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The effective use of dialectical behavioural therapy skills by patients post discharge

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CHAPTER ONE

OVERVIEW

1. INTRODUCTION

Dialectical behavioural therapy (DBT) is a psychosocial treatment that targets maladaptive and destructive behaviours which some people exhibit and which puts them at risk of both psychological and physical harm (Quinn, 2009). It is hypothesised that such self destructive behaviours occur due to intense emotional disturbances (Linehan, 1993). Dialectical Behavioural Therapy (DBT), a form of cognitive behavioural therapy, is an intervention developed specifically to help patients who experience difficulty coping with their emotions, managing their maladaptive responses to situations and exhibit this difficulty in the form of disruptive behaviour, tumultuous interpersonal relationships and a propensity to repeatedly engage in very stressful situations.

Borderline personality disorder (BPD) is a complex disorder that is difficult to treat (O'Connell, 2013). This study aims to assess the continued effectiveness of an in-patient, modified group therapeutic treatment programme offered to patients diagnosed with this disorder who have subsequently been discharged from a psychiatric hospital in Johannesburg. The modified in-patient programme is offered over a period of five weeks in a series of closed groups. Patients who have been discharged and remained out of hospital for a minimum of three months will be invited to participate in the study which will assess whether they are using the skills and techniques gained in the programme and whether they consider the coping measures effective.

1.2 BACKGROUND

People learn to recognise different behaviour and to predict how others are likely to behave in certain situations and we learn how to respond to others to get the best out of themselves and ourselves. In our minds we establish a wide spectrum of

behaviour. Society also creates such a spectrum. Some people display such extreme behaviour that they are regarded as being outside this spectrum. (Pack et al, 2013). The International Classification of Mental and Behavioural Disorder (ICD10)defines personality disorder as severe disturbance in the characterlogical condition and behavioural tendencies of the individual, usually involving several areas of the personality and nearly always associated with considerable personal social disruption (Pack et al, 2013).

Personality disorder has been presented in three clusters according to the Diagnostic and Statistical Manual of Mental Disorders (DSM). This manual presents criteria for psychiatric disorder diagnoses which make up the Axis II on the multi axial diagnosis. Broad characteristics of personality disorders will be discussed briefly.

The personality disorders are grouped into three broad ‘clusters’ which are categorised according to the Diagnostic and Statistical Manual (version IV TR)..... Cluster A: the odd and eccentric presentation which is further divided into categories: 1) paranoid personality disorder which is highlighted by pervasive mistrust. 2) Schizoid personality disorder where the patient will show marked detachment from social establishment and 3) schizotypal personality disorder main presentation is odd behaviour (Cluster, 2013)

Cluster B: the dramatic, emotional and erratic cluster of personality disorders is comprises the sub-categories 1) antisocial personality disorder marked by violation of social norms. 2) The histrionic personality disorder is extremely provocative and overly dramatic and the 3) narcissistic personality disorder is highlighted by unreasonable self importance (Cluster, 2013). 4) Borderline personality disorder also forms part of the Cluster B Axis II personality disorder and is characterised by marked impulsive behaviour and unstable relationships amongst all the symptoms that will be discussed further in the chapter

Cluster C: persons in this group present as generally fearful and driven by anxiety. The person with an 1) avoidant personality disorder is extremely sensitive to the opinions of others. The 2) person exhibiting a dependant personality disorder is marked by extreme reliance on others. The person who is diagnosed as having an 3) obsessive compulsive disorder shows a fixation on doing things a certain way (Cluster, 2013)

1.2.1 Borderline Personality Disorder

Patients diagnosed with Borderline Personality (BPD) are known to be very difficult to manage. Patients diagnosed with this disorder present with marked fluctuations in mood, impulsive behaviour, periods of marked distress and anger. The Diagnostic and Statistical Manual (DSM) is an international psychiatric diagnostic manual and allows clinicians to assess and diagnose patients according to the symptoms presented against stipulated criteria (Kaplan & Saddock 2007). The criteria for borderline personality disorder are as follows:

- avoidance of real or imagined abandonment
- pattern of unstable relationships
- identity disturbances
- impulsivity
- recurrent suicidal behaviour, gestures, self mutilation
- affective instability
- chronic feelings of emptiness
- inappropriate intense anger
- transient stress-related paranoid ideations

(American Psychiatric Association (APA). 2013)

1.2.3 Therapeutic management of BPD

The mainstay treatment of BPD is psychotherapy. Currently, four comprehensive forms of psychotherapy have been found to be effective in treating those with BPD namely mentalization-based therapy (MBT), transference-focused-therapy (TFP), schema focused therapy (SFT) and dialectical behavioural therapy (DBT) (Hadjipavlou et al, 2010). Pharmacotherapy and behavioural management are interventions which are also used (Kaplan & Saddock, 2007). Dialectical Behavioural therapy is specifically aimed at assisting patients to manage their thoughts, feelings and behaviour and has been found to be effective in the long-term

management of the disorder to decrease readmission rates of patients after discharge. This form of therapy will be the focus for this study.

1.2.4 Dialectical Behavioural Therapy

DBT was initially developed by Marsha Linehan (Palmer, 2002) a clinical psychologist, to treat psychiatric patients with various symptoms but specifically those that meet the diagnostic criteria for borderline personality disorder.

The term ‘Dialectical’ in DBT refers to the inculcation of a broader way of thinking for patients to enable their viewing and managing thoughts, feelings and situations from different points of view so as to achieve a balanced thought process and more functional means of managing distress. DBT also uses principles derived from Zen Buddhism to encourage the reconciliation of opposite mind sets (Palmer 2002). The key concept of mindfulness is emphasised. There have been trials which explore the use of DBT for other psychiatric disorders (Dimeff et al.2006), however, few studies have investigated whether the skills learned are sustained by patients after discharge once they have completed the programme. Recently, a measurement tool, the “DBT coping skills scale” (Neacsiu et al, 2010) has been developed to evaluate the effectiveness of Dialectical behavioural therapy. This instrument will be used, with permission, in this study.

DBT is typically comprised of four components, these are: individual sessions, skilled group sessions, regular contact with the patient and consultation sessions amongst the treating team. The original form of DBT was delivered as an out-patient programme delivered to patients over one year. The patients are assessed by a team to ensure that they comply with the required criteria set according to the institution. The selected patients then attend weekly training groups for two and a half hours. The group is typically facilitated by 2 skilled therapists.

The programme is delivered in four skill modules that are delivered to the patients in the closed groups. The core module of DBT is that of core mindfulness which focuses on the patients achieving the balance between opposite ‘minds’ existing within the general population - the emotional mind and the rational mind. Distress tolerance forms another module that focuses on bearing pain skilfully. Emotional

regulation is the third module; this entails managing emotions and being aware of the purpose of all emotions. The last module tackles interpersonal relationships and introduces independent coping skills to achieve healthy relationships with self and others by managing personal reactions to others rather than attempting to alter others' behaviour. DBT requires a high level of commitment from both facilitators and patients and commitment is, therefore, highlighted in the skill manual. Goals, objectives and rules are set in the group by patients and facilitators to encourage group cohesiveness (Linehan, 2006).

DBT has been extensively tested in the clinical situation. From as far back as 18 years ago, Buie, Hollingsworth, Hickerson and Lawson (1993) found that the monthly para-suicide rate of patients with personality disorder was significantly lower after the implementation of DBT, reflecting their attainment of more adaptive coping mechanisms. Springer, Lohr, Buchtel and Silk (1996) found that inpatients exposed to just six sessions of DBT training exhibited demonstrable behaviour changes after an average admission of only 13 days.

According to the empirical literature, substance abuse disorders are commonly comorbid with psychiatric disorders including personality disorders and especially borderline personality disorder. In clinical samples, men with BPD outnumbered women with BPD with regard to presence of co morbid substance abuse (Sansone et al, 2011). Standard DBT can be effectively applied for BPD with co morbid substance abuse problems, as well as without substance abuse. It is proposed that rather than developing separate treatment programs for dual diagnosis patients, DBT should be multi targeted (Van Den Bosch et al, 2002). Therefore, patients with a dual diagnosis of BPD and substance abuse have been included in this study to assess if it affects the use of DBT skills. Another factor assessed in this study is the use by the discharged patient of follow up treatment offered after discharge. In previous studies, DBT compared to "treatment as usual", found that skills learned were retained at the completion of one year during one year of follow up. In one a clinical trial, subjects who had undergone DBT reported improved symptoms of functioning and employment performance (Linehan, et al 1993). Support offered or provided by the patient's family or in the form of continuing therapy is a factor that will also be

assessed. Evidence supports that those suitable patients who are open and have the ability to develop a positive working alliance with a therapist who skilfully demonstrates a well defined therapeutic method will achieve favourable results (Hoglen, 1999). The DBT components encourage individual therapy sessions as a form of support therefore, ongoing out-patient individual or group therapy will be assessed in the study as an influencing factor.

Seventy five percent (75%) of BPD patients are female (APA 2013). The gender of the patients in this study will also be required to assess whether gender has any effect on the DBT use of skills post discharge. Between the ages of thirty and forty, the majority of individuals with BPD attain greater stability in their relationships and vocational functioning. Follow up studies of individuals identified through outpatient mental health clinics indicate that after about 10 years, as many as half of the individuals no longer have a pattern of behaviour that meets BPD criteria. (APA, 2013). Therefore this study will look at the age of the participants and the effect of the participants' age on the continuing use of DBT skills learned.

BPD patients often find themselves admitted several times due to suicide attempts or for crisis intervention to address the patients' poor management of perceived crises in their life. Therefore, the study will include previous admission of the patient as a factor in order to assess if it influences the use of DBT skills post discharge.

1.2.5 The modified DBT programme practised in the study site programme

The study will be conducted in one psychiatric institution in a therapeutic unit which specialises in the treatment of personality disorders, the most common being BPD. However, patients with other personality disorders and adjustment disorders are also admitted for treatment. DBT is widely considered to be promising treatment for BPD (Verheul 2003). Interest in DBT as a treatment for personality disorder and not only BPD has increased dramatically. After initially designed for out patient treatment for suicide tendencies with BPD, DBT has been applied to a more diverse population including patients with co morbid substance abuse dependence and BPD, those admitted for inpatient treatment of BPD as well as patients who have been diagnosed as suffering from antisocial behaviour (both juveniles and adults) (Rizvi,

2001). This shows that DBT could be used and applied to different types of disorders and therefore a modified version is as effective as the standard DBT.

The 18 bedded unit has a multi-disciplinary team of psychiatric health care professionals. The multi-disciplinary team comprises of the consultant psychiatrist, psychologists, the nursing team, a social worker and an occupational therapist. Patients who are admitted to the specialist psychiatric hospital for help in managing their moods, behaviour and turbulent thoughts are assessed and admitted for an average stay of six weeks. The study will specifically research the skills used post discharge once the ex-patients have obtained the skills through the programme.

The original DBT programme has been modified to suit the short admission period. The groups are offered on a twice weekly basis over a five week period. Skills are introduced and practised which specifically help the members address their troubling anxiety, mood disturbances, anger and distress. Two trained therapists, one of whom is a professional psychiatric nurse, facilitate the groups. A level of commitment is required of the patient members. Goals and group norms are set and enforced by the members and, following each group, homework is set and all are required to practice the skills which have been introduced.

In the unit selected for the study, patients have expressed satisfaction with the programme, staff members have found the series of groups easy to administer but, once the patients are discharged, their continued use of the learned skills has not been assessed.

1.3 PROBLEM STATEMENT

A modified DBT programme comprised of ten sessions over a five week programme is offered to patients in the therapeutic unit to assist patients to manage disturbing moods and thoughts and to help them modify the self-destructive behaviour which often accompanies their turbulent thoughts and feelings. Despite therapists and patients expressing satisfaction with the outcome of the series of groups in which the programme is offered, the programme's continuing efficacy and the discharged patients' use of the skills learned has not been assessed after discharge.

