one should be familiar with the concept of mood which entails a pervasive feeling, lasting for a sustained period and which subsequently impacts on patients behaviour as well as their perception of the world and how they perceive themselves, their future and their environment (Sadock *et al,* 2015:347). For the purpose of this study the affective domain refers to affective symptoms such as sadness, dissatisfaction, guilt, tearfulness and irritability.

Mood is therefore referred to as an emotional state, subjectively experienced by the individual. However, some features may be observed objectively. It is important to understand that all people experience a wide variety of emotions from time to time. When these emotions become too intense, over a prolonged period of time and the individual are no longer able to function effectively in important areas of everyday living, then these features become the focus of clinical attention and concern. The patient with depression experiences a low mood, loss of interest or pleasure in usual activities (Smith 2012:51). Furthermore, the patient often experience feelings of guilt, worthlessness and low self-esteem. Uys and Middleton (2014:359) define depression as a clinical condition, characterised by intense feelings of sadness and guilt.

Cognitive behavioural therapy processes and techniques therefore focus on changing negative and biased beliefs and thought patterns in order to achieve cognitive change. It is this mechanism of change that leads to a reduction in depressive symptoms.

### 2.4.6 Somatic Domain

For the purpose of this study depressive disorders will be defined as a "complex class of affective disturbances" including disturbances in cognitive, emotional, somatic, volitional and behavioural domains (DSM 5 TM) (American Psychiatric Association, 2013).

At least five (5) of the following symptoms must be present for a minimum period of two weeks, namely, a depressed mood, including a decrease in interest or pleasure in almost all activities, significant weight loss (without any voluntary attempt to lose weight) or a significant weight gain or a decrease or increase in appetite. The individual suffering from depression can also experience either insomnia or hypersomnia. Furthermore, psycho-motoric retardation or agitation may be present and the patient can experience fatigue or a decrease in level of energy.

For the purpose of this study depressive symptoms such as insomnia, fatigue, disturbances in appetite, pre-occupation with somatic symptoms and loss of libido are classified as the somatic domain. In addition, patients with depression can also experience hypothalamic disturbances. Hypothalamic symptoms include for example, a decrease or increase in appetite, insomnia or sometimes hypersomnia. Somatic symptoms may include fatigue, headache, dry mouth and muscle spasms.

Further features may include changes in weight and sleep, agitation, loss of energy, feelings of worthlessness, inability to sustain concentration and thoughts of suicide. These symptoms could impact and impair an individual's ability to function in occupational, social and academic areas of their lives.

Depressive disorders could also impact on morbidity and mortality rates such as suicide. Depression is often associated with comorbid medical conditions such as cardio- and cerebrovascular diseases and could cause substantial impairment in a patient's level of functioning. Furthermore, social interaction impacting on family life and absenteeism from work as a result of physical and mental illness, could also be impaired. Physiological responses may include for example a decrease or increase in appetite, insomnia or hypersomnia, chest pain, gastrointestinal problems, physical pain and headaches (Stuart, 2013:293). In addition, residual somatic symptoms of fatigue and psycho-motor disability could also pose a risk for developing future episodes of depression.

Chronic physical pain is another important factor in the severity level of depression, as well as the duration of a depressive episode. Chronic physical pain has been identified as a significant risk factor in developing suicidal ideation and treatment plans should therefore focus on cognitive, emotional and somatic symptoms of depression in order to ensure full remission (Madhukar & Trivedi, 2004:12).

### 2.4.7 Behavioural domain

Depression is also referred to as a clinical disorder that is "severe, maladaptive and incapacitating", and is characterised by specific behavioural responses (Stuart, 2013:293). A marked reduction in the patients energy level, results in a decrease in activities even when conducting small tasks (Smith 2012:51). Behavioural aspects may even include self-destructive behaviour such as alcohol use, anger, irritability, poor self-care and social isolation (Stuart, 2013:293). Behavioural responses such as social withdrawal and a decline in work performance could occur as a result of depression.

Patients with depression are in dire need of social support. However, depression often negatively affects social interaction, family life and occupational functioning which could lead to poor work performance or even absenteeism. This aspect poses physical, emotional and financial stress on family life often resulting in separation or divorce, subsequently leading to new stressors which could trigger a chain reaction and even a new depressive episode (Lépine & Briley, 2011:5).

From the abovementioned theoretical perspectives it clearly becomes imperative to focus on cognitive restructuring by means of changing dysfunctional beliefs when considering treatment modalities related to mood disorders, depressive disorders and associated symptoms (Beck, Rush, Shore & Emery, 1979:244). Cognitive restructuring also play an important role in relapse prevention.

## 2.5 THERAPEUTIC APPROACHES

Although Beck's theory incorporates various theoretical principles of other theoretical approaches pertaining to mood disorders, depressive disorders and associated symptoms, it also differs to some extend from other influential theories.

- The **psychodynamic approach** for example, focuses on addressing underlying developmental processes, ulterior motivations as well as unconscious conflicts when treating mood disorders, depressive disorders and associated symptoms (Westbrook *et al,* 2014:6). Although it highlights the importance of past adverse

life experiences in emotional and behavioural responses. Beck's theory focuses on the present including the mechanisms that maintain the problem currently.

- Other contemporary approaches, as opposed to Beck's theory utilise a **biomedical model** in order to define, diagnose as well as treat mood disorders, depression and associated symptoms (Johnson, 2014:25). The biomedical approach refers to mood disorders, depressive disorders and associated symptoms purely from a biological stance and postulates imbalances of neurotransmitters as the direct link to experiencing mood disorders, depressive disorders and related symptoms. Various clinical trials on the effectiveness and efficacy of psychotropic drugs provided the biomedical model with a solid evidence-based supportive of its theoretical framework (Deacon, 2013:850). However, this model in itself cannot explain the uniqueness of human psychological experiences.

Although mental health care nursing relies on the biomedical model to conduct mental health care assessments related to symptomology for diagnostic and treatment purposes, this model pays limited attention to psychosocial factors which are considered, and not only seen as relevant in relation to the underlying clinical symptoms. Mental health care nursing as a discipline, therefore, focuses on caring for the patient in a holistic manner aiming to strengthen functional life skills as well as modifying dysfunctional life skills (Uys & Middleton, 2014:195).

Beck's theoretical approach and the stress-vulnerability approach (Uys & Middleton, 2014:196) compliments each other since both theories value the importance of psychological vulnerabilities as relevant to predisposing and precipitating factors in mood disorders, depressive disorders and associated symptoms. Both these approaches advocate the interrelatedness of these factors and view dysfunctional emotional and behavioural responses on a continuum with functional healthier emotional and behavioural responses. Although the foundation of mental health care nursing seems to be largely rooted in both the bio-psychosocial model as well as the stress-vulnerability approach Beck's theoretical model underpinned the theoretical framework for the purpose of this study.

## 2.6 CONCEPTUAL FRAMEWORK OF AN OVERARCHING INTERVENTION PROGRAMME

Mood and depressive disorders are characterised by a specific set of symptoms. These symptoms evolve around cognitive, affective, somatic and behavioural domains. Beck's theoretical framework of depression is illustrated in Figure 1 and postulates that cognitive processes are found at the core of emotional and behavioural dysregulation evident in mood disorders, depressive disorders and associated symptoms (Hunot, Moore, Caldwell, Furukawa, Davies, Jones, Honyashiki, Chen, Lewis & Churchill, 2013:2).

Recently Beck and Bredemeier (2016) developed a conceptual framework proposing an overarching intervention programme which aims to address predisposing and precipitating factors related to mood disorders, depressive disorders and associated symptoms (Figure 2.5).

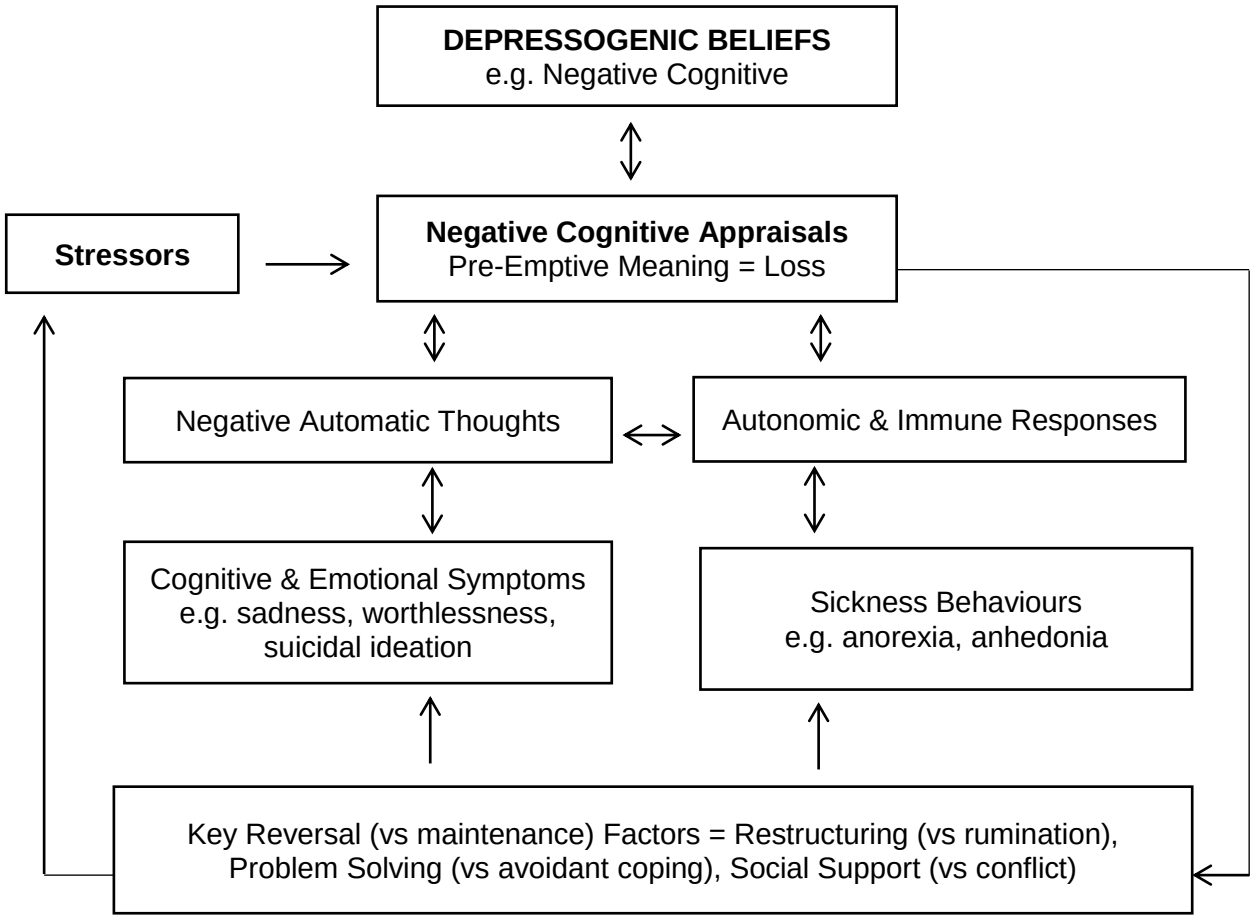


**Figure 2.5: Conceptual Framework: Overarching Intervention Programme**

Figure 2.5 illustrates the conceptual model of an intervention programme targeting pre-disposing and precipitating factors as implicated in the theoretical causation of

mood disorders, depressive disorders and associated symptoms (Beck & Bredemeier, 2016).

Since early 1999, Clark, Beck and Alford (1999:1) referred to depression as a "chronic, disabling condition". Depression is also described as a clinical disorder which is severe, maladaptive and incapacitating, characterised by specific behavioural responses. These responses are further characterised by a range of symptoms including cognitive, affective, somatic and behavioural responses (Stuart, 2013:293; Smith, 2012:51).

## 2.7 THE IMPORTANCE OF THERAPEUTIC INTERVENTIONS

People are admitted to acute inpatient units for mood disorders when experiencing emotional distress. They can no longer effectively fulfil their daily living activities and are unable to function in the community. People experience emotional distress to such an extent that they feel incapacitated and overwhelmed while their experiences are often accompanied by risky behavioural responses.

Treatment in the unit should therefore target the core of emotional distress, dysfunctional behaviour as well as dysfunctional relationships (Durant, Clarke, Tollard & Wilson, 2007:119). Videbeck (2011:283) acknowledge this by stating that effective treatment of mood disorders should address all the aspects of illness including the psychosocial component. A survey conducted on service delivery in mental health care found that "greater attention was thought to be needed on depression, anxiety disorders and bipolar disorders" (Patel, 2010:17). Participants in this survey also emphasised the importance and need for psychosocial interventions.

According to Smith (2012:54) evidence-based psychological interventions for the treatment of depression and anxiety disorders and cognitive behavioural group therapy has been increasingly effective for patients in inpatient units (Chetty & Hoque, 2013:30). The underutilisation of cognitive behavioural group therapy remains a concern, especially when considering the need for cost-effective quality service delivery.

### 2.7.1 Cognitive Behavioural Therapy (CBT)

According to the overarching intervention programme (Figure 2.5), CBT as a treatment intervention incorporated two main components namely, a behavioural

component and a cognitive component. Behavioural therapy was primarily found in the learning theory in an attempt to explain dysfunctional behaviour and related emotional responses. However, this theory failed to explain cognitive processes such as thoughts, beliefs, interpretation and perception in the human experience. Cognitive behavioural therapy (CBT) postulates that cognitions (thought patterns) directly influence emotional as well as behavioural responses. Based on this principle behavioural activation strategies had been incorporated in Beck's cognitive behavioural therapy model. Behaviour therefore has the potential to maintain or change specific emotional responses (Westbrook *et al,* 2011:5).

According to Juruena (2012:89) thoughts, feelings and behaviours are interrelated. Thus, each component influences one another. Changes in cognitive processes and mood could therefore lead to changes in behavioural aspects. However, behaviour can reinforce dysfunctional information processing, triggering previous biased belief systems and assumptions leading to depressive mood states.

According to Beck *et al.,* (1979:244) cognitive behaviour therapy is an active, directive structural approach used for treating anxiety, depression and phobias. These authors further state that the underlying theoretical rational is that a patient's mood and behaviour are largely shaped by the way he or she assigns meaning to life experiences. People's cognitions are based on their assumptions and schema formations developed as a result of previous life experiences (Beck *et al.,* 1979:3). Therefore, the purpose of therapeutic intervention would be to identify, analyse and correct dysfunctional schemas and automatic thoughts.

According to the National Institute for Clinical Excellence (2008:10) cognitive behavioural therapy is a structured problem-focused, goal-orientated approach aimed at modifying thoughts, assumptions, and behaviours in order to influence emotions and behaviour. This psychotherapeutic approach has also received significant empirical support across a wide range of disorders (NICE, 2008:14).

Cognitive behavioural therapy is routed in and guided by a specific knowledge base and techniques used in CBT which stems from these principles. A key characteristic of CBT is it being a collaborative process. This implies that patients share responsibility for their recovery in a collaborative process and become active participants in their treatment. CBT further entails a structured process during which

the patients are guided to understand themselves through a process of directed discovery (Corey, 2009:273).

During CBT the patients are taught specific skills which will assist them in coping with current and future adverse life events and stressors in a more functional manner. Furthermore, patients are taught to examine their behaviour, the way they think and perceive events, themselves as well as others. They are also guided to implement alternative behaviour and perspectives that has the potential to be more functional and adaptive. However, this process should not be seen as merely thinking "positively".

According to Johnson (2014:8) emotional states can be understood by analysing underlying thought processes. Therefore manipulation of specific thought patterns can resolve depressive symptoms and accompanied dysfunctional behaviour. A cognitive behaviour therapy approach emphasises the interaction between thoughts, emotions, physiology and behaviour. The theory of CBT stems from the Greek philosopher, Epictetus, who postulated that the meaning and perception a patient assigns to an event largely causes emotional distress and not the event itself (Johnson, 2014:13-14).

According to Westbrook *et al,* (2011:18) cognitive behavioural therapy is the psychological therapy with the most solid evidence base pertaining to efficacy and effectiveness in treating mood disorders, specifically depressive disorders. A meta-analysis of CBT displayed a significant effect on dysfunctional thoughts and linear association between dysfunctional thoughts and symptoms of depression. Furthermore, results remained similar during follow-up sessions, which indicated sustained efficacy over a prolonged period (Cristea *et al,* 2015:68). Based on the above, CBT is rooted on a solid evidence base for the effective treatment in mood disorders, depressive disorders and associated symptoms.

Mullen (2009:85) therefore stated that it is unclear why such efficacious psycho-social intervention in the treatment of mood and depressive disorders are not part of nursing programmes, in inpatient units for mood disorders.

### 2.7.2 Measurement of Depressive Symptoms with Beck Depression Inventory Scale (BDI)

The severity of symptoms, including the number of symptoms experienced, determine the severity of the illness. Smith (2015:51) distinguishes between the following levels of depression: mild; moderate and severe. According to Smith, depression is mild when a patient experiences minor functional impairment, while moderate depression involves difficulty in maintaining daily living activities and severe depression is characterised by a persistent low mood and persistent distressing symptoms.

Clinical aspects for example suicidal ideation or delusions, could be identified by using an assessment instrument for out-patient or inpatient settings (Videbeck, 2011:281). In addition to Beck's theoretical framework relating to mood disorders, depressive disorders and associated symptoms was the development of the self-assessment Beck Depression Inventory Scale (cited by Uys & Middleton, 2014:817-820). The Beck Depression Inventory Scale – BDI (Beck, 1961) was originally developed in 1961 and the application thereof is to assess and measure the presence and severity of depressive symptoms. Depressive symptoms entail for example feelings of hopelessness, irritability, sadness, as well as specific cognitions such as guilt, worthlessness, self-deprecating thoughts and physical symptoms, including weight loss, fatigue and insomnia (Uys & Middleton, 2014:359).

The Beck Depression Inventory Scale (BDI) is utilised for measuring the presence and severity of depressive symptoms on a 21 item self-assessment scale. Items on the scale represent symptoms of depression such as sadness, pessimism, sense of failure, dissatisfaction, guilt, expectation of punishment, self-dislike, self-blame, suicidal ideation, crying, irritability, social withdrawal, indecisiveness, change in body image, work performance, insomnia, fatigue, disturbances in appetite, weight loss, or weight gain, somatic pre-occupation and sexual disturbances.

These 21 depressive symptoms have been rated by patients on a 4-point Likert scale, ranging from 0-3, with 0 indicating the absence of the symptom and 3 indicative of the symptom being experienced severely for most of the time, almost every day. Thus, higher total scores indicate the presence of greater symptom severity. Therefore a lower total score indicates symptoms being experienced in a less severe manner. The highest possible total score that could be obtained was 63 and the lowest possible total score 0 (Raab, Mackintosh, Gros & Morland, 2015:566).

According to cross-sectional studies the Beck Depression Inventory Scale (BDI) appropriately reflects changes in depressive symptoms (Smarr & Keefer, 2011:462). Correlation studies found the Beck Depression Inventory Scale (BDI) a validated tool in the assessment of depressive symptoms. Sadock *et al,* (2015:227) reported high internal consistencies of the Beck Depression Inventory Scale (BDI).

### 2.7.3 Group Processes

Group therapy is a powerful treatment intervention in the treatment of patients with mood disorders, depressive disorders and associated symptoms. Group therapy is also an evidenced based treatment which poses many advantages in the inpatient setting, for example, establishing trust and safety whilst learning new functional thought processes and behavioural responses (Singh, 2014:154). Furthermore, active involvement and interaction of the patients in CBT groups enable patients to become a co-therapist in the planning of their treatment.

Group therapy sessions provide an environment that promotes corrective social learning for dysfunctional behavioural patterns as well as dysfunctional interpersonal relationships. Group members can practice adaptive skills within the safe environment of the group, whilst preparing them to apply these skills in reality. These skills are further reinforced by giving practical homework assignments (Singh, 2014:153).

Cognitive behaviour therapy includes the application of unique principles promoting the therapeutic process within the group and empowering patients to effectively deal with difficult situations. The content of group sessions is further determined early in the sessions through a collaborative process between the patient and the therapist to implement structure and focus on aspects which can have a direct impact on the group process. Cognitive behavioural therapy groups therefore could be seen as time-limited and goal orientated group processes.

According to Yalom & Leszcz (2005:15) the corrective recapitulation of the primary group is that most patients enter group therapy whilst previously experiencing dysfunctional interpersonal relationships in important areas of their lives. One of the goals of group therapy is creating universality within the group. This is accomplished through the application of specific selection criteria during the compilation of the group for example, depression groups for patients with depressive disorders. Group

cohesion is also established by setting clear ground rules before the onset of sessions or during the first session. Confidentiality for example establishes safety pertaining to disclosure of sensitive information. Group interaction has the ability to foster support, empathy, compassion and understanding. It also provides patients with the opportunity to share similar experiences and coping mechanisms (Singh, 2014:153).

Patients experiencing emotional distress often feel isolated and have the perception that they are alone in their struggle. Therefore, interaction within CBT group therapy offers patients with the opportunity to make friends, feel less isolated and become aware of similar problems other patients are experiencing. Furthermore, therapy groups can serve as a platform for expression of sensitive personal information including intense emotional reactions.

Various psychosocial group processes and therapies are utilised through a multi-disciplinary team in acute mental health care settings. Mental health care nurses are therefore in the ideal situation to utilise groups in order to implement the principles of cognitive behavioural therapy due to the presence of psychiatrists and psychologists working with the patients in therapy.

## 2.8 SUMMARY

The literature review presented in Chapter 2 provided an overview of the role of mood disorders, depressive disorders and associated symptoms in relation to the global burden of mental health disease. Mental health care nursing has been explored as a discipline incorporating theoretical frameworks which has the potential to incorporate theoretical principles of cognitive behavioural therapy in therapeutic nursing programmes in inpatient units for mood and depressive disorders.

The relevance of cognitive behavioural group therapy in relation to mental health care nursing as a dynamic profession has also been highlighted as a discipline and should therefore not be overlooked. Mood disorders, depressive disorders and associated symptoms had been explored as rooted in predisposing and precipitating factors as postulated by the theoretical framework of Beck. Other contemporary theoretical models pertaining to mood and depressive disorders were also briefly discussed. Furthermore, this chapter provided an overview of cognitive behavioural therapy and its relevance to the treatment of inpatients with mood disorders, depressive disorders and associated symptoms. The therapeutic group process was

also explored and potential benefits highlighted. A discussion on the research design and methodology is included in Chapter 3.

