Evaluation and development of new intervention services for people with borderline personality disorder.

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Ethical approval

Ethical approval for the studies described in chapters 2 and 3 was granted by Cardiff University's School of Psychology Ethics Committee.

Approval for the studies described in chapters 4, 5, 6, 7 and 8 was obtained from Gwent Healthcare NHS Trust Research Scrutiny Committee and the Research Risk Review Committee, with ethical approval provided by Cardiff and the Vale NHS Trust Ethics Committee.

Summary

The studies described in this thesis present a three-pronged approach into how services for individuals with personality disorder might be developed. The first two studies begin to examine constructs that appear related to features of borderline personality disorder which may potentially be targets of therapy. Study 1 (chapter 2.) examines the relationship between emotional dysregulation, cognitive dysregulation and features of borderline personality disorder. The findings suggest that both forms of dysregulation predict borderline personality disorder features, particularly depressed mood and a preoccupation with danger. Study 2 (chapter 3) examines the relationship between emotional intelligence, alexithymia and features of borderline personality disorder. The findings suggest that only alexithymia predicts borderline features and that alexithymia and emotional intelligence correlate only moderately. The third, fourth and fifth studies highlight a need for training as recommended by NIMHE's (2003b) 'Personality Disorder Capabilities Framework' for all staff and agencies that come into contact with individuals with personality disorder. In particular study 3 (chapter 4) investigates the reasons why patients are referred to a specialist personality disorder service, the problems that patients may present with to teams, how staff feel about and cope with such problems, what could be done to improve coping, and what training support and guidance staff feel they need from a specialist service. The findings indicate that many staff feel frustrated and stuck with this patient group, reporting high levels of negative behaviour such as self-harm and substance abuse. Although many staff feel confident most

report the need for formal training and support. Study 4 (chapter 5) assesses Gwent Healthcare NHS trust nurses' attitudes towards patients with personality disorder. Here a sample of nurses who volunteered to undergo personality disorder awareness training is compared to those who did not volunteer. Both samples are combined and compared to samples taken from prison and high security setting. The findings indicate that nurses who volunteer to undergo personality awareness training display significantly more positive attitudes towards personality disorder than those who do not volunteer for the training. However nurses who work in prison and high security settings display significantly more positive attitudes towards personality disorder compared to Gwent Healthcare NHS nurse samples combined. Study 5 (chapter 6) comprises of a Delphi survey that elicits patients' views on their experiences of services *en-route* to a specialist personality disorder service. The findings indicate that patients value respect professionalism, and services that provide personal support that meets their needs. In general police, general practitioners and community psychiatric nurses are viewed positively whilst psychiatric hospital staff could improve. General hospital staff such as accident and emergency staff, and particular surgical wards are viewed unfavourably. Specialist personality disorder services are viewed favourably. The last two studies highlight that assessments need to be conducted on patients at the point of referral and that ongoing assessments are required over the course of a patient's contact with a specialist personality disorder service. Study 6 (chapter 7) investigates the differences between those who continue therapy for borderline

personality disorder with those who discontinue therapy. The findings indicate that those who discontinue with therapy have more complex personality disorder profiles and are more externally motivated for therapy and were less internally motivated. A negative problem solving orientation predicts discontinuation of therapy. Therapy discontinuers spend on average 3 times longer in hospital compared to continuers. Study 7 (chapter 8) begins to devise a method of assessing and measuring an individual's response to and progress in Dialectical Behaviour Therapy using single case experimental methods. The findings indicate that although effective methods exist they require tailoring to an individual patients' clinical functioning and ongoing monitoring.

The following publications have arisen directly from work described in this thesis.

Webb, D., & McMurran, M. (2007). Nursing staff attitudes towards patients with personality disorder. *Personality and Mental Health,* 1, 154-160.

Webb, D., & McMurran, M. (2008). A delphi survey of patients' views of services for borderline personality disorder: A preliminary report. *Personality and Mental Health,* 2, 17-24.

Webb, D., & McMurran, M. (2008). Emotional intelligence, alexithymia and borderline personality traits in young adults. *Personality and Mental Health,* 2, 265-273.

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Chapter 1. Introduction

1.1. Background

Personality disorders are a prevalent and serious problem within society that come with a high social and economic cost. Until recently, many National Health Service (NHS) Trusts were reluctant to treat people with personality disorder because it was seen as not a mental illness and personality disorder sufferers are seen as difficult to treat. Also, there has often been a mismatch between the services provided by mental health professionals and the needs of people with personality disorder. This led to reluctance to admit such individuals into treatment and a sense of dissatisfaction amongst service users with personality disorder.

Over the last decade several psychological interventions have been tailored to the needs and response styles of people with personality disorder including Cognitive Behavioural Therapy (Evans et al., 1999), Cognitive Analytical Therapy, (Ryle & Golynkina, 2000) Social Problem Solving Therapy (McMurran, Fyffe, McCarthy, Duggan, & Latham, 2001), Mentalisation Based Therapy (Bateman & Fonagy, 2000), Schema-Focused Therapy (Young, Klosko, & Weishaar, 2003), Transference Focused Psychotherapy (Clarkin, Levy & Schiavi, 2005) and Dialectical Behavioural Therapy, (Linehan, 1993). Coupled with the empirical evidence, the need to develop services for people with personality disorders has been given further impetus by high profile cases of patients with severe personality disorder who have committed serious crimes, the growing public pressure to provide treatment to these

people and targets to reduce suicide rates for all client groups. This changing context is reflected in revision of the 1983 Mental Health Act, which broadens the definition of mental disorder to include patients with personality disorder and removes the treatability clause relating to personality disorder. The treatability clause meant that only people with a disorder that was believed to be treatable could be treated in a mental health setting. This prevented services from working with people diagnosed as having a personality disorder, as these were seen as not treatable. In light of recent changes to mental health directives that stipulate that NHS Trusts must not exclude patients with personality disorders from treatment, increasing numbers of specialist services for people with personality disorder are being established. A new community-based service for people with borderline personality disorder, known as the Gwylfa Therapy Service, has been established within Gwent Healthcare NHS Trust and there has been opportunity to evaluate this service from its inception. The National Institute for Mental Health in England (NIHME, 2003a) document, Personality disorder: No longer a diagnosis of exclusion, puts forward a number of recommendations that services developed specifically for people with personality disorder should follow, and these are that services: (1) consist of a multidisciplinary team with appropriate knowledge and dedicated resources for the management and treatment of personality disorder, (2) provide a consultation process for mental health teams and related services for patients who are difficult to manage, (3) provide a process of referral to treatment for mental health teams and related services with patients who can no longer be managed by a

less specialist team, (4) provide training to members of less specialist services to enable them to better manage patients with personality disorder.

Gwent Healthcare National Health Service Trust recognised the need to implement the recommendations of the NIMHE (2003a) document and in accordance with the document the Gwylfa Therapy Service was set up. The Gwylfa Therapy Service is a multidisciplinary service that provides four separate services to Community Mental Health Teams and related services throughout Gwent Healthcare NHS Trust. These include a consultation service, a specialist clinical service, a gate-keeping service for out of area referrals, and training and development support. The consultation service allows Community Mental Health Teams to gain expert advice and support with patients who are suffering from borderline personality disorder who may be too difficult to manage otherwise. A specialist intensive clinical service is available for patients who are too difficult to manage by their local Community Mental Health Team even with support from the Gwylfa Therapy Service. The Gwylfa Therapy Service manages the patient by providing day-to-day support as well as one-to-one weekly Dialectical Behaviour Therapy sessions and skills groups. The Gwylfa Therapy Service also provides a gate-keeping service which consists of monitoring the number of patients who require more intensive support through out of area services. By providing an intensive clinical service the Gwylfa Therapy Service endeavours to limit the number of patients requiring support out of area which in turn improves such patients' quality of life. Finally the Gwylfa Therapy Service provides training

and supervision to all services that come into contact with individuals with borderline personality disorder. The training aims to raise awareness about the particular needs of such patients and how different services can liaise to provide consistent support. Training and supervision is available not only to Community Mental Health Teams but also to the Police, general hospital staff and General Practitioners.

1.2. Personality Disorder

Personality disorders are described as psychiatric conditions relating to functional impairment, or psychological distress resulting from deeply ingrained, non-psychotic, inflexible and maladaptive patterns of relating, perceiving and behaving that persists over many years. There are two major diagnostic classification systems that describe personality disorders, the International Statistical Classification of Diseases and Health Related Problems, 10th Revision (ICD-10; World Health Organisation, 1992) and the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV; American Psychiatric Association, 1994). There are 5 major axes in the DSM. axis I refers to major mental illnesses such as schizophrenia and bi-polar disorder whereas axis II disorders refer to personality disorders and mental retardation which can predispose an individual to axis I disorders. For example an individual with personality disorder may develop depression as a result of the lifestyle they live because of the personality disorder they experience. Although axis II disorders can have profound effects upon a persons life they are not seen as major mental illnesses in the way axis I

disorders are viewed. A description of axes III, IV and V are beyond the scope of the work here.

1.2.1. ICD-10 diagnostic criteria for personality disorder

The ICD-10 defines personality disorder as 'deeply ingrained and enduring behaviour patterns, manifesting themselves as inflexible responses to a broad range of personal and social situations' (World Health Organisation, 1992, p. 200). They represent either extreme or significant deviations from the way the average individual in a given culture perceives, thinks, feels, and particularly relates to others. Such behaviour patterns tend to be stable and to encompass multiple domains of behaviour and psychological functioning. 'They are frequently, but not always, associated with various degrees of subjective distress and problems in social functioning and performance' (World Health Organisation, 1992, p. 200).

1.2.2. DSM-IV diagnostic criteria for personality disorder

The DSM-IV defines personality disorder as 'an enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment' (American Psychiatric Association, 1994, p.629).

1.2.3. Personality disorder clusters

Within the ICD-10 and the DSM-IV personality disorders that most commonly

co-occur are grouped into three clusters. Because personality disordered patients rarely belong to just one category of personality disorder a clustering system was developed as a solution and it has been shown to be useful in distinguishing different populations of psychiatric patients. Furthermore such an approach hybridises dimensional and categorical models of personality disturbance (Reich & Thompson, 1987). For the ICD-10 personality disorders are grouped similarly to the DSM clusters. For the sake of clarity the groupings of the ICD-10 will be called clusters here, and they are: Cluster A – odd/eccentric (paranoid and schizoid); Cluster B – impulsive/erratic (dissocial, emotionally unstable, either borderline or impulsive); and Cluster C – anxious/avoidant (anxious, dependent, anankastic). For the DSM-IV the clusters are; Cluster A – odd/eccentric (paranoid and schizoid); Cluster B – impulsive/erratic (anti-social, borderline, histrionic and narcissistic); and Cluster C – anxious/avoidant (avoidant, dependent and obsessive compulsive).

1.2.4. Validity and reliability of personality disorder diagnosis

Livesley (2001) noted the shortcomings of the diagnostic categories of personality disorders in relation to a number of types of validity. Criteria for a diagnostic category often do not adequately describe what clinicians consider to be important in a disorder, which suggests that content validity is poor. Diagnoses do not clearly define homogenous groups (internal validity) nor do they produce groups that are distinct from other groups (external validity), which suggests that construct validity is poor. Arntz (1999) notes that both

DSM-IV and ICD-10 diagnostic definitions are categorical and polythetic, meaning that only a number of diagnostic criteria have to be met. Arntz (1999) notes that this leads to an unacceptably high number of variants of the same disorder, for example, in the DSM-IV there are 247 ways to diagnose borderline personality disorder. This further questions the validity of the construct.