1.4 SIGNIFICANCE OF THE STUDY

Patients suffering from borderline personality disorder or other personality disorder often feel as though there is no meaning to their lives. Dialectical behavioural therapy, although recently developed, has been considered to be an effective management tool for this challenging disorder. The aim of dialectical behavioural therapy is to initiate more effective coping skills to help patients deal with obstacles in life. The modified dialectical therapy programme has been adapted from the original dialectical behavioural therapy in order to treat patients in different settings (Rizvi, 2001). An inpatient setting has been useful in many areas of treating a patient with borderline personality disorder or personality disorder. The structure and available nursing staff offer a sense of a therapeutic environment for the patient to practice the skills. The skills introduced to the patient during their stay in the programme should serve as long term tools and reflect positive results in utilizing DBT skills once the patient has been discharged. The modified programme should also serve as means of managing their emotions for the patients with these disorders once discharged. The significance of the study is then to assess if the programme is effective in rendering the skills as well as enabling patient to use to skills learnt after discharge. The study could also highlight any improvements that should be made to the programme to enhance DBT research.

1.5 OPERATIONAL DEFINITIONS

Borderline Personality Disorder (BPD)

Borderline Personality Disorder (BPD) is a pervasive pattern of instability of interpersonal relationships, self image, and affects, marked by impulsivity that begins by early adulthood and is present in a variety of context. (APA, 2013)

Dialectical Behavioural Therapy

DBT is a comprehensive, evidence- based treatment for borderline personality disorder (Chapman, 2006). DBT is based on a biosocial theory that views parasuicide as problem-solving behavior used to cope with or ameliorate psychic

distress brought on by negative environmental events, self-generated dysfunctional behaviors, and individual temperamental characteristics. (Ogrodniczuk,2010)

Modified Dialectical Behavioural Therapy

Modified DBT is an adapted version of the standard DBT that was first formulated by Marsha Linehan. For the purpose of this study the version is presented in a shorter time as indicated by the original DBT but the content remains the same. DBT has evolved into a treatment for multi disorder individual with BPD. DBT has since been adapted for seemingly intractable behaviour involving emotional dysregulation and including substance misuse in individuals with BPD (Linehan et al, 1999, 2000)

1.6 RESEARCH QUESTION

Are skills acquired (core mindfulness, distress tolerance, emotional regulation and interpersonal relationships) during an in-patient modified DBT programme able to be used effectively by patients after discharge from the hospital?

1.7 PURPOSE/AIM

The aim of the study was to determine whether discharged patients are able to use the skills learned in a modified in-patient DBT programme after discharge and whether they consider these effective in managing their thoughts, feelings, behaviour and interpersonal relationships. The skills used by ex-patients should serve to justify the current programme or indicate that adjustments need to be made to the content, process or method of delivery of the existing modified DBT programme. Recommendations will be made if the programme requires adjusting in any way. The demographic factors that could potentially influence the study such as age, gender, support groups, adequate support structures and substance abuse will also be assessed. The reason for the demographic factors to be considered is to assess if the is any significance between the use of the DBT skills and these factors. It also assesses if these factors affect the use of DBT skills; for example, if adequate support offered to and accepted by participants affects the use of DBT skills.

1.8 OBJECTIVES

To distribute a self-administered Likert type questionnaire, the “DBT Coping Skills Scale”(Nesacsiu et al, 2010) to ex-patients to elicit whether they are able to use the skills learned in the programme after discharge.

To assess their use of the skills learned to manage their thoughts, feelings, behaviour and successfully engage in interpersonal relationships.

To assess the ex-patients’ demographic details in order to evaluate whether the use of skills is affected by factors such as age, gender, number of previous admissions, use of substances, attendance at follow up facilities, support resources (groups, family, substance abuse groups) and employment.

To make recommendations regarding the content or delivery of the programme and to consider if any improvements should be made to promote the use of DBT skills.

1.9 RESEARCH METHOD

A prospective, quantitative, descriptive approach (Burns & Grove 2009.237) was used. A Likert style questionnaire was distributed to ex in-patients who have participated in the modified DBT programme to elicit their rating of the effective use of DBT skills post discharge.

1.9.1 Population and sample

All ex-patients who had successfully completed 10 sessions of DBT in the previous year were considered for enrolment in the study. Over the time frame of the year January 2011 to December 2011, sixty patients were admitted. This number was established using the discharge details from the specific ward administration books. The unit’s admission register was used to identify the potential participants. The researcher approached all patients identified who returned for follow up

appointments. A total sample of at least sixty patients for the study was envisaged and forty six participants responded. Inclusion criteria were set as:

> Male and female ex-patients, aged 18 to 65 years of age, who have successfully completed the unit's modified DBT programme, have been discharged for a minimum of 3 months without requiring re-admission to the unit and who, after being fully informed about the study, volunteer to participate were enrolled. Patients were required to speak, read and write English in order to complete the questionnaire.

Potential participants were contacted telephonically using contact details in the unit's register or approached and invited to participate when follow up appointments were due or when they attended the voluntary supportive groups held in the day programme offered by the hospital. Non-participation or withdrawal had no consequences for the person or their treatment regimen. Posting of a blank or cancelled Likert scale in the collection box was the only indication of a person withdrawing from the study.

1.9.2 Instrument

The instrument, "The Dialectical Behaviour Therapy Ways of Coping Checklist" developed by the developers of the DBT programme, was used with permission. Fifty nine short questions interrogate the use of skills taught in the DBT groups over the previous month using a Likert scale with scores ranging from 0 (never used) to 3 (regularly used). The checklist has been assessed as possessing good psychometric properties in evaluating the type of coping mechanisms used by patients and whether they are effective. The instrument has been validated and the reliability established (Chronbach's Alpha range 0.92 – 0.96) (Neacsiu et al,2010). Permission to use the scale was obtained via email correspondence with the author, Neacsiu who was involved in developing the scale.

A demographic questionnaire was included requesting that participants provide details of their age, gender, ethnic group, language preference and their use of substances (alcohol, street or prescription drugs). No identifying details were required.

1.10 VALIDITY AND RELIABILITY

Validity of an instrument determines the extent to which it actually reflects the abstract construct being examined (Burns and Grove, 2009). This was maintained while collecting data by using a instrument that has good psychometric properties. A pilot study was carried out to ensure participants from the main study would understand the questionnaire. Patient participation was voluntary and anonymity ensured. A statistician was consulted during data analysis.

Reliability is a measure that denotes the consistency of measures obtained in the use of a particular instrument and indicates the extent of random error in the measurement method (Burns and Grove 2009). This was ensured by using the same self administered questionnaire for all participants. Accuracy of the data was checked by a statistician

1.11 ETHICAL CONSIDERATIONS

Ethical research is essential to generate a sound evidence-based practice for nursing (Burns & Grove 2009). The following guidelines were considered

- Approval from Department of Nursing Education for permission to conduct the study.
- Application was made to Faculty Post Graduate Committee to request permission to conduct study and written approval received to continue with the study was obtained (Appendix D)
- Ethical approval obtained from the Human Research Ethics Committee (HREC) (Medical) of the University of the Witwatersrand (Appendix F)

- Approval from Hospital Management and Hospital Research and Ethics Committee for permission to conduct the study in the hospital was received (Appendix E)

- Information sheet was provided to the participants as a invitation to participate in the study with full knowledge of the study clearly stated on the information sheet (Appendix A)

- Voluntary participation was assured. Potential participants were told that they may decline participation on invitation, leave the posted instruments blank should they rather not participate and withdraw participation at any time prior to posting the anonymous questionnaire. Once posted, the instruments could not be withdrawn as this would jeopardise the anonymity and confidentiality of other participants.

- Informed consent was obtained from each patient in the form of a completed and posted questionnaire and rating scale. Incomplete/blank questionnaires implied that the person was unwilling to be included in the study

- Confidentiality and anonymity were maintained throughout study; no identifying information was required on the study instruments. All completed questionnaires were kept in a locked cupboard. Information entered into data sheets electronically for analysis was protected by a computer PIN number. Data will be destroyed two years after publication of the results.

- Permission was obtained for usage of the instrument. This was done via email with the author AD Neacsiu. (see Appenidix G).

1.12 LIMITATIONS

The study is only based in one psychiatric institution in the Johannesburg region of Gauteng; therefore the results cannot be generalized to all psychiatric institutions.

1.13 SUMMARY

A quantitative prospective study aimed at investigating the effectiveness of dialectical behavioural therapy by patients post discharge. Dialectical behavioural therapy being the most recent treatment for borderline personality disorder has been researched previously for its effectiveness but limited research for patients using the skills post discharge. The research made use of a dialectical ways of coping checklist, a valid instrument to measure DBT skills used by patients. Ethical considerations for the study have been discussed. The next chapter presents the literature review

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter gave an overview of the research study. A background to the study with an outline of the research methodology has been discussed.

This chapter will discuss the literature regarding the study as well as highlighting recent studies that may contribute to the significance to the study. The relationship between borderline personality disorder and dialectical behavioural therapy will be highlighted.

2.2 BORDERLINE PERSONALITY DISORDER

Living with borderline personality disorder is not easy. Intense emotional pain and feelings of emptiness, desperation, anger, hopelessness and loneliness are common. These symptoms can affect every part of a patient diagnosed with borderline personality disorder's life (Salters: 2013). Many clients describe these symptoms and sometimes find it difficult to identify their exact feelings.

Borderline personality disorder (BPD) was initially seen as a depressive disorder but due to it overlapping with so many other psychiatric diagnoses it lacked diagnostic precision (Biskin, 2012). This therefore led to difficultly in managing and treating this disorder. The term 'borderline' itself refers to an indefinite area intermediate between two qualities or conditions (English Dictionary: 2013). Adolf Stern first coined the term borderline in 1938 and used it to describe patients that did not fit into a standard classification in psychiatry at the time. There have been numerous definitions or suggestions for the diagnosis of borderline patient since 1938. It was only 1980 when the DSM-III was introduced that the term borderline personality disorder became an official diagnosis. In more recent times borderline personality disorder has become more defined with regards to diagnostic specifications. BPD is an Axis ii cluster B personality disorder according to the diagnostic and statistical manual of

mental disorders (DSM) criteria. Cluster B personality disorder refers to a personality disorder generally marked by erratic behaviour, emotional turmoil and dramatic impulsive behaviour. The DSM is a psychiatric classification system and makes use of stipulated criteria for each psychiatric condition. This allows clinicians to have a more definite diagnosis of the disorder and therefore a more specific management plan.

Borderline personality disorder is a disorder characterized by persistent and pervasive cognitive emotional and behavioural dysregulation and is among the most severe and perplexing behavioural disorders. BPD is a heterogeneous phenotype and results from a polythetic criterion set of which only five of the nine behavioural features are required for a diagnosis (Croswell et al, 2009). The criteria for borderline disorder according to American Psychiatric Association (2013) are:

a) Frantic efforts to avoid real or imagined abandonment.
b) A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation.
c) Identity disturbances : markedly and persistently unstable self image or sense of self
d) Impulsivity in at least two areas that are potentially self damaging
e) Recurrent suicidal behaviour, gestures or threats or self mutilating behaviour
f) Affective instability due to a marked reactivity in mood
g) Chronic feelings of emptiness
h) Intense anger
i) Paranoid ideations or severe dissociative symptoms

Although the above criteria are valid there have been new developments in the diagnostic criteria recently to allow the criteria to be specific (Grilo et al, 2009). The changes in DSM-5 mental disorders and health concerns of the prior classification system are the coded five separate areas or axes.

2.3 EPIDEMOLOGY OF BORDERLINE PERSONALITY DISORDER

With reference to the personality types being researched in this study, the DSM-IV-TR states that borderline PD is more likely to be seen in women (APA, 2000).