# CHAPTER THREE

## 3. RESEARCH DESIGN AND METHODOLOGY

### 3.1 INTRODUCTION

Chapter 2 included a discussion on the literature review highlighting the efficacy and effectiveness of cognitive behavioural therapy in the treatment of mood disorders and associated depressive symptoms. The role of professional mental health care nurses in the implementation of such an intervention in inpatient units for mood disorders, depressive disorders and associated symptoms was also discussed.

A need to explore a nurse-led therapeutic intervention in an inpatient unit for patients with mood disorders and depressive symptoms therefore became imperative. Despite existing evidence regarding the effective treatment of mood disorders, cognitive behaviour therapy at present does not form part of the standard nursing care programme in the unit.

In order to address the abovementioned issues, the following research questions were asked: Will nurse-led cognitive behaviour therapy (CBT) groups compared to the standard nursing care programme promote change in depressive symptoms in patients admitted in inpatient units for mood disorders?; Will nurse-led CBT groups add value to the psychiatric nursing profession practice and the therapeutic environment of patients with mental illness? This chapter will therefore describe the research design and methodology utilised by the researcher in order to explore the effectiveness of including nurse-led cognitive behavioural groups compared to a standard nursing programme for inpatients with mood disorders and depressive symptoms. The setting and measuring instruments used to collect the data will also be described in detail. A discussion on the sampling method and ethical principles applied and validity and reliability will also be included.

### 3.2 PURPOSE AND OBJECTIVES

The purpose of the study was to examine the effects of including nurse-led cognitive behavioural therapy groups compared to a standard nursing programme for inpatients with depressive symptoms of mood disorders and the following objectives had been established:

- To obtain base-line data of the patient outcomes before and after the standard nursing programme.
- To compile appropriate measurable evidence based intervention for patients with mood disorders and depressive symptoms (Nurse-led Cognitive Behavioural Therapy Manual).
- To explore whether statistically significant differences exist between the standard nursing programme and the nurse-led CBT nursing programme.

  *Ho: Inpatients with mood disorders that participated in cognitive behavioural group therapy show a marked decrease in the level of severity of depression as compared to inpatients with mood disorders that received treatment as usual.*
- To assess the effectiveness of the nurse-led CBT group intervention programme.

  *Ho1: Inpatients with mood disorders that participated in cognitive behavioural group therapy show a marked decrease in the level of severity of depressive symptoms after the intervention as tested with the Beck Depression Inventory Scale.*
- To discuss the field notes and supporting observations made during the intervention programme and recommendations for psychiatric nursing practice in the unit and future research possibilities.

## 3.3 RESEARCH DESIGN

A quantitative research design is referred to as an objective and systematic process that lends itself to precise measurement and quantification of data, as well as describing relationships between variables (Burns & Grove, 2005:346; Polit & Beck, 2008:763).

### 3.3.1 Research Design

In this study, a quantitative, quasi-experimental research design was utilised.

**Method**

The validated self-assessment inventory, Beck Depression Inventory Scale was used to explore patient outcomes including the effectiveness of the intervention (nurse-led CBT groups). Patients enrolled in the existing nursing programme (treatment as usual) and those exposed to a nursing programme (including nurse-led cognitive behavioural therapy group sessions) were invited to participate in the study.

### 3.3.2 Research Setting

The current study had been conducted in a psycho-therapeutic (acute inpatient) unit for patients with mood disorders in the Free State, South Africa. Admission to the unit was voluntary, thus implying that it was an open unit. Patients could therefore move freely in and around the building. It was a psycho-therapeutic (acute inpatient) unit with a bed capacity of eight (8) and the standard nursing programme in the unit was based on a multi-disciplinary team approach.

Furthermore, the unit provided a therapeutic milieu and environment representing certain aspects of a patient's social environment. Patients admitted to the unit experienced acute emotional distress, therefore the aim of admission was to provide patients with a safe, therapeutically controlled environment enabling them to learn functional coping skills which could be generalised to all spheres of their personal, work and social lives.

## 3.4 RESEARCH METHODS

### 3.4.1 Population and Sample

- **Population and sample**

  The population was estimated on an average of 115 patients admitted per year with mood and depressive disorders and associated symptoms to the three week inpatient treatment programme during 2013 and 2014 (N=115).

- **Sampling method**

  A non-probability convenient sampling method was used. The sample consisted of all patients admitted to the unit with mood disorders, depressive disorders and associated symptoms from April 2015 to November 2015 (N=35). In order to meet the first objective of the study, all patients admitted to the standard nursing programme with mood disorders, depressive disorders and associated symptoms from April 2015 to July 2015 were invited to participate in the study in order to obtain baseline data of treatment as usual (n=20).

  In order to meet the second objective, all patients admitted with mood disorders, depressive disorders and associated symptoms from August 2015 to November 2015 were invited to participate in the nurse-led cognitive behavioural group programme (n=15).

Patients with psychotic disorders and psychotic symptoms were excluded from the study. Although cognitive behaviour therapy can be used as a treatment intervention for patients with psychotic symptoms, the focus of such an intervention is mostly based on relapse prevention, including specific belief systems associated with delusions and perceptual disturbances (Smith, Nathan, Juniper, Kingsep & Lim, 2003:11).

Furthermore, patients within the schizophrenia spectrum and other psychotic disorders experienced severe neurocognitive impairment such as a decrease in attention, impaired memory as well as impairment in executive functions (Morrison, 2009:34). The intervention programme developed for this study focused on Beck's cognitive model of depression and more specifically on the treatment of patients with mood disorders, depressive disorders and associated symptoms. However, participants were conveniently selected, which will restrict direct transferability of the findings to the population.

### 3.4.2 Data Collection

Data collection refers to the process of gathering information in order to answer research questions (Polit & Beck, 2008:374) and is an important step in the research process and should be done in such a manner that it conforms to the ethical and professional standards. Data collection in this study was guided by the patients' demographic information, the research instrument and the intervention. Research codes were used to record the data and for maintaining confidentiality, the data sheets were locked away in a safe place only known to the researcher and supervisor.

### 3.4.3 Instrument

The study included a two part self-assessment questionnaire, namely: Part 1 – Demographical Information (Appendix G) and Part 2: Beck Depression Inventory Scale (cited by Uys & Middleton, 2014:817-820) – BDI (Appendix B) was used to examine patient outcomes (depressive symptoms) before and after the intervention.

**Part 1: Demographical information (Appendix G)**

In part 1 of the research questionnaire, the following demographical information was obtained (Appendix G): age, gender, ethnic association, socio-economic factors, employment, marital status, level of education and ethnic group. The demographic information obtained was based on the literature referring to the risk factors and the

prevalence of mood disorders, depressive disorders and associated symptoms, which has been found to be significantly higher in females than males (Ferrari, Charlson, Norman, Patten, Freedman, Murray, Vos & Whiteford, 2013:2). Furthermore, the incidence of depressive disorders appear to be higher in patients of working age and socio-economic status is also considered as a significant risk factor.

**Part 2: Beck Depression Inventory Scale – BDI (Appendix B)**

Part 2 of the research questionnaire consisted of the self-assessment Beck Depression Inventory Scale – BDI (Appendix B). The Beck Depression Inventory Scale (BDI) (Appendix B) is a validated and tested 'self-assessment' questionnaire and had been completed by patients who agreed and consented to participate in the study. However, during earlier planning stages of the research process, the researcher examined the application of the questionnaire and identified some patients sometimes needing assistance whilst completing the questionnaire. Therefore patients were made aware of the availability of the professional mental health care nurses in the unit if any assistance was required.

The BDI is a 21-item self-assessment inventory of depressive symptoms. The presence and severity of the 21 depressive symptoms (Appendix B) are measured in the validated 'self-assessment' questionnaire (Beck Depression Inventory Scale BDI) and include sadness, pessimism, sense of failure, dissatisfaction, guilt, expectation of punishment, self-dislike, self-blame, suicidal ideation, crying, irritability, social withdrawal, indecisiveness, change in body image, work performance, insomnia, fatigue, disturbances in appetite, weight loss/gain, somatic pre-occupation and sexual disturbances.

Items on the scale represent symptoms of depression and are rated on a 4-point Likert scale, ranging from 0-3, with 0 indicating the absence of the symptom and 3 indicating the symptom being experienced severely for most of the time, almost every day. Thus, higher total scores indicated a greater severity level of the specific symptom of depression and a lower total score those symptoms being experienced in a lesser degree. The highest possible total score that could be obtained from the self-assessment scale was sixty three (63) and the lowest possible score was nil (0) (Raab, Mackintosh, Gros & Morland, 2015:566).

**Table 3.1: Score Interpretation: Beck Depression Inventory Scale (BDI)**

| Total Score | Levels of Depression | |
|---|---|---|
| 0 – 10 | Normal range of mood (White) | |
| 11 – 16 | Mild mood disturbance (Blue) | |
| 17 – 20 | Borderline depression (Yellow) | |
| 21 – 30 | Moderate depression (Pink) | |
| 31 – 40 | Severe depression (Purple) | |
| Above 40 | Extreme depression (Red) | |

For the purpose of analysis depressive symptoms were derived from the 21 questions listed in the Beck Depression Inventory Scale (BDI). Depressive symptoms were further categorised according to the cognitive, affective, somatic and behavioural domains which will be presented and discussed in chapter 4.

### 3.4.4 Validity and Reliability of the Instrument

Part 2, the Beck Depression Inventory Scale reported reliable irrespective of population (Beck & Steer, 1984: Abstract). According to Sadock *et al,* (2015:227) the internal consistencies of the Beck Depression Inventory Scale (BDI) were found to be high and the validity of the scale established through correlation studies. Smarr and Keefer (2011:461) reported similar findings (Cronbach's alpha = 0.88).

### 3.4.5 Data collection Procedure

After identifying the patients who were eligible for participation, the purpose and objectives were explained to the multi-disciplinary treatment team as well as the patients by means of an information leaflet (Appendix F). Completion of pre- and post-test questionnaires – Beck Depression Inventory Scale (Appendix B) – were accepted as consent to participate in the study.

For the purpose of this study a non-probability convenient sampling method was utilised in selecting two groups: Group A (control group) and Group B (experimental group). All patients admitted to the unit during May 2015 and August 2015 had been selected and invited to participate in the study as members of the control group (Group A). They received standard nursing and multi-disciplinary care as usual. Questionnaires were assigned numbers in order to ensure anonymity. All members agreeing to participate in the study received two (2) self-assessment questionnaires (BDI – Beck Depression Inventory Scale). On admission, one was numbered and

marked, admission (pre-test: A1), whilst the other was marked, discharge (post-test: B1).

Thus, members of the control group (Group A) completed a self-assessment questionnaire (BDI – Beck Depression Inventory Scale) on admission (pre-test) as well as a questionnaire (BDI - Beck Depression Inventory Scale) on discharge (post-test). Information obtained from the control group (Group A) provided baseline data in order to compare data obtained from the experimental group (Group B).

Pre-test → Standard Nursing Care → Programme Post Test

Group B: All patients admitted from September 2015 to December 2015 were selected and invited to participate in the nurse-led cognitive behaviour therapy group sessions (experimental group – Group B).

Pre-Test → Nurse Led CBT Groups → Post-Test

Patients from the experimental group (Group B) also completed the self-assessment questionnaire (BDI – Beck Depression Inventory Scale) on admission (pre-test) as well as on discharge (post-test). Thus, pre- and post-tests were done on both groups. However, patients from both groups were not in the unit at the same time of data collection.

After completion, questionnaires were securely locked away in a locked office in a lockable cabinet. Only the researcher and supervisor had access to the completed questionnaires.

### 3.4.6 Facilitator's Notes (Field Notes)

The focus of group psychotherapy is rooted in interpersonal relationships and related mechanisms of change. Therefore the researcher compiled notes on group interactions and group dynamics during sessions. The aim thereof was to assess the effective implementation and outcome of specific group therapeutic principles which served as the core of the therapeutic group processes, as well as to monitor the effects of the CBT groups on nursing practice and the therapeutic milieu.

### 3.4.7 Intervention

- **Nurse-led Cognitive Behavioural Therapy groups**

  Beck's theoretical model of depression underpinned the nurse-led cognitive behavioural therapy group intervention and was facilitated by the researcher and professional mental health care nurses of the unit. Depression is caused and sustained by intrusive dysfunctional thoughts. CBT as the intervention of choice therefore aims to challenge and address these thoughts by means of cognitive restructuring.

- **Nurse-led CBT manual (Appendix H)**

  An intervention manual was developed in order to study patients' depressive symptoms and proposed changes by means of cognitive behavioural methods. The intervention (Nurse-led Cognitive Behaviour Group therapy) was therefore based on a CBT (Cognitive Behaviour Therapy) by utilising existing cognitive behavioural therapy manuals and principles of psycho-education. The following validated sources and literature was utilised during the process: Mundoz, 1993; Riggenbach, 2013; Rosoman, 2008; Williams, 2009 and Yalom and Leszcz, 2005. The first 4 sessions focus on the emotional and cognitive component of mood disorders as conceptualized by the cognitive behavioural model, whilst the last sessions focus on the behavioural component. The compilation of the manual was supervised and mentored by clinical experts in the field of nursing education; advance mental health care nursing and clinical psychology in order to ensure content validity.

  The reason for choosing a specific therapeutic intervention (Cognitive Behaviour Group therapy), including educational material (psycho-education) was to enable patients to effectively deal with the impact of mood disorders, specifically depressive disorders based on the CBT model, by fostering therapeutic growth and change.

  Content validity of the programme was based on theory and formulated in view of the literature. The researcher has many years of experience and gained extensive knowledge in the field of general and mental health care nursing, and content validity was therefore further ensured through experienced specialists in the fields of psychiatric and mental health care nursing, as well as psychology involved in examining the programme.

According to Polit and Beck (2008:295) threats to the internal validity of a study due to extraneous factors can invalidate the results of the research. Therefore threats to validity need to be controlled or minimised in order to ensure correct attribution of differences between the control group and the experimental group (independent variables) as a direct effect on the dependent variable (Polit & Beck, 2004:30). Threats to the current study had been controlled through the selection process of the participants, manipulation of the intervention and by using a valid measuring instrument (Burns & Grove, 2001:259).

- **Implementation of the nurse-led CBT group intervention**

  Participants received nine (9) sessions of nurse-led cognitive behaviour group therapy. Sessions were initially provided three times weekly in order to accommodate newly admitted patients or those discharged earlier. Despite the groups being held more frequently, enough time to complete the homework was still allowed. The groups were facilitated by the researcher, a qualified professional mental health care nurse, and each session lasted approximately 50 to 70 minutes.

- **Experiential training**

  Due to the experiential nature of the research study, and considering the ethical principle of beneficence, the group facilitator had been mentored in a clinical setting by a principle clinical psychologist employed by the institution where the research was conducted. Professional mental health care nurses working in the unit also observed and participated in the sessions under guidance of the researcher in order to develop and empower professional mental health care nurses concerning cognitive behavioural therapy as well as the therapeutic processes involved in group therapy. Both the researcher and professional mental health care nurses received training on psycho-social interventions prior to the implementation of the intervention. Training was provided by an expert in clinical psychology. The unit was also provided with literature on psycho-social interventions as well as an innovative toolkit.

- **Framework of the Sessions** (Appendix C)

  An introductory and orientation letter had been included at the beginning of the patient workbook and served to orientate patients about the broader content of the workbook as well as the purpose of the intervention and sessions. This letter also briefly served to orientate patients to the unit. The multi-disciplinary team

approach had been discussed in this section, including the different treatment modalities offered by different team members. This was followed by a discussion on general group rules. Patients also had to sign a contractual agreement in order to be compliant with homework assignments (Table 3.3; Appendix H).

- **Introduction to the programme**

  Patients were orientated to the CBT group sessions, time duration as well as the relevant topics of the different sessions. Possible benefits of attending group sessions were also explored, and patients had been informed of the group rules. Furthermore, patients' responsibilities related to the purpose of homework assignments were explained which allowed them to commit to being active participants in their own treatment, thus, becoming the agent of change (Juruena, 2012:84).

**Table 3.2: Intervention framework: Nurse-Led Cognitive Behavioural Therapy Group Sessions (Appendix C)**

| **Intervention Framework: Nurse-Led Cognitive Behavioural Sessions** | |
|---|---|
| Session 1 | Understanding Depression |
| Session 2 | Socialisation of Cognitive Behavioural Therapy (CBT model) |
| Session 3 | It's all about thoughts (How thoughts affect my mood) |
| Session 4 | Cognitive errors and mistakes in thinking; Challenging unhelpful thoughts |
| Session 5 | Behaviour and Depression |
| Session 6 | Behavioural Activation |
| Session 7 | Mastery and Meaning |
| Session 8 | Hopelessness, Unhelpful thinking / Unhelpful behaviour and Suicide |
| Session 9 | Healthy me: Practical exercise; Bringing it all together and planning for the future<br>**Reflecting back –** My experience of group therapy |

- **Overview of Nurse-led Cognitive Behavioural Therapy group sessions**

  The sessions had been guided by the manual, a workbook, comprising of an introduction, discussions and work sheets. Each session started with feedback from previous sessions and ended with homework for the next session (see

manual: Appendix H). Table 3.3 provides a summary of the content of the sessions.

**Table 3.3: Overview of Nurse-Led Cognitive behavioural Therapy Group Sessions**

| Session | Rationale | Content and References/Theory | Homework/Worksheet/ Activity |
|---|---|---|---|
| 1 | Understanding depression | Psycho-education: Depression; Beck's cognitive model of depression CBT model | Daily mood monitoring and unhealthy thoughts; How I see myself, my world and future |
| 2 | Socialisation of CBT model | Role of thoughts in emotion and behaviour; A-B-C model of thoughts, emotions and behaviour | Activity: A-B-C worksheet |
| 3 | Thoughts affect mood | Beck's negative cognitive triad; Depressogenic thoughts and relation to mood and CBT model: Schemas, assumptions, automatic thoughts | Worksheet: My bad thoughts; Identifying dysfunctional automatic thoughts |
| 4 | Cognitive errors and cognitive restructuring | Identifying cognitive errors; Challenging unhelpful thoughts; A – B – C – D model | Worksheet: My mistakes in thinking, talking back to my thoughts. |
| 5 | Behaviour and Depression | The 5 links of depression: Altered thinking; altered emotions; altered physical feelings and altered behaviour; vicious circle | Worksheet: The things I do: Do I sabotage myself?; Worksheet: Impact of harmful behaviour; Worksheet: The things I stopped doing |
| 6 | Behavioural Activation | Components of unhealthy behaviour; Activity monitoring and Scheduling activities (reactivating your life); The purpose of pleasant activities | Worksheet: The things I do that's good for me; Activity cards: Pleasant activity; Worksheet: Daily mood monitoring adjusted with activities |
| 7 | Mastery and Meaning | Behavioural activation: Pleasant activities; mastery (self-actualisation) and meaning; Acknowledging emotional pain | Personal mastery card (to-do-list); Meaningful action card; Mood board (visual aid); Coping cards |
| 8 | Hopelessness, Unhelpful thinking; behaviour and suicide | Concepts of suicidal ideation and suicidal behaviour; Role of hopelessness in suicide; Dysfunctional thought patterns and suicidal behaviour; Personal triggers; Identifying dysfunctional coping behaviour | Worksheet: Safeguarding my environment; Worksheet: My personal safety / risk plan |

| Session | Rationale | Content and References/Theory | Homework/Worksheet/ Activity |
|---|---|---|---|
| 9 | Healthy me: Planning for<br><br>The future; Reflecting back | Journey of change; What is different? Social support systems; Reflecting back: How do I see myself, my world and future now? | Worksheet: Having direction; Worksheet: Early warning signs; Emergency plan |

(Adapted from Mundoz, 1993 and 2000; Riggenbach, 2013; Rosoman, 2008; Videbeck, 2011; Williams, 2009 and Yalom. Leszcz, 2005 and Centre for Clinical Intervention)

### 3.4.8 Data Analysis

The data analysis phase of the research design entailed displaying and organising the raw data in such a manner that the results could be used to answer the research questions. After collecting and organising the information on Microsoft Excel spread sheets, data had been analysed with the SPSS Incorporated (2015) in consultation with a statistician. The data collected from the questionnaires were captured on a spread sheet in order to examine and determine the demographic characteristics of the participants. Firstly, descriptive statistics were used to generate a simple summary report using frequency analysis describing the number of participants who answered each option. Numerical data had been described by using means (with standard deviations) and categorical data with frequencies (counts) and percentages as appropriate for age and gender. Descriptive statistics are used to organise data in a meaningful manner using frequency distributions and measures of central tendency (Burns & Grove, 2001:795).

Since no assumptions of a normal distribution could be made, non-parametric statistical methods were applied in answering the research questions and to test the hypothesis and also examine whether statistically significant differences exist between the standard nursing programme and the nurse-led CBT programme.

*General hypothesis (Ho): Inpatients with mood disorders that participated in Cognitive behavioural group therapy show a marked decrease in the level of severity of depression as compared to inpatients with mood disorders that received treatment as usual.*

The hypothesis had been rejected when the compared groups' assessments differed significantly as well as substantially on the 5% level of significance.

- To assess the effectiveness of the nurse-led CBT group intervention programme.
  *Ho1: Inpatients with mood disorders that participated in Cognitive behavioural group therapy show a marked decrease in the level of severity of depressive symptoms after the intervention as tested with the Beck Depression Inventory Scale.*

During statistical analysis the data obtained were used to describe changes in the level and severity of patients' depressive symptoms (21 items) after exposure to the nine (9) nurse-led CBT groups and described the patient outcomes with regards to the nurse-led CBT group nursing programme. Statistical differences between pre- and post-test results of the groups, as well as the differences in severity of depressive symptoms after the intervention were identified and analysed.

The internal consistency for all 21 subscales of the Beck Depression Inventory Scale was calculated for both the control group and the experimental group. The internal consistency was determined by utilising the Cronbach's $\alpha$-coefficient. Data was analysed by a statistician using a statistical computer programme (SPSS Incorporated, 2015).

The mean, standard deviation and p-values for both the control group and experimental group for all 21 variables as well as the total score (Beck Depression Inventory Scale) had been assessed by utilising the Mann Whitney-U test. The null-hypothesis is rejected or accepted by determining how probable it is that the observed results are due to chance, although there is always a risk of error. In both cases a 1% (p-value $< 0.05$) and 5% (curve) had been utilised in order to indicate a significant statistical difference.