Arntz (1999) also notes that there is an absence of theory underlying the concept of personality disorder and that they are not empirically based which suggests that diagnoses of personality disorders have poor predictive validity in terms of aetiology and course. Arntz (1999) notes that personality disorder diagnoses are a combination of both psychological traits as well as behaviour, which leads to doubts as to whether the criteria for personality disorder identify undesirable personality traits or deviant behaviour. This leads to doubts about the validity of the diagnosis.

Problems with diagnosing personality disorder have been compounded by unstructured clinical judgements which tend to be unreliable or inconsistent due to differences in clinical opinions (Mellsop, Varghese, Joshua, & Hicks, 1982), but this has been improved through the use of semi-structured interviews and questionnaires, both of which guide clinicians to ask questions relevant to the diagnoses of the classification system being used (i.e., ICD-10 or DSM-IV). One such questionnaire that is used to diagnose personality disorder is the International Personality Disorder Examination (IPDE;

Loranger, 1999). The International Personality Disorder Examination is a semi structured interview which was designed to diagnose the entire range of personality disorders via criteria defined by both the ICD-10 and the DSM-IV. The International Personality Disorder Examination produces a score for each personality disorder, that is, it indicates a negative, probable or definite diagnosis of that personality disorder. The International Personality Disorder Examination is relatively easy to conduct, can diagnose the entire range of personality disorders with both classification systems and demonstrates an inter-rater reliability and temporal stability roughly similar to instruments used to diagnose the psychoses, mood, anxiety, and substance use disorders (Loranger, 1999).

Personality disorders are frequently comorbid in that multiple personality disorders can often be identified within an individual. Livesley (1998) notes that flaws exist in the diagnostic system and that diagnostic overlap may better describe particular personality disorders that are currently described as comorbid. Because diagnostic features of personality disorders overlap, it may difficult for clinicians to easily discriminate between different personality disorders. Fyer, Frances and Sullivan (1988) add that less than one in ten personality disorders are found in pure form which reasonably questions the use of a diagnostic system, whilst Blais and Norman (1997) note that most diagnostic criteria for personality disorders overlap two or more categories.

Personality disorders are also often comorbid with axis I disorders. Maier, Minges, Lichtermann, and Heun (1995) report that over 60% of individuals with a diagnosis of personality disorder also had a diagnosis of an axis I disorder but this figure has been reported as high as over 90% (Swanson, Bland & Newman, 1994). Specifically individuals with personality disorder are more likely to suffer from psychosis (Oldham, Skodol, Kellman, Hyler, Doidge, Rosnick & Gallaher, 1995), depression (Zimmerman and Coryell 1989; Corruble, Ginestet, & Guelfi, 1996), anxiety (Tyrer, Casey & Gall 1983; Tyrer Gunderson Lyons & Tohen 1997) and substance use (Robins, 1998). Livesley (2001) notes that because individuals with personality disorder often present with other forms of mental health problem the distinction between axis I and axis II lack clear rationale. Tyrer (2001) notes that because of the problems with the categorical approach the assessment and classification of personality disorders appears to be moving more towards the condition being viewed as a dimensional construct. Shea, Stout, Yen, Pagano, Skodol, Morey, Gunderson, McGlashan, Grilo, Sanislow, Bender, & Zanarini (2004) argue that the simplest way to explain comorbidity is the high base rates of each disorder or condition that co-occurs, particularly among those who seek treatment. Also the presentation of one type of condition may influence the presentation of another. For example depression may distort an individual with personality disorder's view of themselves which increase symptoms of the particular personality disorder.

1.2.5. Prevalence of personality disorder

The prevalence of personality disorders in the population in England and Wales varies between research studies. Mattia and Zimmerman (2001) report prevalence rates in community samples between 7% and 33% whilst others report a much lower rate of 4.4% of the population, with a gender split of 5.4% of men and 3.4% of women, with obsessive compulsive being the most prevalent, and schizotypal being the least prevalent (Coid, Yang, Tyrer, Roberts, & Ullrich, 2006). A very cautious approach was taken here weighting estimates to minimise sample bias; unweighted, the prevalence was 10.7%. Although equal numbers of males and females suffer from personality disorder antisocial personality disorder. Antisocial personality disorder is more commonly diagnosed in males with borderline personality disorder more commonly diagnosed in females (Johnson et al., 2003).

Prevalence of personality disorder among psychiatric patients has been reported at between 30-40% of out-patients and 40-50% of inpatients (Casey, 2000). Moran (2002) also reported high prevalence rates for both inpatient and outpatient populations. In particular 59% for outpatients with depression, and 81% for an unspecified outpatient population, 67% for inpatients with severe mental illness, 69% for inpatients with an eating disorder, 78% for alcoholic inpatients and 91% for drug addicted inpatients.

Prevalence rates among the prison population in England and Wales are reported as high as 78% for remand persons, 64% for sentenced persons and

50% of female prisoners (Singleton, Meltzer, Gatward, Coid, & Deasey, 1998). With young offenders the figures are even higher. Lader, Singleton and Meltzer (2003) report prevalence rates of personality disorder among male young offenders to be 84% for those on remand and 88% for those sentenced. The prevalence of personality disorder as outlined above indicates that there is a clear need to continue to develop services and treatment that may reduce the psychological impact to the sufferer and the economic impact to wider society.

1.2.6. Problems associated with personality disorder

Individuals with personality disorder present with a number of complex problems including suicide and self-harm, criminal behaviour, substance dependence, and poor work productivity. Acts of self-harm are also known as parasuicidal behaviour and can include overdosing on medication or cutting and blood-letting. However it is worth noting that some individuals who commit such acts may not wish to complete suicide, rather draw attention to their plight. Nevertheless 1% of patients who self-harm die within a year through suicide, a figure which rises to 3-5% over 5-10 years (Hawton & Fagg, 1988). Among persons making suicide attempts 77% meet the criteria for mood disorder, 39% for substance use disorder and 24% for an anxiety disorder, and 34% meet the lifetime criteria for either a conduct disorder or antisocial personality disorder (Beautrais, Joyce, Mulder, Fergusson, Deavoll, & Nightingale, 1996). Overall 90% meet the criteria for a DSM diagnosis of personality disorder. Beautris et al. (1996) also found that the risk of a suicide

attempt increases with increasing psychiatric morbidity as those with two or more disorders had odds of serious suicide attempts that were 89 times the odds of those with no psychiatric disorder. Figures suggest that deliberate successful suicide attempts for individuals with personality disorder are high. Henrikson, Aro, Marttunen, Heikkinen, Isometsa, Kuoppasalmi, and Lonnqvist (1993) reported that 31% of a sample of 229 suicides within an adult community Finnish sample also had a personality disorder. In a male Canadian sample it was found that 57% of suicide completers were diagnosed with personality disorder (Lesage, Boyer, & Grunberg, 1994).

The prevalence of personality disorder in individuals who have committed criminal acts has been examined. Powis (2002) found that personality disorder is linked to general violence, domestic violence, sex offending, stalking and arson. The prevalence of personality disorder has been found to be high among homicide offenders (Eronen, Hakola, & Tiihonen, 1996) and men who are violent towards their spouses (Dinwiddie, 1992).

Patients with personality disorder are known to excessively use health services. Individuals with personality disorder are frequent users of General Practitioners' surgeries (Moran, Rendu, Jenkins, Tylee, & Mann, 2002), costing approximately £3099 per annum per patient with personality disorder compared to £1633 per patient without a personality disorder (Rendu, Moran, Patel, Knapp & Mann, 2002).

1.2.7. Causes of personality disorder

Although there is no single known cause of personality disorder a number of factors contribute to its development, these include biological, psychological and psychosocial factors. Each of these factors interacts with each other over time. Research into the genetic basis for personality disorder has revealed a high degree of heritability. Torgersen, Lygren, Oien, Shre, Onstad, Edvardsen, Tambs, & Kringlen (2000) conducted an investigation into the genetic basis for the whole range of personality disorders using monozygotic and dizygotic twins. Using DSM diagnostic criteria, Torgersen et al. (2000) found an overall heritability of 60% for personality disorder but more specifically 37% for cluster A, 60% for cluster B and 62% for cluster C. Among specific personality disorders, heritability appeared to be 28% for paranoid, 29% for schizoid, 61% for schizotypal, 69% for borderline, 67% for histrionic, 79% for narcissistic, 28% for avoidant, 57% for dependent, and 78% for obsessive-compulsive.

Temperament is thought to play a biological role in the development of personality disorder. The temperament of a child and the attention it receives from parents and peers interact with each other. A child with a good temperament might receive warmth and love whereas a child with a difficult temperament might leave a care-giver frustrated and lacking in warmth and love, which can lead the child to develop personality pathology (Rutter & Quinton 1984). How an individual copes with stressors also determines whether or not personality pathology develops (Paris, 1996). Paris also notes

that genetic factors explain around 50% of the heritability of personality disorder but the environment also plays a major role.

Neglect and abuse have been thought to contribute to a number of psychological problems. Johnson, Cohen, Brown, Smailes, and Bernstein (1999) revealed that neglect during childhood can be linked to paranoid and schizoid personality disorders, antisocial, borderline and narcissistic personality disorders and avoidant and dependent personality disorders. Johnson et al. (1999) also revealed that physical abuse can be linked to antisocial, borderline, passive aggressive, and psychopathic personality disorder, whilst sexual abuse can be linked to borderline, histrionic and depressive personality disorders. The type of family an individual is raised in has been shown to influence the likelihood of developing a personality disorder. Parents with either axis I or axis II problems, and households with poverty, high unemployment, domestic abuse, family breakdown have all been linked to the development of personality disorder in children raised in such environments (Paris, 1996).

So far the literature presented has focused on personality disorder in general, but because the evaluation that follows in later chapters is concerned with a specialist service for borderline personality disorder more detailed information about borderline personality disorder is necessary.

1.3. Borderline Personality Disorder

1.3.1. ICD-10 diagnostic criteria for borderline personality disorder

According to the ICD-10 (WHO, 1993), borderline personality disorder is defined as one of two types of emotionally unstable personality disorder. The first is known as impulsive type and the latter is known as borderline type. For the emotionally unstable personality disorder impulsive type at least three of the following five items must be present, enduring and long-standing, one of which must be the second item on the following list of criteria.

1. Marked tendency to act unexpectedly and without consideration of the consequences.
2. Marked tendency to quarrelsome behaviour and to conflicts with others, especially when impulsive acts are thwarted or criticised.
3. Liability to outbursts of anger or violence, with inability to control the resulting behavioural explosions.
4. Difficulty in maintaining any course of action that offers no immediate reward.
5. Unstable and capricious mood.

For the emotional unstable personality disorder borderline type at least three of the criteria for the impulsive type must be present, enduring and long standing with at least two of the following five items.

1. Disturbances in and uncertainty about self image, aims and internal preferences (including sexual).

2. Liability to become involved in intense and unstable relationships, often leading to emotional crises.

3. Excessive efforts to avoid abandonment.

4. Recurrent threats or acts of self harm.

5. Chronic feelings of emptiness.

1.3.2. DSM-IV diagnostic criteria for borderline personality disorder

The DSM-IV describes borderline personality disorder as a 'pervasive pattern of instability of interpersonal relationships, self image, affects, and marked impulsivity beginning by early childhood and present in a variety of contexts' as indicated by five or more of the following nine categories' (DSM-IV, APA, 1994, p. 654):

1. Frantic efforts to avoid real or imagined abandonment.

2. A pattern of unstable and intense interpersonal relationships characterised by alternating between extremes of idealisation and devaluation.