It is estimated that 1%-2% of the general population are affected and women account for 73% of the diagnosed. Ten percent (10%) of these treated as outpatients and 20% are inpatients (APA, 2000)

2.4 THE BIOSOCIAL THERORY OF BORDERLINE PERSONALITY DISORDER

Marsha Linehan states that the biosocial theory suggest that BPD is a disorder of self regulation, and particularly of emotional regulation, which results from biological irregularities combined with certain dysfunctional environments, as well as from their interaction and transactions over time (Palmer, 2002)

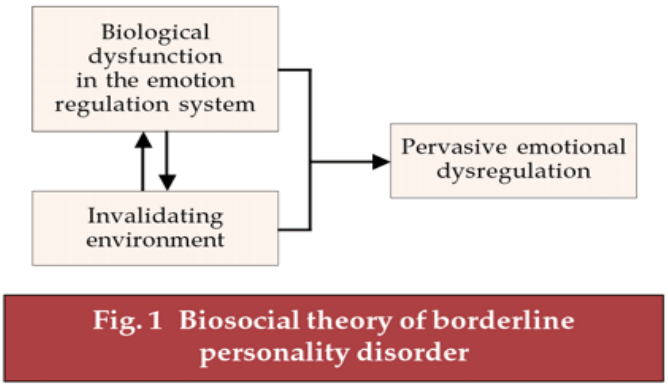

Fig. 1 Biosocial theory of borderline personality disorder

The Biosocial Theory of Borderline Personality Disorder, Fig 2.1 (Palmer, 2002)

The biosocial theory of BPD serves as representation on how the individuals diagnosed with the disorder might present. Many individuals diagnosed with the disorder describe some form of chaos in their current lives or in their past. Therefore the theory combines both the biological factors as well as current life circumstances experienced by the person in their environment. Marsha Linehan sees individuals with BPD as being “involuntarily in hell” and the role of dialectical behavioural therapy (DBT) is to help them to get out and stay out (Palmer, 2002). The theory

highlights how the inability to regulate emotions could lead to an unstable environment and how being in a invalidating environment could also contribute to a dysfunctional way of managing emotions. These interchangeable factors lead to a pattern of pervasive emotional dysregulation. Linehan's DBT principles address these patterns and present new interventions to manage challenges.

2.4.1 Factors associated with Borderline Personality Disorder

Findings provide empirical support for the hypothesis that BPD patients engage in fewer impulsive and suicidal behaviour as they age (Stepp et al, 2008). In this study, participants were required to state their age to determine any relationship between the use of DBT skills and age. Another factor noted by the researcher as a psychiatric nurse is the compliance with follow up treatment after discharge from the DBT programme. Linehan (1993) mentioned that there has been some benefit retained at follow up. In another clinical trial, patients who had attended a course of DBT tended to enter psychiatric units less often and had fewer inpatient days per client (Dimeff et al, 2000). This indicates that DBT skills can impact upon the number of admissions an individual with BPD will have and therefore it forms part of the demographic data questionnaire in this study. According to Leichsering et al (2011) with respect to the presence of co-morbid mental disorders, substance misuse was more frequently noted with male patients. Substance abuse and gender play a role in BPD and therefore questions regarding this phenomenon form part of the questionnaire in this study.

2.5 IMPACT OF BORDERLINE PERSONALITY DISORDER

The severity of BPD is perhaps best seen in the high mortality rate of the disorder. Approximately 10% of BPD patients eventually die by suicide. The suicide rate is much higher among the 36 to 65% of BPD individuals who have attempted suicide or otherwise injured themselves intentionally at least once in the past. Looking at the rate from the reverse angle, 12 to 33% of all individuals who die by suicide meet the criteria for BPD (Linehan, 2011). These behaviours have an impact on the health

services by placing strain on casualty emergency rooms and add to costly admission for every suicide attempt and self injured case.

2.5.1 Impact on the South African health system

The rate of suicide estimated amongst patients diagnosed with borderline personality disorder indicates the strain on the health system resources. Many patients have several suicide attempts annually leading to several admissions throughout the year. Worldwide, psychiatric illnesses will rise to be the number one cause of disability within the next 15 years, according to the World Health Organisation (WHO). (Xoliswa, 2000). Attempting suicide being one of the most common occurrences in patients with BPD, these statistics are relevant to the BPD patient. In South Africa, 150 000 people commit suicide every year, with the rate among children aged between 10 and 14 having more than doubled in the past15 years (Xoliswa 2000). Mental disorders have a significant negative social and economic impact on South African society. In the literature patients with borderline personality disorder often have a co-morbid diagnosis of substance abuse. The costs of alcohol abuse through health and medical expenses, lost productivity, violence and crime, are more than R5-billion each year (Xoliswa 2000). Literature on borderline personality disorder in South Africa is minimal.

2.5.2 Impact on the family

Borderline personality disorder patients have difficulty with interpersonal skills and this affects their ability to maintain relationships. Family members; spouses, parents and children are the first to experience the impact of the behaviour of a borderline personality disorder individual. It seems that mothers with BPD may engage in a greater number of negative parenting behaviours, which may increase their offspring's risk for psychopathology (Stepp et al, 2011). In studies of relatives of borderline personality disorder patients there were high levels of Axis II psychopathology including borderline personality disorder. Parents also display dysfunctional interpersonal patterns (Sonsane et al, 2009). Family members often

feel helpless while watching their loved ones with borderline personality disorder engage in self destructive behaviours. In addition to chronic stress of caring for a loved one with BPD many members of the family will experience very severe psychological trauma due to some of the high risk behaviour associated with BPD (Salters-Pednecult, 2010).

2.5.3 Impact on the patient

People with BPD often have difficulty in controlling their emotions and impulses and find it hard to keep relationships. They can experience feelings of emptiness, suffer quick mood changes in mood and they may harm themselves. All these things make it difficult for them to engage with any treatment they may be offered (Stoffers et al, 2013). These symptoms often interfere with their daily functioning if they excessive and therefore affect their employment, family relationships and ability to achieve future plans.

2.6 MANAGEMENT OF BORDERLINE PERSONALITY DISORDER

BPD is a complex psychiatric condition that has a history of being difficult to treat (Biskin,2012). There are several methods that have been introduced aimed at treating the disorder. Pharmacotherapy has been helpful in treating some of the manifestations of BPD in conjunction with a range of psychotherapy methods. Soloff (2000) concludes that pharmacotherapy effects, while clinically significant, are nonetheless modest in magnitude. The psychotherapy methods all focus on helping patients to adapt to alternative ways of behaving. The new wave of approaches to borderline personality disorder and personality disorders used in recent times has been to introduce several psychotherapies including cognitive behavioural therapy (CBT) and dialectical behavioural therapy (DBT) (Kahl, 2012). Cognitive behavioural therapy was developed to help patients understand the thoughts that influence behaviours. DBT, which integrates thoughts and feelings, is a form of CBT and both have been found to be effective (Kahl, 2012). While personality disorders do respond to treatment, it does not appear that any single approach or theory has a monopoly.

Instead many interventions are effective in changing at least some components of personality disorder. Another recent form of psychotherapy is schema therapy. Schema Therapy (ST) is an integrative therapeutic approach developed by Young that is primarily aimed at treating those who have entrenched interpersonal and self-identity difficulties associated with a diagnosis of personality disorder (Beckly, 2012). Mentalized based therapy by Peter Fongy is a principal-based psychodynamic therapy rooted in attachment and cognitive theory and has achieved a better outcome in several outcomes including suicidality and global functioning (Nelson, 2012).

2.7 CHALLENGES OF BPD

In South Africa, community and outpatient resources for individuals suffering from high levels of distress and trauma are limited. Mental health has over many decades acquired the unwelcome reputation of being a pariah or stepchild of the health services. This was partly because it was narrowly understood as psychiatric illness, an area of concern for only psychiatrists, psychiatric nurses, patients and their families (Joska, 2005).

The other challenge faced according to Grosjean (2012), is that a proper diagnosis guides the most effective treatment but there are difficulties and challenges with diagnosing personality disorders due to several similar clinical features. One of the enduring challenges in treating patients with borderline personality disorder is that only a minority have a straight forward clinical presentation with no co morbidity. BPD typically coexists with depression, anxiety and substance abuse; symptoms of these conditions may lead the clinician to miss the diagnosis of the disorder entirely (Biskin, 2013).

2.8 A CLOSER LOOK AT DIALECTICAL BEHAVIOURAL THERAPY

Dialectical behavioural therapy, developed in the 1970s by Marsha Linehan, has been used widely throughout several countries as an effective management tool for borderline personality disorder. Marsha Linehan developed DBT as a result of her

own transformation that occurred in 1967 (Borchard, 2011). She describes a moment while faced with challenges where she was able to communicate with herself and this left her feeling transformed. She then combined the core principles of cognitive behavioural therapy with the concept of radical acceptance. Radical acceptance aims to facilitate acceptance of change and motivate change as a part of life. Dialectical behavioural therapy empowers the patient to participate partake in their recovery. Dialectics, according to the theorist, is a complex concept that has its roots in philosophy and science. It involves several assumptions about the nature of reality: 1) Everything is connected to everything else; 2) change is constant and inevitable; 3) opposites can be integrated to form a closer approximating to the truth. These assumptions allow patients to challenge the mind and encourage different thought patterns in managing their challenges. It also enforces the radical acceptance (Nelson, 2012). DBT has been applied as a treatment for patients who exhibit a variety of symptoms of mental illness, who also, meet the diagnostic criteria for borderline personality disorder. DBT has shown to be effective through various clinical trials (Quinn, 2009). DBT has four components. Individual therapy sessions are offered twice a week with the patient's primary therapist, it also demands commitment in attending closed group sessions twice a week where skills are introduced to the patients. The team consultations allow all therapists to discuss the progress of each patient. Telephone contact between the individual sessions are also offered to patients to give patient help and support in applying the skills learnt that they learning to their real life situation between session.

There are four core principals of teaching DBT:

2.8.1 Mindfulness

The core principals of dialectical behavioural therapy are mindfulness, this incorporates the use of Zen philosophy to assist patients to be more aware of themselves and others. Buddist teaching of mindfulness starts with mindfulness of the body (Jha, 2013). Emotional dysregulation has been proposed as a hallmark of BPD. Mindfulness techniques taught in DBT appear to be effective in reducing

affective symptoms and may enhance emotional regulation in BPD patients (Soler et al 2013). They are seen as the core of the DBT skills and form a foundation for understanding DBT. Mindfulness involves being aware of the environment and the situation in order to ground oneself. The mindfulness skills aim to assist the user with using a balance between an emotional mind and a rational mind in order to archive a wise mind. Generally patients are overwhelmed by their emotions and attempt to manage these by using destructive coping mechanisms. Patients also tend to avoid emotions which are then replaced by actions such as self harm in order to make them feel better. Skills of observing and describing are taught which encourage clients to assess situations and interactions before a decision or action is made. This is particularly difficult for the patients because of their lack of impulse control.

2.8.2 Interpersonal skills

Teaching interpersonal skills forms another principal emphasised by Linehan whereby patients are introduced to new ways of managing relationships with self and others. The skill emphasises using appropriate communication to achieve a specific goal. It focuses on challenges with assertiveness and prioritizing needs and wants. Most patients find themselves in destructive relationships or find it difficult to maintain relationships. These skills aid in effective communication and assessing the reason for the relationship. It also helps the patient view themselves and their reactions to the relationship. Patients are often confused by their role in a relationship and therefore these skills help define their role.

2.6.3 Emotional Regulation

Emotion regulation has been conceptualized as a process by which individuals modify their emotional experiences, expressions and physiology and the situations eliciting such emotion in order to produce appropriate responses to ever changing demands posed by the environment (Aldo, 2013). This helps the patient to deal with the different emotion and practice acceptance of these overwhelming emotions.

2.8.4 Distress Tolerance

Distress tolerance is defined as the actual or perceived ability to withstand emotional distress (Tull, 2013). These skills are valuable in coping with overwhelming emotions and assist in regulating the emotions that appear unbearable. These are valuable to moderate the patient's impulsivity. This module aims to lower the intensity of the emotion without avoiding it.

2.9 MODIFIED DBT PROGRAM

Kroger et al (2004) have shown success in treating certain presenting elements of the borderline personality disorder using dialectical therapy treatment as an inpatient programme. A study to analyse DBT in treating college students with BPD using short term modified groups showed promise of effective use of the DBT skills by the students (Tavares, 2013). Eleven studies reported pre-post treatment symptoms related to BPD were evaluated. Studies indicated that many variance of the standard DBT have been used in inpatient setting including approaches that do not include phone consultation, that include group therapy only and that vary in treatment duration (Bloom, 2012) Most of these studies reported reduction in suicide ideations, self injury and symptoms of depression and anxiety, DBT may be effective in reducing symptoms related to BPD in inpatient setting (Bloom, 2012). There is also anecdotal evidence among practitioners that DBT works for many clients (C. Olenchek, 2008). DBT is a treatment that is well suited to address many of the common concerns adolescents experience and it has shown promise in treating psychological system and disorders (Ficrotto, 2012).