## 3.5 VALIDITY AND RELIABILITY OF THE STUDY

According to Polit and Beck (2004:35-36), reliability refers to the accuracy and consistency of information obtained in a study and validity reflects the soundness of the study findings. In other words, whether the findings are cogent, convincing and well grounded. In this study, validity and reliability was maintained by ensuring that the findings were accurate, unbiased and adequately represented the target population. The study was done in accordance with the procedures and protocols of the Human Research Ethics Committee of the University of the Witwatersrand. The instrument, namely the Beck inventory scale used in this study had previously been

used and tested for validity and reliability in assessing depressive symptoms in patients with depression, anxiety and mood disorders (Sadock *et al,* 2015:227). The researcher was the only one collecting data in order to ensure consistency of the findings.

Content validity of the nurse-led CBT manual was based on theory and formulated in view of the literature. As already mentioned, the researcher has many years of experience and gained extensive knowledge in the field of general and mental health care nursing, and content validity was therefore further ensured by experienced specialists in the fields of mental health care nursing and psychology examining the programme.

According to Polit and Beck (2008:286) threats to the internal validity of a study due to extraneous factors can invalidate the results of the research. Therefore threats to validity need to be controlled or minimised in order to ensure correct attribution of differences between the control group and the experimental group (independent variables) as a direct effect on the dependent variable (Polit & Beck, 2004:30). Threats to this study were controlled through the selection process of the participants, manipulation of the intervention and by using a valid measuring instrument (Burns & Grove, 2001:259). However, open group format was utilised in order to accommodate new admissions. This implied that group members did not commence or concluded with the intervention at the same time. Participants entered group sessions at the point of admission and sessions were attended in a circularly mode. Thus, implying when the participant started at session 5, the participant participated up to session 9 and then joined session 1 to 4 when program re-commenced. The program ran continually and participants received the manual on admission. All the material was made available to all participants for reading purposes as well as preparatory purposes. This aspect could pose an external threat to validity.

## 3.6 ETHICAL CONSIDERATIONS

Most researchers are guided by the three principles of ethics namely autonomy, beneficence and non-maleficence (Botma, Greeff, Mulaudzi & Wright, 2010:17-24). Autonomy had been applied in the current study since it was understood that the patient had a right and freedom to decide whether to be part of the study or not. The principle of non-maleficence was also followed as the researcher did not cause any harm to anyone in the unit, and should a patient experience discomfort as a result of

attending the group sessions, provision was made for individual counselling by a designated psychologist. All patients had an equal opportunity to participate and the reasoning was that according to the evidence, patients with depressive symptoms could benefit from the cognitive behavioural groups.

- Ethical approval for conducting the study was obtained from the Human Research Ethics Committee and the Postgraduate Committee of the University of the Witwatersrand, Johannesburg (M150126) as well as the institution where the study was conducted. Written informed consent was obtained from the research participants of both the control group (Group A) and the experimental group (Group B). All participants had been informed about the purpose and the nature of the study. Participants were also informed regarding the anonymous, confidentiality and voluntarily aspects of their participation in the study (Appendix F).

- All participants voluntarily took part in the study and made aware of being able to withdraw from the study at any stage during the process. Participants were also informed about the nature of the standard nursing care programme (treatment as usual) as well as the nature and content of the nursing care programme inclusive of nurse-led cognitive behaviour therapy groups (intervention). The following ethical principles (Botma *et al,* 2010:17-24) were adhered to:

- No names of patients were used to identify them. Patients agreeing to participate in the study were assigned a numerical number. These numerical numbers reflected on the pre- and post-test questionnaires completed by patients in order to adhere to the principle of anonymity.

- In order to ensure confidentiality, all completed questionnaires, records and data were securely locked away and only available to the researcher and supervisor. All research data and results will be stored at the University of the Witwatersrand, Johannesburg for 6 years. Information will be made available in a report and published article. Beneficence was ensured since patients benefitted from the study by participating in the groups, learned and had a space to talk about their depressive symptoms in a safe environment. Furthermore, by doing the homework the opportunity was created to use the free time therapeutically.

- Non-maleficence: No harm was intended with conducting the current study. However should any of the patients have experienced emotional discomfort, they would have been referred to a designated clinician for support and counselling. Justice: All patients admitted to the unit were invited to participate in the study. Patients were assured of fair and equal treatment, whether they participated in the study or not and all received an information leaflet, explaining the nature and purpose of the study. Treatments as usual and the intervention (Nurse-led CBT groups) had been explained.

- Benefits: Patients had been informed that the outcome of the study will be used to make recommendations pertaining to the value of nurse-led cognitive behavioural therapy groups in the treatment of patients with mood disorders, specifically depressive disorders in acute inpatient units.

## 3.7 SUMMARY

This chapter provided a detailed discussion on the research methodology. The specific research design utilised in the current study had been selected in order to meet the purpose and objectives of the study. The chapter also includes a discussion on the research instrument and intervention used. Data analysis and research findings will be presented in chapter 4.

# CHAPTER FOUR

## 4. RESULTS AND DISCUSSION OF FINDINGS

### 4.1 INTRODUCTION

Chapter 3 included a detailed discussion on the research design and methodology utilised in the study. This chapter entails a presentation of the research findings. Furthermore, the demographic information of the participants will be discussed and interpreted and the results from the statistical data will be presented in graph and table format. After the data collection, the raw data was organised on Microsoft Excel spread sheets and analysed through the use of statistical methods. Pre- and post-test findings of the control and experimental groups will be presented and statistical differences between the programmes (treatment as usual and Nurse-led CBT group programme) will be highlighted. Outcomes of the experimental group were analysed with qualitative descriptive statistics using the Beck Depression Inventory Scale in order to determine the effects of the intervention (Nurse-led CBT groups) in relation to four domains derived from the 21 questions on the self-assessment scale, namely cognitive, affective, somatic and behavioural).

### 4.2 APPROACHES TO DATA ANALYSIS

The internal consistency pertaining to the 21 subscales of the Beck Depression Inventory Scale included both the control group and the experimental group by utilising the Cronbach's $\alpha$-coefficient (SPFF computer programme; SPSS Incorporated, 2015). A coefficient of 0.810 had been determined for the pre-test, whilst the post-test coefficient was 0.936. Despite the relative small total sample size (N = 35), it was nonetheless possible to obtain internal consistency.

In order to test the general hypothesis (Ho), the Mann-Whitney-U non-parametric statistical methods (Howell, 2013) were utilised to determine the interval scales or the dependant variable measurements of all sub-scales, comparing the total score within both groups as well as between the two groups.

Standard deviation was also utilised in order to ensure that the results were not influenced by the differences between the groups prior to the intervention. Therefore, mean scores indicated significant differences between pre- and post-test scores of the sub-scales. The pre-test was thus subtracted from the post-test in order to determine whether there was a significant difference. A positive score indicated an

improvement, while a negative score indicated the opposite. In both cases a 1% and 5% (curve) were utilised indicating a significant difference.

## 4.3 DEMOGRAPHIC INFORMATION OF PATIENTS

Data collection took place from April 2015 until December 2015. A total sample of 35 patients (N=35) agreed to participate in the study. Group A, the control group, consisted of 20 patients (n=20) and Group B, the experimental group, comprised of 15 participants (n=15). Whilst conducting the study, admissions to the unit were limited due to unforeseen circumstances and therefore the sample size was smaller than expected. The demographic information gathered from the participants was analysed with descriptive statistics and presented in Table 4.1.

**Table 4.1: Frequency Distribution According to Demographic Variables (N=35)**

| Demographic Variable | Experimental | | Control | | Total | |
|---|---|---|---|---|---|---|
| | n | % | n | % | n | % |
| **Gender:** | | | | | | |
| Male | 6 | 40.0 | 9 | 45.0 | 15 | 42.9 |
| Female | 9 | 60.0 | 11 | 55.0 | 20 | 57.1 |
| **Age:** | | | | | | |
| 18-20 | 6 | 40.0 | 4 | 20.0 | 10 | 28.6 |
| 21-25 | 0 | 0.0 | 2 | 10.0 | 2 | 5.7 |
| 26-30 | 2 | 13.3 | 2 | 10.0 | 4 | 11.4 |
| 31-40 | 3 | 20.0 | 5 | 25.0 | 8 | 23.0 |
| 41-50 | 1 | 6.7 | 5 | 25.0 | 6 | 17.1 |
| 51-60 | 2 | 13.3 | 2 | 10.0 | 4 | 11.4 |
| No response | 1 | 6.7 | 0 | 0.0 | 1 | 2.8 |
| **Education:** | | | | | | |
| Grade 10 | 1 | 6.7 | 4 | 20.0 | 5 | 14.3 |
| Grade 11 | 2 | 13.3 | 1 | 5.0 | 3 | 8.6 |
| Grade 12 | 5 | 33.3 | 7 | 35.0 | 12 | 34.3 |
| College | 4 | 26.7 | 7 | 35.0 | 11 | 31.4 |
| No response | 3 | 20.0 | 1 | 5.0 | 4 | 11.4 |
| **Employment status:** | | | | | | |
| Employed | 3 | 20.0 | 10 | 50.0 | 13 | 37.2 |
| Unemployed | 8 | | 10 | 50.0 | 18 | 51.4 |
| No response | 4 | 26.7 | 0 | 0.0 | 4 | 11.4 |
| **Ethnic group:** | | | | | | |
| White | 9 | 60.0 | 8 | 40.0 | 17 | 48.5 |

| Demographic Variable | Experimental | | Control | | Total | |
|---|---|---|---|---|---|---|
| | n | % | n | % | n | % |
| Coloured | 2 | 13.3 | 3 | 15.0 | 5 | 14.3 |
| Sotho | 3 | 20.0 | 3 | 15.0 | 6 | 17.1 |
| Zulu | 1 | 6.7 | 0 | 0.0 | 1 | 2.8 |
| Tswana | 0 | 0.0 | 5 | 25.0 | 5 | 14.3 |
| No response | 0 | 0.0 | 1 | 5.0 | 1 | 2.8 |
| | | | | | | |
| **Ethnic group:** | | | | | | |
| Afrikaans | 9 | 60.0 | 11 | 55.0 | 20 | 57.1 |
| English | 1 | 6.7 | 1 | 5.0 | 2 | 5.7 |
| SeSotho | 4 | 26.7 | 2 | 10.0 | 6 | 17.1 |
| IsiZulu | 1 | 6.7 | 0 | 0.0 | 1 | 2.8 |
| Tswana | 0 | 0.0 | 5 | 30.0 | 5 | 14.3 |
| **Marital status:** | | | | | | |
| Single | 8 | 53.3 | 13 | 65.0 | 21 | 60.0 |
| Married | 4 | 26.7 | 6 | 30.0 | 10 | 28.6 |
| Divorced | 2 | 13.3 | 1 | 5.0 | 3 | 8.6 |
| Widow | 1 | 6.7 | 0 | 0.0 | 1 | 2.8 |

%= percentage; n=number

From table 4.1, it can be deduced that most participants in the study were female (57%), ranging between 31 and 60 years of age (51.5%) and had grade 12 or college education. The majority of participants were whitewhite (48.5%), single (60%) unemployed (51.4%) and Afrikaans-speaking patients (57.1%).

## 4.4 ANALYSIS OF DATA OBTAINED FROM PRE- AND POST-TESTS OF THE CONTROL GROUP AND THE EXPERIMENTAL GROUP

Descriptive statistics had been utilised in order to determine the means, standard deviation and the kurtoses index pertaining to all the variables of the control group and the experimental group. The following criteria were further used to determine the kurtoses index and the level of skewness (Brown, 2012):

- A value smaller than -1.0 and a value larger than +1.0 indicates a severe skewed distribution.
- A value between -1.0 and -½ or a value between +½ and +1.0, indicates a moderate skewed distribution.
- A value between -½ and +½ indicate a moderate symmetric distribution.
- A value equal to 0 indicates a normal distribution.

In order to determine the kurtosis index it is important to determine the excess kurtosis (Kurtosis -3). A normal distribution will be indicated by a kurtosis value of = 3 and an excess kurtosis value will be indicated by 3-3 = 0. An excess (negative) kurtosis value will indicate a flat distribution (platycurtic), whilst a positive value will be indicative of peak distribution (leptokurtic). Table 4.3 illustrates the excess kurtosis values. Values smaller than (-2.0) or larger than (+2.0) indicates a flat – or peak distribution.

**Table 4.2: Means, Standard Deviation, Skewness and Kurtosis Level of the Variables, Pre- and Post-Test for the Control Group and Experimental Group**

| Variable | Group | Score | $\bar{X}$ | SD | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Sadness | Experimental | Pre | 1.93 | 0.79 | 0.128 | -1.348 |
| | | Post | 0.87 | 0.99 | 1.317 | 1.348 |
| | Control | Pre | 1.75 | 0.97 | 0.170 | -1.313 |
| | | Post | 0.75 | 0.79 | 1.218 | 2.248 |
| Pessimism | Experimental | Pre | 1.67 | 1.29 | -0.196 | -1.774 |
| | | Post | 0.87 | 1.13 | 0.990 | -0.397 |
| | Control | Pre | 1.85 | 1.13 | -0.394 | -1.300 |
| | | Post | 0.30 | 0.47 | 0.945 | -1.242 |
| Sense of failure | Experimental | Pre | 1.93 | 0.70 | 0.092 | -0.669 |
| | | Post | 1.07 | 1.10 | 0.595 | -0.916 |
| | Control | Pre | 1.85 | 0.88 | -0.208 | -0.633 |
| | | Post | 0.75 | 0.85 | 1.104 | 1.067 |
| Dissatisfaction | Experimental | Pre | 1.67 | 1.05 | -0.080 | -1.102 |
| | | Post | 1.13 | 1.06 | 0.946 | -0.026 |
| | Control | Pre | 1.85 | 0.93 | -0.107 | -1.077 |
| | | Post | 0.80 | 0.89 | 1.412 | 2.121 |
| Guilt | Experimental | Pre | 1.53 | 1.12 | 0.078 | -1.328 |
| | | Post | 1.20 | 1.14 | 0.538 | -1.054 |
| | Control | Pre | 2.00 | 1.03 | -0.325 | -1.453 |
| | | Post | 0.65 | 0.93 | 1.671 | 2.465 |
| Expectation punishment | Experimental | Pre | 1.33 | 1.29 | 0.196 | -1.774 |
| | | Post | 1.00 | 1.31 | 0.881 | -1.077 |
| | Control | Pre | 1.95 | 1.00 | -0.244 | -1.369 |
| | | Post | 0.80 | 1.11 | 1.217 | 0.185 |
| Self-dislike | Experimental | Pre | 1.60 | 0.74 | 0.841 | -0.470 |
| | | Post | 1.13 | 1.06 | 0.531 | -0.791 |
| | Control | Pre | 1.50 | 0.95 | 0.415 | -0.719 |
| | | Post | 0.80 | 1.06 | 1.334 | 0.777 |

| Variable | Group | Score | $\bar{X}$ | SD | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Self-accusatory | Experimental | Pre | 1.80 | 1.01 | -0.019 | -1.346 |
| | | Post | 1.13 | 1.19 | 0.595 | -1.145 |
| | Control | Pre | 1.85 | 0.93 | 0.325 | -1.876 |
| | | Post | 1.10 | 1.21 | 0.583 | -1.269 |
| Suicidal | Experimental | Pre | 1.93 | 1.03 | -0.300 | -1.303 |
| | | Post | 0.73 | 1.03 | 1.514 | 1.556 |
| | Control | Pre | 1.60 | 0.99 | -0.128 | -0.884 |
| | | Post | 0.45 | 0.76 | 2.191 | 5.892 |
| Crying | Experimental | Pre | 1.80 | 1.01 | -0.019 | -1.346 |
| | | Post | 0.87 | 1.06 | 1.130 | 0.323 |
| | Control | Pre | 2.05 | 1.00 | -0.461 | -1.195 |
| | | Post | 0.80 | 1.11 | 1.217 | 0.185 |
| Irritability | Experimental | Pre | 2.07 | 0.70 | -0.092 | -0.669 |
| | | Post | 1.07 | 0.96 | 0.409 | -0.746 |
| | Control | Pre | 1.90 | 0.85 | 0.204 | -1.617 |
| | | Post | 0.90 | 0.91 | 0.676 | -0.347 |
| Social withdrawal | Experimental | Pre | 1.80 | 0.94 | 0.451 | -1.857 |
| | | Post | 1.13 | 0.92 | 0.351 | -0.484 |
| | Control | Pre | 1.35 | 1.09 | 0.021 | -1.310 |
| | | Post | 0.85 | 0.93 | 0.756 | -0.391 |
| Indecisiveness | Experimental | Pre | 2.20 | 0.68 | -0.256 | -0.505 |
| | | Post | 1.20 | 0.94 | 0.736 | 0.160 |
| | Control | Pre | 1.85 | 0.93 | -0.107 | -1.077 |
| | | Post | 0.90 | 0.91 | 0.676 | -0.347 |
| Change in body image | Experimental | Pre | 2.27 | 0.96 | -1.172 | 0.593 |
| | | Post | 1.07 | 1.28 | 0.566 | -1.535 |
| | Control | Pre | 1.45 | 1.23 | -0.059 | -1.659 |
| | | Post | 0.70 | 1.03 | 1.319 | 0.589 |
| Work performance | Experimental | Pre | 1.67 | 0.72 | 0.628 | -0.654 |
| | | Post | 1.07 | 1.03 | 0.300 | -1.303 |
| | Control | Pre | 1.85 | 1.14 | -0.632 | -0.937 |
| | | Post | 1.15 | 0.88 | 0.208 | -0.633 |
| Insomnia | Experimental | Pre | 1.67 | 0.98 | 0.788 | -1.615 |
| | | Post | 1.00 | 1.07 | 0.809 | -0.404 |
| | Control | Pre | 2.25 | 0.91 | -1.017 | 0.260 |
| | | Post | 0.80 | 0.89 | 0.922 | 0.224 |
| Fatigue | Experimental | Pre | 2.13 | 1.06 | -0.715 | -1.000 |
| | | Post | 1.27 | 1.16 | 0.344 | -1.315 |
| | Control | Pre | 1.70 | 1.08 | -0.439 | -0.974 |
| | | Post | 0.95 | 1.00 | 0.813 | -0.236 |

| Variable | Group | Score | $\bar{X}$ | SD | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Anorexia | Experimental | Pre | 1.33 | 1.05 | 0.080 | -1.102 |
| | | Post | 1.07 | 1.03 | 0.300 | -1.303 |
| | Control | Pre | 1.85 | 0.99 | -0.399 | -0.770 |
| | | Post | 0.65 | 0.88 | 1.321 | 1.289 |
| Weight loss/gain | Experimental | Pre | 1.60 | 1.18 | -0.275 | -1.416 |
| | | Post | 1.07 | 1.10 | 0.224 | -1.697 |
| | Control | Pre | 1.55 | 1.05 | 0.157 | -1.144 |
| | | Post | 0.55 | 0.61 | 0.583 | -0.459 |
| Somatic pre-occupation | Experimental | Pre | 1.93 | 0.88 | 0.142 | -1.783 |
| | | Post | 0.87 | 0.74 | 0.227 | -0.970 |
| | Control | Pre | 1.60 | 1.19 | 0.050 | -1.576 |
| | | Post | 0.60 | 0.82 | 1.548 | 2.609 |
| Libido loss | Experimental | Pre | 1.60 | 1.24 | 0.124 | -1.762 |
| | | Post | 1.20 | 1.14 | 0.538 | -1.054 |
| | Control | Pre | 2.45 | 0.83 | -1.071 | -0.585 |
| | | Post | 1.35 | 1.14 | 0.413 | -1.196 |
| Beck Total | Experimental | Pre | 37.47 | 9.64 | -0.246 | -1.058 |
| | | Post | 22.00 | 16.48 | 0.495 | -0.898 |
| | Control | Pre | 38.05 | 9.96 | 0.871 | 0.311 |
| | | Post | 16.60 | 11.33 | 0.452 | -0.490 |

N=Total sample; $\bar{X}$ =Mean; SD = Standard deviation

Based on the results presented in Table 4.2, the control group and experimental group showed a decrease in the overall level of depression. The distribution was found to be symmetric. However the Kurtosis values seemed to peak (leptokurtic) which posed a threat to the normal distribution of the values.

## 4.5 STANDARD NURSING PROGRAMME IN COMPARISON WITH THE NURSE-LED CBT PROGRAMME

In order to determine whether statistical differences exist between the standard nursing programme (treatment as usual) and the nurse-led cognitive behavioural group therapy programme the following hypothesis was tested:

Ho: *Inpatients with mood disorders that participated in cognitive behavioural group therapy show a marked decrease in the level (severity) of depression compared to inpatients with mood disorders that received treatment as usual.*

The mean, standard deviation and p-values for both the control and experimental group for all 21 variables including the total Score (Beck Depression Inventory Scale) had been compared by utilising the Mann-Whitney- U test. The results are presented in Table 4.3 below.