3. Identity disturbance: markedly and persistently unstable self image or sense of self.

4. Impulsivity in at least two areas that are potentially self damaging such as spending, sex, substance abuse, reckless driving and binge eating.

5. Recurrent suicidal behaviour, gestures or threats, or self mutilating behaviour.

6. Affective instability due to a marked reactivity of mood, for example, intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days.

7. Chronic feelings of emptiness,

8. Inappropriate, intense anger or difficulty controlling anger, for example, frequent displays of temper, constant anger, recurrent physical fights.

9. Transient, stress-related paranoid ideation or severe dissociative symptoms.

1.3.3. Prevalence of borderline personality disorder

Borderline personality disorder is the most prevalent and most heavily researched form of personality disorder. Figures derived from US samples suggest that borderline personality disorder affects 1-2% of general population, 10% of psychiatric outpatients and 20% of psychiatric inpatients (Lieb, Zanarini, Schmahl, Linehan & Bohus, 2004). Estimates derived from UK samples suggest that borderline personality disorder affects 1% of the population (Coid, Yang, Tyrer, Roberts, & Ullrich, 2006) whilst estimates within psychiatric hospital populations range between 36-67% (NIMHE, 2003). Approximately 75% of all patients diagnosed with borderline personality disorder are women (Links, 1996).

1.3.4. Comorbidity issues of borderline personality disorder

Like many other personality disorders, borderline personality disorder is often comorbid with axis I disorders. Up to 87% of individuals with borderline personality disorder display symptoms of depression (Corruble et al., 1996), 51% symptoms of panic disorder (Hudziak, Boffeli, Kreisman, Battaglis, Stanger, & Guse, 1996) and 75% symptoms of anxiety (Schwartz, Blazer,

George, Winfield, Zakris, & Dye, 1989). Because of the high levels of comorbidity between borderline personality disorder and other disorders, some have called for it to be reclassified as an axis I disorder. Tyrer (2001) argues that it may be time to consider the impact that comorbidity has upon the validity of the diagnosis of any personality disorder. Tyrer (2001) notes that comorbidity demonstrates that the boundaries between certain disorders are unclear, which undermines the clinical value of a diagnosis. For example, borderline personality disorder is found in pure form in less than one in ten instances (Fyer et al., 1988) and is usually comorbid with one or more axis I disorder. Tyrer (2001) notes that within clinical settings the symptoms of personality disorder usually need to be striking before it is given the primary diagnosis.

1.3.5. Self-harm, suicide and borderline personality disorder

Self-injurious behaviour is more prevalent in individuals with borderline personality than any other axis I or axis II disorder. Approximately 75% of individuals diagnosed with borderline personality disorder display parasuicidal behaviour (Gunderson, 1984), which is relatively high compared to rates of 22% in affective disorders (Kessler & Walters, 1998) and 30% for schizophrenia (Radomsky, Haas, Mann, & Sweeney, 1999). The most common form of self-harming behaviours are cutting, burning and self–hitting, which is present in 40 to 80% of individuals with borderline personality disorder (Soloff, Lis, Kelly, Cornelius, & Ulrich, 1994; Brodsky, Cloitre, & Dulit, 1995). Many individuals with borderline personality disorder

are chronically suicidal and make multiple attempts over relatively minor precipitants, which leads to the conclusion that such attempts are merely gestures not to be taken too seriously (Stanley & Brodsky, 2001). However such an attitude is not helpful. Any suicide attempt must not be dismissed as simply gesture, as many attempts of suicide lead to accidental death when the real intention was to merely cry for help. Up to 10% of individuals diagnosed with borderline personality disorder commit suicide; a figure 50 times higher than the general population.

1.3.6. Causes of borderline personality disorder – the biosocial theory

Livesley (2001) points out that changes are occurring in ideas about the aetiology of borderline pathology. Early models tended to view either psychosocial models or biological models as causes of borderline personality disorder. More recently, models have posited that a psychobiological model may better explain the causes of borderline personality disorder. One such multi-dimensional model for borderline personality disorder has been proposed by Linehan (1993) and forms the basis of the therapy she has developed. The model proposed by Linehan is a bio-social model that forms the basis of Dialectical Behaviour Therapy (DBT; Linehan, 1993).

Marsha Linehan (1993) suggests that borderline personality disorder is caused by a combination of biological irregularities and dysfunctional environments that interact and transact over time. Borderline personality disorder is the

result of an emotionally vulnerable individual (biological aspect) experiencing an invalidating environment (social aspect). Paris (1996) suggests that a biological vulnerability is necessary but not sufficient to cause borderline personality disorder but Skodol, Siever, Livesley, Gunderson, Pfohl, and Widiger (2002) note that genetic factors and a problematic childhood can cause emotional problems and impulsivity, which lead to problematic behaviours and psychosocial conflicts and deficits. These problematic behaviours and psychosocial conflicts and deficits can in turn reinforce problematic emotions and impulsivity. Torgersen et al. (2000) note that there are few data highlighting the genetic contribution to borderline personality disorder but they reported that concordance rates in their twin study were 35% for monozygotic twins and 7% for dizygotic twins.

Linehan (1993) posits that invalidating environments during childhood can increase emotional vulnerability and contribute to emotional dysregulation which also leads to a failure in the child to label and regulate emotional arousal, cope with emotional distress, and trust that their own emotions are valid responses to emotional events.

An invalidating environment is one where expressions of emotion are met by erratic, inappropriate or extreme responses, and such an environment prevents expression of the individual's emotional expressions because such expressions are extinguished through being punished, trivialised or dismissed. Specific factors that contribute to the development of borderline personality

disorder have been outlined by Zanarini, Williams, Lewis, Reich, Vera, Marino, Levin, Yong, & Frankenburg (1997), and these are: being female, experiencing sexual abuse by a male who is not a caretaker, emotional denial by a father-figure and inconsistent treatment by a female mother-figure. Social disintegration and rapid social change, such as family breakdown and changing social norms, are non-specific risk factors. Sexual abuse disrupts healthy attachments and can increase the likelihood of developing borderline personality disorder. The younger the individual when experiencing the abuse, the more likely that the symptoms of borderline personality disorder will be present (Hefferman & Cloitre, 2000). In one study, 80% of those diagnosed with borderline personality disorder had experienced physical or sexual abuse (Herman, Perry, & van der Volk, 1989). Sexual abuse need not be the only predictor of borderline personality disorder. Individuals can develop borderline personality disorder when experiencing verbal abuse only, and the abuse need not necessarily be administered by a male; borderline personality disorder can develop even when the abuser is female (Hefferman & Cloitre, 2000).

Denial, neglect and inconsistent parenting have all been associated with the development of borderline personality disorder. Zanarini et al. (1997) notes that neglect take the form of emotional withdrawal, denial of the child's thoughts and feeling, inconsistent treatment and failure to protect the child. Such types of neglect can be the consequence of maternal or paternal

rejection, the number of surrogate parents a child experiences which in turn can be caused by divorce, illness and death of a parent.

Linehan (1993) posits that invalidating environments such as abuse, neglect, family breakdown, and social disruption teach the individual that how they perceive their emotional states and what causes particular emotional states may be incorrect. Moreover, it can also lead the individual to conclude that how they feel is socially unacceptable. In adulthood, individuals with borderline personality disorder tend to invalidate their own emotional responses, which can lead to looking to others for how to respond to reality and to the use of oversimplified ways of solving life's problems. The latter may include the generation of unrealistic goals, an inability to use reward for completing objectives towards main aims, and self-hate for failure to complete these aims. The emotionally vulnerable individual is more likely to feel stressed under low stimulus due to high sensitivity to emotional stimulus and take longer to return to baseline, and also be sensitive to feedback that suggests their experiences are faulty or invalid. Consequently, the individual may not learn to set appropriate goals, label emotions or events accurately or communicate about or regulate emotions. Instead, they learn to inhibit emotional expression or respond to distress with extreme behaviours.

1.3.7. DSM-IV Diagnostic criteria for borderline personality disorder reorganised

Linehan (1993) suggests that borderline personality disorder is primarily a problem with emotional regulation, meaning that high emotional arousal disrupts effective self-management and leads to impulsive problematic behaviour such as suicidal ideation, self-harm and substance abuse. Consequently, Linehan (1993) reorganises the nine categories of the DSM-IV diagnostic criteria for borderline personality disorder into five areas of dysregulation. Emotional dysregulation is placed at the heart of borderline personality disorder whilst interpersonal, self, behavioural, and cognitive dysregulation are seen as attempts to tolerate and overcome emotional dysregulation. Emotional dysregulation is evidenced by reactivity and instability in mood with a general baseline level of dysphoria. Interpersonal dysregulation is evidenced by intense relationships that are caused by emotional dysregulation and accompanying behaviours, which leads others to withdraw. Consequently frantic efforts to avoid abandonment can ensue which can further push others away. Ironically, efforts to avoid abandonment actually elicit in others the behaviour they were meant to prevent. Self dysregulation is reflected in experiencing frequent and strong emotions and associated behaviours that make it difficult for individuals to predict their own behaviour and develop a strong sense of self. This can lead to identity disturbances and a sense of emptiness. This emptiness can be a consequence of repeated exposure to invalidation which can cause individuals to invalidate their own preferences. Behaviour dysregulation can include

suicide and potentially self-injurious behaviour and can be seen as attempts to escape or decrease aversive emotions. Cognitive dysregulation, such as paranoia, dissociation or hallucinations when under stress, may be the consequence of strong emotions on cognitive processes.

1.4. Dialectical Behaviour Therapy for borderline personality disorder

Dialectical Behaviour Therapy is a type of cognitive behaviour therapy that offers practical ways to help people. The term 'Dialectic' reflects a world view in what Linehan (1993) describes as the reconciliation of opposites in a continual process of synthesis. The dialectic world view includes the concepts of interrelatedness and wholeness, polarity, and continuous change. The concept of interrelatedness and wholeness is important in Dialectical Behaviour Therapy for it proposes a systems approach. Linehan (1993) suggests that the analysis of part of a system is of limited use if the analysis cannot be related to the system as a whole. An individual's identity is relational and the boundaries between parts of their identity are temporary and exist only in relation to the whole. The concept of polarity is seen as important because reality consists of internal opposing forces which Linehan (1993) refers to as thesis and antithesis. The reconciliation of these opposing forces is achieved through synthesis. However, by reconciling the opposing forces of thesis and antithesis a new set of opposing forces are created which in turn need reconciling, hence the continual process of synthesis. The primary polarity within the patient that Dialectical Behaviour Therapy aims to

address is that of acceptance and change, which is discussed in greater detail later.

Linehan (1993) posits that borderline personality disorder is the result of dialectic failures. Individuals with borderline personality disorder frequently switch between rigidly held but largely contradictory beliefs and are unable to move forward to a synthesis of the two positions. Individuals with borderline personality disorder see the world from either one position or the other and are unable to view it from both positions. This rigidity prevents the individual from entertaining ideas that engender change which results in emotional pain. Linehan likens this situation to 'splitting', a term borrowed from psychoanalysis, that in Dialectical Behaviour Therapy describes how an individual with borderline personality disorder is stuck in either thesis or antithesis. In psychoanalysis, splitting refers to the irresolvable conflict between intense negative and positive emotions. In Dialectical Behaviour Therapy, splitting can be applied not just to feelings, but to beliefs, wishes, and points of view. Dialectic failure occurs when the individual is unable accept that opposing ideas, wishes, and points of view can coexist.