2.10 RECENT DEVELOPMENTS OF DBT

DBT is established as an evidence-based practice for the treatment of BPD and researchers are attempting to push the method into new directions. DBT has significantly out performed anti depressant medication in the reduction of depression symptoms among geriatric patients (DeVylder, 2010). Research into utilizing DBT skills for management of eating disorders is also expanding as well. One final

direction in DBT research comes from neuroscience, where researchers are now beginning to identify biological changes that result from behavioural treatments (DeVylder, 2010).

2.11 THE ROLE OF NURSING IN DBT

Nurses can effectively implement interventions using the concepts of DBT to help people with BPD build effective coping strategies and skilful behavioural responses for an improved quality of life (Osborn UL et al, 2006). There is substantial evidence that suggest that nurse's attitudes are most important therapeutic factors; mental health nurses need to provide care in a way that empower them, encouraged their achievements and instilled hope. Empowering therapeutic relationships with their clients, a recovery approach, communication and counselling skills and excellent mental and physical skills were most therapeutic skills for mental health nurses (Fisher 2011). Mental health nurses were found to promote incorporating evidence based psychological therapies in current practices (Fisher, 2011). Professional psychiatric nurses facilitating an inpatient DBT programmes have the advantage of observing the patient in the ward with regards to their interactions with others, managing their emotions and response to situations. The psychiatric nursing is a specialized area of nursing practice committed to promoting mental through the assessment, diagnosis, and treatment of human responses to mental health problems and psychiatric disorders. Psychiatric mental health nursing, a core mental health profession, employs a purposeful use of self as its art and a wide range of nursing, psychosocial, and neurobiological theories and research evidence as its science. (Psychiatric Mental Health Nursing, 2006) This allows the nurse to encourage the patients to use the DBT skills when challenges arise in an inpatient setting. The patient then receives adequate support due to the inpatient environment.

2.12 DISCHARGE PLANNING POST DBT PROGRAMME

The inpatient DBT programme provides clients with adequate support to adapt to the use of alternative methods of behaviour. It also aims at empowering these clients

with DBT skills in order to cope after discharge. Clients with borderline personality disorder or personality disorder generally need a discharge plan with follow up treatment that is structured between therapist and clients during the inpatient programme. This is to allow the client to adequately prepare for discharge. Support and regular follow up also play a vital role in ensuring that the in-patient DBT programme is successful post discharge.

2.13 SOUTH AFRICAN LITERTATURE

There is a lack of research conducted about DBT in South Africa. Most South African facilities make use of the DBT programme but limited academic research is available.

2.14 CONCLUSION

The literature review provides a background into past and recent studies of DBT. It is evident that borderline personality is difficult to treat and is a difficult disorder to manage as a patient. The significant findings suggest that DBT has become an effective method to the treatment of BPD. The modules of DBT training offer alternative methods of coping which are helpful to BPD and other disorders. The benefits of DBT as shown from the literature are significant in reducing a number of difficult circumstances. It has also proven to be useful for other disorders. The literature shows a great deal of modification to the original DBT to manage several disorders.

There are also minimal results that show the effective use of DBT post discharge and minimal research in South Africa. Although institutions are making use of the skills there is minimal results of the use of DBT published according to the research.

Therefore the researcher has found a significant gap in the literature that would be beneficial to South African research and research in general. The researcher noted that many institutions in South Africa use DBT, it will be valuable to investigate if the DBT skills acquired by patients while on an inpatient programme are being used effectively post discharge and show that patient cope well or struggle with the skills

post discharge. This could also serve as an indication or evaluation of certain treatment programmes offered by institutions in South Africa and therefore a point for further research.

2.15 SUMMARY

In this chapter the literature regarding borderline personality disorder was discussed and the treatment thereof but more specifically dialectical behavioural therapy. In the next chapter discuss the research design and methodology will be expanded upon.

CHAPTER THREE:

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In the previous chapter the literature regarding dialectical behavioural therapy and the history were discussed.

This chapter focuses on the research methodology It presents the study setting, sampling with sampling criteria and the research process. The data collection and instruments used are described as is the pilot study and ethical considerations taken into account.

3.2 PURPOSE/AIM

The aim of the study was to determine whether discharged patients are able to use the skills learned in a modified in-patient DBT programme after discharge and whether they consider these effective in managing their thoughts, feelings, behaviour and interpersonal relationships. The skills used by ex-patients should serve to justify the current programme or indicate that adjustments need to be made to the content, process or method of delivery of the existing modified DBT programme. Recommendations will be made if the programme requires adjusting in any way. The demographic factors that could potentially influence the study such as age, gender, attendance at support groups, adequate support structures and substance abuse will also be assessed. The reason for the demographic factors considered is to assess if the is any significance between the use of the DBT skills and these factors. In addition, the aim is to assess whether these factors affect the use of DBT skills for example if the adequate support by a participants affects the use of DBT skills

3.3 OBJECTIVES

To distribute a self-administered Likert type questionnaire, “DBT Coping Skills Scale” (Nesacsiu et al, 2010) to ex-patients to elicit whether they are able to use the skills learned in the programme after discharge.

To assess the use of the skills learned to manage their thoughts, feelings, behaviour and successfully engage in interpersonal relationships.

To assess the ex-patients' demographic details in order to evaluate whether the use of skills is affected by factors such as age, gender, number of previous admissions, use of substances, attendance at follow up facilities, resources which can be used for support (groups, family, substance abuse groups) and employment status.

To make recommendations on any improvements to the current DBT programme.

3.4 RESEARCH DESIGN

A prospective, quantitative, descriptive approach was used. A Likert style questionnaire was distributed to ex in-patients who had participated in the modified DBT programme to elicit their rating of the effective use of DBT skills post discharge.

3.4.1 Prospective design

A prospective design is an analytical study designed to determine the relationship between a condition and a characteristic shared by some members of a group. A prospective study involves many variables or only two, it may seek to demonstrate a relationship that is associated or one that is causal (Medical Dictionary, 2009). In this study the relationship between the use of DBT skills post discharge and the patients was determined as well as any other possible variables that could have a relationship to the use of DBT skills like demographic data.

3.4.2 Quantitative study

A quantitative research study is a formal, objective, systematic process in which numerical data are used to obtain information about the world. This research method is used to describe variables, examine relationships among variables and determine the cause and effect interactions (Burns and Grove 2009). In this study DBT skills and demographic data of the patient will be examined using numerical data.

This approach to the study allowed the researcher to collect data that could reflect the effectiveness of the DBT programme offered to the patients and could also have an indication if any improvements are needed to the nursing and clinical practice.

3.4.3 Descriptive design

This design is used to identify a phenomenon of interest, identify variables within the phenomenon, develop conceptual and operational definitions of and describe variables in a study situation (Burns and Grove, 2009.)

3.5 RESEARCH METHODOLOGY

This refers to the process or the plan for conducting the specific steps of the study (Burns and Grove 2009, 719)

3.5.1 Research Setting

The research site was an academic affiliated, specialist psychiatric hospital in Gauteng, South Africa. The hospital is a public hospital administered by the provincial authorities. The study focuses on one specific unit, a psychotherapy unit that can accommodate 18 patients. The unit offers a 6 to 8 week therapeutic programme comprising individual, family and group therapy interventions in a multi-disciplinary therapeutic milieu. During the period of the study, January 2011 to December 2011, 60 patients were admitted (Unit admission statistics).

3.5.2 Population and sample

All ex-patients from the unit in question who had successfully completed 10 sessions of DBT in the previous year were considered for enrolment in the study.

Over the time frame of the year January 2011 to December 2011, sixty patients were admitted. This number was established using the discharge details from the specific ward administration books. The unit's admission register was used to identify the

potential participants. The researcher approached all patients identified who returned for follow up appointments and those who could be reached telephonically. A total sample sixty ex-patients was initially envisaged. A total of forty six (46) was obtained for the study. The remaining number of patients that were initially envisaged for the study could not meet the inclusion criteria mainly due to not completing the complete programme. A number of the patients were untraceable with regards to contact details or follow up arrangements. Three possible candidates declined to participate and one patient died by suicide by using a drug overdose

Inclusion criteria were:

- Male and female ex-patients,
- 18 to 65 years of age,
- Successful completion of the unit's modified DBT programme, discharged for a minimum of 3 months without requiring re-admission to the unit and who, after being fully informed about the study, volunteered to participate
- Patients were required to speak, read and write English in order to complete the questionnaire.

3.6 DATA COLLECTION

3.6.1 Procedure

Permission was granted by the Hospital Chief Executive Officer and the Health Research Ethics Committee (Medical) of University of Witwatersrand (Appendix E). The researcher, who is currently working in the unit, had made the unit management and staff and the out-patients department staff aware of the study as these are the areas where patients would attend their follow up appointments. The researcher also introduced the study to all facilitators of the out-patient support group in the event of a potential participant attending one of the support groups. The follow up and support for the specific unit takes places every Wednesday when the researcher made herself available each week.

Potential participants were contacted telephonically using contact details in the unit's register or approached and invited to participate when they came for their follow up appointments. Patients meeting the inclusion criteria who attended the support groups were approached individually by researcher and invited to participate as this was a means of easy access to potential participants.

Participation was voluntary and withdrawal from the study was guaranteed at any time without their having to give an explanation. Non-participation or withdrawal had no consequences for the person or their treatment regimen. Posting of a blank or cancelled Likert scale in the collection box was the only indication of a person withdrawing from the study.

3.6.2 Validity and Reliability

Validity is the extent to which an instrument accurately reflects the abstracts constructs being examined (Burns and Grove 2009). This was maintained while collecting data by using an instrument that has good psychometric properties. Testing validity was done by testing internal consistency and validity of each item on the checklist. This was to ensure that it reflects what is being examined at any give time. A pilot study was carried out to ensure participants from the main study would understand the questionnaire. The pilot study comprised 8 patients who had meet the same inclusion criteria but were chosen from another time period being January 2012 to December 2012.Patient participation is voluntary and anonymity ensured where no identifying data was required. Demographic data sheet was also separated from checklist to promote anonymity and confidentiality A statistician was consulted during the planning stage and to assist with data analysis.

Reliabilty is a measure that denotes the consistency of measures obtained in the use of a particular instrument and indicates the extent of random error in the measurement method (Burns and Grove 2009). This was ensured by using the same self administered questionnaire for all participants. Accuracy of the data was checked by a statistician

3.6.3 Instrument

A two part questionnaire has been complied as an instrument for the study. It consists of a demographic data questionnaire and the DBT skills checklist. A demographic questionnaire requested that participants provide details of their age, gender, and their use of substances (alcohol, street or prescription drugs) as well as follow up attendance and support groups. No identifying details were required.

The instrument, "The Dialectical Behaviour Therapy Ways Of Coping Checklist" (Appendix B) developed by the authors and developers of the DBT programme, was used with permission. Fifty nine short questions interrogate the person's use of skills over the previous month using a Likert scale with scores ranging from 0 (never used) to 3 (regularly used) to assess the person's use of the knowledge and skills acquired. The checklist has been assessed as possessing good psychometric properties in evaluating the type of coping mechanisms used by patients and whether they are effective(Neacsiu et al,2010) The instrument's Chronbach's Alpha range has been established as ranging from 0.92 – 0.96 (Neacsiu et al,2010). The checklist has been developed to evaluate the use of the DBT skills and also highlight dysfunctional ways of coping used. The checklist of 59 questions itself is divided into three subscale that are not apparent to the patient on completion.

The checklist consist of the DBT subscale(DSS) of 38 items which evaluate direct use of DBT skills in situations which are considered challenging The dysfunctional coping subscale (DCS1)of 15 items which are used to challenge DBT skills. . The third subscale has 6 items which forms part of the dysfunctional measures (DCS 2) and highlights self blame techniques and defences used by patients. These scales have questions that are randomly placed on the checklist (to prevent participants identifying subscale items) and form part of the checklist of 59 questions.