**Table 4.3: Statistical differences between groups as tested with the Mann-Whitney-U test**

| **Subscales** | **Experimental** | | **Control** | | ***p*** |
|---|---|---|---|---|---|
| **Depressive Symptoms** | $\bar{X}$ | **SD** | $\bar{X}$ | **SD** | |
| Sadness | 1.067 | 1.033 | 1.000 | 1.256 | 0.961 |
| Pessimism | 0.800 | 1.424 | 1.550 | 1.234 | 0.139 |
| Sense of failure | 0.867 | 1.187 | 1.100 | 1.020 | 0.564 |
| Dissatisfaction | 0.533 | 1.407 | 1.050 | 1.276 | 0.254 |
| Guilt | 0.333 | 1.345 | 1.350 | 0.813 | 0.016* |
| Expectation punishment | 0.333 | 1.799 | 1.150 | 1.598 | 0.191 |
| Self-dislike | 0.467 | 1.187 | 0.700 | 0.733 | 0.382 |
| Self-accusatory | 0.667 | 1.291 | 0.750 | 1.118 | 0.831 |
| Suicidal | 1.200 | 0.941 | 1.150 | 1.089 | 0.805 |
| Crying | 0.933 | 1.032 | 1.250 | 1.517 | 0.314 |
| Irritability | 1.000 | 1.069 | 1.000 | 0.973 | 0.961 |
| Social withdrawal | 0.667 | 1.234 | 0.500 | 0.945 | 0.805 |
| Indecisiveness | 1.000 | 0.925 | 0.950 | 1.395 | 0.934 |
| Change body image | 1.200 | 1.473 | 0.750 | 1.251 | 0.400 |
| Work performance | 0.600 | 1.404 | 0.700 | 1.218 | 0.705 |
| Insomnia | 0.667 | 0.976 | 1.450 | 1.099 | 0.050* |
| Fatigue | 0.867 | 1.457 | 0.750 | 1.251 | 0.705 |
| Anorexia | 0.267 | 1.387 | 1.200 | 1.436 | 0.080 |
| Weight loss/gain | 0.533 | 0.834 | 1.000 | 1.124 | 0.314 |
| Somatic pre-occupation | 1.067 | 1.223 | 1.000 | 1.376 | 0.856 |
| Libido loss | 0.400 | 1.298 | 1.100 | 1.209 | 0.131 |
| Beck TOTAL | 15.467 | 17.545 | 21.450 | 12.403 | 0.268 |

*$\bar{X}$ = Mean; SD = Standard Deviation ** $p \leq 0,01$;* $p \leq 0,05$*

From the analysis in **Table 4.3**, it could be deduced that significant statistical differences exist between the control group and experimental group regarding guilt (p=0.016) and insomnia (p=0.050). Although significant statistical differences had been observed regarding two of the 21 depressive symptoms, the decrease between groups was not substantial and the hypothesis (Ho) could therefore be rejected in favour of the alternative hypothesis:

*(Ha): Inpatients with mood disorders that participated in Cognitive behavioural group therapy show no marked decrease in the level of severity of depression compared to inpatients with mood disorders that received treatment as usual.*

## 4.6 PRE- AND POST-TEST FINDINGS OF THE EXPERIMENTAL GROUP AS A RESULT OF THE NURSE-LED CBT GROUP INTERVENTION

The following 21 items were listed on the questionnaires (Appendix B) and analysed with the BDI scoring system: Sadness, pessimism, sense of failure, dissatisfaction, guilt, expectation of punishment, self-dislike, self-accusation, suicidal ideation, crying, irritability, social withdrawal, indecisiveness, and change in body image, work performance, insomnia, fatigue, anorexia, somatic symptoms and loss of libido. The raw data had been obtained from the self-assessed pre- and post-test questionnaires which were completed by the participants attending the nine nurse-led CBT group therapy sessions.

On each self-assessed sub-scale (21) depressive symptoms could be rated a maximum score of 3, and a minimum score of 0 by the participants. A maximum score of 3 is indicative of the specific symptom experienced in an intense and severe manner for most of the time, every day. Whilst a minimum score of 0 indicates the absence of the symptom. For example: A score of 3 pertaining to sadness indicates extreme sadness and a score of 0 on sadness indicated that the patient was not experiencing any sadness. The results obtained from the pre- and post-test are presented in Figure 4.1.

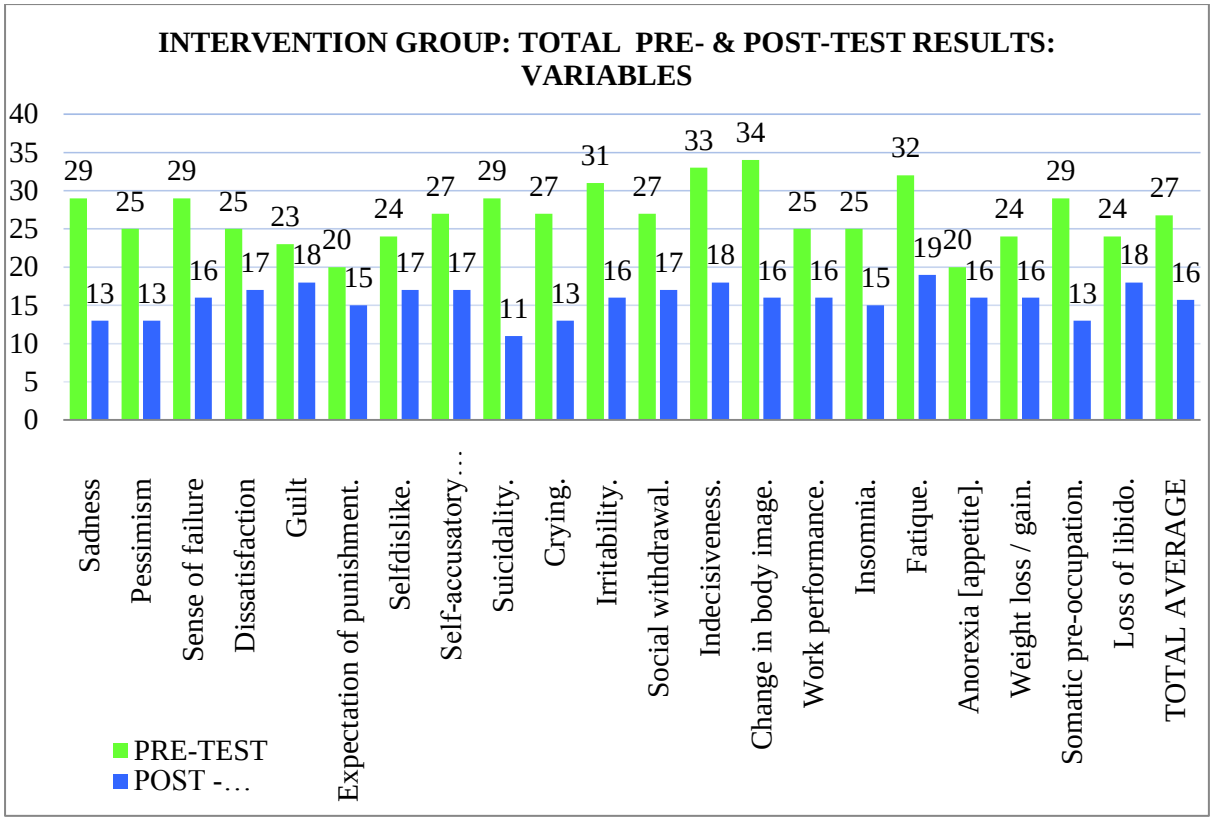


**Figure 4.1: Presentation of Pre- and Post-Test Results (total BDI scores) as Analysed with the BDI Scoring System**

Guidelines on the scoring system are shown in **Table 4.4** below. Severity scores were colour coded for the purposes of this study. A severity score obtained between 1 and 10 for example, would be a normal range of mood (White), and a score of 40 and above (Red) would indicate extreme depression. The maximum score that could be obtained is 63 and the lowest possible score is 0. These scores are determined by raw calculations and not by sophisticated standardised calculations (**Table 4.4**).

**Table 4.4: Severity Rating Scores of Depressive Symptoms According to the BDI (Beck, Ward and Mendelson, 1961)**

| Total Score | Levels of Depression | |
|---|---|---|
| 0 – 10 | Normal range of mood (White) | |
| 11 – 16 | Mild mood disturbance (Blue) | |
| 17 – 20 | Borderline depression (Yellow) | |
| 21 – 30 | Moderate depression (Pink) | |
| 31 – 40 | Severe depression (Purple) | |
| Above 40 | Extreme depression (Red) | |

In order to assess the effectiveness of the nurse-led CBT groups, the following hypothesis was tested with the BDI scoring system, using the severity scale (Table 3.1 & Table 4.4).

*Hypothesis (Ho1): Inpatients with mood disorders that participated in nurse-led cognitive behavioural group therapy show a marked decrease in the level (severity) of depression as measured with the BDI.*

The results obtained from the patients participating in the experimental group were measured and interpreted with the Beck Depression Inventory Scale. Interpretation was presented in colour in order to demonstrate the changes in severity levels of the depressive symptoms (**Table 4.5**).

**Table 4.5: Levels of Severity in Depressive Symptoms after the Intervention (Nurse-led CBT groups) as Measured with BDI**

| **Dependent Variables** | **Differences:** | | **Difference in Score** |
|---|---|---|---|
| | **Pre-Test** | **Post-Test** | |
| Sadness | Borderline | Mild | 29 to 13 |
| Pessimism | Moderate | Mild | 25 to 16 |
| Sense of failure | Moderate | Mild | 29 to 16 |
| Dissatisfaction | Moderate | Borderline | 25 to 17 |
| Guilt | Moderate | Borderline | 23 to 18 |
| Expectations of punishment | Moderate | Mild | 20 to 15 |
| Self-dislike | Moderate | Borderline | 24 to 17 |
| Self-accusatory (self-blame) | Moderate | Borderline | 27 to 17 |
| Suicidality | Moderate | Mild | 29 to 11 |
| Crying (tearfulness) | Moderate | Mild | 27 to 13 |
| Irritability | Severe | Mild | 31 to 16 |
| Social withdrawal | Moderate | Borderline | 27 to 17 |
| Indecisiveness | Severe | Borderline | 33 to 18 |
| Change in body image | Severe | Mild | 34 to 16 |
| Work performance | Moderate | Mild | 25 to 16 |

| Dependent Variables | Differences: | | Difference in Score |
|---|---|---|---|
| | Pre-Test | Post-Test | |
| Insomnia | Moderate | Mild | 25 to 15 |
| Fatigue | Severe | Borderline | 32 to 19 |
| Anorexia (appetite) | Moderate | Mild | 20 to 16 |
| Weight loss / gain | Moderate | Mild | 24 to 16 |
| Somatic pre-occupation | Moderate | Mild | 29 to 13 |
| Loss of libido | Moderate | Borderline | 24 to 18 |
| **Total Beck score** | Moderate | Mild | 27 to 16 |

**Table 4.5** indicates that the severity levels of most depressive symptoms have decreased from moderate (20-30, Pink) to mild (11-16, Blue). According to the BDI scoring system, a change of 10 – 19 point difference indicates a moderate difference, whilst a change of ≥ 20 is indicative of a large clinical difference in severity, as illustrated in Figure 4.7.

| INTERPRETATION | | | | | |
|---|---|---|---|---|---|
| INTERPRETATION (RELATED TO CLINICAL/ ACTUAL RATINGS) | 1 - 10 = Normal Range<br>(0% - 20%) | | 11 - 16 = Mild<br>(21% - 40%) | | 17 – 20 = Borderline Clinical Depression<br>(41% - 50%) |
| (PLEASE SEE BELOW FOR GRAPHICAL INTERPRETATION) | 21 -20 = Moderate<br>(51% - 70%) | | 31 – 40 = Severe<br>>40 = Extreme Depression<br>(71% - 90%) | | >40 = Extreme Depression<br>(91% - 100%) |

**Graphical Presentation of the Severity Levels in Scores (BDI)**

Based on the information contained in Table 4.5 and Figure 4.7, it can be deduced that inpatients with mood disorders participating in nurse-led cognitive behavioural group therapy sessions (Experimental group B), showed marked decreases in the level of severity of depressive symptoms after the intervention as measured with the Beck Depression Inventory Scale (BDI). The following hypothesis (Ho1) could therefore be accepted: *Ho1: Inpatients with mood disorders that participated in*

*cognitive behavioural group therapy showed marked decreases in the level (severity) of depression as measured with the BDI.*

## 4.7 ANALYSIS OF THE DEPRESSIVE SYMPTOMS WITH REGARDS TO FOUR CATEGORIES (DOMAINS)

Depression, according to Beck is categorised according to four domains, namely cognitive, affective, somatic and behavioural domains **(Table 4.6).**

**Table 4.6: Summary of Depressive Symptoms Categorised in Cognitive, Affective, Somatic and Behavioural Domains**

| Cognitive | Affective | Somatic | Behavioural |
|---|---|---|---|
| Self-dislike | Sadness | Insomnia | Social withdrawal |
| Pessimism | Dissatisfaction | Fatigue | Work performance |
| Sense of failure | Guilt | Anorexia/Appetite | |
| Expectation of punishment | Tearfulness | Weight loss/Gain | |
| Self-accusatory(self-blame) | Irritability | Somatic pre-occupation | |
| Indecisiveness | | Loss of libido | |
| Suicidal ideation | | | |
| Change in body image | | | |

The pre- and post-test results obtained from the experimental group had been divided in the domains which were identified from the 21 depressive symptoms marked on the questionnaires. For the purpose of this study the changes in severity levels will be presented per domain in Figures 4.2 - 4.5.

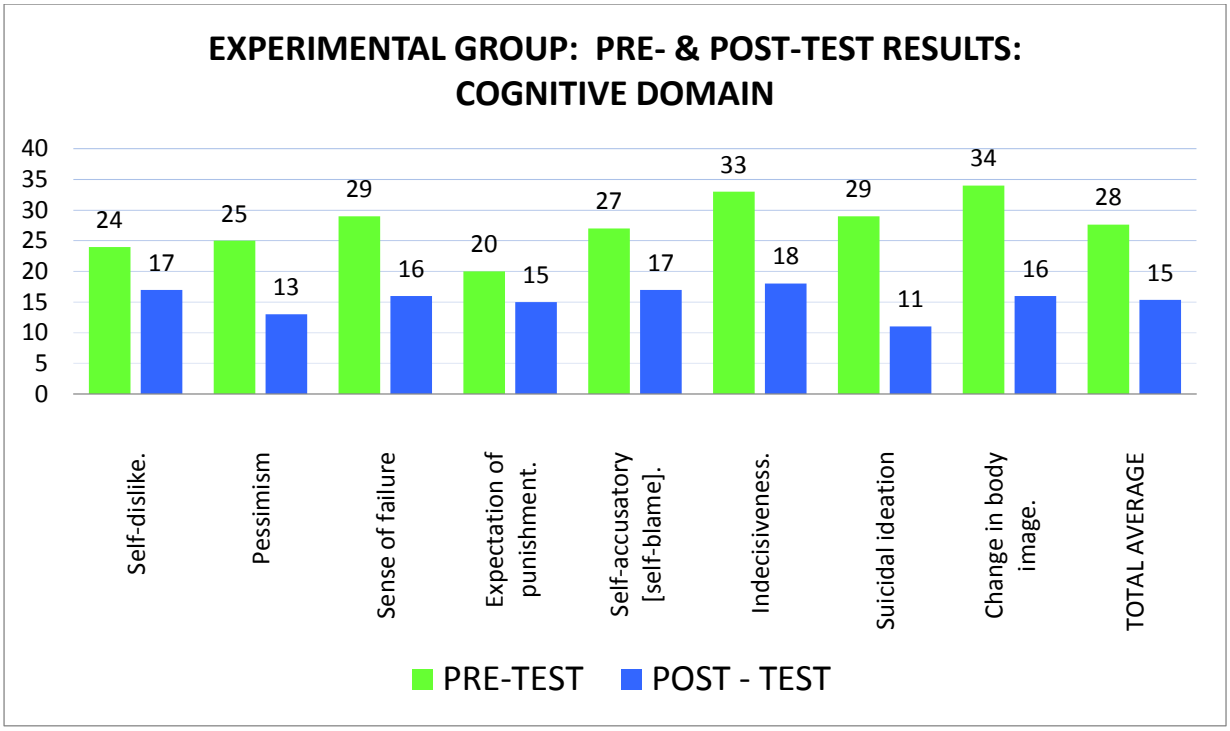


**Figure 4.2: Pre- and Post-Test Results for Cognitive Domain**

In Figure 4.2, the total average of the symptoms in the cognitive domain showed a decrease from moderate to mild (28-15=13) (Smarr & Keefer, 2011:462). This also indicated that patients experienced an improvement in cognitive symptoms after attending the nurse-led CBT group sessions.

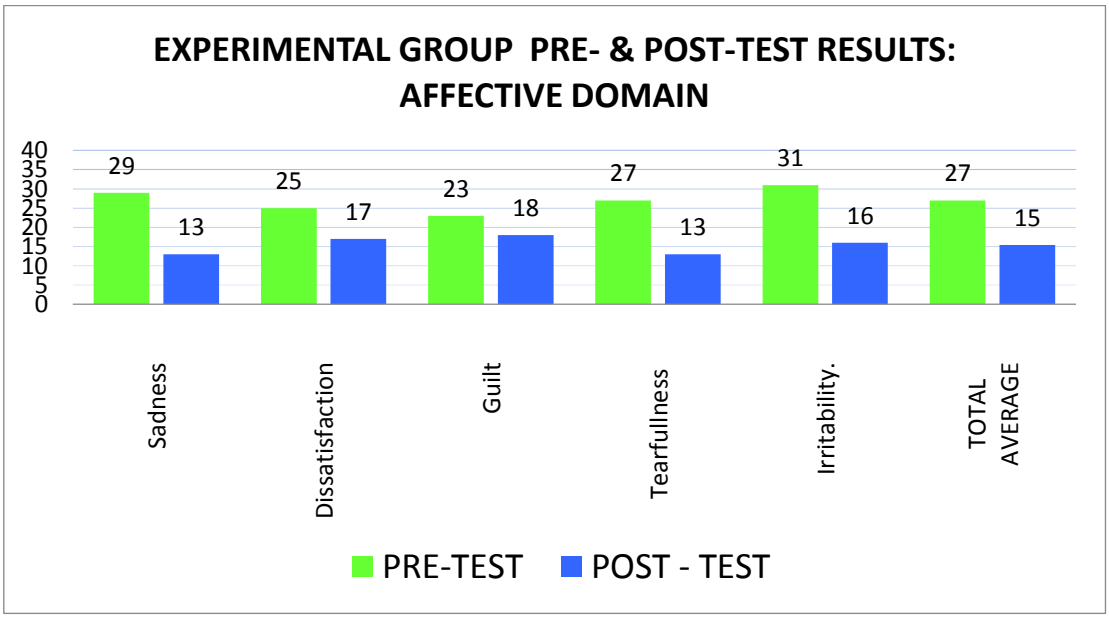


**Figure 4.3: Pre- and Post-Test Results for Affective Domain**

In Figure 4.3, the total average of the symptoms in the affective domain showed a decrease from moderate to mild (27-15=12). This is an indication that patients experienced affective symptoms related to mood disorders to a lesser degree (Smarr & Keefer, 2011:462) after attending the nurse-led CBT group sessions.

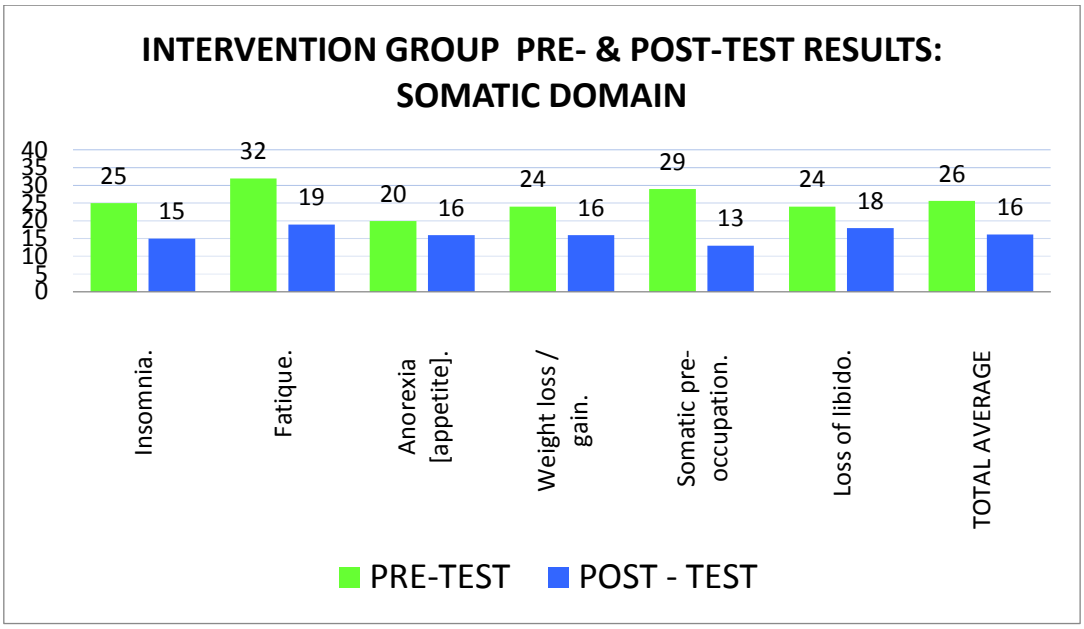


**Figure 4.4: Pre- and Post-Test Results for Somatic Domain**

In Figure 4.4, it is clear that the total average of the symptoms in the somatic domain showed a decrease from moderate to mild (26-16=10). This indicated that patients experienced an improvement in somatic symptoms, such as insomnia and fatigue (Smarr & Keefer, 2011:462) after attending the nurse-led CBT group sessions.

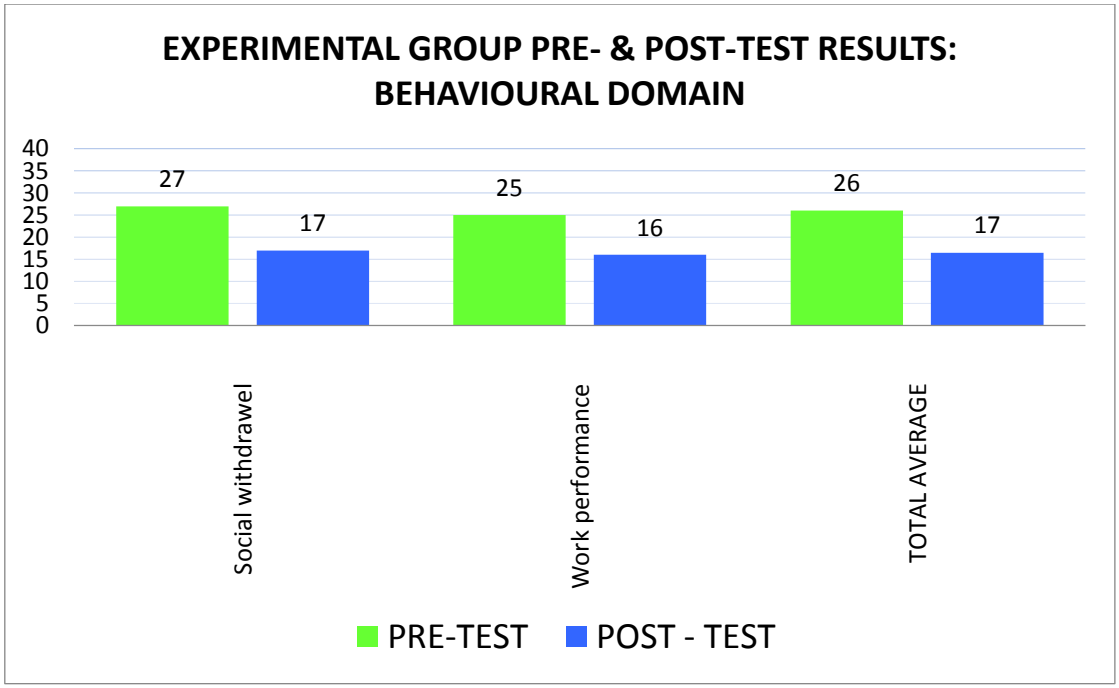


**Figure 4.5: Pre- and Post-Test Results for Behavioural Symptoms**

In Figure 4.5, the total average of the symptoms in the behavioural domain showed a decrease from moderate to borderline (26-17=9) which also indicated that the patients who were exposed to social and group participation and doing homework exercises experienced an improvement in the behavioural domain (Smarr & Keefer, 2011:462) after attending the nurse-led CBT group sessions. This result is important for nursing practice in a therapeutic milieu of an inpatient unit.