Consequently three dialectic dilemmas need to be resolved, those being: 1) Emotional vulnerability versus self invalidation, 2) Active passivity versus apparent competence, and 3) unrelenting crises versus inhibited grieving. Emotional vulnerability versus self invalidation occurs because the individual with borderline personality disorder is emotionally vulnerable and aware that

they have difficulty coping with stress. They have unrealistic expectations and making unrealistic demands of themselves and they blame others for this. Combined with unrealistic expectations is an internalisation of the invalidating environment, meaning that the individual with borderline personality disorder has learned to self-invalidate. The dialectic dilemma here occurs because the individual invalidates their own responses but also has unrealistic goals and expectations. Consequently shame and self-directed anger occurs when failure to achieve goals occurs. Swinging between the two opposing poles of making unrealistic demands and experiencing self invalidation perpetuates the dialectic dilemma.

Individuals with borderline personality disorder are active in seeking out individuals who will help them solve their problems but are passive in relation to solving their problems. This is coupled with having learned to give the impression of being competent in response to the invalidating environment. It is possible for the individual to be competent in certain situations but often the skills do not generalise to other situations and are dependent on the mood state of the moment. These two opposing behaviours creates the second dialectic dilemma, that being 'active passivity' vs 'apparent competence'.

Because the individual with borderline personality disorder tends to experience frequent traumatic events that are usually brought on as a consequence of their lifestyle, which can be exacerbated by extreme

emotional reactions and a delayed return to a baseline emotional state, a pattern of 'unrelenting crisis' can occur. In other words, crises follow each other in succession and before a previous crisis is resolved another occurs. This situation is coupled with 'inhibited grieving' which occurs as a consequence of the individual being unable to face and therefore inhibiting their emotional responses to loss or grief. This unrelenting crisis and inhibiting grieving is the third dialectic dilemma.

1.4.1. The aims of Dialectical Behaviour Therapy

Overall, the target within Dialectical Behaviour Therapy is to increase dialectic thinking and to decrease numerous thoughts and behaviours centred around suicide and/or therapy interfering behaviours. The main primary target of Dialectical Behaviour Therapy is to decrease suicidal behaviours.
Linehan (1993) notes that there are five subcategories of suicide-related behaviours that are targeted within Dialectical Behaviour Therapy: (1) suicide crisis behaviour, (2) parasuicidal acts, (3) suicidal ideation and communication, (4) suicide-related expectancies and beliefs, and (5) suicide-related affect. A further primary target of Dialectical Behaviour Therapy is to decrease therapy-interfering behaviours, which can include non-attentive, non-collaborative and non-compliant behaviours. Decreasing behaviours that interfere with quality of life is also a primary aim of Dialectical Behaviour Therapy and such behaviours include substance abuse, such as alcohol, illicit and prescription drugs, risky sexual behaviour, incurring financial difficulties, criminal activity behaviours that may lead to incarceration, involvement in

abusive relationships, and not seeking employment. Other primary targets include increasing behavioural skills which can be achieved through the learning of distress tolerance, emotion relation, mindfulness and interpersonal effectiveness skills. Finally decreasing behaviours related to posttraumatic stress such as denial, emotional numbness and vigilance is also a primary aim of Dialectical Behaviour Therapy.

Secondary targets of Dialectical Behaviour Therapy include: (1) increasing emotion modulation; decreasing emotional reactivity, (2) increasing self-validation; decreasing self-invalidation, (3) increasing realistic decision making and judgment; decreasing crisis generating behaviours, (4) increasing emotional experiencing; decreasing inhibited grieving, (5) Increase active problem solving; decrease active passivity behaviours, and (6) increase accurate communication of emotions and competencies; decreasing mood dependency of behaviour.

1.4.2. Dialectical Behaviour Therapy Treatment modes

There are four primary treatment modes within Dialectical Behaviour Therapy and they are: (1) individual outpatient psychotherapy, (2) skills training, (3) telephone contact and (4) therapist consultation.

Individual psychotherapy

All other modes of therapy revolve around individual psychotherapy which is usually held once a week between the patient and a single therapist assigned

to the particular patient. Sessions usually last 60 minutes, but when the patient may be experiencing a particularly difficult time they may continue for longer. Within individual therapy sessions the therapist and patient discuss the events that have occurred and how the patient managed them. The focus is on problematic responses to situations and how the patient may prevent repeating such responses. This normally involves discussing the application of skills taught during group skills training sessions that also occur weekly.

Skills training

The aim of the skills training is to provide patients with means of coping with the problems that everyday life produces whilst outside of the therapy setting. The skills group is divided up into four modules, those being: (1) Mindfulness skills, (2) distress tolerance, (3) emotion regulation skills, and (4) interpersonal effectiveness skills. The aim of mindfulness skills are to teach the individual to observe the life they are living, whilst being able to describe it and hence participate in it more effectively thus eliminating negative thoughts and behaviours. The aims of the distress tolerance module is to teach the patient to tolerate and overcome crises and to accept life as it may be at that particular moment even if it has a painful element. The aim of the emotion regulation module is to teach the patient to identify the emotion associated with an event, identify obstacles that can change the emotions, reduce the vulnerability to an emotional mind which involves changes in lifestyle such as eating and sleeping habits as well as substance use habits.

Patients are also taught to increase positive emotional events and to increase the awareness to the present emotional state without trying to judge or change it. Other techniques include undertaking an activity that is inconsistent with the negative emotion or simply learning to tolerate the negative emotion by allowing it to exist and identifying how it makes the patient feel.

The aim of the interpersonal effectiveness module is to teach the patient skills that produce automatic responses to situations encountered habitually and novel responses or a combination of responses when particular situations require it. Skills taught in this module help the patient to develop strategies for asking for what one needs, developing the ability to say no when the situation calls for it and dealing with interpersonal conflict and problem solving. Linehan (1993) suggests that effectiveness means obtaining the changes one wants, keeping relationships, and keeping one's self respect.

Telephone consultation

The aim of the Dialectical Behaviour Therapy telephone consultation process is to teach patients to ask for help when they require it. Normally, telephone consultation is available to the patient 24 hours per day and gives the patient access to the therapist which allows the patient to resolve any potential conflict without having to wait until the next weekly therapy session. This can remove a great deal of stress from the patient which increases the patient's ability to undertake more normal day-to-day living.

Case consultation meetings for therapists

Because patients with borderline personality disorder have been perceived as difficult to treat, therapists may feel added pressure when attempting to help patients. Linehan (1993) suggests that this in turn can place great stress upon the therapist and potentially cause them to engage in risky behaviour such as making drastic changes in their therapeutic approach. Case consultation meetings with other clinicians are designed to help therapists discuss their caseload and their approach to the patients on the caseload and to receive feedback as to how well they are coping with each patient.

1.4.3. Stages of therapy

Because patients with borderline personality disorder can present with a number of problems at multiple levels Dialectical Behaviour Therapy is designed to address the most serious and immediate problem faced by the patient.

Pre-treatment stage

Before the patient enters therapy, they are required to undergo an orientation period known as the pre-treatment stage. The aim of this stage is to make the patient aware of the nature of the treatment, how it is conducted, how it is evaluated, and the available modes. At this stage both the patient and the therapist must arrive at a mutual, informed decision to work with each other and help the patient make the changes they would like to see within themselves and their lives. At this stage the therapist also aims to identify

and alter any dysfunctional beliefs he or she may hold about the patient that are likely to interfere with the process of therapy. During this time the therapist must provide the patient with as much information as possible as to the nature of the therapy, the length of treatment and the rules surrounding the delivery of treatment. The therapist must also obtain enough information to make a decision as to whether or not they can work with the patient.

At this stage diagnostic interviewing takes place along with the recording of baseline data via psychometric measures and a daily diary card designed specifically for use within Dialectical Behaviour Therapy. Psychometric measures are used that capture issues related to borderline pathology, whilst the diary cards capture aspects of day-to-day functioning, those being urges to engage in self-injurious behaviour, acts of self-injurious behaviour, emotional dysregulation and use of skills designed to alleviate problem thoughts and behaviours. Once orientation and commitment to treatment is reached, the process moves to the first stage of treatment.

Stage 1. Attaining basic capacities

The first stage of treatment focuses on reducing behaviours that are most troublesome to the patient. The aim here is to reduce severe behavioural disturbance which include suicidal behaviours, therapy-interfering behaviours and behaviours that interfere with quality of life. The aim of this stage is to help the patient develop the skills necessary to resolve such problems.

Stage 2. Reducing posttraumatic stress

This stage of therapy begins only when target behaviours in stage one are mastered and is aimed at directly alleviating post-traumatic stress. Linehan (1993) argues that post-traumatic stress is central to borderline personality disorder, therefore it seems intuitive to tackle it early in stage one, but in Linehan's experience doing so leaves the patient at greater risk of suicide and/or self-harm due to the lack of skills for coping with strong emotions. Therefore, Linehan argues that tackling a sensitive issue such as post-traumatic stress needs to be carefully timed and should only occur when the patient has developed sufficient skills to cope with the pain associated with reliving traumatic situations. Linehan (1993) notes that even though a patient may successfully complete stage two of therapy they may need to return to stage one of therapy as a way to ameliorate pain.

Stage 3. Increasing self respect and achieving individual goals

Stage three of treatment focuses on ordinary happiness, improved relationships and self-esteem and moves away from amelioration of problems to an increased sense of connectedness, joy or freedom. Stage three aims to help the patient develop the ability to validate their opinions, emotions and actions and to respect themselves independently of the therapist. Another aim is to develop goals particularly those that exist outside of the therapy setting. The patient will at this stage demonstrate a reliance on the therapist, requiring help to reduce this reliance from the therapist onto significant others within the patient's own personal environment among family and/or friends.

1.4.4. Efficacy of Dialectical Behaviour Therapy for borderline personality disorder

Because the goals of Dialectical Behaviour Therapy include reducing features of borderline personality disorder including emotional dysregulation, and impulsive and problematic behaviours such as suicidal ideation, self-harm and substance misuse, the therapy has been applied to a number of patient populations. Such populations include borderline adult patients (Linehan, Armstrong, Suarez, Allmon, & Heard, 1991), borderline adolescents (Rathus & Miller, 2002), binge eating disorders (Telch, Agras & Linehan, 2001), substance abuse (Linehan, Schmidt, Dimeff, Craft, Kanter, & Comtois, 1999; Linehan, Dimeff, Reynold, Comtois, Welch, Heagerty, & Kivlahan 2002) and older adults with co-morbid depression, (Lynch, Morse, Mendelson, & Robins, 2003).

Because Dialectical Behaviour Therapy was primarily designed to help those with borderline personality disorder one of the earliest studies aimed to determine its usefulness was conducted by Linehan et al. (1991) using a randomised control trial with 44 parasuicidal women who met the DSM-III diagnostic criteria for borderline personality disorder. Parasuicidal behaviour was measured using the Parasuicide History Interview (PHI; Linehan, Wagner, & Cox, 1989). This study aimed to reduce instances of self-harm, a primary feature of borderline personality disorder. Twenty two patients underwent a 12 month course of Dialectical Behaviour Therapy whilst the remaining 22 experienced treatment as usual which consisted of psychotherapy for 13

patients and unspecified therapy for the remaining 9. Assessments of each group took place at 4, 8 and 12 months and each control subject was yoked the nearest patient who was assigned to enter DBT. Linehan et al (1991) discovered that there was a significant reduction in the number of parasuicidal acts in the group who underwent Dialectical Behavioural Therapy compared to the treatment-as-usual group. There were fewer dropouts in the Dialectical Behaviour Therapy group compared to the treatment-as-usual group. The authors also found a significant reduction in the number of psychiatric hospital admissions for the group who underwent Dialectical Behaviour Therapy. Although scores decreased over the course of the year for scores of depression, hopelessness, suicidal ideation or reasons for living there were no between-group differences.