3.6.4 Pilot Study

The questionnaire was administered to a small group of eight patients that had completed the same DBT programme in another time period and were discharged (identified in the same manner as the members of the sample) in order to evaluate

the instrument for clarity, ease of response and duration of administration. These patients were not included in the main study.

The pilot study highlighted clarity and also confirmed that patients were able to complete the questionnaire without any assistance. They completed the responses in less than 15 minutes.

3.7 DATA ANALYSIS

Data were cleaned and coded prior to analysis and then grouped to form categories for analysis purposes. Data captured from the Mx-exel spreadsheet were imported to the statistical package (STATA version 11) for analysis. Categorical variables were used to describe demographic data; these results are presented in frequencies and percentages. Continuous variables are presented using means and standard deviations. The measure of the effective use of DBT skills is presented in table form with consideration given to the different skills used and the demographic variables of the clients using these skills. Factors influencing the effective use of DBT skills were extracted. Data analysis was done in consultation with a statistician for statistical input.

3.8 ETHICAL CONSIDERATIONS

Ethical research is essential to generate a sound, evidence-based practice for nursing (Burns & Grove 2009). The following guidelines were considered

- Application to the Department of Nursing Education for permission to conduct the study was approved after initial presentation of the proposal
- Application to the Faculty Post Graduate Committee to request permission to conduct the study was approved after presentation to assessors group (see Appendix D)
- Ethical approval was obtained from the Human Research Ethics Committee (HREC) (Medical) of the University of the Witwatersrand (M120612) (Appendix F)

- Application to Hospital Management and Hospital Research and Ethics Committee for permission to conduct the study in the hospital was approved (Appendix E)

- An information sheet was provided to the participants to acquaint them with all the details of the proposed study and invite their participation (Appendix A)

- Voluntary participation was assured. Patients were told that they might decline participation, leave the posted instruments blank should they rather not participate and withdraw participation at any time prior to posting the anonymous questionnaire. Once posted, the instruments could be not withdrawn as this would jeopardise the anonymity and confidentiality of other participants.

- Informed consent was obtained from each participant in the form of a completed and posted questionnaire and rating scale. Incomplete/blank questionnaires implied that the person was unwilling to be included in the study

- Confidentiality and anonymity were maintained throughout study; no identifying information was required on the study instruments. All completed questionnaires were kept in a locked cupboard. Information entered into data sheets electronically for analysis was protected by a computer PIN number. Data will be destroyed two years after publication of the results.

3.9 SUMMARY

This chapter covers the methodology of the study. The purpose and objective describe the intention and envisaged process of the study. A demographic data questionnaire and the “Dialectical skills Ways of Coping” checklist described as a valid instrument were used in the study. The pilot study was conducted to observe if the instrument and the information sheet would be understood by the potential participants. A brief description of the data analysis was described in consultation with a statistician. The study complied with all ethical principles and permission was

obtained from the University, Provincial and relevant hospital authorities. The following chapter will present the results of the study.

CHAPTER FOUR:

RESULTS AND FINDINGS

4.1 INTRODUCTION

The previous chapter discussed the research methodology. In this chapter, the descriptive and exploratory factor analysis statistics will be presented for the data collection. The demographic data as well as the information derived from the "Dialectical Ways of Coping Skills" Checklist and the subscales explained in chapter 4. The objectives of the study will be stated below for continuation purposes.

- To distribute a self-administered Likert type questionnaire, "DBT coping skills scale"(Nesacsiu et al, 2010) to ex-patients to elicit whether they are able to use the skills learned in the programme after discharge.
- To assess the use of the skills learned to manage their thoughts, feelings, behaviour and successfully engage in interpersonal relationships.
- To assess the ex-patients' demographic details in order to evaluate whether the use of skills is affected by factors such as age, gender, number of previous admissions, use of substances, attendance at follow up facilities, support resources (groups, family, substance abuse groups) and employment.
- To make recommendations to improve the DBT programme.

Descriptive analysis was carried out on demographic and psychosocial characteristics of male and female study participants. Results were reported using means (M), standard deviations (SD), frequencies(f) and percentages (%). Descriptive statistics is the term given to the analysis of data that helps describe, show or summarize data in a meaningful way such that, for example, patterns might emerge from the data. They are simply a way to describe data. Descriptive statistics are very important because if raw data were simply presented it would be hard to visualize what the data were showing. Descriptive statistics therefore enable the

presentation of data in a more meaningful way, allowing a simpler interpretation of the data (Leard statistics, 2012)

In order to assess to what extent ex-patients were able to use the skills learned, this study also presented a full scale distribution (ranging from ex-patients who never used these skills to those who regularly used the skills) of DBT Ways of Coping Checklist. Results are presented in tables using frequencies and percentages for the 59 individual items.

Furthermore, responses to all 59 items were subjected to an exploratory factor analytical procedure in order to extract the three main underlying latent constructs of the DBT- Ways of Coping Checklist as recommended by Neacsiu et al in their DBT-measurement model. The Exploratory factor analysis (EFA) is generally used to discover the factor structure of a measure and to examine its internal reliability. EFA is often recommended when researchers have no hypotheses about the nature of the underlying factor structure of their measure. Exploratory factor analysis has three basic decision points: (1) decide the number of factors, (2) choosing an extraction method, (3) choosing a rotation method. The most common approach to deciding the number of factors is to generate a scree plot. The scree plot is a two dimensional graph with factors on the x-axis and *eigenvalues* on the y-axis. Eigen values are produced by a process called *principal components analysis* (PCA) and represent the variance accounted for by each underlying factor (Newsom,2005) The variance is a numerical value used to indicate how widely individuals in a group vary. If individual observations vary greatly from the group mean, the variance is big; and vice versa (Statistic and Probability Dictionary, 2013).

The scales are DSS – DBT skills subscale; DCS-1 – Dysfunctional coping subscale, general dysfunctional coping factor and DCS-2 – Dysfunctional coping subscale, blaming others factor. Using a minimum factor loading of 0.40, and an oblique promax rotation which represent how each of the variables are weighed with each factor (Institute For Digital and Education, 2013). Three factors were extracted as suggested by the screeplot graphical procedure and the highest Eigen values. Hence, further regression analyses on these three DBT subscales were implemented to evaluate whether the use of skills is affected by demographic and psychosocial factors at α 95% confidence interval and corresponding alpha level of

5% (P<0.05). Mean loadings and percentage of variance explained were reported for each subscale. Reliability of each subscale was also assessed using the Cronbach's alpha.

4.2 DEMOGRAPHIC DATA

The demographic data were collected to describe characteristics of the sample population and highlight significance with regards to the study are presented in the table below

Table 4.1 Descriptive analysis on demographic and psychosocial characteristics of the study participants

	Females (n=35) 46%		Males(n=11) 24%		P value (<0.05)
Characteristic	Frequency	%	Frequency	%	
Age					0.095
mean(±sd)	23-34.31(11.09)		34-40.82(10.82)		
Number of previous admissions					0.101
0	14	40	1	9	
1	7	20	5	45	
≥ 2	14	40	5	45	
Attendance of follow up					0.622
No	13	37	5	45	
Yes	22	63	6	55	
Current substance abuse					0.186
No	25	71	10	91	
Yes	10	29	1	9	
Adequate support available					0.624
No	10	29	4	36	
Yes	25	71	7	64	
Attendance of support group					0.794
No	24	69	8	73	
Yes	11	31	3	27	

Sample size, gender and age distribution population :

A total of 46 participants, 35 females with the average age of 34,31 and 11 males with an average age of 40.33. The data also highlighted that the male population were generally older on average than the female population.

Previous admissions:

The data indicate that 14 (40%) of the female participants had more than 2 previous admissions and 5 (45%) of the male participants had more than 2 previous admissions..

Attendance of follow up:

The female population appeared to show more interest in attending follow. Sixty three 63% of females attended follow up treatment whereas only 55% of the males attended follow up sessions.

Current substance abuse:

Twenty nine percent (29%) of females admitted showed current substance abuse as opposed to 9% of males. The percentage indicates a higher rate of substance abuse in the female population.

Support group attendance:

Greater attendance of 31% females to support groups is apparent.

Adequate support

Seventy one percent (71%) of female participants claimed that they have adequate support as compared to 65% of the male population.

4.3 THE DIALECTICAL WAYS OF COPING CHECKLIST RESULTS

The Dialectical Ways of Coping Checklist is analyzed below. All 59 items are listed below and the responses for each item are catergorised into a Likert scale into the categories “never used”, “rarely used”, “sometimes used” and “regularly used”. The responses are then further analysed into the number of participants responding on

the Likert scale to each item and the percentage of those responses. The scale is made up of three subscales:

The dialectical skills scale which is made up from the following items 1,2,4,6,9,10,11,13,16,18,19,21,22,23,26,26,27,29,31,33,34,35,36,38,39,40,42 ,43,44,47,49,50,51,53,54,56,57,58,59.

The dialectical dysfunctional coping subscale one; 15 items 3,5,8,12,14,17,20,25,32,37,41,45,46,52,55.

The dysfunctional coping subscale two; 6 items 7,15,24,28,30,48.

Table 4.2: Distribution of DBT-ways of coping checklist among study Participants

		Total N= 46			
No	Item	**Never used N (%)**	**Rarely used N (%)**	**Sometimes used N (%)**	**Regularly used N (%)**
1	Bargained or compromised to get something positive from the situation	9(20)	2(4)	17(37)	18(39)
2	Counted my blessings	3(7)	5(11)	14(30)	24(52)
3	Blamed myself	2(4)	3(7)	18(39)	23(50)
4	Concentrated on something good that could come out of the whole thing	3(7)	10(22)	15(33)	18(39)
5	Kept feelings to myself	4(9)	2(4)	16(35)	24(52)
6	Made sure I'm responding in a way that doesn't alienate others	7(15)	4(9)	15(33)	20(43)
7	Figured out who to blame	14(30)	12(26)	9(20)	11(24)
8	Hoped a miracle would happen	9(20)	4(9)	12(26)	21(46)
9	Tried to get centred before taking any action	3(7)	5(11)	17(37)	21(46)
10	Talked to someone about how I've been	5(11)	5(11)	15(33)	21(46)

	feeling				
		Never used	**Rarely used**	**Sometime used**	**Regularly used**
11	Stood my ground and fought for what I wanted	6(13)	10(22)	10(22)	20(43)
12	Refused to believe that it had happened	17(37)	10(22)	8(17)	11(24)
13	Treated myself to something really tasty	7(15)	7(15)	11(24)	21(46)
14	Criticized or lectured myself	3(7)	5(11)	14(30)	24(52)
15	Took it out on others	9(20)	14(30)	17(37)	6(13)
16	Came up with a couple of different solutions to my problem	7(15)	5(11)	19(41)	15(33)
17	Wished I were a stronger person-more optimistic and forceful	2(4)	4(9)	9(20)	31(67)
18	Accepted my strong feelings. But not let them interfere with other things too much	7(15)	8(17)	15(33)	16(35)
19	Focused on the good things in my life	3(7)	4(9)	22(48)	17(37)
20	Wished that I could change the way that I feel it	1(2)	2(4)	9(20)	34(74)
21	Found something beautiful to look at to make me feel better	11(24)	6(13)	15(33)	14(30)
22	Change something about myself so that I could deal with the situation better	8(17)	8(17)	20(43)	10(22)
23	Focused on the good aspects of my life and gave less attention to	7(15)	9(20)	15(33)	15(33)

	negative thoughts or feelings				
		Never used	**Rarely used**	**Sometime used**	**Regularly used**
24	Got mad at the people or things that caused the problem	4(9)	5(11)	14(30)	23(50)
25	Felt bad that I couldn't avoid the problem	0(0)	4(9)	13(28)	29(63)
26	Tried to distract myself by getting active	7(15)	4(9)	13(28)	22(48)
27	Been aware of what has to be done, so I've been doubling my efforts and trying harder to make things work	5(11)	7(15)	12(26)	22(48)
28	Thought that others were unfair to me	6(13)	9(20)	13(28)	18(39)
29	Soothed myself by surrounding myself with a nice fragrance of some kind	12(26)	3(7)	11(24)	20(43)
30	Blamed others	10(22)	9(20)	15(33)	12(26)
31	Listened to or played music that I found relaxing	1(2)	5(11)	6(13)	34(74)
32	Gone on as if nothing had happened	17(37)	4(9)	9(20)	16(35)
33	Accepted the next best thing to what I wanted	6(13)	10(22)	14(30)	16(35)
34	Told myself things could be worse	7(15)	8(17)	16(35)	15(33)
35	Occupied my mind with something else	3(7)	6(13)	15(33)	22(48)
36	Talked to someone who could do	11(24)	6(13)	17(37)	12(26)