## 4.8 RELATIONSHIP BETWEEN INDEPENDENT VARIABLES (DEMOGRAPHIC INFORMATION) AND DEPENDENT VARIABLES (DOMAINS OF DEPRESSIVE SYMPTOMS)

The post-test results obtained from the experimental group after the intervention (nurse-led CBT groups) showed a correlation between the independent demographic variables (demographic information) and the dependent variables (domains of depressive symptoms). In spite of being small the decrease in depressive symptoms per domain was a significant outcome for therapeutic nursing practice. Marked decreases were observed in elderly female participants who were single and unemployed and the deduction could therefore be made that the intervention (CBT groups) had a positive effect on these patients.

## 4.9 SUMMARY

Although the statistically significant differences between groups were small the hypothesis (Ho) was rejected and the subsequent results important for clinical practice. Marked decreases in depressive symptoms had been observed after the intervention (9 sessions of CBT groups) and the hypothesis (Ho1) could therefore be accepted. A larger number of single, older and white Afrikaans-speaking females were recorded in this study and most of the patients who participated had been unemployed. This information affirms the prevalence of mood disorders and depressive disorders amongst various demographic areas which is not only important for practice but also for future planning and research (Uys & Middleton, 2014:358).

## 4.10 CONCLUSION

This chapter presented the results of the study, including the different descriptive and statistical tests used to analyse the data. Tables and figures presented the results in order to better describe it and also assist with the interpretation thereof. The main findings of the study had been discussed in detail and supportive field notes will subsequently be summarised in chapter 5. In-depth discussions of the findings in relation to the theoretical framework and implications for mental health care nursing practice as well as the therapeutic milieu will also be discussed.

# CHAPTER FIVE

## 5. DISCUSSION OF THE FINDINGS

### 5.1 INTRODUCTION

In chapter 4 the results of the demographic and statistical data obtained were presented by using tables, graphs and figures. This chapter will present the researcher's interpretation and discussion of the research findings in light of the theoretical framework and previous empirical studies from which the hypotheses were derived. A discussion of the field notes will be included in relation to the depressive symptoms and in order to highlight the effects of the Nurse-led programme on patients and staff as observed in the therapeutic milieu of the inpatient unit during the time the research was conducted.

### 5.2 DISCUSSION OF THE DEMOGRAPHIC INFORMATION

Mood disorders and depressive symptoms have been identified as a prominent, fast growing disease burden globally. Age, gender, marital status, level of education and income has been marked as significant demographical factors in the prevalence of mood and depressive disorders (Ferrari *et al,* 2013:2). Depression is known to hinder quality of life as well as impacting negatively on family and society related to productivity and loss of income (Akhtar-Danesh & Landeen, 2007).

The following demographic factors had been considered as significant whilst conducting the current study (Appendix G): Age, gender, language/ethnic relation, marital status, level of education and socio-economic status. These demographic factors significance to this study pertains to determining the demographic profiles in patients with mood and depressive disorders. This study was conducted in a multi-cultural setting and both male and female participants were invited which was different from a study conducted by Chetty and Hoque, (2013) who only focussed on females from a specific ethnic relation.

The demographical information obtained and analysed during the research period (May 2015 to December 2015) revealed that most participants in the study were White females. The majority of the participants ranged between the ages of 31 and 60 years. Older patients admitted to the research unit often presented co-morbid chronic diseases associated with normal ageing such as diabetes, hypertension etc. Patients with depression are known to experience cognitive, affective, somatic and

behavioural symptoms which could increase feelings of physical discomfort. It was therefore important to obtain data related to these factors, especially considering the possible impact of these factors on the severity levels of depression.

### 5.2.1 Age

Chronic diseases are often associated with ageing and considered important risk factors associated with major depressive disorder. Considering the majority of the participants' ages ranging between 31 and 60 years implied that a large number of the participants might have had underlying chronic illnesses contributing to depression in this particular age group. Travers, Pokora, Cadarette and Mould (2013:62) acknowledge this by stating the impact of chronic illnesses comorbid with mood disorders and depressive disorders as a major source of impairment.

Patients admitted to the unit already experienced various somatic symptoms as a result of depression and often complained of symptoms such as headaches, dizziness, stomach discomfort etc. Furthermore, patients admitted during the research period often presented with comorbid chronic medical conditions. Chronic medical conditions mostly entailed diabetes, hypertension, endocrine dysfunctions and cardiac problems. Experiencing headaches, stomach discomfort and muscle spasms simultaneously with physical symptoms associated with chronic medical illnesses seemed to have aggravated physical discomfort as well as emotional distress. Patients admitted to the unit often verbalised feelings of anxiety, frustration and worry related to both their mental illness and chronic medical illness. Patients experiencing chronic pain also complained of feeling severely tired. Those experiencing pain, subsequently suffered from insomnia which further hampered their overall functioning level. Females in the older age group were also prone to hormonal changes and experienced feelings of emotional distress and easily became tearful which affected their mood (Moussavi, Chatterji, Verdes, Tandon, Patel & Ustun, 2007).

Experiencing the abovementioned symptoms in an environment with limited therapeutic and nursing interventions and long periods of leisure time, further contributed to feelings of tediousness and loneliness. Thus it became vital to adjust the standard nursing care programme in order to enable patients to utilise excessive leisure time in a constructive and therapeutic manner and focus less on the symptoms experienced. During the intervention period patients managed to gain a better understanding of the symptoms of depression and seemed less occupied and

worried with their illnesses. This aspect in itself created a sense of hope in these patients whom already experienced intense feelings of hopelessness due to depression.

Furthermore, older women tend to be more pessimistic resulting in excessive rumination compared to younger women and males. The likelihood of experiencing a higher incidence of insomnia is also relevant in older women and often becomes part of their normal ageing process. In addition, chronic insomnia could influence cognitive processes negatively. According to the literature, rumination and insomnia are significant risk factors in the onset of depression. Thus, patients frequently complaining of memory impairment as well as difficulties with concentration came as no surprise.

Both rumination and insomnia are reported to have a significant adverse effect on cognitive functioning (Malmberg & Larson, 2015). According to Beck's theory of depression there is a direct link between cognitive processes, emotional responses as well as associated behavioural responses. This implied that insomnia through affecting cognitive functioning negatively also indirectly affects affective, somatic and behavioural systems in patients with depression.

The findings of this study confirmed a higher incidence of insomnia amongst older females compared to males. Similar findings were found in a longitudinal epidemiological cohort study conducted by Buysse, Angst, Gamma, Ajdacic, Elch and Rössler (2008:477) who reported that the risk for insomnia increases slightly between the ages of 20 to 40 years and during chronicity with ageing. Insomnia whether pure insomnia or pathological due to depression seems to be associated with the recurrence of depressive episodes. A clinical significant improvement in insomnia during the intervention therefore served as a protective factor pertaining to cognitive functioning and also against future episodes of depression.

### 5.2.2 Ethnic group

Although the research setting admits patients from multi-cultural settings, most participants admitted during the research period who agreed to participate in the study were white and Afrikaans-speaking. Considering that the prevalence of depression disorders amongst White females are reflected as universal and not as a culturally bound syndrome might have contributed to the larger proportion of White participants.

Furthermore, mental health illnesses and subsequently depression have been subjected to negative attitudes and stigmatisation over centuries. These factors as well as symptoms may vary across cultures (Akhtar-Danesh & Landeen, 2007).

### 5.2.3 Level of Education

The demographic data obtained from this study indicated that the majority of the participants in the experimental group had an educational level of grade 12. This group had limited tertiary education. According to the findings of this study a lower level of education seemed to have had an effect on their mood and thought processes. These findings support existing literature which indicated lower levels of education as a significant risk factor in the development of mood and depressive disorders (Uys & Middleton, 2014:358).

Furthermore, the educational level of participants might have played a role in the cognitive processing of the content of the nurse-led CBT groups, especially considering that the information was only available in English and most participants were Afrikaans-speaking. However, this could not be concluded.

### 5.2.4 Gender

Data obtained and analysed indicated that most participants were females between the ages of 31 and 60. They are known to be subjected to hormonal changes which form part of the normal ageing process. Patients admitted to the unit already experienced sadness and often became tearful during interviews and group therapy sessions. Females experiencing hormonal changes also have a tendency to be emotional. Thus, hormonal changes were also indicated as a significant contributing factor in the prevalence of mood disorders and depressive disorders.

This phenomenon was also described by Ferrari *et al,* (2013:2) who conducted a survey related to the burden of depressive disorders by country, gender and age. This survey also found a significant higher prevalence rate of depression amongst females compared to males. Thus the data obtained during this study confirmed the findings of these authors.

### 5.2.5 Marital Status

The majority of participants in the study were single. Patients admitted to the unit often reported isolating themselves, which resulted in feeling lonely. In addition, their

levels of anxiety increased due to being the sole provider for dependants. This aspect relates to Beck's theory of depression since these patients had a negative view of themselves and their future. The patients also felt unable to make friends and struggled with social interaction in general resulting in feeling inadequate and undesirable (view of self). Furthermore, being single and being the sole providers often made patients feel hopeless (negative view of future).

Being single also implied a lack of immediate social support systems which posed a significant risk factor for the development of mood and depressive disorders. Unfortunately, socio-economic resources are often limited when single – an aspect identified as a significant risk factor in the prevalence of mood and depressive disorders. Being a divorced or single parent adds additional stress and demands which increases the risk of developing mood and depressive disorders. Loneliness is already a problem in patients' lives as well as in the unit, thus being in a group (CBT) could help them to make friends and develop socialisation skills and create a sense of belonging (Yalom & Leszcz, 2005:17).

### 5.2.6 Socio-Economic Status

A larger number of participants in this study were unemployed. Unemployment could be an important predisposing factor to poor socio-economic circumstances; lack of finances; poor support and disability. Although unemployment does not always result in poverty; limited access to important resources is considered a significant risk factor in the prevalence of mood and depressive disorders (Uys & Middleton, 2014:358). It can therefore be assumed that in this study, limited access to economic resources played a role in the development and prevalence of mood disorders and depressive symptoms of the patients.

According to Beck's cognitive model of depression, people with depression see themselves, their world and their future in a negative manner. Unemployment and poverty have an adverse effect on the future expectations of patients with depression. A lack of constructive, functional future expectations often results in feelings of hopelessness. Hopelessness in itself increases the risk for the development of mood and depressive disorders. Hopelessness is also considered an important risk factor associated with suicidal ideation and behaviour.

The researcher's findings correlate with those of other studies with regards to mood disorders having a lifetime prevalence rate of 9.8% in South Africa, whilst a

significant higher prevalence rate of 14,6% is found in the Free State province (Uys & Middleton, 2014:358). The findings of this study also confirmed age, gender, poverty, level of education and chronic diseases as significant risk factors associated with mood and depressive disorders.

A survey related to the burden of depressive disorders by country, gender and age found a higher incidence of depression amongst adults of working age; more among females compared to males (Ferrari *et al.,* 2013:2). In summary the data obtained from this research study revealed that most participants had an educational level of at least grade 12 and the majority of participants were single, Afrikaans-speaking, unemployed white people. Demographical information obtained from this study provided useful data when future therapeutic programmes are revised and implemented in the unit.

## 5.3 STANDARD NURSING PROGRAMME (CONTROL GROUP: TREATMENT AS USUAL)

According to Beck's theoretical viewpoint cognitions, emotions, somatic and behavioural symptoms form part of an interactive system influencing one-another. This aspect is clinically important when exploring mood disorders and associated depressive symptoms. By implication the interactive principle implies that change in one system will induce change in one or more of the other systems. This aspect represents an important focus point in the treatment rationale of cognitive behavioural therapy (Westbrook *et al,* 2011:6). This principle further implies that modification of dysfunctional thought patterns to a more functional stance will result in different emotional and behavioural responses.

On admission, both the control and experimental group showed an almost similar pre-test depression score (BDI score). Although the statistical differences between the two nursing programmes were not substantial, the nurse-led CBT programme showed a decrease in severity of symptoms from severe on admission to mild on discharge, compared to the standard nursing programme which decreased from severe to moderate.

Patients of both groups received treatment as usual by the multi-disciplinary team (MDT) and the nursing team and were not negatively influenced by the research since they left the treatment programme before the intervention commenced. Treatment as usual included individual psychotherapy and other multi-disciplinary

interventions, which could have had an effect on the similar outcomes between the groups. However, most of the participants were not only Afrikaans-speaking, but also had a lower level of education (as supported by Herman *et al,* 2009:342), and this could have played a role in how the self-monitored questionnaires were answered.

Previous research conducted by Chetty and Hoque (2013) and Cristea *et al,* (2013:68) showed differences between groups only during the 12-week interval post-test. In addition, results remained similar during follow-up, which indicated sustained efficacy over a prolonged period.

## 5.4 EFFECTS OF THE NURSE-LED CBT GROUP PROGRAMME (INTERVENTION) ON INPATIENTS WITH DEPRESSIVE SYMPTOMS

The purpose of admission and treatment in the unit was not merely to provide symptom relief but also to enable patients to make substantial changes in their immediate life circumstances and environment.

On the one hand, the change in level of depression with relation to the four domains (cognitive, affective, somatic and behavioural) has changed from severe to mild, which was important for clinical nursing practices. On the other hand, the researcher's field notes revealed important and relevant reflections highlighting the benefits of a nurse-led CBT programme (Appendix A) and resulted in a valuable addition to the overall outcome of the study.

The intervention was initially based on the theoretical framework of cognitive behavioural therapy and subsequently included Beck's cognitive model of depression. Group therapy sessions consisted of nine (9) sessions and were facilitated by the researcher under the supervision of a principal clinical psychologist working at the institution. Professional mental health care nurses in the unit also observed and participated in the sessions, thus acting as co-therapists.

This aspect presented an important feature in the development of professional mental health care nurses in the unit since they received in-service training related to the principles of cognitive behavioural therapy by a principal clinical psychologist before commencement of the study. They were also briefed about the research study and the content of the group sessions. An important observation made during this time was the positive attitude professional mental health care nurses had

regarding the study itself as well as participation in CBT group therapy. Each session approximately took 50-70 minutes using the intervention manual (patient work book), **"My A-B-C Therapy**" (Annexure H).

In summary, field notes taken during the research period was complimented by valuable information from the homework, including reflections during the cognitive behavioural group sessions. In order to protect patient confidentially the researcher's reflections and patients' homework had been summarised highlighting the effects on nursing practice and the therapeutic milieu. Appendix I contains a detailed reflection of the researcher's field notes. The framework of the sessions is illustrated in Table 3.2 (Appendix C), Chapter 3.

The group therapy sessions introduced patients to the principles of cognitive behaviour therapy – the key to change. The overall aim of the intervention remained addressing the identified research problem and ultimately guiding patients to gain insight in how 'thoughts, feelings and behaviour' influence one another and how these aspects contributed to their emotional experiences.

The first four sessions largely focussed on the cognitive domain of cognitive behavioural therapy, whilst the last five sessions focussed on the behavioural domain in depression and behavioural activation. During the first sessions patients were assisted in understanding how emotions had been influenced by their perceptions and thoughts pertaining to specific life events, and not always by the events itself. In addition, patients were familiarised with Beck's cognitive model of depression. This model implies that a patient with depression has a negative view of themselves, their environment and their future, referring to it as the negative cognitive triad (Beck *et al,* 1979).

Patients had been assisted in exploring their own personal negative cognitive triad how they see themselves, their world and their future. Specific work sheets had been utilised for this purpose. During this exercise it became evident that most patients viewed themselves as worthless (negative view of self). Patients also indicated severe feelings of hopelessness and a negative view of the future.

Discussions included aspects on thought patterns incorporated through earlier life experiences and interaction with significant others. One patient for example, mentioned that she received criticism whilst growing up and thought she was never

good enough (negative view of self). This confirms that patients with depression experience pessimism, a sense of failure, worthlessness, self-dislike and feelings of hopelessness, which had been evident when measured with the Beck Depression Inventory (BDI).

Another interesting observation included some participants indicating post-test depression scores which were higher than the pre-test scores. This could be seen as an increase in depressive symptoms compared to the pre-test, and therefore having an impact on the average total scores of the group. Since the Beck Depression Inventory Scale is a subjective, self-assessment scale, it could be assumed that some patients did not take the tests seriously or had been malingering in order to prevent discharge. However there was no evidence to support this statement.

## 5.5 DECREASES IN THE SYMPTOMS SPECIFIC TO THE FOUR DOMAINS DERIVED FROM THE DEPRESSIVE SYMPTOMS

The formation of the following **cognitive structures** was explored: Schemas, assumptions and automatic thoughts. Patients were taught that thoughts can be realistic or unrealistic regarding the event and thus had been familiarised with the concept of dysfunctional thoughts. Patients also explored the concept of automatic thoughts (unhelpful thinking) and had been assisted in identifying their own automatic thoughts by means of practical exercises and homework assignments.

The link between emotional distress and specific styles of thinking and strategies to counteract these thoughts were also explored. Furthermore, practical exercises were utilised during group sessions in which patients could implement new skills and principles learned. Each session included homework assignments in order to re-enforce newly acquired skills, and provide an opportunity for reflecting on their experiences after the group session.

After completion of the first four sessions patients were introduced to the behavioural component of cognitive behavioural therapy. The impact of thoughts and depression on their level of functioning and behavioural responses were thus explored. The following five links of depression were discussed: Altered thinking, altered emotions, altered physical feelings and altered behaviour and the benefits of activity monitoring

and activity scheduling in behavioural re-activation and the mastery and meaning of taking charge of their lives.

### 5.5.1 Cognitive Domain

Depressive symptoms in the cognitive domain showed marked decreases and were supported by patients' verbal admissions in lower levels of the following areas:

- **Self-dislike, body-image, sense of failure and indecisiveness**

  Patients participating in the nurse-led cognitive behavioural therapy (CBT) reported feelings of failure due to being unable to cope with everyday demands, thus not being able to fulfil responsibilities pertaining to daily living activities and their societal roles. The patients also reported feeling inadequate and struggling with low self-esteem. Their inability to cope with depression only aggravated their sense of failure further. These cognitive perceptions led to feelings of worthlessness and inadequacy. As a result patients blamed themselves, resulting in feelings of guilt. One patient for example went to the extreme and described herself as useless and a failure. Patients with depression often have a low self-esteem and experience feelings of worthlessness. These perceptions could then further result into feelings of hopelessness.

  According to Beck's theory of depression, patients with depression have a negative view of themselves, their world (physical and social environment) and their future. Also known as Beck's negative cognitive triad (Beck *et al,* 1979). At the beginning of the nurse-led CBT groups, patients participated in a group exercise during which they had to indicate how they saw themselves, their world and their future. It became evident that participants indeed viewed themselves in a negative manner and perceived themselves as worthless and inadequate, which could have resulted in experiencing a low-self-esteem and deterioration in their level of functioning.

  People throughout their lifetime process information about themselves, their world and their future. This process leads to the formation of certain cognitive structures based on personal experiences, including interaction with significant others. These cognitive structures represent schemas, assumptions and automatic thoughts. Schema formation is based on previous learning and consists of our fundamental beliefs (core beliefs) and assumptions. Schemas can have an adaptive (functional) or maladaptive (dysfunctional) stance.

Dysfunctional schemas lay dormant during non-stressful periods. However, these can become active when triggered by stressful life events (Westbrook *et al,* 2011:10).

During nurse-led CBT group sessions, patients had been guided in exploring their own individual thought processes. After exploring the concepts of schemas, assumption and automatic thoughts patients had to identify their own automatic thoughts. Patients were also empowered to challenge these thoughts. Some patients for example stated: “I’m useless!”; “I’ll never get better!” During the group sessions the group members formed a relationship (built on trust) with the facilitator, professional nurses and fellow group members. This led to group members starting to assist each other in challenging dysfunctional automatic thoughts. Exploring and challenging dysfunctional schemas, assumptions and automatic thoughts further resulted in patients seeing and perceiving themselves, their world and future in a more functional manner. Towards the end of the programme patients did not perceive themselves as failures or worthless anymore. They felt better about themselves and realised they were not alone and that help was available. Thus their self-concept was boosted and they experienced a sense of hope.

Patients with depression admitted to the unit often complained about simply being too tired to do anything. Female patients admitted they neglected their self-care and apparently paid little attention to make-up and hairstyling compared to earlier, before being depressed. This further resulted in a negative view of self and female patients often described themselves as unattractive. Deterioration in functioning level resulted in less attention being given to aspects of self-grooming, which relates to behavioural activation. Patients however, reported that their body-image, thus their view of themselves (self-esteem) improved after participation in the group therapy sessions.

Existing literature found that patients with depression often experience cognitive impairment and self-deprecating thought patterns. Experiencing these symptoms could have an adverse effect on the level of functioning of patients with depression, specifically related to self-esteem (Videbeck, 2011:281). Thus the findings of this study confirmed the phenomenon as described in the literature.

Patients with depression also experience a wide variety of cognitive symptoms. Those participating in the nurse-led cognitive behavioural group therapy sessions indicated that they struggled with concentration, memory impairment and lacked the ability to make decisions and solve problems. According to Jurena (2012:86) patients with depression doubt their own ability and do not trust their own decisions in fear of failure.

Depressed patients often visualise the worst possible case scenario and view their problems as overwhelming. They described themselves as being pessimistic, with recurrent negative thoughts, also referred to as rumination (Malmberg & Larson, 2015). During reflection, patients generally experienced changes in their functioning levels, thought processes and generally seemed more hopeful.

- **Pessimism**

  Pessimism decreased from a moderate level of severity to a mild level of severity. A specific work sheet had been utilised for the purpose of monitoring mood and related negative thoughts (see attached manual, session 3 – Annexure I). Older females tend to be more pessimistic, generally perceiving and interpreting life events in a more negative manner. Patients participating in the nurse-led CBT sessions were actually surprised when they compared their mood with the occurrence of negative thoughts. This observation made the relationship between emotional experiences and dysfunctional thought patterns evident. Therefore, recurrent negative thoughts often result in rumination. Patients participating in the nurse-led CBT group reported feeling less pessimistic and recorded fewer negative thoughts than prior to the intervention.