Because suicidal ideation is also highly prevalent in individuals with borderline personality disorder (Stanley & Brodsky, 2001), Rathus and Miller (2002) examined how the use of an adaptation of Dialectical Behaviour Therapy might reduce suicidal ideation with a 109 suicidal adolescents aged approximately 15-16 years old with features of borderline personality disorder. Criteria for inclusion in the study included a suicide attempt within 16 weeks prior to commencement of the study or current suicidal ideation as measured by the Harkavy-Asnis Suicide Survey (HASS; Harkavy-Friedman & Asnis, 1989a 1989b) and the Scale for Suicidal Ideation (SSI; Beck, Kovacs, & Weismann, 1979). Twenty nine individuals underwent 12 weeks of a twice weekly adaptation of Dialectical Behaviour Therapy consisting of individual

therapy and a multifamily skills group. The length of the therapy duration was shortened to account for adolescents increased likelihood of not completing therapy. Shortening the therapy duration helped the adolescents perceive therapy completion as an achievable goal. Parents were also included in the skills group which enhance the maintenance of skills by teaching them to family members who serve as coaches. Eighty two individuals received 12 weeks of supportive psychodynamic individual therapy plus weekly family therapy which was aimed towards solving acute problems such as identity formation, separation/individuation, intra-psychic conflicts that emerged as relevant to the adolescent's presenting problems, and coping with daily life stressors. Using between group chi-square analyses Rathus and Miller (2002) discovered that the group who underwent Dialectical Behaviour Therapy had significantly fewer psychiatric admissions compared to the group who underwent psychodynamic therapy, even though the Dialectical Behaviour Therapy group were assessed as having more severe pre-treatment symptomatology. In fact 92% of the Dialectical Behaviour Therapy group were found to have comorbid depression as measured by the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). There were no significant differences between groups, however, in the number of suicide attempts during the 12 weeks of therapy. Nonetheless, Rathus and Miller (2002) concluded that Dialectical Behaviour Therapy appears to be the more promising treatment for suicidal adolescents with borderline personality disorder.

Other types of self-injurious behaviours that are associated with borderline personality disorder include binge eating (Linehan, 1993). Telch, Agras and Linehan (2001) evaluated the use of Dialectical Behaviour Therapy adapted for binge eating disorder. A sample of 44 women with binge eating disorder were randomly assigned to a Dialectical Behaviour Therapy group or to a waiting list control. Telch et al. (2001) discovered that 89% of the Dialectical Behaviour Therapy group had stopped binge eating by the end of treatment compared with only 12.5% of controls. Sixty seven percent of the Dialectical Behaviour Therapy group were abstinent at three-month follow-up and 56% abstinent at six-month follow-up.

Substance misuse has also been found to be high among individuals with borderline personality disorder and Linehan et al. (1999) applied Dialectical Behaviour Therapy to a randomised controlled trial aimed at reducing drug use with 28 community-based, drug-dependent women with borderline personality disorder and addicted to a range of substances including opiates, amphetamine, sedatives, hypnotics and anxiolytics. Twelve of the sample underwent Dialectical Behaviour Therapy for one year whilst 16 formed the control group of treatment-as-usual. The participants were assessed every 4 months during therapy and again at a 16 month follow-up. Linehan et al. (1999) discovered significant reductions in drug use in the Dialectical Behaviour Therapy group compared to the control group at follow-up and also greater global adjustment.

Further support for the efficacy of Dialectical Behaviour Therapy with drug dependent women was provided by Linehan et al. (2002), who via a randomised control trial examined the efficacy of Dialectical Behaviour Therapy in 23 opioid-dependent women who were diagnosed with borderline personality disorder. Twelve of the sample were entered into a program of Dialectical Behaviour Therapy for 12 months whilst 11 underwent Comprehensive Validation Therapy with 12-Step (CVT+12S). Dialectical Behaviour Therapy was applied in accordance with the treatment manual as developed by Linehan (1993). Comprehensive Validation Therapy is a manualised approach that incorporates the acceptance based strategies of Dialectical Behaviour Therapy plus 12-step. The 12-step approach is a set of guiding principles for recovery from addiction, compulsion, or other behavioral problems. Originally proposed by Alcoholics Anonymous (AA; Wilson, 1939) as a method of recovery from alcoholism it has been modified and adopted by other organisations to cover drug problems, binge eating and debt and gambling problems. The process of twelve-step recovery process involves the following: admitting that one cannot control one's addiction or compulsion, recognising a greater power that can give strength examining past errors with the help of a sponsor, making amends for these errors, learning to live a new life with a new code of behavior and helping others that suffer from the same addictions or compulsions. Opiate use during this study was measured using urine analyses. Throughout the treatment year urine samples were collected 3 times per week, which usually meant prior to each treatment session. Interviews and self-report measures were conducted by clinical interviewers

blind to the participants' treatment conditions. The assessments were conducted at pre-treatment and again at 4, 8, 12 and 16 months. During each 4-month assessment period client report of illicit drug use was measured using the time-line follow back assessment method (TLFB; Sobell, Sobell, Klajner, Pavan, & basian, 1986). Linehan et al. (2002) discovered that those who underwent the program of Dialectical Behaviour Therapy displayed reductions in opiate use throughout the entire 12 months of therapy. The Comprehensive Validation Therapy with 12-Step group only displayed reductions in opiate use in the last 4 months of therapy. Urinalyses revealed although at post-treatment and at 16-month follow up there was no difference in levels of opiate use, the Dialectical Behaviour Therapy group were significantly more accurate in their self-report of their opiate use compared to the Comprehensive Validation Therapy with 12-Step.

Up to 87% of individuals with borderline personality disorder display symptoms of depression (Corruble et al., 1996) and because of the effectiveness of Dialectical Behaviour Therapy with borderline personality disorder Lynch et al. (2003) examined the usefulness of Dialectical Behaviour Therapy with 34 depressed older adults aged over 60 who were randomly assigned to receive either standard medication management alone or with 28 weeks of Dialectical Behaviour Therapy for depression. The Dialectical Behavioural Therapy consisted of two-hour weekly skills training and half-hour weekly telephone coaching sessions. Four sessions taught education about depression, 2 sessions taught distress tolerance, 3 sessions taught emotion

regulation and 5 sessions taught interpersonal effectiveness. The 14 week sequence of DBT was completed twice over during the 28 week period. DBT patients were asked to complete diary cards that monitored depressive symptoms. Depression and hopelessness were measured using the Hamilton Rating Scale for Depression (Ham-D; Hamilton, 1960), self-reports of depression was recorded using the Beck Depression Inventory (BDI; Beck, Rush, Shaw, & Emery, 1979), ambivalence over expression of emotions was measured using the Ambivalence Over Emotional Expression Questionnaire (AEQ; King & Emmons, 1990), coping styles were measured using the Coping Styles Questionnaire (CSQ; Roger, Jarvis, & Najarian, 1993) whilst sociotrophy and autonomy were measured using the Personal Style Inventory (PSI; Robin, Ladd, Welkowitz, Blaney, Diaz & Kutcher, 1993). Lynch et al. (2003) discovered using ANOVA that with regards to the Ham-D scores both groups displayed significant decreases from pre to post-treatment. In summary those who underwent medication management and Dialectical Behaviour Therapy showed significantly lower levels of depression. At post-treatment, 71% of the medication plus Dialectical Behaviour Therapy group were assessed as in remission compared to 47% of the medication only group. At six-month follow-up, remission rates were 75% for medication and Dialectical Behaviour Therapy group compared to 31% of the medication only group.

In summary, although Dialectical Behaviour Therapy was initially developed to treat symptoms of borderline personality disorder, studies have shown that it can have broad applications. Dialectical Behaviour Therapy not only

ameliorates symptoms of borderline personality disorder, it is also useful in tackling comorbid problems.

1.5. Evaluation of the Gwylfa Therapy Service

1.5.1. Investigating the theoretical basis of Dialectical Behaviour Therapy

Linehan (1993) organises borderline personality disorder into five areas of dysregulation. The most important is emotional dysregulation, with interpersonal, self, behavioural, and cognitive dysregulation all occurring as a result of attempts to control emotional dysregulation. The validity of this approach is examined here, using a student sample. First, the relationship between emotional and cognitive dysregulation, is examined, positing that cognitive dysregulation may play as an important role in a model of borderline personality disorder as emotional dysregulation. Second, in order to help clarify the nature of borderline personality disorder, an examination of the relationships between borderline personality disorder, Emotional Intelligence and alexithymia is presented.

1.5.2. Systemic evaluation

This section focuses first on the consultation service, identifying issues surrounding training and development support for staff in services that come into contact with patients with borderline personality disorder. This evaluation highlights reasons why patients are referred to the Gwylfa Therapy Service, the problems patients present to teams, how staff feel about and cope with

the patients and their problems, what could be done to improve coping, and what training, support and guidance that staff feel most in need of from the Gwylfa Therapy Service. The evaluation of the consultation service comprises of a telephone interview with members of Community Mental Health Teams to establish the effectiveness of the consultation service, what works, what does not and how it might be improved. The findings of the evaluation support earlier findings that education programmes surrounding aetiology, patient behaviour, staff responses and treatment methods can improve staff knowledge of and attitudes towards patients diagnosed as borderline personality disorder (Miller & Davenport, 1996). Consequently the findings from the evaluation of the consultation service have been used to improve and streamline the service.

The systemic evaluation next focuses on staff attitudes towards patients with personality disorder to help clarify how training may help improve staff attitudes. Among the key functions of a specialist personality disorder service is the need to develop training procedures that improve the attitudes and capabilities of mental health staff working with patients with a personality disorder. The study assessed Community Mental Health Team nurses' attitudes to patients with personality disorder. The study found that Community Mental Health Team nursing staff require help to feel safer, more accepting and more purposeful when working with patients with personality disorder. Some of these issues may be addressed through the formulation of policies and good practice procedures, but staff also need to be trained for

working with people with personality disorder. The results of this study have led to the design of more suitable training for Community Mental Health Team staff.

Finally the systemic evaluation examines patients' views on the attitudes of staff from all services they have had contact with were gathered. This was in accordance with Department of Health guidelines stipulating that specialist personality disorder services should gather feedback from service users. This study sheds light upon the education, training and supervision needs of staff from services that come into contact with patients with borderline personality disorder. This information has helped to identify which services require training and support from the Gwylfa Therapy Service to better manage the needs of patients presenting with complex psychological difficulties.

1.5.3. Clinical evaluation

An evaluation of the specialist therapy service is presented, looking at differences in patients who continue with therapy compared to those who discontinue therapy. Motivation is a key factor in remaining in therapy, in particular internal motivation and treatment non-completion is a significant problem for personality disorder treatment services. This study highlights factors that determine whether or not someone remains in therapy and the impact on service user discontinuation of therapy may have.

The effectiveness of Dialectical Behaviour Therapy with the particular patient groups that the Gwylfa Therapy Service caters is also presented. Using single case methodology, change on diary cards and psychometric tests and psychiatric hospital admissions data were examined to establish an effective way of evaluating Dialectical Behaviour Therapy using single-case methods.

Investigating the theoretical basis of DBT

Chapter 2. Emotional Dysregulation, Cognitive Dysregulation and Features of Borderline Personality Disorder in Young Adults

In this chapter the relationships between emotional and cognitive dysregulation and features of borderline personality disorder is examined.