	something concrete about the problem				
		Never used	**Rarely used**	**Sometimes used**	**Regularly used**
37	Tried to make myself feel better by eating, drinking, smoking, taking medications, etc.	16(35)	5(11)	8(17)	17(37)
38	Tried not to act too hastily or follow my own hunch	6(13)	7(15)	14(30)	19(41)
39	Changed something so things would turn out right	5(11)	5(11)	19(41)	17(37)
40	Pampered myself with something that felt good to the touch (e.g. a bubble bath or a hug)	8(17)	8(17)	9(20)	21(46)
41	Avoided people	3(7)	8(17)	8(17)	27(59)
42	Thought how much better off I was than others	9(20)	4(9)	16(35)	17(37)
43	Just took things one step at a time	8(17)	4(9)	17(37)	17(37)
44	Did something to feel a totally different emotion (like going to a funny movie)	8(17)	12(26)	13(28)	13(28)
45	Wished the situation would go away or somehow be finished	2(4)	3(7)	7(15)	34(74)
46	Kept others from knowing how bad things were	2(4)	2(4)	15(33)	27(59)
47	Focused my energy on helping others	2(4)	6(13)	19(41)	19(41)
48	Found out what other person was	16(35)	8(17)	11(24)	11(24)

	responsible				
		Never used	**Rarely used**	**Sometimes used**	**Regularly used**
49	Made sure to take care of my body and stay healthy so that I was less emotionally sensitive	11(24)	5(11)	13(28)	17(37)
50	Told myself how much I had already accomplished	6(13)	10(22)	11(24)	19(41)
51	Made sure I respond in a way so that I could still respect myself afterwards	5(11)	10(22)	7(15)	24(52)
52	Wished that I could change what had happened	4(9)	4(9)	8(17)	30(65)
53	Made a plan of action and followed it	8(17)	9(20)	14(30)	15(33)
54	Talked to someone to find out about the situation	8(17)	6(13)	13(28)	19(41)
55	Avoided my problem	8(17)	4(9)	18(39)	16(35)
56	Stepped back and tried to see things as they really are	6(13)	9(20)	10(22)	21(46)
57	Compared myself to others who are less fortunate	7(15)	7(15)	14(30)	18(39)
58	Increased the number of pleasant things in my life so that I had a more positive outlook	9(20)	5(11)	14(30)	18(39)
59	Tried not to burn my bridges behind me, but leave things open somewhat	6(13)	9(20)	13(28)	18(39)

The descriptive analysis of the dialectical ways of coping checklist produced these key Findings:

- 50% of participants regularly blamed themselves
- 52% regularly kept feelings to themselves
- 46% regularly talked to someone about how they had been feeling
- 52% regularly criticised or lectured themselves
- 67% regularly wished they were a stronger person-more optimistic or forceful
- 74% regularly wished that they could change the way that they felt
- 63% regularly felt bad that they couldn’t avoid the problem
- 59% avoided people
- 59% kept others from knowing how bad things were.

4.4 FACTOR LOADING

The table below explains the data analyzed according to the three subscales. The table list all the items (59) and also list the three scales (factors 1,2,3) internal consistency of each item on each scale.

The checklist consists of the DBT subscale (DSS) of 38 items which evaluate direct use of DBT skills in challenges. The dysfunctional coping subscale (DCS1) of 15 items contrasts DBT skills to assess any dysfunctional coping mechanism. The third subscale has 6 items which forms part of the dysfunctional measures (DCS 2) and highlights self blame techniques used by patients. These scales have questions that are randomly placed on the checklist and form part of the checklist of 59 questions.

Table 4.3.The Dialectical Behavioural therapy ways of coping checklist items with factor loading

No	Item	Factor 1 (DSS)	Factor 2 (DCS-1)	Factor 3 (DCS-2)	Alpha
1	Bargained or compromised to get something positive from the situation				0.93
2	Counted my blessings	0.66			0.93
3	Blamed myself			0.45	0.93
4	Concentrated on something good that could come out of the whole thing	0.73			0.93
5	Kept feelings to myself				0.93
6	Made sure I'm responding in a way that doesn't alienate others	0.52			0.93
7	Figured out who to blame		0.47		0.93
8	Hoped a miracle would happen		0.51		0.93
9	Tried to get centred before taking any action				0.93
10	Talked to someone about how I've been feeling	0.44			0.93
11	Stood my ground and fought for what I wanted	0.81			0.93
12	Refused to believe that it had happened		0.48		0.93
13	Treated myself to something really tasty	0.69			0.93
14	Criticized or lectured myself				0.93

15	Took it out on others		0.53	-0.56	0.93
16	Came up with a couple of different solutions to my problem	0.73			0.93
17	Wished I were a stronger person-more optimistic and forceful		0.57		0.93
18	Accepted my strong feelings ,but not let them interfere with other things too much	0.64			0.93
19	Focused on the good things in my life	0.77			0.93
20	Wished that I could change the way that I feel it		0.73		0.93
21	Found something beautiful to look at to make me feel better	0.64			
22	Change something about myself so that I could deal with the situation better	0.42			0.93
23	Focused on the good aspects of my life and gave less attention to negative thoughts or feelings	0.80			0.93
24	Got mad at the people or things that caused the problem		0.61		0.93
25	Felt bad that I couldn't avoid the problem		0.71		0.93
26	Tried to distract myself by getting active	0.46			0.93
27	Been aware of what has to be done, so I've been doubling my	0.42			0.93

	efforts and trying harder to make things work				
28	Thought that others were unfair to me		0.40		0.93
29	Soothed myself by surrounding myself with a nice fragrance of some kind	0.67			0.93
30	Blamed others		0.52		0.93
31	Listened to or played music that I found relaxing		0.43		0.93
32	Gone on as if nothing had happened			0.40	0.93
33	Accepted the next best thing to what I wanted	0.60			0.93
34	Told myself things could be worse	0.52			0.93
35	Occupied my mind with something else	0.44		0.56	0.93
36	Talked to someone who could do something concrete about the problem	0.46			0.93
37	Tried to make myself feel better by eating, drinking, smoking, taking medications, etc.	-0.56			0.93
38	Tried not to act too hastily or follow my own hunch	0.42			0.93
39	Changed something so things would turn out right	0.47			0.93
40	Pampered myself with something that felt good to the touch(e.g.	0.69			0.93

	a bubble bath or a hug)				
		Factor 1	**Factor 2**	**Factor 3**	**Alpha**
41	Avoided people	-0.43			0.93
42	Thought how much better off I was than others	0.54			0.93
43	Just took things one step at a time	0.62			0.93
44	Did something to feel a totally different emotion (like gone to a funny movie)	0.50			0.93
45	Wished the situation would go away or somehow be finished		0.69		0.93
46	Kept others from knowing how bad things were		0.54		0.93
47	Focused my energy on helping others	0.54			0.93
48	Found out what other person was responsible	0.54	0.46		0.93
49	Made sure to take care of my body and stay healthy so that I was lass emotionally sensitive	0.80			0.93
50	Told myself how much I had already accomplished	0.78			0.93
51	Made sure I respond in a way so that I could still respect myself afterwards	0.80			0.93
52	Wished that I could change what had happened		0.56		0.93

53	Made a plan of action and followed it	0.77			0.93
		Factor 1	**Factor 2**	**Factor 3**	**Alpha**
54	Talked to someone to find out about the situation	0.42			0.93
55	Avoided my problem		0.40	0.40	0.93
56	Stepped back and tried to see things as they really are	0.70			0.93
57	Compared myself to others who are less fortunate	0.62			0.93
58	Increased the number of pleasant things in my life so that I had a more positive outlook	0.62		-0.43	0.93
59	Tried not to burn my bridges behind me, but leave things open somewhat	0.50			0.93
Overall test scale					0.93
Reliability of subscales					
1	DSS				0.95
2	DCS-1				0.73
3	DCS-2				0.80

4.4.1 Interpretation of factor loading

Overall this instrument is found to have excellent internal consistency (α =0.93). A total of 38 items had a minimum loading of 0.40 on factor 1 ranging from 0.42 to 0.81 with an average loading of 0.60 and a 25% explained variance (table 4.3). Similarly 14 items had positive loadings on factor 2 with an average loading of 0.54 and a 10% explained variance. Six items were found in factor 3 with an average loading of 0.47 and 7% explained variance. The DSS subscale demonstrated excellent internal consistency (α =0.95). Factors 2 and 3 also provided evidence of good to excellent internal consistencies in the measurement items. (Table 4.3).

4.5 SUBSCALES OF THE COPING CHECKLIST

Table 4.4. Bivariate testing of significant difference between subgroups of demographic-psychosocial characteristics with regard to the three subscales of DBT

Characteristic	**Factor 1 (DSS)**	**Factor 2 (DCS-1)**	**Factor 3 (DCS-2)**
Gender	0.358	0.010*****	0.390
Age	0.181	0.482	0.895
Number of previous admissions	0.626	0.270	0.315
Attendance of follow up	0.030*****	0.961	0.594
Current substance abuse	0.129	0.798	0.162
Adequate support available	0.681	0.910	0.234
Attendance of support groups	0.153	0.220	0.239

P value <0.05.

4.6 INTERPRETATION OF SUBSCALES WITH FACTORS

These are the significant key findings that the data produced. Although minimal significance was found it noted that sample might have been inadequate to extract other factors.

- Statistically significant difference was found between those who attended follow up and those who did not with regard to factor 1* (DSS) (p value <0.05).

- Statistically significant difference was found between male and female participants with regard to factor 2* (DCS-1) (p-value <0.05).

**significant values in the study*

TABLE 4.5 Mean Number of Patients who regularly used subscales.

Subscale	Crobach's alpha	Mean item response	Percentage response (%)
DSS	0.95	15	33
DCS-1	0.73	8	17
DCS-2	0.80	0	0

4.7 INTERPRETATION OF SUBSCALES

The average mean item positive response for the DSS subscale was 15 which translates to 33% of all study patients who regularly used the the DBT skills they had learned in the groups. The dialectical skills have been regularly used by 15 participants. Similarly, a mean item positive response of 8 and a corresponding percentage of 17% of all patients regularly used the dysfunctional coping mechanisms as indicated by the DCS-1. The dysfunctional coping scale had 8 participants who indicated that they have regularly used less than functional coping skills it which means that 8 participants definitely do not use the skills. However, none of the patients used the self blame methods of coping regularly as indicated on DCS-2.responses.

4.8 SUMMARY

This chapter focused on the analysis of the data. There were several significant findings.

The demographic data analysed using descriptive analysis highlight a sample size of 35 females as opposed to 11 male participants in the sample of 46. It was noted that

female participants generally had a higher percentage of substance use as well as a more frequent attendance at follow up sessions.

The study also highlighted certain skills that the most of the participants used.

The reliability of the study was found to be 0.93. Three factors were extracted from the study that related to the 3 scales that the checklist is composed of as discussed in the previous chapter. The factors were compared to the demographic data and the significance of the findings was highlighted. The final chapter will discuss main findings, recommendations and limitations.

CHAPTER FIVE

SUMMARY AND DISCUSSION OF MAIN FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION

The previous chapter presented the results of the study using both descriptive statistics and exploratory factor analysis. The final chapter explores and discusses the main results which are related to the aim and objectives initially proposed for the study. The limitations of the study will also be discussed. Recommendations are posited for nursing education, clinical practice and research.

5.2. OBJECTIVES

To distribute a self-administered Likert type questionnaire, “DBT Coping Skills Scale” (Nesacsiu et al, 2010) to ex-patients to elicit whether they are able to use the skills learned in the programme after discharge.