  According to Beck's theory of depression a direct link between cognitive processes, emotional responses as well as associated behavioural responses exist. Furthermore, rumination negatively influence cognitive functioning. Thus, the researcher assumed the decrease in pessimism and rumination resulted in an improvement in negative emotional responses in the experimental group as postulated by the theory of Beck. Rumination is recorded as a significant risk factor in the onset of depression (Malmberg & Larson, 2015:1) and a decrease in pessimism and rumination therefore could serve as a protective factor pertaining to the onset of future depressive disorders.

- **Suicidal ideation**

  People with depression admitted to the unit often expressed recurrent thoughts about death and suicidal ideation. They felt hopeless and had no future expectations (negative view of future). Most of these patients also reported having a low self-esteem (negative view of self) which further aggravated feelings of despair. Towards the end of the sessions, suicidal ideation decreased from a moderate level of severity to a mild level of severity. This aspect is of clinical importance since suicidal ideation may be accompanied by a definite plan to commit suicide posing a clinical risk whether managed in the inpatient unit or on an outpatient basis.

  Session 8 focussed on hopelessness, dysfunctional thoughts, dysfunctional behaviour and **suicide.** The purpose of incorporating the theme of suicide in the CBT programme was based on the associated mortality risk found in literature. Suicide is described in literature as the second (2$^{nd}$) most common cause of deaths among young people, which in itself emphasise the impact of depression on the disease burden globally (WHO, 2013).

  The aim was therefore to empower patients in order to act pro-actively when faced with suicidal ideation and behaviour. During this session patients also explored the concepts of suicidal ideation and behaviour. Furthermore, the link between suicidal ideation, hopelessness and behaviour related to Beck's cognitive model of depression was discussed.

  Suicidal ideation can be linked to specific cognitive distortions such as catastrophizing, black and white thinking and fortune telling leading to feelings of hopelessness and limitations in future expectations. Patients with depression also tend to blame themselves in an excessive degree (Tshabalala & Visser, 2011:18).

  Patients participating in the study voiced excessive feelings of guilt related to prior suicide attempts and felt hopeless with little future expectations. However, when realising that others resorted to similar behaviour and were not being judged by other group members or professional mental health care nurses, the patients appeared relieved. Some patients mentioned fearing their own suicidal ideation but realising that these thoughts could be challenged and changed, provided them with comfort and hope.

The results obtained from this study confirmed a decrease in guilt feelings and patients expressed a sense of hope. The devastating impact of attempted suicide and suicide on the individual, significant others and society had also been discussed and proved to be a very significant session. One patient who had an interrupted suicide attempt and experienced irreversible cognitive dysfunction afterwards shared her experience in the group and it appeared as if this had a deep impact on the group. In addition, patients had to identify personal triggers and explored possibilities on safeguarding their environment when experiencing suicidal ideation. They also had to compile their own personal safety plan.

A decrease in suicidal ideation and related behaviours therefore served as a protective factor when considering depression as a major contributor to the burden of disease worldwide including the associated mortality risk.

### 5.5.2 Affective Domain

The following affective symptoms improved from moderate to mildly severe, which could be an indication that the work done in sessions 2-7 assisted patients in dealing with sadness, irritability, tearfulness and guilt feelings. Patients that participated in nurse-led CBT groups specifically expressed a decrease in feelings of guilt. This has been confirmed by statistical differences between groups as well as within the experimental group.

- **Sadness**

  Patients suffering from depression admitted to the unit experienced severe emotional distress. They also expressed intense feelings of sadness and often became tearful during interviews and subsequent group sessions. Being part of a group provided patients with the opportunity to freely express their emotions in a safe environment. Furthermore, attending group therapy assisted patients to realise that others also felt sad. At the same time they had the opportunity to observe patients feeling better after attending group therapy sessions. This fostered hope and patients mentioned that they felt less distressed and emotional. Those being female and older implied that participants were subjected to chronic diseases and hormonal changes. Chronic illnesses and hormonal changes have been known to play a significant role in the prevalence of depression and emotional distress. It can therefore be deduced that these participants were at an increased risk to experience intense levels of emotional

distress and sadness. However, patients were less tearful as their levels of depression decreased over time.

Interpreting sadness as a result of specific cognitions relating to self-concept adds an adaptive quality to this specific negative emotion. During session one of the intervention patients had to complete a worksheet: *How I see myself, my environment and my future?* This exercise had been repeated during the final session and patients could also reflect on positive changes in their views regarding sadness and a sense of hope.

- **Irritability**

  Whilst some patients experienced intense sadness, other group members expressed being irritated by small things or even by any person. Others felt irritated and angry without any specific reason. Feeling irritated and becoming angry with others led to an increase of guilt feelings among patients. In addition, the link between thoughts, emotional experiences and related behavioural responses were addressed in session five to seven. During these sessions patients were made aware of the impact of behavioural activation on emotional distress. Patients had to set goals and each patient had to start doing at least one functional task in the unit such as gardening, cleaning of the fish pond, etc. The importance of exercise and its subsequent influence on emotional distress were also highlighted and patients were motivated to go for walks on the premises. During this phase of the nurse-led CBT group session, professional mental health care nurses became innovative and introduced simplistic physical exercises during the mornings, and used the daily mood board where patients indicated their current emotional status when writing daily nursing progress reports.

  Patients expressed an improvement in their mood, they felt less tearful and feelings of irritation also decreased. As patients realised they still had the capability to fulfil certain behavioural tasks their self-image improved and feelings of worthlessness decreased. In addition, the professional mental health care nurses also seemed motivated and proud that they could make a valuable contribution to the nurse-led CBT programme.

  Cognitive behavioural therapy postulates that thoughts and emotions are interrelated and change in one system will induce change in the other systems.

For example, adjustment of thoughts and behavioural responses to a functional stance will result in subsequent changes in emotional experiences and vice versa (Westbrook *et al,* 2011:5). According to the data obtained from this study irritability showed a significant decrease from a severe level to a mild level of severity and confirmed the effects of cognitive behavioural therapy in the treatment of mood disorders, depressive disorders and associated symptoms.

- **Guilt**

  The aspect of guilt was comprehensively addressed in session 3 of the nurse-led cognitive behaviour group therapy sessions. This session specifically focussed on thoughts and how it can affect a patient's mood. Beck's cognitive model of depression, the negative cognitive triad pertaining to how I see myself, my world and my future formulated the core of the session which could account for the marked decrease in guilt feelings of both groups.

  Guilt is closely related to self-blame, largely internalised and often expressed through specific behavioural responses. Thus guilt largely relates to the concept of "how I see myself". Guilt can also result in feelings of worthlessness and hopelessness, an additional risk factor in suicidal ideation and intentional self-harm. The researcher assumed that feeling less guilty could have an influence on depressive symptoms including associated suicidal ideation.

  This aspect was further emphasised by other empirical studies which found guilt as a significant risk factor in suicidal ideation (Bryan, Roberge, Bryan, Ray-Sannerud, Morrow & Ettiene, 2015). The marked decreases in guilt feelings therefore implied changes occurring in both cognitive and emotional domains. In addition, guilt and shame presents specific modes of organising information pertaining to the self. For example, some patients described feeling irritated and becoming irritated without any particular reason. These feelings of irritation however led to feelings of guilt. This further influenced patients' views of themselves. One patient, for example referred to herself as a really "horrible person". However, literature describe guilt as an emotional concept featuring pre-dominantly in males compared to females. Shame on the other hand was found to feature pre-dominantly in females compared to males. This aspect could, however, not be confirmed by the current study since most participants were females.

Guilt is further defined as a negative emotion, based on distress, regret and remorse. According to Tilghman-Osborne, Cole, Felton and Ciesla, (2008) guilt forms part of a cognitive component which is internalised and relates to how people see themselves. In addition, guilt also comprises of a cognitive component with an adaptive quality, therefore, our thoughts, beliefs, perceptions and interpretations about ourselves, our environment and our future largely determine our emotional and behavioural responses (Westbrook *et al,* 2011:5).

### 5.5.3 Somatic Domain

For the purpose of this study the following depressive symptoms has been classified as the somatic domain: Insomnia, fatigue, disturbances in appetite, pre-occupation with somatic symptoms and loss of libido. Patients with depression often experience hypothalamic disturbances. The findings of this study indicated a significant improvement in depressive symptoms of the somatic domain.

**Insomnia**

The individual suffering from depression can either experience insomnia or hypersomnia. Most patients admitted to the unit experienced insomnia and reported high levels of exhaustion and frustration. Patients experiencing disturbances in sleep often complained of psycho-motoric retardation or agitation and experienced a decrease in their energy levels and fatigue. Patients in the unit reported disturbances in sleep aggravated feelings of chronic tiredness which impacted on their energy and levels of functioning. Occupational, social and family roles and other functional areas of their lives had been affected and added to feelings of worthlessness and inadequacy.

Patients with depression admitted in the unit already experienced low levels of energy due to depression and often complained of fatigue and disturbances in sleep. A lack of sleep and inadequate rest also influenced their ability to concentrate. However, some patients reported that they slept too much, especially during the day time although they did not feel rested. The ageing process and chronic medical conditions involving pain and discomfort, further aggravated sleep disturbances contributing to intense feelings of despair.

Insomnia is also associated with cognitive impairment as reported by patients participating in this study. Considering that insomnia is associated with less positive clinical outcomes and often present amongst residual symptoms in depression, it has

specific clinical relevance to this study and its findings (Madhukar & Trivedi, 2004:12).

Improvement in insomnia could significantly reduce the risk of developing future episodes of depression, and an improved sleeping pattern reported by night staff and patients were evidence that the onset of depression and also a possible relapse could be prevented.

Soothing techniques had also been explored in sessions six and seven. Fava (2004) argued that addressing insomnia should be a clinical priority in the treatment of patients with depression and therefore the researcher in the current study adhere to it.

**Pre-occupation with somatic symptoms**

Pre-occupation with somatic symptoms decreased from moderate to mild severity levels. Patients admitted in the unit frequently experienced somatic symptoms such as headache, gastrointestinal problems, physical pain, disturbances in eating patterns and sleeping patterns. Other somatic symptoms include fatigue and psycho-motor disabilities.

Most of the participants in this study were older females. Older patients admitted to the unit experienced emotional discord and anxiety resulting in tension headaches, dry mouth and muscle spasms. Furthermore, older, female patients experienced their symptoms related to depression as well as co-morbid chronic medical conditions in an intense manner and became pre-occupied with those somatic symptoms. Catastrophizing was one example and more than one patient stated: “I’ll never get better”. The facilitator used practical examples provided by the group members in order to guide others to gain insight into dysfunctional thought patterns and cognitive errors and its role in emotional distress as well as related dysfunctional patterns. The researcher could infer from the information provided by the participants that becoming more active led to less time spend ruminating and pre-occupation with somatic symptoms decreased. As patients became more active they also reported feeling less worried. Therefore the findings of this study confirm the cognitive behavioural theory which postulates that behaviour also has a significant influence on cognitive processes, somatic symptoms as well as emotional experiences.

According to literature residual symptoms in depression including somatic symptoms presents a significant risk for developing future episodes of depression. Furthermore, a significant number of patients seek help in the primary health care sector due to these somatic symptoms. Physical chronic pain increases the severity and duration of depression. Thus, it is important to treat somatic symptoms in depression in order to ensure full remission. Chronic physical pain has also been identified as a significant risk factor in developing suicidal ideation (Madhukar & Trivedi, 2004:12) and the ability to participate in daily activities.

### 5.5.4 Behavioural Domain

- **Social withdrawal**

  Patients admitted to the unit often reported feeling lonely, lacking confidence to engage in social interactions, had low self-esteem and a negative view of themselves. Most patients mentioned not having the energy to even engage in social interactions.

  However, after participating in the group sessions most patients seemed less withdrawn and socialised outside of group sessions. Thus improving on previous anxiety and difficulty whilst talking to people. In reflection, they were able to participate and share their difficulties in a safe environment.

  This in itself boosted their self-esteem resulting in a decrease of anxiety and feelings of worthlessness. This study furthermore confirms the role of group therapy as a therapeutic tool in facilitation of socialisation skills (Yalom & Leszcz, 2005:16). Participation in the groups assisted patients in making new friends. Group members also took on a supportive role during sessions and patients felt that they were not alone and had support even after discharge. Those supporting others, felt they had meaning and purpose, which represents a deep seated human experience; therefore being supportive to each other represented the healing factor of altruism as described by Yalom and Leszcz, (2005:13).

- **Work performance**

  From the findings of this study the researcher could infer that work performance improved from a severe to a borderline level of severity. During admission and group sessions patients frequently indicated experiencing a lack of energy to comply with everyday occupational demands. According to patients they had too

little energy to even conduct general daily living activities, self-grooming and household chores which had been confirmed by the findings of existing literature describing depression as having a severe adverse effect on the functioning level of the patients and reduction in energy levels, resulting in a decrease in activities even when conducting small tasks (Stuart, 2013:293; Smith, 2012:51).

During behavioural activation patients had to commit themselves to re-engage in activities relating to functional as well as pleasurable experiences. According to the patients, physical activities improved their self-esteem and the realisation of being able to conduct functional activities created a sense of hope related to future expectations. Generally, the improvement in their symptoms and how patients experience the group sessions confirmed the interrelatedness of the cognitive, affective, somatic and behavioural domains.

## 5.6 SUMMARY

Group sessions were concluded by referring back to the core concepts of cognitive behavioural therapy as applied to depression. During the final session patients were prepared for discharge while aiming to specifically empower them to maintain and sustain therapeutic growth even after discharge. Patients had to explore their personal weaknesses concerning the possibility of a relapse and compile a relapse prevention plan. On the one hand, this resulted in them gaining insight into the causes of relapse and relapse prevention while on the other hand, taking part in the planning of their own treatment plan added to their sense of security and control. Although adherence to medication and the multi-disciplinary treatment programme are important, the added benefits from the nurse-led CBT group sessions were evident.

## 5.7 CONCLUSION

The results of this study showed that nurse-led cognitive behavioural group sessions had positive effects on the patients overall well-being, but especially by relieving the symptoms of depression. Cognitive behavioural therapy group sessions also provided the opportunity for patients to develop specific life skills, such as socialisation skills. Furthermore, exposure to therapeutic group processes instilled various therapeutic factors within the groups. It included patients experiencing altruism, formed part of a group and socialised which also instilled hope.

Participation and facilitation of the nurse-led CBT groups also added value to professional mental health nursing practices. Professional mental health care nurses participated in the programme and contributed to the multi-disciplinary treatment. By being creative, nurses in the unit became involved with the worksheets, mood charts and therapeutic recreation process.

Although the statistical differences between the programmes were not substantial, incorporation of nurse-led cognitive behavioural therapy groups into the standard nursing care programme contributed to the enhancement of quality mental health care within the unit. When comparing the nurse-led cognitive behavioural therapy programme with the standard nursing care programme it became evident that additional time was constructively and therapeutically utilised by the patients as well as the nursing staff. Doing homework and assignments contributed to a feeling of cohesion and support amongst the patient groups and patients were found to socialise in communal areas after hours and over weekends.

The next chapter will conclude with discussions on limitations, recommendations related to professional mental health care nursing practise and suggestions for future research.

# CHAPTER SIX

## 6. CONCLUSIONS, LIMITATIONS, RECOMMENDATIONS

### 6.1 INTRODUCTION

This final chapter will include a summary on the effects of a nurse-led cognitive behavioural programme for patients with mood disorders and mental health care nursing. It will conclude with limitations and recommendations related to professional mental health care nursing practise, training and suggestions for future research possibilities.

### 6.2 SUMMARY

Mental health care nursing is regarded as one of the most important disciplines in delivering inpatient mental health care services to patients with mood disorders (Centre for Mental Health Services, 2007). Therefore, the formation of a therapeutic relationship with the patient remains one of the core functions of the mental health care professional nurse in acute inpatient units for mood and depressive disorders (Shatell, Andes & Thomas, 2008:242). Counselling aimed at developing functional coping skills in order to enable the patient to cope with life-stressors, adverse life events as well as altered perceptions and beliefs is thus vital (Uys & Middleton, 2014:17; World Health Organisation, 2003:6).

Since mental health care nursing and the standard nursing care programme in the research unit largely focused on custodial care, the aim of the current study was to overcome the limitations in the role and scope of practise of mental health care professional nurses in acute inpatient units.

Irrespective of empirical evidence on the effective treatment of mood and depressive disorders, cognitive behavioural group therapy remains underutilised in acute inpatient units for patients with mood disorders, depressive disorders and associated symptoms. Professional mental health care nurses were well-placed to provide psycho-social interventions, especially since they play a vital role in the nursing care processes and form part of the multi-disciplinary inpatient treatment team. According to literature incorporation of cognitive behavioural group therapy in the standard nursing care programme can provide structured, pro-active treatment in acute inpatient units for mood disorders (Mullen, 2009:84).

Irrespective of these arguments, providing psycho-social interventions by mental health care nurses remain a challenge in inpatient units for patients with mood disorders. This significant treatment gap was identified in the research unit. Anecdotal reports from patients and nursing personnel highlighted limited therapeutic interventions.

Although mental health care professional nurses play an important role in the treatment process, nurse-led therapeutic interventions remain underutilised in acute inpatient units for mood disorders (Chetty & Hoque, 2013:30; Mullen, 2009:83). The outcome of the study could therefore be used to make recommendations pertaining to the effectiveness of nurse-led cognitive behaviour therapy groups in the treatment of patients with mood disorders, specifically depressive disorders and associated symptoms. Data obtained during the study also served as baseline data for mental health care nursing practice in an inpatient unit as well as future research and training.

## 6.3 LIMITATIONS

- Although the bed capacity of the unit was small, the number of admissions during the research period (2015) was less than anticipated due to reasons out of the researcher's control. Therefore the findings of the study could not be generalised to a larger population. Furthermore, during this period approximately four (4) patients declined/did not want to participate in the study, whilst three (3) sets of data were incomplete, probably due to sudden discharges.

- This study also did not conduct a follow-up assessment which could have provided additional data related to the outcome of the intervention. Although no differences between the control and experimental groups as done by other researchers were found, follow-up assessments indicated sustained efficacy over an increased period of time (Chetty & Hoque, 2013:3).

## 6.4 RECOMMENDATIONS

- **For mental health care nursing practice**

  Cognitive behavioural group therapy posed many advantages in the treatment setting. Establishing trust and safety whilst learning new behaviours and thought patterns was only one of the many advantages. Active involvement and interaction of the patient in CBT group therapy enabled patients to take responsibility for their own mental health. The therapeutic group process fostered

a functional collaborative process between the professional mental health care nurses and patients resulting in the establishment and strengthening of the therapeutic relationship. Incorporating appropriate homework assignments in nurse-led CBT group therapy sessions served in reinforcing newly acquired skills. This aspect was emphasised by Singh (2011:153) who stated the following: “The group provides an environment of corrective social learning experience for dealing with maladaptive interpersonal patterns. The ability to practice skills within the safety of the group aids social learning”.

Cognitive behavioural group therapy is a cost-effective, evidence-based psycho-therapeutic intervention. Therefore, the implementation of group therapy has a relevant place in an era where skills, professional resources as well as inpatient units for patients with mood and depressive disorders are scarce. The implementation of group therapy implies that psycho-social treatment can be offered to a larger number of patients simultaneously, despite human resources being scarce. Inpatient units for patients with mood and depressive disorders in South Africa with limited resources could therefore benefit from the implementation of CBT group therapy in the standard nursing care programmes.

Furthermore, the results obtained from this study revealed a significant improvement in insomnia. Insomnia is considered a significant risk factor pertaining to future episodes of depression and also has a negative impact on cognitive functioning in patients with depression. The researcher therefore deems it appropriate to include more specific information on sleep hygiene when addressing the behavioural component of the nurse-led cognitive behavioural group therapy sessions. During this study guilt feelings also showed a marked improvement. Guilt is closely related to self-blame and a negative view of oneself. It can therefore be deduced that cognitive restructuring attributed to the improvement related to self-blame and self-concept. When considering the above the researcher supports the statement of Fisher (2011) advocating professional mental health care nurses being well-placed to practice and teach these therapeutic skills to patients in inpatient units for mood and depressive disorders. It is therefore imperative that the nurse-led CBT programme becomes part of the treatment modality offered in the research unit. This programme also has the potential to be offered in other institutions managing mood and depressive disorders. This was also proposed by members of the multi-disciplinary team.

- **For mental health care nurse training**

  Professional mental health care nurses play a prominent role in the multi-disciplinary team of acute inpatient units for mood and depressive disorders. Participation and facilitation in cognitive behavioural group therapy sessions enables professional mental health care nurses to identify group dynamics within the groups. Progress related to the improvement of symptoms could be identified and provided valuable information to other members of the multi-disciplinary team. The therapeutic relationship between patients and professional mental health care nurses were also strengthened as a result of CBT group sessions. Formal training in cognitive behavioural therapy as well as group processes has the potential to enhance quality mental health care interventions provided by professional mental health care nurses in acute inpatient units for patients with mood and depressive disorders.

- **For research**

  When considering the small sample size and the limitation it posed related to the findings of the study the researcher proposed that the study be replicated in another inpatient unit for mood and depressive disorders and a follow-up study in the research unit should also be done to assess sustained efficacy over a prolonged period.

  The researcher further recommends a qualitative study in order to explore patients' perceptions of the programme.

## 6.5 CONCLUSION

*"Cognitive therapy seeks to alleviate psychological stresses by correcting faulty conceptions and self-signals by correcting erroneous beliefs that can lower excessive reactions" (Beck, 1976: 216)*

Given the evidence supporting cognitive behavioural group therapy, the researcher and other mental health care professional nurses became adept in the use of this psychotherapeutic method (Freeman, 2005). A gap in treatment was identified and supported by evidence. In addition, the findings of the study showed effective implementation of CBT groups and a nurse-led psychotherapeutic intervention added value to the therapeutic milieu as well as for patients with depressive symptoms in an inpatient unit.