2.1 Introduction

In developing Dialectical Behaviour Therapy, Linehan (1993) organised the DSM-IV diagnostic criteria for borderline personality disorder into five areas of dysregulation: emotional, interpersonal self, behavioural, and cognitive. *Emotional dysregulation* includes episodic depression, anxiety and irritability, as well as problems with anger and anger expression. *Interpersonal dysregulation* occurs because an absence of a healthy sense of identity combined with an inability to regulate emotions reduces the success of interpersonal interactions. *Self dysregulation* is seen as a failure to develop a healthy sense of identity caused by continually shifting emotions, which makes it difficult for the individual to predict his or her own behaviour and is typified by a lack of a sense of self. *Behavioural dysregulation* is evidenced by self harm, overdosing on medicine or drugs, substance misuse, and suicide attempts, and is the result of efforts to control intense negative emotions. *Cognitive dysregulation* is described as brief non-psychotic forms of thought dysregulation, including depersonalisation, dissociation and delusions which

are brought on by stress and tend to alleviate when the stress is ameliorated.

Linehan (1993) placed emotional dysregulation as central to borderline personality disorder, with cognitive, behavioural, self and interpersonal dysregulation either as consequences of emotional dysregulation or maladaptive attempts to regulate problematic emotions. Linehan suggested that emotional dysregulation is biologically-based and that early problems with emotion regulation interact and transact over time with an invalidating environment to exacerbate problems in this area. Linehan (1993) posited that individuals with borderline personality disorder are sensitive to emotional stimuli, experience emotions more intensely, have difficulty in controlling emotional intensity and take longer to return to baseline. This can cause a situation where the individual rarely experiences baseline levels of emotion due to the emotional sensitivity causing emotional reactions to seemingly innocuous events. Such events are experienced more intensely and the individual struggles to control the emotional experience. This can cause a slow return to baseline which in turn may lead the individual to experience a further traumatic event before recovering from the previous one. Linehan opts for the term 'emotional dysregulation' to describe the ability, or lack of ability to experience emotions in a normal manner.

Although emotional dysregulation is hypothesised as being fundamental in Linehan's (1993) model of borderline personality disorder, and other types of dysregulation are hypothesised as consequential, there has been relatively

little empirical examination of emotional dysregulation and borderline personality disorder or the relationships between other areas of dysregulation implicated in borderline personality disorder, but this is beginning to change. Yen, Zlotnick and Costello (2002) examined the relationship between specific dimensions of emotional dysregulation, and borderline traits in a sample of 39 women undergoing a 5-day partial hospitalisation programme who exhibited features of borderline personality disorder. Emotion was measured using the Affect Intensity Measure (AIM; Larson & Diener, 1987). Yen et al. (2002) discovered that as affective intensity increased, affective control decreased and both were significantly associated with features of borderline personality disorder, even after controlling for affective intensity (necessary because individuals experiencing more intense emotions generally have greater difficulty regulating their emotions). This finding supports Linehan's theory of borderline personality disorder, in which emotional dysregulation is a central feature. However whilst the evidence presented by Yen et al. (2002) suggests that emotional dysregulation is a core feature of borderline personality disorder other studies suggest that this might not be the case.

Findings contrary to the above study are provided by Herpertz, Kunert, Schwenger, Eng, and Sass (1999), who compared emotional regulation in 24 BPD-diagnosed women in treatment with 27 female students and non-academic staff who were not diagnosable with borderline personality disorder. Physiological measures of affect, such as skin conductance, heart rate and startle reflex, were examined in relation to the presentation of unpleasant

visual images. Women with a diagnosis of borderline personality disorder did not report or physiologically produce any signs of more intense affective responses than the comparison group. Women with a diagnosis of borderline personality disorder tended to be relatively under-aroused. Herpertz et al. (1999) concluded their results did not support the hypothesis that there is a biologically-based affective hyper-responsiveness (emotional dysregulation) in individuals with borderline personality disorder, as proposed by Linehan (1993).

Tragesser, Marika, Solhan, Schwartz-Mette, and Trull (2007) produced evidence that affective instability is a central feature of borderline personality disorder. Using the Personality Assessment Inventory Borderline scale (PAI-BOR; Morey 1991) with 156 males and 194 females, Tragesser et al. (2007) found that affective instability as measured by the Personality Assessment Inventory Borderline scale at age 18 years was a significant predictor of other borderline features two years later.

However emotional intensity has been revealed to be only a narrow strand of emotional dysregulation. Using the DSM-IV definition of "affective intensity of marked reactivity of mood from baseline to depression, irritability, or anxiety, usually lasting a few hours and only rarely more than a few days", Koenigsberg et al. (2002) examined affective instability as measured by the AIM and the Affective Lability Scale (Harvey, Greenberg & Serper, 1989) in 152 patients with personality disorder. By comparing those with borderline

personality disorder to those with other forms of personality disorder Koenigsberg et al. (2002) discovered that 'the affective instability characteristics of borderline personality disorder do not appear to involve all affects, nor is it explained by an increase in the subjective intensity of affective experience' (p. 787). Instead, borderline personality disorder is associated with increased feelings of anger and anxiety and an oscillation between anxiety and depression, but not depression alone.

Further evidence suggesting that affective intensity may not play as important a role in borderline personality disorder was provided by Gratz, Rosenthal, Tull, Lejuez and Gunderson (2006), who were interested in how individuals with borderline personality disorder tolerated distress in order to achieve particular goals. They compared 17 outpatients with borderline personality disorder with 18 outpatients without a personality disorder in their ability to complete problem solving tasks and anagrams with a financial incentive to do as well as possible. Gratz et al. (2006) did not report the exact nature of the distress experienced by the participants but discovered that, although individuals with borderline personality disorder were less willing to experience distress in order to pursue goal-directed behaviour, they did not exhibit greater difficulties engaging in goal-directed behaviour compared to controls. This implies some element of control over emotional dysregulation, leading Gratz et al. (2006) to suggest that only some aspects of emotional dysregulation may be relevant to borderline personality disorder; a willingness to tolerate emotional distress and emotional control appears more important

whereas the intensity of the emotional distress appears less important.

In earlier research, Gratz and Roemer (2004) argued that the conceptualisation of emotion regulation should not involve just the modulation of emotional arousal. In developing an emotion regulation scale, Gratz and Roemer (2004) ran studies examined emotion and behaviour which empirically support a multidimensional conceptualisation of emotion regulation and concluded that there are six separate yet related dimensions of emotion regulation where difficulties occur. These are: a lack of awareness of emotions, lack of clarity of emotional responses, a non-acceptance of emotional responses, a limited access to emotion regulation strategies perceived as effective, difficulty controlling impulses when experiencing negative emotions and difficulties engaging in goal-directed behaviours when experiencing negative emotions. The authors suggested that their findings highlight the importance of distinguishing between the awareness and understanding of emotional responses and the ability to act in desired ways when experiencing negative affects. This suggests a more cognitive rather than physiological basis for emotion regulation.

Support for a cognitive-based approach to the regulation of emotion is offered by Garnefski & Kraaij (2002) in their development of the Cognitive Emotion Regulation Questionnaire (CERQ; 2002). The psychometric properties of the CERQ were tested using 611 adults in a normal population, the results of which produced strong empirical support for the measure's reliability. The

authors posited that cognitive strategies such as self-blame, rumination, catastrophising, perspective taking, positive refocusing and reappraisal, as well as acceptance and planning, have been consistently associated with negative emotions such as depression, anxiety, stress and anger. Such cognitive strategies help an individual act in desired ways regardless of emotional state.

Overall, the evidence could be interpreted as meaning that emotional regulation although central to borderline personality disorder may share its position with elements of cognitive regulation. Briere (2000) in developing the Cognitive Distortion Scale (CDS) concluded that individuals with borderline personality disorder suffer from anxiety and depression, which have been associated with low self-esteem and negative attributions about oneself, others and the wider world. Such unnecessarily negative views create cognitive distortions or dysfunctional thinking patterns such as unnecessary self-blame and criticism, helplessness, hopelessness and an inaccurate belief that the world is dangerous (Briere, 2000).

Because there is evidence to suggest that within a model of borderline personality disorder emotional dysregulation may share its position with cognitive dysregulation which is manifest as cognitive distortions, the aim of this study was to examine the relationships between the three constructs in order to determine which form of dysregulation is more predictive of borderline personality disorder. Emotional dysregulation is measured here

using the Affective Control Scale (ACS; Williams, Chambless, & Ahrens, 1997), and was chosen because it focuses on anger, anxiety and depression, which as mentioned above are the emotions or affects that Linehan (1993) argues define emotional dysregulation. Cognitive dysregulation was measured by the Cognitive Distortion Scales (CDS; Briere, 2000), which measures self-criticism, self-blame, helplessness, and preoccupation with danger, that is the negative attributions about oneself, others and the outside world that have been linked to anxiety, depression, anger and aggression, and which are associated with borderline personality. Features of borderline personality disorder are measured by the Personality Assessment Inventory – Borderline Scale (PAI – BOR; Morey, 1991), which focuses on aspects related to borderline personality such as self-harm, emotion and identity difficulties, and relationship problems. The Personality Assessment Inventory – Borderline Scale has validity in relation to diagnosis and is suitable for use with both clinical and non-clinical populations (Morey 1991; Trull, Useda, Conforti & Doan, 1997). It is hypothesised that both the Affective Control Scale and the Cognitive Distortion Scale will significantly predict features of borderline personality, however, this study aims to examine if emotional or cognitive dysregulation more strongly predicts features of borderline personality disorder.

2.2. Method

2.2.1. Participants

Participants were recruited from Cardiff University's experiment participation panel. One hundred and thirty four undergraduates and postgraduates who logged on to the Experiment Management System responded to an invitation to participate in the study online for which they would receive £4. Of these, 73% were female. Eighty-nine percent were aged 18-24 years, 4% aged 25-29, 3% aged 30-34 and 1.5% aged 35-39. The majority was white British (74%), 11% were Asian, and the remainder described themselves as 'other'.

2.2.2. Measures

Personality Assessment Inventory – Borderline Features Scale (PAI-BOR; Morey, 1991). The Personality Assessment Inventory is a 344 item self-report questionnaire, within which lies the PAI-BOR, a 24 item self-report scale that assesses four core features of borderline personality disorder. There are 6 items in each of 4 scales: affective instability, identity problems, negative relationships, and self-harm impulsivity (not suicidality). Each item is rated on a 4-point scale, where 0 = false, 1 = slightly true, 2 = mainly true, 3 = very true. Each scale has a score in the range 0 to 18, and scales are summed to give a PAI-BOR total score ranging from 0 to 72. A higher score reflects a higher level of dysfunction. Internal consistency for the PAI-BOR is .91 and test-retest reliability is .90 in a sample of men and women under 40 years old (Morey, 1991).

Affective Control Scale (ACS; Williams, Chambless, & Ahrens, 1997). The Affective Control Scale is a 42 item measure aimed at assessing fear of emotions and attempts to control emotional experience. The Affective Control Scale covers four domains: Anger (8 items), positive affect (13 items), depressed mood (8 items), and anxiety (13 items). Respondents rate the extent to which they agree or disagree with each item on a 7-point scale from 0 (strongly disagree) to 7 (strongly agree). A total Affective Control Scale score can be calculated by adding the scale scores, giving a range from 42 to 294. A higher score reflects a higher level of dysfunction. Internal consistency alpha is .94 and test-retest reliability is .78 (Williams, Chambless, & Ahrens, 1997).

Cognitive Distortion Scales (CDS; Briere, 2000). The Cognitive Distortion Scale is a 40-item self-report questionnaire with 5 scales each consisting of 8 items: self criticism, self blame, helplessness, hopelessness and preoccupation with danger. Respondents rate the frequency of each item over the previous month on a scale of 1 to 5, hence on each scale scores range from 8 to 40 with higher scores reflecting higher levels of dysfunction. Alpha coefficients for the scales range from .89 to .97 (Briere, 2000).