To assess the actual use of the skills learned in the modified in-patient DBT programme to manage their thoughts, feelings, behaviour and successfully engage in interpersonal relationships.

To assess the ex-patients’ demographic details in order to evaluate whether the use of skills is affected by factors such as age, gender, number of previous admissions, use of substances, attendance at follow up facilities, support resources (groups, family, substance abuse groups) .

To make recommendations regarding the content and delivery of the DBT programme.

5.3 DISCUSSION OF MAIN FINDINGS

5.3.1 Descriptive analysis of data

The total sample obtained for the study was 46 participants who fully completed the research questionnaires from the initial 60 participants envisaged. The researcher distributed 50 questionnaires. The reason for the response rate was that 2 potential participants refused to participate, 1 potential participant died and the remainder of the potential participants were untraceable. The demographic data highlighted that there were more female (n =35) 46% participants than males (n =11) 24% and males were generally older (average age of 40.82). The results also indicated 5 of the 11 males (45%) have a higher rate of previous admission than the female population of the sample which is 14 of the 35 female patients (40%) that have been previously admitted.

The females indicated that they tend to use more of the support systems available than males which may indicate that a more supportive environment could lead to less admissions as males have a higher rate of previous admissions (5 males) which contributes 45% of the population sample but less attendance of support groups or general support and attendance of follow up appointments were used by males.

5.3.2 The Dialectical Ways of Coping Checklist

The general key findings from the checklist show that the highest percentage found on item response on the checklist is that participants wish they could change the way they feel (34 responses) 74%.

The other interesting finding is that items with significant percentages as listed in table 4.2 do not directly reflect DBT skills use but rather patients dysfunctional coping methods.

5.4 FACTOR ANALYSIS OF DATA

The factors extracted from the checklist of 59 items all show good reliability values. The dialectical skill subscale DSS 38 items' reliability factor was established as 0.95; the dysfunctional coping subscale DCS 1 reliability was adjudged to be 0.73; and the dysfunctional coping scale DCS 2 reliability was established as 0.80. The general overall scale showed a reliability factor of 0.93. This shows good internal consistency of the scale.

5.4.1 The dialectical skills subscale (DSS)

This scale indicates use of dialectical behavioural skills if responses are positive (regularly used option on the checklist). The checklist comprised of 59 questions in total and the dialectical subscale makes up 38 questions on the checklist. The checklist itself does not specify which dialectical skills are being questioned but a general use of the skills is being questioned. The data were analysed with focus on response on the regularly used option of the checklist in order to avoid mixed responses. Data analysed indicated that 33% (n=15) of the sample make use of some dialectical behavioural skills effectively which accounts for first objective of this study with regards to DBT skills being used by patients post discharge. It is not possible to extract which dialectical behavioural skills at this point and therefore more research is needed in this area. One of the objectives of this was to assess any association between the demographic data and the use of DBT skills The analysed data also conclude a statistical significance between attendance of follow up appointments (refers to psychiatric clinic appointment date for medication and a psychiatric review) and the DSS. The mean DSS for patients who did not attend follow up was 0.40 while a mean of -0.25 was observed in patients who attended follow up. The results imply that patients who did not attend follow up had a better response to regularly using the DBT skills on average than those who did attend. An assumption could be made that those using DBT skills have become more functional and able to manage the challenges without frequent reviews.

5.4.2 The Dysfunctional Coping Subscale (DCS 1). The scale is made up of 15 items on the dialectical coping checklist of 59. This scale was developed to challenge the use of DBT skills and assess dysfunctional methods of coping with difficult situations. The items are: 3,5, 2,12,14,17, 20, 25, 32, 37, 41, 45, 46, 52, 55. Seventeen (17%) of the sample responded that they use these items that challenge the use of DBT skills on the dysfunction scale regularly. The data analysed show that (17%) participants do not engage with DBT skills. One of the study objectives was to assess for any association between demographic data and in the bivariate analysis (table 4.4) called a test of association, it simply shows if there is significant association between two variables being the DCS-1 and gender. The results imply that the females from the sample population are more likely than males to use dysfunctional coping mechanisms. An assumption then would be that DBT skills are more likely to be utilized by males.

5.4.3 The Dysfunctional Coping Scale (DCS 2)

This subscale highlights the area of self blame and blame regarding borderline personality disorder and cluster B personality disorders generally. Items included in this subscale are: 6 items of the 59 on the checklist. They include item, 7,15,24,28,30,48. It is interesting that there has been no participant on average that has responded with a regularly used option on the scale. The scale attempts to elicit if the respondents either regularly or never blame themselves or others. The data analysed show that the participants have mostly responded to the ‘never used’ option on the scale regarding the items that indicate self blame or blame. The interpretation according to the data analysed is that the participants do not report to self blame or blame others and therefore the assumption could be that the participants use DBT skills to manage the urge to self blame or blame others.

5.5 RECOMMENDATIONS

The analyzed data indicate that 33 % of the participants have responded to regularly using the DBT skills post discharge. It further shows that 17% of the participants indicate that they have regularly used dysfunctional coping methods which indicate

minimal use of the DBT skills taught and practised in the groups. It is also evident that certain factors such as substance abuse, attendance at and use of follow up facilities and support groups and personal support resources play a role in the management of borderline personality disorder. The study found a significant relationship between attendance at follow up facilities and DBT skill use as indicated in Table 4.4 (item 4). A significant finding was also noted between the relationship between gender and the dysfunctional coping mechanisms Table 4.4 (item 1). There were no other significant relations found between the age and the use of DBT skills post discharge. There were minimal significance found between substance abuse, support group attendance and previous admission and the use of DBT skills used post discharge.

5.5.1 Recommendations for nursing practice

DBT skills are a powerful tool in managing a difficult disorder. Nursing plays a vital role in ensuring that skills are retained by patients post discharge. This is evident in the study relating to attendance of follow up programmes. Although some patients use the DBT skills, others have challenges with using the skills post discharge. The clinic facilities and out patient departments should be able to introduce refresher courses of DBT skills to patients post discharge.

Nurses facilitate a modified version of DBT as discussed in the study and therefore they could implement DBT refresher courses and workshops as part of a follow up programme to enable patients to be supported in their use of the learned skills after discharge.

5.5.2 Recommendations for nursing education

DBT has been found to be a recent and successful form of therapy for patients with borderline personality disorder, therefore these skills should become part of the

psychiatric nursing field. The psychiatric clinic nurses and psychiatric out patient nurses should be targeted with in-service courses of DBT skills to enable the staff to initiate DBT support groups in their facilities.

5.5.3 Recommendation for nursing research

Further research needs to be done on an expanded scale of the effectiveness of DBT skills post discharge. In addition, the effect of patients' attendance of follow up services plays a role in the effective use of DBT skills post discharge should be examined . Research also needs a more extensive DBT measuring instrument to elicit specific DBT skills rather than a general scale as this study was unable to interrogate specific DBT skills used by patients post discharge.

The researcher is not aware of similar research in South Africa and it would be interesting if the instrument were to be subject to further testing in South African psychiatric institutions**.** The researcher therefore recommends a further re-examination of this measurement model of DBT in the South African population with due consideration for required sample size and the appropriate implementation of a confirmatory rather than an exploratory analysis.

5.6 LIMITATIONS OF THIS STUDY

The sample size was not adequate to implement confirmatory factor analysis to test the measurement DBT model hypothesis proposed by Neacsiu (Neasciu et al, 2010). This was primarily due to a very low sample size which undermines the overall power of the study and the extremely low subject to variable ratio as recommended. Hence these three factors which are the dialectical ways of coping scale, the dysfunctional subscale 1 and dysfunctional subscale 2 were extracted using an exploratory factor analysis and a promax rotation using a blank of 0.40 (A promax rotation simply serves to make the output more understandable and interpretable by changing the configuration of the correlation structures between the observed variables (the 59 items) and the unobserved variables (the 3 extracted factors). The advantage is that it minimises the potential possibility of many items which load

substantially on more than one factor. Secondly, it ensures a pattern of loadings where the items load most strongly on one factor, and much more weakly on the other factors using a blank of 0.40 (the blank serves to create a minimum % correlation required for an observed item to load on to a factor scale (unobserved).

5.7 SUMMARY AND CONCLUSION

The final chapter highlights the purpose and objectives of the study. The study addressed its objectives by obtaining data using the DBT “Ways of Coping” checklist and a brief demographic questionnaire. Results indicate that 39% of the sample use DBT skills effectively post discharge. More significantly, the study identified factors which impact on the discharged patients’ use of DBT skills such as attendance of follow up services. This has lead to several recommendations regarding more support for patients with borderline personality disorder and personality disorders generally post discharge and the recommendation that these services should be offered in psychiatric out patient departments and clinics. Nursing services could lead the supporting role as first contact after discharge at follow up clinics. Dialectical behavioural therapy is an effective management of borderline personality disorder and therefore should be researched and supported more in South Africa.

REFLECTION…

The ability to choose a direction for ones research is the first challenging step in initiating the process of research. For me personally it was both distressing and exciting and therefore I can name my journey

TWO SIDES OF A COIN:

I was so fascinated by the process of Dialectical behavioural Therapy and its effects on patients but also very aware that these skills could also be used for the undiagnosed person. That DBT should form part of society and this created a mountain of excitement for me. I wanted to share my new found knowledge with all those interested but needed to verify if DBT actually works for those already exposed to it. My distress commenced as I initiated data collection because it was evident that the patients themselves where relying on skills and support. It made me aware of how great the impact of a diagnosis of borderline personality disorder or personality is on a patient. Many patients were grateful for the contact made by the researcher just to relay their progress thus far.

The other part to my process is that I also paired my research journey with a very significant personal journey that brought me so much joy and enabled me to be more aware of the need for an effective form of treatment for a person in need as well as the impact that a person's treatment has on the family and mother and children especially.

I have learnt patience towards my patients on my journey and will treasure the process eternally.

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APPENDIX A : **INFORMATION SHEET**

Dear Patient,

My name is Delray Jones and I am a final year MSc (nursing) student in the Department of Nursing at the University of Witwatersrand. In order to complete the degree, I have to complete a research study and I am currently starting a research project. I am very interested in dialectical behavioural therapy (DBT) and the use of the skills and information that patients have acquired in the DBT programme after their discharge. The aim of the study is, therefore, to investigate whether the skills that the patients obtain from dialectical behavioural therapy are used post discharge and also whether they are effective in helping discharged patients manage their thoughts, feelings and relationships.

I would like to invite you to participate in the study as you were a member of a DBT group whilst you were a patient in the hospital. After being informed about the study, the aim, organisation and the procedures, I would like you to consider agreeing to participate. Participation is voluntary; you may refuse outright or withdraw from the study at any stage without any consequences for you or any effect on your current or future care. Your name and any identifying details are not required on the research documents.

Should you agree to participate please complete the two part questionnaire which is attached to the information sheet. The questionnaire covers demographic information (but no identifying personal details) and a checklist of the skills taught and practised in the DBT programme to be used by patients post discharge. The questionnaire should take approximately 15 minutes to complete.

Confidentiality will be maintained as data will only be available to me, the researcher and my supervisor. All information will be kept locked away. Anonymity will be maintained because no personal identifying information is noted on the questionnaires. You will not have to sign a consent form as completing and posting the questionnaires in a sealed box will indicate your consent as well as ensure your anonymity. The answer sheet will be collected separately from the demographic data, in different collection boxes, to ensure anonymity and therefore a code system will be used by the researcher for the purpose of data analysis.

APPENDIX B **DEMOGRAPHIC DATA**

- AGE: _____
- GENDER:_____

- DATE OF DISCHARGE:_____
- NUMBER OF PREVIOUS ADMISSIONS_____

PLEASE COMMENT ON FOLLOWING: eg yes or no

ATTENDANCE OF FOLLOW UP_____

CURRENT SUBSTANCE ABUSE_____

ADEQUATE SUPPORT AVAILABLE:_____

ATTTENDANCE OF SUPPORT GROUPS_____

APPENDIX C: Dialectical Ways of Coping Checklist

APPENDIX 3 : CHECKLIST

DBT-Ways of Coping Checklist
CITATION: Dialectical Behavior Therapy Ways of Coping Checklist (DBT-WCCL): Development and Psychometric Properties. Neacsiu, A.D., Rizvi, S.L., Vitaliano, P.P., Lynch, T.R., & Linehan, M.M. Journal of Clinical Psychology. In press.