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# APPENDIX A

- **NURSING CBT (COGNITIVE BEHAVIOUR THERAPY) INTERVENTION PROGRAM**

| DAYS: | TREATMENT INTERVENTIONS: | ALLOCATED TIMEFRAMES: | TEAM MEMBER/S INVOLVED: |
|---|---|---|---|
| MONDAY till Friday | Bathing & hygiene | 07:00 (1hr) | PMHCN |
| | Medication | 08:00 (45min/session)<br>13:45<br>21:00 | PMHCN |
| | Occupational therapy | 09:00 till 10:00<br>14:00 till 15:00 (excluding Wednesdays & Fridays) | Occupational therapist |
| | **PROPOSED:** CBT – Intervention groups | Mondays: 15:00 till 16:00 (1hr)<br>Wednesday: 09:00 till 10:00 (1hr)<br>Fridays : 09:00 till 10:00 (1hr) | PMHCN & Researcher |
| | Recreational activities | Adhoc (not scheduled formally) | PMHCN |
| | Dr's rounds | 10:00 till 12:00 | Registrar Psychiatrist |
| | Individual psychotherapy | 10:00 till 12:00<br>13:00 till 14:00 | Psychologist interns |
| | Recreational activities | Adhoc (not scheduled formally) | PMHCN |
| | Physiotherapy | 14:00 till 15:00 (Wednesdays only) | Physiotherapist (on referral base) |
| | Social work interventions | In between | On referral base only |
| | Nursing care assessments / Nursing care progress writing / counselling. | 1hr : 16:30 till 17:30<br>1hr | PMHCN |
| WEEK-ENDS | (No structured programme) | | |
| NOTE: | Times not indicated in the abovementioned table are utilised for additional daily activities of living, recreational activities facilitated by MHPNs' or structured by the patient him/herself. | | |

# APPENDIX B

- ## BECK DEPRESSION INVENTORY

**APPENDIX B: BECK DEPRESSION INVENTORY SCALE - Section 4 rating scale** *[format adapted for FSPC only]*

Source: (Beck 1967)

| | | | | | |
|---|---|---|---|---|---|
| **4** | **SECTION B: PSYCHO- PATHOLOGY** | | | | |
| **4.1** | **DEPRESSION:** | | | | |
| | **PLEASE SELECT APPROPRIATE CRITERIA / INDICATE WITH - X** | | | | |
| | **SYMPTOMS:** | **3** | **2** | **1** | **0** |
| **4.1.1** | **Sadness** | I am so sad and unhappy that I can't stand it. | I am sad all the time and I can't snap out of it. | I feel sad | I do not feel sad |
| **4.1.2** | **Pessimism** | I feel the future is hopeless and that things cannot improve. | I feel I have nothing to look forward to. | I feel discouraged about the future. | I am not particularly discouraged about the future. |
| **4.1.3** | **Sense of failure** | I feel I am a complete failure as a person. | As I look back on my life, all I can see is a lot of failures. | I feel I have failed more than the average person. | I do not feel like a failure |
| **4.1.4** | **Dissatisfaction** | I am dissatisfied or bored with everything. | I don't get real sattisfaction out of anything anymore. | I don't enjoy things the way I used to. | I get as much satisfaction out of things as I used to. |
| **4.1.5** | **Guilt** | I feel guilty all the time. | I feel quite guilty most of the time. | I feel guilty a good part of the time. | I don't feel particularly guilty. |
| **4.1.6** | **Expectation of punishment.** | I feel I am being punished. | I expect to be punished. | I feel I may be punished. | I don't feel I am being punished. |
| **4.1.7** | **Selfdislike.** | I hate myself. | I am disgusted with myself. | I am dissapointed in myself. | I don't feel dissapointed in myself. |
| **4.1.8** | **Self-accusatory [self-blame].** | I blame myself for everything bad that happens. | I blame myself all the time for my faults. | I am critical of myself for my weaknesses or mistakes. | I don't feel I am any worse than anybody else. |
| **4.1.9** | **Suicidality.** | I would kill myself if I had the chance. | I would like to kill myself. | I have thoughts of killing myself, but I would not carry them out. | I don't have any thoughts of killing myself. |
| **4.1.10** | **Crying.** | I used to be able to cry, but now I can't cry even though I want to. | I cry all the time now. | I cry more than I used to. | I don't cry any more than usual. |
| **4.1.11** | **Irritability.** | I feel irritated all the time. | I am quite annoyed or irritated a good deal of the time. | I am slightly more irritated now than usual. | I am no more irritated by things than I ever was. |
| **4** | **SECTION B: PSYCHO- PATHOLOGY** | | | | |
| **4.1** | **DEPRESSION:** | | | | |
| | **PLEASE SELECT APPROPRIATE CRITERIA / INDICATE WITH - X** | | | | |
| | **SYMPTOMS:** | **3** | **2** | **1** | **0** |
| **4.1.12** | **Social withdrawal.** | I have lost all of my interest in other people. | I have lost most of my interest in other people. | I am less interested in other people than I used to be. | I have not lost interest in other people. |
| **4.1.13** | **Indecisiveness.** | I can't make decisions at all anymore. | I have greater difficulty in making decisions more than I used to. | I put off making decisions more than I used to. | I make decisions as well as I ever could. |
| **4.1.14** | **Change in body image.** | I believe I look ugly. | I feel there are permanent changes in my appearance that makes me look unattractive. | I am worried that I look old or unattractive. | I don't feel that I look any worse than I used to. |
| **4.1.15** | **Work performance.** | I can't do any work at all. | I have to push myself very hard to do anything. | It takes an extra effort to get started at doing anything. | I can work about as well as before. |
| **4.1.16** | **Insomnia.** | I wake up several hours earlier than I used to and cannot get back to sleep. | I wake up 1 - 2 hours earlier than usual and find it hard to get back to sleep. | I don't sleep as well as I used to. | I can sleep as well as usual. |
| **4.1.17** | **Fatique.** | I am too tired to do anything. | I get tired from doing almost everything. | I get tired more easily than I used to. | I don't get more tired than usual. |
| **4.1.18** | **Anorexia [appetite].** | I have no appetite at all anymore. | My appetite is much worse now. | My appetite is not as good as it used to be. | My appetite is no worse than usual. |
| **4.1.19** | **Weight loss / gain.** | I have lost / gained more than fifteen pounds. | I have lost / gained more than ten pounds. | I have lost / gained more than five punds. | I haven't lost / gained much weight, if any. |
| **4.1.20** | **Somatic pre-occupation.** | I am very worried about physical problems and it's hard to think f much else. | I am so worried about my physical problems and it's hard to think of much else. | I am worried about physical problems like aches, pains, upset stomack, or constipation. | I am no more worried about my health than usual. |
| **4.1.21** | **Loss of libido.** | I have lost interest in sex completely. | I have almost no interest in sex. | I am less interested in sex than I used to be. | I have not noticed any recent change in my interest in sex. |
| **4.1** | **DEPRESSION:** | | | | **subtotal score:** |
| **4.1** | **DEPRESSION:** | | | | **maximum score:** |

**INTERPRETATION:**

| | | | |
|---|---|---|---|
| **INTERPRETATION (RELATED TO CLINICAL / ACTUAL RATINGS):** | **1 - 10 = Normal range (0% - 20%)** | **11 - 16 = Mild (21% - 40%)** | **17 - 20 = Borderline clinical depression (41% - 50%)** |
| (PLEASE SEE NEXT PAGE FOR GRAPHIC INTERPRETATION) | **21 - 30 = Moderate (51% - 70%)** | **31 - 40 = Severe >40 = Extreme depression (71% - 90%)** | **>40 = Extreme depression (91% - 100%)** |

# APPENDIX C

- **FRAMEWORK – CBT INTERVENTION**

| **Intervention Framework: Nurse-Led Cognitive Behavioural Sessions** | |
|---|---|
| Session 1 | Understanding Depression |
| Session 2 | Socialisation of Cognitive Behavioural Therapy (CBT model) |
| Session 3 | It's all about thoughts (How thoughts affect my mood) |
| Session 4 | Cognitive errors and mistakes in thinking; Challenging unhelpful thoughts |
| Session 5 | Behaviour and Depression |
| Session 6 | Behavioural Activation |
| Session 7 | Mastery and Meaning |
| Session 8 | Hopelessness, Unhelpful thinking / Unhelpful behaviour and Suicide |
| Session 9 | Healthy me: Practical exercise; Bringing it all together and planning for the future.<br><br>Reflecting back – My experience of group therapy |

# APPENDIX D

- **ETHICAL CLEARANCE: UNIVERSITY OF THE WITWATERSRAND**

R14/49 Mrs Hester Maria Petronella Visagie

**HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)**

**CLEARANCE CERTIFICATE NO. M150126**

| | |
|---|---|
| **NAME: (Principal Investigator)** | Mrs Hester Maria Petronella Visagie |
| **DEPARTMENT:** | Nursing Education<br>Free State Psychiatric Complex |
| **PROJECT TITLE:** | The Effects of Including Nurse-led Cognitive Behavioural Therapy Groups Compared to a Standard Nursing Program for Inpatients with Affective Disorders |
| **DATE CONSIDERED:** | 30/01/2015 |
| **DECISION:** | Approved unconditionally |
| **CONDITIONS:** | |
| **SUPERVISOR:** | Ms Annalie van den Heever |
| **APPROVED BY:** | Professor P Cleaton-Jones, Chairperson, HREC (Medical) |
| **DATE OF APPROVAL:** | 18/02/2015 |

**This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.**

**DECLARATION OF INVESTIGATORS**

To be completed in duplicate and **ONE COPY** returned to the Secretary in Room 10004, 10th floor, Senate House, University.
I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**.

Principal Investigator Signature  Date

**PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES**

# APPENDIX E

- **LETTER OF APPROVAL: FREE STATE PSYCHIATRIC COMPLEX**

free state psychiatric complex

Department of Health
Free State Psychiatric Complex
FREE STATE PROVINCE

**27 FEBRUARY 2015**

**To: Me HMP Visagie**
**DR E du Plessis**

Approval to Conduct Research at Free State Psychiatric Complex

Your application to conduct the study entitled

**"To explore whether nurse- led cognitive behavior (CBT) groups in the standard nursing care program will promote change in patients with mood disorders, core beliefs and coping behavior / level of depression during admission in the affective ward."**: was approved at the Free State Psychiatric Complex Clinical Ethics and Research Committee meeting held on 27 FEBRUARY 2015.

The results and recommendations of your research should be communicated to the Ethics and Research committee at the end of your study.

With kind regards

**DR B MASITHA**
**CLINICAL SERVICES MANAGER**

Dr. B Masitha
MBChB - Clinical Manager
2015 -02- 27
Pr. No.: 5603013 • MP 0357189
Tel no.: (051) 407 9911

# APPENDIX F

- **INFORMATION LETTER AND CONSENT FORM**

**GROUP A**

INFORMATION SHEET AND INVITATION TO PARTICIPATE IN A STUDY – The effects of including nurse-led cognitive behavioural therapy groups compared to a standard nursing programme for inpatients with mood disorders.

Dear Patient,

I, Hester M.P. Visagie am an MSc (Master's degree) student at the University of the Witwatersrand. I am undertaking a research project, and would like to invite you to consider participating in a study about the nursing care programme in the ward.

The standard treatment in the unit is based on a multi-disciplinary team approach. Each member of the team contributes to your treatment with their unique expertise. Standard treatment consists, for example, of pharmacotherapy (medication) by the registrar psychiatrist, individual psychotherapy managed by psychologist interns after referral, relaxation therapy as well as life skills training by the occupational therapist, and referral to the physiotherapist and social worker when needed.

Currently, all other physical and emotional needs as well as recreational and counselling therapies are provided for during the rest of the day and weekends, by trained psychiatric nurses within the standard nursing care programme. The effectiveness of the existing standard nursing care programme, however, has not been examined and there are no baseline data available. The psychiatric nurses in the unit were trained in the principles of cognitive behavioural therapy under the guidance of the principle clinical psychologist. Since cognitive behavioural therapy (CBT) has been identified as an appropriate and effective treatment modality for mood disorders and depressive symptoms, the purpose of this study is to explore the effectiveness of including nurse-led CBT groups into the standard nursing care programmes.

Research has shown that mood disorders, specifically symptoms of depression and anxiety, are effectively treated by implementing cognitive behaviour therapy groups (Mullen, 2009:86). Patients admitted into the affective ward often struggle with relationships not only with themselves and others at various levels but also with negative thoughts and behaviours. People suffering from depression feel intensely sad, down and hopeless. Depression affects a person's thinking, feelings, behaviour as well as interaction with other people. The overall aim of introducing cognitive behavioural therapy groups will be to address those disturbances in feelings and learn to understand those negative thought patterns.

The outcomes of the study will therefore be used to recommend future nursing care interventions for inpatients in the affective disorders ward.

The research study will comprise of two phases. During the first phase, all patients admitted to the ward from February 2015 to May 2015 (Group A) will be invited to complete a questionnaire on admission and again on discharge. The information obtained from Group A will form the baseline data which will be used for comparing with information gained from the next group. All the patients from Group A will receive treatment by the multi-disciplinary team as usual as well as the existing nursing care programme.

All patients admitted from June 2015 to August 2015 (Group B) will be invited to participate in the nurse-led CBT group sessions. They will also complete a questionnaire on admission and again on discharge from the ward. The nurse-led CBT groups will form part of the daily programme when patients are not involved with other therapy sessions. Patients (Group B) who agree will participate in nine (9) one-hour nurse-led CBT groups. Reflections and homework forms part of the CBT programme, which can be done during leisure time and with the support of the psychiatric nursing staff and clinical team.

The information gained from group B will be used to compare the information of Group A, in order to establish whether there was a change in the beliefs, coping behaviour, thought patterns and depressive symptoms of the patients participating in the CBT groups.

Please take note that participation is voluntary and you may withdraw from the study at any time. If you agree to participate in the study you will be thoroughly orientated regarding the programme. You will also be issued with a confidential questionnaire related to mood symptoms and demographic information. Questionnaires will take approximately 20 to 30 minutes of your time and will need to be completed on admission and discharge.

Your identity will never be revealed in any of the research reports. The data collected will be coded and accessible only to authorized users and stored in a secure location in a lockable cabinet at the Department of Nursing Education (University of the Witwatersrand) for a period of two years or 6 years, if a research article is not published. Data will be anonymous and confidential. In addition, electronic data will be confidential and password protected. After completion of the study, the results will be published in an academic journal. You may also contact my study leader, Ms A. van den Heever at the Department of Nursing Education, Faculty of Health Science, University of the Witwatersrand, annalie.vandenheever@wits.ac.za

Participation in the study will be highly appreciated.

Sincerely

Hester M.P. Visagie VisagieH@fshealth.gov.za Contact no: 051 – 4079382

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**PERMISSION LETTER FROM PARTICIPANTS (GROUP A):**

I have been invited to participate in a research study. The purpose of the study is to determine the effectiveness of the 'standard nursing care' programme in the unit as explained in the information leaflet. I therefore declare that I'm aware that I am included in Group A, the comparison group who will receive standard nursing care and treatment by the clinical team as usual.

I have been informed about the study by the researcher, Hester M.P. Visagie. I take note that I may contact her during office hours at: 051-4079382 / or after hours at 074-1788224.

I may contact the Secretariat of the Health Research Ethics Committee of the Faculty of Health science, University of the Witwatersrand if I have any questions about my rights as a research participant.

My participation in this research is voluntary and I will not be penalised or lose any benefits if I refuse to participate or decide to terminate my participation.

If I agree to participate, I will be given a signed copy of this document as well as the participation information leaflet, which is a written summary of the research.

The research study, including the above information has been verbally communicated and described to me. I understand what my involvement in the study means and I voluntarily agree to participate by completing the questionnaires on admission and on discharge from the ward.

**Signature of Participant** : ……..

**Date** : ……..

**GROUP B**

INFORMATION SHEET AND INVITATION TO PARTICIPATE IN A STUDY – The effects of including nurse-led cognitive behavioural therapy groups compared to a standard nursing programme for inpatients with mood disorders.

Dear Patient,

I, Hester M.P. Visagie am an MSc (Master's degree) student at the University of the Witwatersrand. I am undertaking a research project, and would like to invite you to consider participating in a study about the nursing care programme in the ward.

The standard treatment in the unit is based on a multi-disciplinary team approach. Each member of the team contributes to your treatment with their unique expertise. Standard treatment consists, for example of pharmacotherapy (medication) by the registrar psychiatrist, individual psychotherapy managed by psychologist interns after referral, relaxation therapy as well as life skills training by the occupational therapist, and referral to the physiotherapist and social worker when needed.

At the moment, all other physical and emotional needs as well as recreational and counselling therapies are provided for during the rest of the day and weekends, by trained psychiatric nurses within the standard nursing care programme. The effectiveness of the existing standard nursing care programme, however, has not been examined and there are no baseline data available. The psychiatric nurses in the unit were trained in the principles of cognitive behavioural therapy under the guidance of the principle clinical psychologist. Since cognitive behavioural therapy (CBT) has been identified as an appropriate and effective treatment modality for mood disorders and depressive symptoms, the purpose of this study is to explore the effectiveness of including nurse-led CBT groups into the standard nursing care programme.

Research has shown that mood disorders, specifically symptoms of depression and anxiety, are effectively treated by implementing cognitive behaviour therapy groups (Mullen, 2009:86). Patients who are admitted into the affective ward often struggle with relationships with themselves and with others at various levels as well as with negative thoughts and behaviours. People suffering from depression feel intensely sad, down and hopeless. Depression affects a person's thinking, feelings, behaviour as well as interaction with other people. The aim of introducing cognitive behavioural therapy groups will be to address those disturbances in feelings and learn to understand those negative thought patterns.

The outcomes of the study will be used to recommend future nursing care interventions for inpatients in the affective disorders ward.

The research study will comprise of two phases. During the first phase, all patients admitted to the ward from February 2015 to May 2015 (Group A) will be invited to complete a questionnaire on admission and again on discharge. The information obtained from Group A will form baseline data which will be used to compare information gained from the next group. All the patients from Group A will receive treatment by the multi-disciplinary team as usual as well as the existing nursing care programme.

All patients admitted from June 2015 to August 2015 (Group B) will be invited to participate in the nurse-led CBT group sessions. They will also complete a questionnaire on admission and on discharge from the ward. The nurse-led CBT groups will form part of the daily programme when patients are not involved with other therapy sessions. Patients (Group B) who agree will participate in nine (9) one-hour nurse-led CBT groups. Reflections and homework forms part of the CBT programme, which can be done during leisure time with the support of the psychiatric nursing staff and clinical team.

The information gained from Group B will be used to compare with the information of Group A, in order to establish whether there was a change in the beliefs, coping behaviour, thought patterns and depressive symptoms of the patients participating in the CBT groups.

Please take note that participation is voluntary and you may withdraw from the study at any time. If you agree to participate in the study you will be thoroughly orientated regarding the programme. You will also be issued with a confidential questionnaire related to mood symptoms and demographic information. Questionnaires will take approximately 20 to 30 minutes of your time and will be completed on admission and discharge.

Your identity will never be revealed in any of the research reports. The data collected will be coded and accessible only to authorized users and stored in a secure location in a lockable cabinet at the Department of Nursing Education (University of the Witwatersrand) for a period of two years or 6 years if a research article is not published. Data will be anonymous and confidential. In addition, electronic data will be confidential and password protected. After completion of the study, the results will be published in an academic journal. You may also contact my study leader, Ms A. van den Heever at the Department of Nursing Education, Faculty of Health Science, University of the Witwatersrand, annalie.vandenheever@wits.ac.za

Participation in the study will be highly appreciated.

Sincerely

Hester M.P. Visagie VisagieH@fshealth.gov.za Contact no: 051 – 4079382

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**PERMISSION LETTER FROM PARTICIPANTS (GROUP B):**

I have been invited to participate in a research study. The purpose of the study is to determine the effectiveness of including nurse-led cognitive behaviour therapy group sessions and to compare the information obtained from Group A and the existing standard nursing care programme. I therefore declare that I'm aware that I am included in Group B, the intervention group who will receive nine (9) cognitive behavioural therapy group sessions as well as clinical treatment as usual. I, hereby also consent to participate in the groups as described in the information leaflet.

I have been informed about the study by the researcher, Hester M.P. Visagie. I take note that I may contact her during office hours at: 051-4079382 / or after hours at 074-1788224.

I may contact the Secretariat of the Health Research Ethics Committee of the Faculty of Health Science, University of the Witwatersrand if I have any questions about my rights as a research participant.

My participation in this research as well as the CBT group sessions is voluntary and I will not be penalised or lose any benefits if I refuse to participate or decide to terminate my participation.

If I agree to participate, I will be given a signed copy of this document as well as the participation information leaflet, which is a written summary of the research.

The research study, including the above information has been verbally communicated and described to me. I understand what my involvement in the study means and I voluntarily agree to participate.

Signature of Participant : ……..

Date : ……..

# APPENDIX G

- **RESEARCH INSTRUMENT: PART 1 - DEMOGRAPHICAL INFORMATION**

**BECK DEPRESSION INVENTORY SCALE - Section 4 Rating Scale**
*[format adapted for FSPC only]*
Source: (Beck 1967)

**SECTION A: DEMOGRAPHICAL INFORMATION**

**CASE NO:** **RESEARCH NO:**

| PLEASE COMPLETE THE FOLLOWING PERSONAL INFORMATION: | | |
|---|---|---|
| 1 | AGE: | |
| 2 | ETHNIC GROUP: | |
| 3 | LEVEL OF EDUCATION: | |
| 4 | GENDER: | |
| 5 | MARITAL STATUS | |
| 6 | EMPLOYMENT STATUS | |

# APPENDIX H

- **NURSE-LED COGNITIVE BEHAVIOURAL GROUP THERAPY MANUAL**

Please refer to CD-Disc included.

# APPENDIX I

- **FIELD NOTES: PATIENTS EXPERIENCE OF NURSE-LED CBT GROUP THERAPY – A REFLECTIVE REPORT**

**Patients' experience of nurse-led cognitive behavioural group therapy and changes in mental health care nursing practice resulting from the implementation of this study: A reflective report**

The focus of group psychotherapy is rooted in interpersonal relationships and related mechanisms of change. Therefore the researcher compiled notes on group interactions and group dynamics during sessions with the objective of assessing the effective implementation and outcomes of specific group therapeutic principles which served as the core of the therapeutic group processes, and also to monitor the effects of the CBT groups on nursing practices and the therapeutic milieu.

**Session 1: Understanding Depression**

Session one commenced with an overview of ground rules pertaining to the group sessions. The benefits of attending group therapy were also highlighted. Irrespective of the possible advantages posed by group therapy, patients were reserved during the initial stages of session 1. The content of session 1 focused on understanding depression in terms of symptoms and available treatment options. Biological medical treatment options and psychosocial interventions were explored within the session. Providing psycho-educational information related to symptoms of depression and the availability of appropriate treatment interventions represented important therapeutic factors significant to the therapeutic group process as described by Yalom & Leszcz (2005:9.). Imparting of information aimed at assisting patients to gain a better understanding of depression.