2.2.3. Procedure

An online Experiment Management System (EMS) was used to access students. Students who are actively looking to participate in research studies for course credits or financial reward access EMS. Potential participants read

a short information sheet and consent form prior to participation in the study. Clicking on 'accept' was taken as informed consent to participate. Each participant then read a brief set of instructions and completed each questionnaire in turn. At the end, a debrief sheet explaining the nature of the research was provided, and participants received information on how to access either credit or payment for their participation. Participation in this study took no more than 40 minutes.

2.2.4. Analyses

Data were not normally distributed, and normality was not achieved by transforming into z scores or log transformation, hence non-parametric correlations were used. Bivariate Spearman's Rho correlations were conducted between the Affective Control Scale, the Cognitive Distortion Scale and the PAI–BOR scale scores and total scores to investigate relationships. Variance Inflation Factor (VIF) and tolerance statistics were within acceptable limits and are cited below where applicable. Simple regressions were used to analyse the relationships between the Affective Control Scale, the Cognitive Distortion Scale and the Personality Assessment Inventory-Borderline Scale scores. Then, using forced entry multiple regressions, the extent to which each of the ACS scales predicts the Personality Assessment Inventory-Borderline Scale scores, and the extent to which each of the CDS scales predict the Personality Assessment Inventory-Borderline Scale scores were examined. Those ACS and CDS scales that significantly predicted Personality Assessment Inventory-Borderline Scale scores were then entered into a forced

entry multiple regression to determine what most strongly predicted borderline features.

2.3 Results

Means and standard deviations for all test scales and subscales are provided in Table 2.1. The mean total score for Personality Assessment Inventory-Borderline Scale scores was 26.32 (*SD* = 10.61, range 6-59). For comparison, Morey (1991) reported a mean of 18 (*SD* = 10) in a community sample (*N*=1,000), and a mean of 31 (*SD* = 14) in a clinical sample (*N*=1,246). Trull et al. (1997) reported a mean of 31.39 (*SD* = 13.85) in a non-clinical college sample (*N*= 1051).

Table 2.1

Scores for the Affective Control Scale, the Cognitive Distortion Scale and the Personality Assessment Inventory-Borderline Scale

Scale and Subscales	Mean	Standard Deviation	Sample Size
ACS			
Anger	28.81	6.64	134
Positive Affect	42.30	8.63	134
Depressed Mood	26.54	8.50	134
Anxiety	45.01	10.09	134
Total	142.66	26.26	134
CDS			
Self Criticism	18.57	5.89	134
Self Blame	17.25	5.36	134
Helplessness	15.29	5.89	134
Hopelessness	13.13	6.17	134
Preoccupation with Danger	15.72	5.07	134
Total	64	19.51	134
PAI-BOR			
Affective Instability	6.54	3.51	132
Identity Problems	7.51	3.34	134
Negative-Relationships	7.70	3.42	133
Self Harm	5.28	3.18	120
Total	26.32	10.61	134

Bivariate Spearman's Rho correlations, shown in Table 2.2, indicate positive correlation between the total Affective Control Scale and the Personality Assessment Inventory-Borderline Scale scores of .52 ($p<.001$). Table 2.2 also indicates a positive correlation between the total Cognitive Distortion Scale and Personality Assessment Inventory-Borderline Scale scores of .52 ($p<.001$), and between the total Affective Control Scale and Cognitive Distortion Scale scores of .43 ($p<.001$). The subscale of the Personality

Assessment Inventory-Borderline Scale scores that correlated the most with the Affective Control Scale and Cognitive Distortion Scale total scores was the interpersonal problems subscale which correlated with both at .55 ($p<.001$).

Table 2.2

Intercorrelations of scales for the Affective Control Scale, the Cognitive Distortion Scale and the Personality Assessment Inventory-Borderline Scale

	ACS					PAI-BOR					
Scale	SC	SB	Hel	Hop	PwD	cds-tot	AI	IP	NR	SH	pai-bor tot
ACS											
Ang	.02	.20*	.30**	.26**	.25**	.23**	.37**	.38**	.28**	.12	.34**
PA	.02	.25**	.34**	.30**	.30**	.25**	.22*	.27**	.27**	.25**	.29**
DM	.33**	.34**	.51**	.52**	.43**	.50**	.60**	.65**	.42**	.15	.59**
Anx	.14	.24**	.43**	.33**	.38**	.33**	.46**	.41**	.30**	.21*	.39**
acs-tot	.19*	.35**	.52**	.45**	.44**	.43**	.53**	.55**	.40**	.26**	.52**
CDS											
SC							.36**	.38**	.26**	.14	.38**
SB							.32**	.40**	.36**	.29**	.41**
Hel							.42**	.54**	.38**	.24**	.50**
Hop							.42**	.56**	.44**	.23*	.51**
PwD							.37**	.42**	.43**	.28**	.48**
cds-tot							.45**	.55**	.40**	.26**	.52**

** Correlation is significant at the 0.01 level (2 tailed), * Correlation is significant at the 0.05 level (2 tailed). Affective Control Scale – Ang = Anger, PA = Positive Affect, DM = Depressed Mood, Anx = Anxiety, ACS-tot = Total. Cognitive Distortion Scale – SC = Self Criticism, SB = Self Blame, Hel = Helplessness, Hop = Hopelessness, PwD = Preoccupation with Danger, CDS-tot = Total. Personality Assessment Inventory-Borderline Scale – AI = Affective Instability, IP = Interpersonal Problems,
NR = Negative Relationships, SH = Self Harm, PAI-BOR tot = Total.

The relationship between the Affective Control Scale and Personality Assessment Inventory-Borderline Scale scores was examined by a simple forced entry regression, which showed that Affective Control Scale total score makes a significant contribution in predicting the Personality Assessment Inventory-Borderline Scale (B =.54, $SE\,B$ = .03, p<.001). Looking at the relationship between Cognitive Distortion Scale and Personality Assessment Inventory-Borderline Scale, again a simple forced entry regression shows that the Cognitive Distortion Scale total score also makes a significant contribution in predicting the Personality Assessment Inventory-Borderline Scale (B =.62, $SE\,B$ = .04, p<.001).

To explore the relative contributions of the total scales and subscales of the Affective Control Scale and Cognitive Distortion Scale in predicting Personality Assessment Inventory-Borderline Scale scores, forced entry multiple regressions were conducted separately for each measure. The results revealed that, for Affective Control Scale, only depressed mood significantly predicted Personality Assessment Inventory-Borderline Scale scores (B =.55, $SE\,B$ = .10, p<.001, VIF=3.15, tolerance=.32), and, for Cognitive Distortion Scale, only preoccupation with danger significantly predicted Personality Assessment Inventory-Borderline Scale scores (B =.23, $SE\,B$ = .23, p=.04, VIF=2.67, tolerance=.38).

To establish if depressed mood or a preoccupation with danger more strongly predicts the Personality Assessment Inventory-Borderline Scale scores, both

scales were entered into a forced entry multiple regression. The results of this, as shown in Table 7.3, reveal that depressed mood significantly predict the Personality Assessment Inventory-Borderline Scale scores (B =.44, $SE\,B$ = .09, p<.001, VIF=1.30, tolerance=.78) as does a preoccupation with danger (B =.36, $SE\,B$ = .15, p=<.001, VIF=1.30, tolerance=.78). The results here support Linehan's (1993) assertion that emotional dysregulation is a significant predictor of borderline features but cognitive dysregulation appears to be as important a predictor of borderline personality disorder.

Table 2.3.

Simple forced entry and multiple regressions for scales of the ACS and CDS on PAI-BOR total scale

Simple forced entry regressions for ACS total

	B	*SE B*	β
Constant	-5.05	4.27	
ACS total	.54	.30	.22

$R^2 = .54, \Delta R^2 = .29$

Simple forced entry regressions for CDS total

	B	*SE B*	β
Constant	4.75	4.27	
CDS total	.62	.04	.34

$R^2 = .62, \Delta R^2 = .38$

Forced entry multiple regression for all scales of the ACS

	B	*SE B*	β
Constant	.71	4.19	
Anger	.09	.14	.15
Positive Affect	-.04	.11	-.05
Depressed Mood	.55	.10	.68
Anxiety	.11	.08	.12

$R^2 = .40, \Delta R^2 = .38$

Table 2.3. continued

Forced entry multiple regression for all scales of the CDS

	B	*SE B*	β
Constant	6.07	2.98	
Self Criticism	.04	.29	.08
Self Blame	-.15	.31	-.23
Helplessness	.12	.38	.21
Hopelessness	.21	.33	.36
Preoccupation with Danger	.23	.23	.47
Total	.29	.26	.12

$R^2 = .42, \Delta R^2 = .39$

Forced entry multiple regression for depressed mood and preoccupation with danger

	B	*SE B*	β
Constant	-.37	2.51	
Depressed Mood	.44	.09	.56
Preoccupation with Danger	.36	.15	.76

$R^2 = .48, \Delta R^2 = .47$

2.4. Discussion

This study examined the relationships between emotional dysregulation, cognitive dysregulation and features of borderline personality disorder. Correlations revealed that emotional and cognitive dysregulation, as measured by total scores of the Affective Control Scale and the Cognitive Distortion Scale were significantly correlated with borderline features, as measured by the Personality Assessment Inventory-Borderline Scale scores. Total scores of both Affective Control Scale and Cognitive Distortion Scale predicted the Personality Assessment Inventory-Borderline Scale. However, the relative contributions of the separate scales of the Affective Control Scale and the Cognitive Distortion Scale revealed that, for the Affective Control

Scale, depressed mood was the only significant predictor of borderline features, and, for the Cognitive Distortion Scale, preoccupation with danger was the only significant predictor. When entered into a regression model together both depressed mood and a preoccupation with danger predicted borderline features although depressed mood explained more of the variance.

The results of this study support Linehan's (1993) assertion that emotional dysregulation, in particular, depressed mood has a central role in explaining borderline personality disorder. Linehan (1993) noted that the DSM-IV refers to affective instability as being a marked reactivity of mood causing episodic depression, irritability or anxiety, usually lasting a few hours and only rarely more than a few days. Linehan (1993) goes on to point out that the DSM criteria imply a baseline mood which is not particularly negative or depressed because it only lasts a few hours, but in her experience the baseline state of people with borderline personality disorder is 'generally extremely negative at least with respect to depression' (p. 16). The Affective Control Scale depressed mood scale focuses on episodic depression as it uses statements such as 'if I get depressed, I'm quite sure I'll bounce right back' or 'depression could really take over me, so it is important to fight off sad feelings'.

It is also clear that cognitive dysregulation is important in predicting borderline features, particularly preoccupation with danger. Briere (2000) noted that individuals who scored high on preoccupation with danger often reported interpersonal victimisation in childhood or in later life and suffered

symptoms of post-traumatic stress. Briere (2000) also noted that a preoccupation with danger is a symptomatic correlate of anxiety. The results of the study here indicate a significant correlation between anxiety and a preoccupation with danger. People who scored high on this domain were being hypervigilant for signs of danger and believed that harmless events or situations contain the risk of physical or emotional injury. This is consistent with evidence that people with borderline personality problems have been traumatised by abuse or neglect (Paris, Zweig-Frank, & Guzder, 1994a,b).