The items below represent ways that you may have coped with stressful events in your life. We are interested in the degree to which you have used each of the following thoughts or behavior to deal with problems and stresses.

Think back on the **LAST ONE MONTH** in your life. Then check the appropriate number if the thought/behavior is: never used, rarely used, sometimes used, or regularly used (i.e., at least 4 to 5 times per week). Don't answer on the basis of whether it seems to work to reduce stress or solve problems—just whether or no, you use the coping behavior. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

0	1	2	3
Never Used	**Rarely Used**	**Sometimes Used**	**Regularly Used**

I have:

1	Bargained or compromised to get something positive from the situation.	0	1	2	3
2	Counted my blessings.	0	1	2	3
3	Blamed myself.	0	1	2	3
4	Concentrated on something good that could come out of the whole thing.	0	1	2	3
5	Kept feelings to myself	0	1	2	3
6	Made sure I'm responding in a way that doesn't alienate others.	0	1	2	3
7	Figured out who to blame.	0	1	2	3
8	Hoped a miracle would happen.	0	1	2	3
9	Tried to get centered before taking any action.	0	1	2	3
10	Talked to someone about how I've been feeling.	0	1	2	3
11	Stood my ground and fought for what I wanted.	0	1	2	3
12	Refused to believe that it had happened.	0	1	2	3
13	Treated myself to something really tasty.	0	1	2	3
14	Criticized or lectured myself.	0	1	2	3
15	Took it out on others.	0	1	2	3
16	Came up with a couple of different solutions to my problem.	0	1	2	3
17	Wished I were a stronger person — more optimistic and forceful	0	1	2	3
18	Accepted my strong feelings, but not let them interfere with other things too much.	0	1	2	3
19	Focused on the good things in my life.	0	1	2	3
20	Wished that I could change the way that I feelit.	0	1	2	3
21	Found something beautiful to look at to make me feel better.	0	1	2	3
22	Changed something about myself so that I could deal with the situation better.	0	1	2	3
23	Focused on the good aspects of my life and gave less attention to negative thoughts or feelings.	0	1	2	3

24	Got mad at the people or things that caused the problem	0	1	2	3
25	Felt bad that I couldn't avoid the problem.	0	1	2	3
26	Tried to distract myself by getting active.	0	1	2	3
27	Been aware of what has to be done, so I've been doubling my efforts and trying harder to make things work.	0	1	2	3
28	Thought that others were unfair to me.	0	1	2	3
29	Soothed myself by surrounding myself with a nice fragrance of some kind.	0	1	2	3
30	Blamed others.	0	1	2	3
31	Listened to or played music that I found/find relaxing.	0	1	2	3
32	Gone on as if nothing had happened	0	1	2	3
33	Accepted the next best thing to what I wanted.	0	1	2	3
34	Told myself things could be worse.	0	1	2	3
35	Occupied my mind with something else.	0	1	2	3
36	Talked to someone who could do something concrete about the problem	0	1	2	3
37	Tried to make myself feel better by eating, drinking, smoking, taking medications, etc.	0	1	2	3
38	Tried not to act too hastily or follow my own hunch.	0	1	2	3
39	Changed something so things would turn out right.	0	1	2	3
40	Pampered myself with something that felt good to the touch (e.g., a bubble bath or a hug)	0	1	2	3
41	Avoided people	0	1	2	3
42	Thought how much better off I was than others.	0	1	2	3
43	Just took things one step at a time.	0	1	2	3
44	Did something to feel a totally different emotion (like gone to a funny movie).	0	1	2	3
45	Wished the situation would go away or somehow be finished.	0	1	2	3
46	Kept others from knowing how bad things were.	0	1	2	3
47	Focused my energy on helping others.	0	1	2	3
48	Found out what other person was responsible.	0	1	2	3
49	Made sure to take care of my body and stay healthy so that I was less emotionally sensitive.	0	1	2	3
50	Told myself how much I had already accomplished.	0	1	2	3
51	Made sure I respond in a way so that I could still respect myself afterwards.	0	1	2	3
52	Wished that I could change what had happened.	0	1	2	3
53	Made a plan of action and followed it.	0	1	2	3
54	Talked to someone to find out about the situation	0	1	2	3
55	Avoided my problem	0	1	2	3
56	Stepped back and tried to see things as they really are	0	1	2	3
57	Compared myself to others who are less fortunate.	0	1	2	3
58	Increased the number of pleasant things in my life so that I had a more positive outlook.	0	1	2	3
59	Tried not to burn my bridges behind me, but leave things open somewhat.	0	1	2	3

APPENDIX D: Approval from Postgraduate Health Sciences Faculty

Faculty of Health Sciences
Medical School, 7 York Road, Parktown, 2193
Fax: (011) 717-2119
Tel: (011) 717-2076

References: Ms Salamina Segole
E-mail: salamina.segole@wits.ac.za
29 June 2012
Person No: 472951
PAG

Mrs DC Jones
255 Stockenstroom Street
Boksburg South
1456
South Africa

Dear Mrs Jones

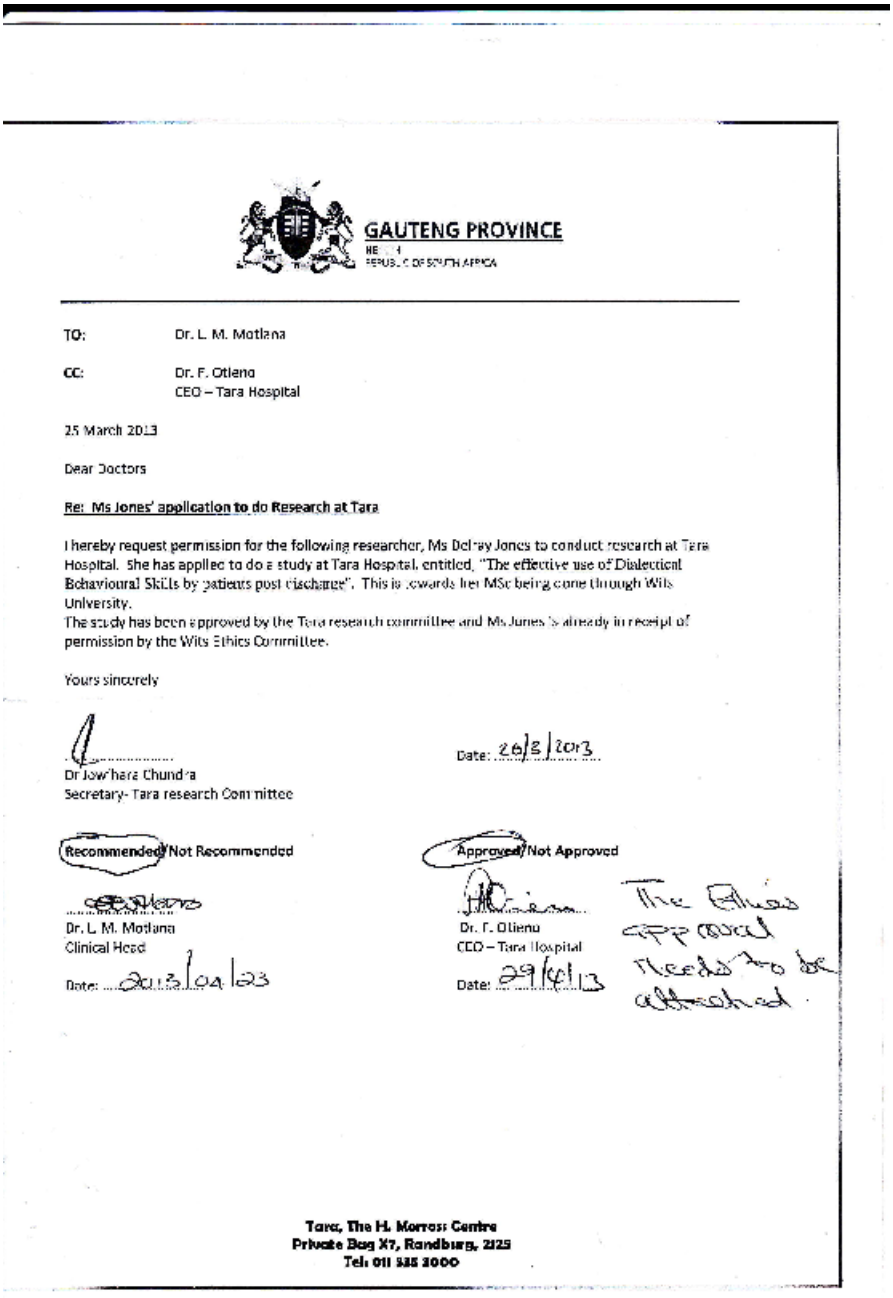
Master of Science in Nursing: Approval of Title

We have pleasure in advising that your proposal entitled "*The effectiveness of dialectical behavioural therapy skills by patients post discharge*" has been approved. Please note that any amendments to this title have to be endorsed by the Faculty's higher degrees committee and formally approved.

Yours sincerely

Mrs Sandra Benn
Faculty Registrar
Faculty of Health Sciences

APPENDIX E: Approval from research site



GAUTENG PROVINCE
REPUBLIC OF SOUTH AFRICA

TO: Dr. L. M. Motlana

CC: Dr. F. Otieno
CEO – Tara Hospital

25 March 2013

Dear Doctors

Re: Ms Jones' application to do Research at Tara

I hereby request permission for the following researcher, Ms Delray Jones to conduct research at Tara Hospital. She has applied to do a study at Tara Hospital, entitled, "The effective use of Dialectical Behavioural Skills by patients post discharge". This is towards her MSc being done through Wits University.
The study has been approved by the Tara research committee and Ms Jones is already in receipt of permission by the Wits Ethics Committee.

Yours sincerely

Dr Jowhara Chundra
Secretary- Tara research Committee

Date: 26/3/2013

Recommended/Not Recommended

Dr. L. M. Motlana
Clinical Head

Date: 2013/04/23

Approved/Not Approved

Dr. F. Otieno
CEO – Tara Hospital

Date: 29/4/13

The Ethics approval needs to be attached.

Tara, The H. Morris Centre
Private Bag X7, Randburg, 2125
Tel: 011 535 3000

APPENDIX F: Ethics Approval

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG
Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)
R14/49 Ms Delray Jones

CLEARANCE CERTIFICATE	M120612
PROJECT	The Effective Use of Dialectical Behavioural Skills by Patients Post Discharge
INVESTIGATORS	Ms Delray Jones.
DEPARTMENT	Department of Nursing Education
DATE CONSIDERED	28/06/2012
DECISION OF THE COMMITTEE*	Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE 29/06/2012 CHAIRPERSON .....
(Professor PE Cleaton-Jones)

*Guidelines for written 'informed consent' attached where applicable
cc: Supervisor : Dr Gayle Langley

DECLARATION OF INVESTIGATOR(S)
To be completed in duplicate and ONE COPY returned to the Secretary at Room 10004, 10th Floor, Senate House, University.
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. I agree to a completion of a yearly progress report.

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

APPENDIX G: Permission for the Use of Research Instrument (Dialectical Ways of Coping Checklist)

Hi Delray,

Thank you for contacting me and for being interested in using my scale. You can most certainly use it. I would love to hear about your results once you have them. Thank you and please let me know if I can be of any additional assistance.

Best,

Andrada D. Neacsiu, M.S.

Behavioral Medicine Psychology Resident

Harborview Medical Center

Seattle, WA 98104

-----Original Message-----

From: delray joseph [mailto:delray@3at1mail.co.za]

Sent: Sunday, November 06, 2011 5:05 AM

To: andrada@u.washington.edu

Subject:

To whom it may concern

My name is Delray and i am a final year nursing science (psychiatry) masters student at a university in South Africa currently doing my research proposal.

My research revolves around DBT.

The title of my research proposal: The effective use of DBT skills by patients post discharge.

I am interested in utilizing the DBT- Ways of Coping Checklist for my research proposal and would like to request permission to do so.

Thank you for your co operation

D. Jones