Providing psycho-educational information was followed by an overview of Beck's cognitive model of depression; also known as the negative cognitive triad of depression. A practical group exercise facilitated this process. During this exercise patients were asked to mention within the group context how they viewed themselves, their world as well as their future. Most patients reported a negative view of themselves, thus representing a low self-esteem. Patients further indicated feeling worthless, hopeless and doubtful about ever feeling better.

Cognitive behavioural therapy was introduced which relates to the theoretical framework as well as the treatment intervention of choice for the intervention. Patients were introduced to daily mood monitoring including the concept of functional and dysfunctional thought patterns. This aspect formed part of a homework assignment which led to leisure time being utilised in a more constructive, functional and therapeutic manner. Homework assignments aimed at re-enforcing the learning process and providing the opportunity to reflect back at newly acquired information and skills.

Patients were also orientated regarding the advantages of group therapy in general. The following benefits of group therapy has been well documented in literature: Learning new skills for example socialisation in a safe environment, supporting each other, patients also

became aware of other members' improvement, establishing support systems even after discharge etc. Some participants were able to identify specific advantages related to participation in group therapy. Patients initially appeared reluctant and seemed guarded during the first session. This could be attributed to feelings of anxiety experienced regarding group interaction. When requested to reflect back on their experience of group therapy, patients mentioned initially feeling anxious due to not being used to discussing personal issues in a group context.

Irrespective of being wary during the first session patients were able to relate to symptoms of depression as the group progressed. Patients realised that they were not the only ones experiencing depression and associated depressive symptoms and thus became more open. This aspect represents an important therapeutic principle related to the therapeutic group process of universality as described by Yalom & Leszcz (2005:6). Some examples of symptoms mentioned by patients included feelings of sadness, hopelessness, worthlessness as well as physical symptoms for example headache, fatigue etc.

These expressed feelings of hopelessness and worthlessness relates back to Beck's cognitive model of depression, also known as the negative cognitive triad. According to this model people with depression have a negative view of themselves, their world and their future. Worthlessness represents a negative view of the self, whilst hopelessness relates to a negative view pertaining to future expectations. One participant very early on identified supportive protective factors which assisted in coping with depression and gave meaning to her life. The aspect of mastery and meaning were addressed as the core of session 7.

Towards the end of session 1 some patients managed to express a slight increase in feelings of hope and future expectations. This could be ascribed to realising that they were not alone; the availability of effective treatment as well as seeing patients admitted prior to them already showing improvement. Therefore, confirming group therapy as an important therapeutic tool in the installation of hope.

**Session 2: Socialisation of Cognitive Behavioural Therapy (CBT) Model**

The purpose of session 2 was to socialise patients with regards to the theoretical model underpinning cognitive behavioural therapy. This session in particular aimed at instilling a better understanding of the relationship between thoughts, emotions and behaviour as related to depression. Patients were introduced and familiarised to the A – B – C model of emotional reactions. This aspect was complimented with a practical group exercise. It provided patients with the opportunity to explore how different people had different perceptions (thoughts), experienced different emotional responses and reacted differently to the very same scenario (activating agent).

During this session some patients managed to express emotional experiences with ease, whilst some still remained slightly guarded especially when discussing perceptions and inner thoughts. Some patients even mentioned specific thought patterns which actually represented cognitive errors. Thus, the researcher could utilise the opportunity to observe specific thought patterns which played a significant role in emotional reactions and behavioural responses. These aspects could therefore be related to the session specifically dealing with cognitive errors (Session 4).

Group therapy sessions proved to provide mental health care professional nurses with an excellent opportunity to observe patients clinically pertaining to cognitive functioning, emotional responses as well as behavioural responses. For example: One patient was observed to have a sudden change in clinical symptoms. This patient initially presented with symptoms of depression as observed on admission and confirmed during session 1. However, during session 2 symptoms similar to symptoms of hypomania were observed. This was reported to the psychiatrist of the unit as well as other members of the multi-disciplinary team. The patient was referred for neurological assessment and organic pathology was identified. Thus, professional mental health care nurses were able to provide valuable clinical information to the multi-disciplinary team and clinical management of the patient could be adjusted appropriately and accordingly.

**Session 3: It's all about Thoughts (How Thoughts Affect My Mood)**

Session 3 focussed specifically on how thoughts affect the mood of patients. During this session Beck's cognitive model of depression were explored. Depressive thoughts versus non-depressed thoughts were discussed as related to emotional experiences. Discussions on different styles of thinking were included in this session and patients were guided to identify their own styles of thinking. Patients had to utilise a worksheet related to self-labelling – My bad thoughts in order to identify dysfunctional styles of thinking.

The majority of patients were able to identify thoughts related to how they viewed themselves, their world and their future. Interestingly, patients were more open during this session and managed to challenge each other's thoughts within the group setting in a non-threatening manner. It was obvious during this session that a therapeutic relationship between patients, professional mental health care nurses and the facilitator had been established. This was based on mutual trust between patients and the nursing staff as well as amongst the patients themselves.

The process of therapeutic change was also introduced during this session. The principle of change represents a core principle in Beck's cognitive theory of depression. According to this principle change in one domain will introduce change in another domain. This implied that by changing a person's thoughts regarding themselves, their world and their future will lead to change related to emotional experiences and behavioural responses. The possibility of change fostered hope within the group, which is an important factor in the management of depression.

Information processing pertaining to the self, the world and the future were discussed. The concepts of cognitive structures, schemas, assumptions and automatic thoughts were introduced and further explored. Patients had to identify their own individual automatic thoughts. Examples of adaptive and maladaptive schemas had also been explored within the group.

Notably, one patient returning from a therapeutic weekend leave reported that she managed to practise some of the skills acquired during group therapy at home. The patient verbalised that she previously viewed herself as a bad mother and felt guilty when not taking responsibility for her already adult children. However, by session 3 she was able to identify

dysfunctional thoughts related to this, as well as resulting emotional experiences and associated behavioural responses. According to the patient she was able to restructure her thoughts to a more functional stance which resulted in a decrease of guilt feelings. She subsequently also refrained from taking full responsibility for the actions of adult children. Thus, change occurred pertaining to emotional experiences as well as behavioural responses.

During this session daily mood monitoring charts of patients showed an improvement in mood. Patients' functional thoughts also increased and patients were able to identify the link between improved mood and adapted functional thought patterns.

**Session 4: Cognitive Errors (Mistakes in Thinking)/ Challenging Unhelpful Thoughts**

During session 4 cognitive errors were discussed in-depth. The following cognitive errors were explored: Catastrophizing, overgeneralization, mental filtering, minimisation, black and white thinking, emotional reasoning, jumping to conclusions, labelling, should or musts, mind reading, personalising and blaming. This was followed by a practical group exercise during which patients had to mention practical examples of their own individual cognitive errors. Patients also had to complete a homework assignment related to this aspect.

Complimentary to session 4 was the A – B – C – D model: A (activating agent) – B (belief) – C (consequence) – D (disputing the thoughts). This model introduced the principles of cognitive restructuring. Cognitive restructuring had been practised within the group by means of a practical exercise. This was followed by exploring additional strategies for example, thought stopping which could assist patients in decreasing dysfunctional thoughts.

During this session group cohesion was evident and patients managed to verbalise practical examples. Patients were also able to identify cognitive errors as observed in each other and managed to assist each other in restructuring of these thoughts.

After concluding this session, professional mental health care nurses remarked that observing patients and participation in group sessions contributed to their development on a professional as well as personal level. The concepts of cognitive errors and cognitive structures (schemas, assumptions and automatic thoughts) were new to the nursing staff. More than one professional mental health care nurse mentioned applying the principles of cognitive behavioural therapy in their own lives.

Professional mental health care nurses were also able to report important information obtained from group sessions to members of the multi-disciplinary team. These observations included for example, specific symptoms related to emotional and behavioural responses. Professional nurses could also report on the clinical improvement of patients. In addition, members of the multi-disciplinary team reported patients grasped therapeutic principles easier and this was probably the result of attending group therapy.

In summary the first 4 sessions orientated patients to the cognitive approach of cognitive behavioural therapy when dealing with depression.

The first 4 sessions of the nurse-led cognitive behavioural group therapy programme were followed by sessions focussing on the behavioural approach of cognitive behavioural therapy as related to depression.

**Session 5: Behaviour and Depression**

Session 5 specifically focused on behavioural responses related to depression. The following 5 links of depression were explored and discussed as a vicious circle: Altered thinking; altered emotions; altered physical feelings and altered behaviour. Patients had to provide examples of altered physical feelings as well as altered behavioural responses. Altered behaviour included referring to two components, decrease in activity level as well as engaging in harmful behaviour (self-sabotage). During this session patients initially seemed at ease with discussing the concept of a decrease in activity level and could identify their previous level of activity compared to their level of activity whilst experiencing depression.

Session 5 was facilitated with a group activity during which patients had to identify harmful behavioural responses. The impact of engaging in harmful behaviour was further explored. However, when discussing harmful behaviour patients once again became guarded. One patient for example, mentioned in retrospect that it was extremely difficult to confide and mention within the group that she attempted suicide by cutting her wrists, although she actually felt better when she realised that she was not being judged by the other members. Another patient shared the devastating effect of an interrupted suicide attempt. Discussing harmful behaviour within the group proved to have positive outcomes. When one patient shared that she had resorted to substances whilst feeling depressed, it led to another user also admitting to substance abuse. However, this patient did not share this with any other team member and provided the opportunity to treat patient appropriately.

This session was concluded by giving a homework assignment related to harmful behaviour (How do I sabotage myself?). Patients had to make a list of the things they stopped doing as an introduction to session 6 which addressed behavioural activation.

**Session 6: Behavioural Activation**

Session 6 gave a brief overview on dysfunctional behavioural responses and patterns. Patients had been introduced to the principles of behavioural activation. The following components of behavioural activation were discussed: Important functional areas of everyday life, engaging in pleasurable activities and socialising with others. This was linked with activity monitoring. Patients were provided with an activity log worksheet and had to monitor their daily activities accordingly. The purpose of this exercise was for patients to assess the amount of time they spend on constructive activities and how much time and energy was actually spend on dysfunctional activities.

Activity monitoring was followed by a discussion on activity scheduling. The aim was to assist patients in reactivating their lives whilst still being admitted in the unit. In addition, the benefits of engaging in pleasurable activities were explored. Patients had to list at least one functional necessary activity such as feeding the fish. Thereafter, patients had to list at least one pleasurable activity which they stopped doing and had to commit themselves to reactivate this specific activity for example, reading, gardening, etc.

During this session patients were introduced to the adapted daily mood monitoring chart and were asked to record their mood, thought patterns and behavioural activities as a homework assignment. Session 6 was followed by session 7 which focused on mastery and meaning in patients' lives. Patients managed this aspect of group therapy effectively and were able to relate to the principles of behavioural activation including the importance of engaging in pleasurable activities. Interestingly, some patients reported realising that they will have to take responsibility for reactivating their lives.

**Session 7: Mastery and Meaning**

Whilst session 6 largely focused on activity monitoring and scheduling, this session focused on taking charge of your life. The core of this session centred on three specific aspects of behavioural activation, namely pleasure, mastery and meaning. Pleasure was yet again highlighted as an important factor in emotional wellbeing. Patients were also made aware of the importance of the need to experience a sense of achievement, fulfilment and belonging. This was followed by a practical group exercise during which patients had to identify important areas of mastery being neglected whilst being depressed. Patients were provided with a personal mastery card (to-do-list), indicating at least two activities of mastery which they had to commit to.

Patients were reminded that depression involves and influences the following important areas: thoughts, emotions, physical feelings, actions and physical functioning. These components are interrelated and therefore change in one area will result to change in another area. The purpose of re-enforcing this principle was to instil feelings of hope.

The discussion on mastery was followed by exploring meaning in patients' lives. Patients were made aware that all people have certain values and a unique manner in which they interpret their lives as being meaningful. Possible examples of meaningful areas were explored and patients were asked to identify meaningful areas in their own lives.

The value of group therapy was evident during this session, since patients could assist each other in identifying specific areas of mastery and meaning. One patient for example, was reminded that he previously conducted voluntary work at his church and mentioned feeling less worthless after the others acknowledge his contribution to society.

Session 7 was concluded with a discussion on the importance of acknowledging emotional distress and pain, in a constructive manner. In addition, painful situations and personal losses formed part of the group discussions. Validation of feelings was facilitated by utilising a mood board – How do I feel today. This was followed by discussing positive coping mechanisms and patients had to indicate these strategies on activity cards which included behavioural as well as cognitive aspects.

Patients subsequently explored the positive aspects in their lives. This was accommodated by means of activity cards – Counting my blessings. Patients managed to participate actively and some patients once again assisted each other in this regard. However, in retrospect this session utilised a large number of activity cards, leading to the session being too compact.

This session included further exploration on the benefits of reactivation.

**Session 8: Hopelessness, Unhelpful Thinking / Behaviour and Suicide**

Session 8 focused on hopelessness, dysfunctional thoughts, dysfunctional behaviour and suicide. It was specifically included in the programme due to the fact that suicide increases the mortality risk in depression and aimed to provide patients with the necessary skill to counteract suicidal ideation and self-destructive behaviour.

Patients had to explore the concepts of suicidal ideation and behaviour, relating back to Beck's cognitive model of depression. Suicidal ideation and behaviour were explored on the basis of Beck's negative cognitive triad. Depressed patients usually have a negative view of the self, their environment and their future. Hopelessness specifically revolves around a negative view of the future. The way in which patients viewed their future represented an important link with future expectations and hope. A negative view of the self on the other hand often resulted in feelings of worthlessness and inadequateness.

Patients experiencing suicidal ideation tend to have specific dysfunctional thoughts patterns. Negative automatic thoughts included for example 'I'm unlovable". When exploring suicidal ideation specific cognitive errors were highlighted in the group. Black and white thinking, for example, thinking that the circumstances in life were disastrous seemed to negatively impact future expectations and hope. Fortune telling and catastrophizing further resulted in severe feelings of misery and distress.

Patients had to identify specific triggers involved in suicidal ideation and suicidal behaviour. The content of this session represented sensitive information and some patients verbalised it being difficult to discuss these aspects within the group. However, the patients managed to participate and one patient specifically made a valuable contribution by mentioning the devastating effects of attempted suicide on her life. This patient previously attempted suicide which resulted in having cognitive impairment and shared the impact thereof on her life.

After identifying personal triggers, patients had to explore safeguarding their environment. Discussions on additional therapeutic techniques that could assist patients when experiencing suicidal ideation and urges, were included. It entailed Socratic questioning which could be used in challenging specific thoughts and perceptions. Others included distracting techniques and soothing techniques. In conclusion, patients had to compile their own personal safety plan.

During this session patients were provided with the opportunity to analyse specific thoughts and behaviour patterns pertaining to suicidal ideation and suicidal behaviour. This session aimed to empower patients to act proactively when experiencing suicidal ideation and urges to engage in suicidal behaviour.

**Session 9: Bringing it all Together …… Planning for the Future**

Session 9 included an overview of the principles of cognitive behavioural therapy. Beck's cognitive model of depression was reviewed and patients had to reflect back on the negative cognitive triad of depression. This aspect was addressed in a practical group exercise and patients had to indicate in a worksheet how they viewed themselves, their world and their future at this point in time compared to the first session. Patients also had to reflect back on what was different compared to previously. Patients reported viewing themselves in a more positive manner and expressed hope pertaining to future expectations. Group members however reflected that they will have to continue to implement the new acquired skill in order maintain emotional wellbeing.

Relapse prevention were also addressed and possible relapse triggers explored. Patients also had to list appropriate skills which could assist them when feeling vulnerable. This was followed by a discussion on early warnings signs which could indicate possible relapse. The aim of this session was to prepare patients for discharge. Thus patients had to compile a relapse prevention plan which could assist them when feeling overwhelmed. Previously discharge planning in the unit only entailed scheduling a follow-up appointment and providing medication for a specific period after discharge. During this session the researcher in collaboration with the professional mental health care nurses identified that this session should feature as part of the formal discharge plan in the unit.

This session was concluded by completing a worksheet allowing patients to reflect back on their process of change in experiencing emotional wellbeing. Patients were also provided with the opportunity to express their experience regarding participation in nurse-led cognitive behavioural group therapy.

**PATIENTS' EXPERIENCE OF NURSE-LED COGNITIVE BEHAVIOURAL THERAPY**

The following information was obtained with regards to patients' experience of nurse-led CBT group therapy.

Group therapy assisted the patients in gaining a better understanding of depression and the available treatment interventions. This aspect represented the provisioning of educational information. The goal of imparting information was to eliminate any misconceptions pertaining to mental health illness as well as treatment interventions. This aspect fostered hope and patients realised that help is available. Patients reported experiencing disclosure of personal distress within the group as quite difficult. However, participation in group therapy made them realise that they were not alone. Patients actually felt relief when others reported similar problems regarding life experiences. Patients became more open in disclosing information when they realised that other members of the group experienced similar symptoms. Patients thus experienced a sense of universality.

Group therapy sessions were designed to accommodate the acute admission setting and therefore the intervention made use of open group format. Different patients joined the group therapy at different times. The implication thereof was that new patients with severe levels of depression were allowed to observe fellow patients describing their feelings on admission compared to after having participated in a certain amount of nurse-led CBT group

sessions. This experience induced a sense of hope. According to literature hope is an important therapeutic factor in the process of change (Yalom & Leszcz, 2005:4). Experiencing a sense of hope is also important in maintaining emotional wellbeing.

Although the intervention did not address anxiety as such, group sessions assisted patients with this aspect. One patient for example, mentioned experiencing social anxiety and participation in the sessions assisted her with addressing this problem in a safe therapeutic environment. Participation in group therapy also provided an opportunity to observe how perceptions, thoughts, affective responses and behavioural responses differ from person to person. One patient stated that she felt irritated when another patient complained about physical symptoms. In group therapy group members will eventually act in the manner in which they react in society and in their family. Group members in this case made the patient aware that they experience her lack of empathy with others as distressing. This was addressed in the group context whilst being facilitated by the group leader. Group sessions therefore also assisted in the recapitulation of the primary family group (Yalom & Leszcz, 2005:15).

Most patients with depression admitted to the unit described intense feelings of worthlessness. Participation in group sessions made them realise that they can make valuable contributions to other members of the group. This process is descriptive of the therapeutic factor altruism, as described by Yalom & Leszcz, (2005:13). According to these authors human beings have a deep sense of receiving through the process of giving. Realising that they are important to others and that they can help others improved the self-esteem of patients.

Patients reported that the most difficult aspect of group therapy was discussing intimate information in the group. They found it especially difficult to discuss self-destructive behaviour. However, realising that other patients sometimes resorted to the same kind of behaviour helped and not being judged helped with feeling less guilty.

# APPENDIX J

- **STANDARD NURSING PROGRAMME**

| DAYS: | TREATMENT INTERVENTIONS: | ALLOCATED TIMEFRAMES: | TEAM MEMBER/S INVOLVED: |
|---|---|---|---|
| MONDAY till Friday | Bathing & hygiene | 07:00 (1hr) | PMHCN |
| | Medication | 08:00 (45min/session)<br>13:45<br>21:00 | PMHCN |
| | Occupational therapy | 09:00 till 10:00<br>14:00 till 15:00 (excluding Wednesdays & Fridays) | Occupational therapist |
| | Recreational activities | Adhoc (not scheduled formally) | PMHCN |
| | Dr's rounds | 10:00 till 12:00 | Registrar Psychiatrist |
| | Individual psychotherapy | 10:00 till 12:00<br>13:00 till 14:00 | Psychologist interns |
| | Recreational activities | Adhoc (not scheduled formally) | PMHCN |
| | Physiotherapy | 14:00 till 15:00 (Wednesdays only) | Physiotherapist (on referral base) |
| | Social work interventions | In between | On referral base only |
| | Nursing care assessments / Nursing care progress writing / counselling. | 1hr : 16:30 till 17:30<br>1hr | PMHCN |
| WEEK-ENDS | (No structured programme) | | |
| NOTE: | Times not indicated in the abovementioned table are utilized for additional daily activities of living, recreational activities facilitated by MHPNs' or structured by the patient him/herself. | | |

# APPENDIX K

- **PLAGIARISM DECLARATION**

**Postgraduate Office, Faculty of Health Sciences**

Wits Medical School, 7 York Road, PARKTOWN, 2193, Johannesburg • Tel: (011) 717 2745 • Fax: (011) 717 2119 • e-mail: healthpg@health.wits.ac.za

PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I Hestamelia Petronella Visagie (Student number: 1002184) am a student registered for the degree of MSc Nursing in the academic year 2014.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this in not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature: _____ Date: 15/8/14

HMP Visagie

# APPENDIX L

- **TURN-IT-IN REPORT**

HesterVisagieturnitin.docx

*by* Hester Visagie

| | | | |
|---|---|---|---|
| FILE | HESTER_VISAGIE_1002184_HESTERVISAGIETURNITIN.DOCX (379.24K) | | |
| TIME SUBMITTED | 14-MAR-2017 08:03AM | WORD COUNT | 31666 |
| SUBMISSION ID | 783903633 | CHARACTER COUNT | 192175 |

HesterVisagieturnitin.docx

ORIGINALITY REPORT

| %14 | %10 | %4 | %7 |
|---|---|---|---|
| SIMILARITY INDEX | INTERNET SOURCES | PUBLICATIONS | STUDENT PAPERS |

PRIMARY SOURCES

| | | |
|---|---|---|
| 1 | Submitted to University of Witwatersrand<br>Student Paper | %3 |
| 2 | ujdigispace.uj.ac.za<br>Internet Source | %1 |
| 3 | uir.unisa.ac.za<br>Internet Source | %1 |
| 4 | dspace.nwu.ac.za<br>Internet Source | <%1 |
| 5 | wiredspace.wits.ac.za<br>Internet Source | <%1 |
| 6 | pirun.ku.ac.th<br>Internet Source | <%1 |
| 7 | Gandhi, Smiti. "Faculty-Librarian Collaboration to Assess the Effectiveness of a Five-Session Library Instruction Model", Community & Junior College Libraries, 2005.<br>Publication | <%1 |
| 8 | espace.curtin.edu.au<br>Internet Source | <%1 |
| 9 | psychiatryonline.org | |