The findings from this study indicate that theories concerned with the development of borderline personality disorder may be overlooking the extent to which negative cognitions as measured by the Cognitive Distortion Scale such as unnecessary self-criticism and self-blame, feelings of helplessness and hopelessness or preoccupation with danger may be involved in borderline personality disorder symptomatology. It may be that elements of cognition, such as an ability to think about and control emotion, mediate the link between emotional vulnerability and the development of borderline personality disorder. An emotionally vulnerable individual may experience abuse or neglect which has the potential to develop into borderline personality disorder but is protected from this outcome because of an ability to think about their emotional reactions and control them, thus preventing the development of increasingly dysregulated emotions which potentially could result in borderline personality disorder.

Support for such a viewpoint is provided by Thompson (1994), who proposed seven processes implicated in the development of emotion regulation in children that occur as a result of social referencing and modelling behaviour of caregivers. Among the seven processes outlined by Thompson (1994) are (i) the ability to manage the intake of emotionally arousing information by removing or refocusing attention, (ii) altering interpretations of emotional information in order to lessen negative affect, (iii) reinterpreting internal physiological arousal, (iv) predicting and controlling emotional requirements of commonly encountered situations, and (v) expressing emotion in a manner that is concordant with one's personal goals for a situation. The processes that Thompson (1994) argues are implicated in the development of emotion regulation are largely voluntary and cognitive based. Putman and Silk (2005) argue that many of the processes outlined by Thompson are disrupted in individuals with borderline personality disorder.

Cognitive strategies have a role to play in improving emotion regulation, and Linehan's (1993) Dialectical Behaviour Therapy for borderline personality disorder includes skills of mindfulness, distress tolerance, and interpersonal effectiveness. These skills require a considerable cognitive element in that patients are required to think about and discuss emotions. Even though it is clear that emotion regulation impacts upon cognition it may also be useful to examine which elements of cognition become dysregulated during the development of borderline personality disorder, how they might in turn impact upon emotion regulation, and how cognitive deficits may be corrected to

improve emotion regulation.

This study is limited because the data presented here were collected from a non-clinical sample of students, and it may be that studying a sample diagnosed as suffering from borderline personality disorder would produce different results. However, this sample's Personality Assessment Inventory-Borderline Scale scores were more like that of a clinical sample than a non-clinical sample and 15% met the cut-off for borderline personality disorder. Trull Useda, Conforti and Doan (1997) argued that non-clinical young adults have been a neglected area of research on borderline personality disorder because only the more severe clinical cases have tended to be studied. Evidence suggests that borderline personality disorder is relatively prevalent in non-clinical populations (Gunderson & Zanarini, 1987; Zimmerman & Coryell, 1989), and non-clinical young adults with features of borderline personality disorder can present with levels of dysfunction across a number of domains which merit further study (Trull, 1995). Measuring emotion regulation and cognitions that affect emotion regulation is not a simple enterprise. The measures chosen in this study were self-report measures, with the risks of poor validity in reporting complex experiences and thoughts, especially where distress may currently be elevated. Future research may benefit from attention to methods that more accurately capture emotional and cognitive dysregulation.

Nonetheless, the results reported here illustrate the need for future research to determine the relative importance of cognitive dysregulation and its specific constituents in explaining and treating borderline personality disorder. These issues need to be explored in clinical samples. It may also be useful to examine the extent to which behavioural, self and interpersonal dysregulation, as described by Linehan (1993), may correlate with each other and with features of borderline personality disorder. Finally, because borderline personality disorder is viewed as a disorder that develops over the life span, it would be useful to conduct longitudinal research to examine the childhood emotional and cognitive indicators of adult borderline personality disorder at different stages of development. Such studies may reveal more about how risks can be managed earlier, before the development of borderline personality disorder, and may also help guide the development of therapies for borderline personality disorder in adulthood.

In summary like emotional dysregulation, cognitive dysregulation is a significant factor in a model of borderline personality disorder. Both constructs need to be examined in detail in both child and adult clinical and non-clinical samples to inform how borderline personality disorder may develop and be prevented, and how adult therapies might be developed to improve effectiveness.

Chapter 3. Emotional intelligence, alexithymia, and borderline personality disorder traits in young adults

In this chapter an examination of the relationship between Emotional Intelligence, alexithymia and features of borderline personality disorder is carried out. Exploring such relationships may further our understanding of the relationship between emotion processing, emotion regulation and borderline personality disorder.

3.1. Introduction

A relationship between emotional intelligence and borderline personality disorder has recently been identified. Emotional intelligence has also been found to overlap considerably with alexithymia, a construct associated with emotion processing and emotion regulation.

As mentioned previously Linehan (1993) organised the DSM-IV diagnostic criteria of borderline personality disorder into five areas of dysregulation: emotional, interpersonal, self, behavioural, and cognitive. Linehan (1993) positioned emotional dysregulation central in a model borderline personality disorder, with interpersonal, self, behavioural, and cognitive dysregulation either occurring as consequences of emotional dysregulation or as maladaptive attempts to regulate problematic emotions. Emotional dysregulation is a consequence of high emotional reactivity, strong experienced emotional intensity, and a lack of skills for managing strong emotions. A 'hyperbolic' temperament, which is highly heritable, interacts

with adverse experiences (e.g., abuse or neglect) across the life span to produce an adult who responds to triggering events with the behaviours that are symptomatic of borderline personality disorder (Zanarini & Frankenburg, 2007). Two constructs that have been associated with how individuals regulate their emotions are emotional intelligence and alexithymia. The relationship of these constructs to features of borderline personality disorder is the focus of the study reported here.

3.1.1. Emotional intelligence and Alexithymia

Mayer, Salovey and Caruso (2004) describe emotional intelligence as a member of a class of intelligences, including the social, practical and personal intelligences, which have been called the 'hot' intelligences because they are concerned with matters of personal emotional importance to the individual. Emotional intelligence is defined as a set of abilities that include the ability to perceive one's own and other people's emotions accurately; the ability to use emotional information to assist with thinking and problem solving; the ability to understand emotions; and the ability to reflectively regulate emotions so as to promote emotional and intellectual growth (Mayer, Salovey, & Caruso, 2004). Emotional intelligence is a construct that captures emotional regulation, hence it has relevance to the study of borderline personality disorder.

The term alexithymia originates from the Greek meaning 'without words for feelings' (Nemiah, Freyberger & Sifnoes, 1976). More recently, alexithymia

has been defined as a difficulty in identifying and describing subjective emotions and feelings (somatic sensations), difficulty distinguishing between emotions and feelings, a limited imaginative capacity and a literal, externally-oriented style of thinking (Parker, Taylor, & Bagby, 2003; Taylor, Bagby, & Parker, 1997). Alexithymia has been associated with some problems that are symptomatic of borderline personality disorder, namely substance use disorders (Cecero & Holmstrom, 1997), eating disorders (Zonnevijlle-Bender, van Goozen, Cohen-Kettenis, van Elburg, & van Engeland, 2002), and attachment problems (Troisi, D'Argenio, Peracchio, & Petti, 2001). Alexithymia is associated with stress and coping difficulties (Bagby, Taylor, & Parker, 1994; Parker, Taylor, & Bagby, 1998). Although the concept originally referred to difficulties psychosomatic patients had differentiating emotions from somatic sensations, it appears that this difficulty is a general indicator of poor emotional intelligence.

Although emotional intelligence and alexithymia are independent constructs, they have been found to overlap strongly and correlate inversely with one another. Parker et al. (2001) examined the relationship between emotional intelligence and alexithymia in a large community sample (N=734) using the Bar-On Emotional Quotient Inventory (Bar-On EQ-i; Bar-On, 1997) and the Toronto Alexithymia Scale-20 (TAS-20; Bagby, Parker & Taylor, 1994). The Bar-On Emotional Quotient Inventory is a 133-item inventory with 13 subscales that cluster into four second order factors: i) intrapersonal (emotional self-awareness, assertiveness, self-regard, self-actualisation,

independence), ii) interpersonal (empathy, relationship skills, social responsibility), iii) adaptability (problem solving, reality testing, flexibility), and iv) stress management (stress tolerance, impulse control). The Toronto Alexithymia Scale-20 is a 20-item questionnaire that has three scales measuring: i) difficulty in identifying feelings, ii) difficulty in describing feelings, and iii) externally orientated thinking style.

Parker, Taylor, and Bagby (2001) found that all scales of the Toronto Alexithymia Scale-20 correlated inversely with Bar-On Emotional Quotient Inventory scales of emotional self-awareness and empathy, consistent with the view that high alexithymic individuals do not use an awareness of emotions to guide communication and possess a limited capacity for empathising with the emotional states of others. Significant negative correlations were found between the Toronto Alexithymia Scale-20 scales and the Bar-On Emotional Quotient Inventory scales of adaptability and stress management, supporting earlier findings that alexithymia is associated with maladaptive coping ability (Parker, Taylor, & Bagby, 1998) and a vulnerability to stress (Bagby, Taylor, & Parker, 1994).

3.1.2. Emotional intelligence, Alexithymia, and borderline personality disorder

Leible and Snell (2004) examined the relationships between emotional intelligence, mood and borderline personality disorder. Using unpublished data Leible and Snell (2004) measured emotional intelligence using the

Multidimensional Emotional Awareness Questionnaire (MEAQ) which captures emotional clarity, emotional attention, emotional regulation, private emotional awareness, private emotional preoccupation and rumination, and public emotional monitoring. Mood was measured by the Trait Meta-Mood Scale (TMMS; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995) and borderline personality disorder was measured by the Personality Diagnostic Questionnaire-4+ (PDQ-4+; Hyler, 1994). Leible and Snell (2004) found that borderline personality disorder was positively associated with private emotional attention, private emotional preoccupation and rumination, and public emotional monitoring. They also found that borderline personality disorder participants experienced less emotional clarity and repair as measured by the Trait Meta-Mood Scale. These findings suggest that those diagnosed with borderline personality disorder report a poor understanding of the nature of their emotions and a reduced capacity to overcome negative emotional experiences, which constitutes a reduced level of emotional intelligence.

In a two-year long study of 88 non-clinical young adults, who at entry into the study exhibited a significant number of features of borderline personality disorder, as measured by the Personality Assessment Inventory-Borderline Scale (Morey, 1991), Borderline Personality disorder traits were revealed to be associated with problematic mood patterns of uncontrollable anger and affective lability (Trull, Useda, Conforti, & Doan, 1997). People with these features were more likely to meet lifetime criteria for mood disorder and

experienced greater interpersonal dysfunction than their peers. These findings indicate that features of borderline personality disorder are associated with poorer outcomes even with non-clinical populations, which highlights the need to detect emotional dysfunction in those with features of borderline personality disorder in order to prevent longer-term negative outcomes.

3.1.3. This study

Constructs such as emotional intelligence and alexithymia may help in understanding the relationship between emotion processing and emotion regulation, and they have clear relevance to disorders typified by emotional dysregulation, such as borderline personality disorder. The aim of this study was to examine the relationships between emotional intelligence, alexithymia, and borderline personality disorder traits. It was hypothesised that the scale scores of the Bar-On Emotional Quotient Inventory and the Toronto Alexithymia Scale-20 would correlate negatively with each other, that the Bar-On Emotional Quotient Inventory scale scores would correlate negatively with PAI-BOR scale scores, and that the Toronto Alexithymia Scale-20 scores would correlate positively with Personality Assessment Inventory-Borderline Scale scores. It was also hypothesised that Bar-On Emotional Quotient Inventory scale scores would negatively predict Personality Assessment Inventory-Borderline Scale scores and that Toronto Alexithymia Scale-20 scores would positively predict Personality Assessment Inventory-Borderline Scale scores scale scores. The population sampled in this study was

University students. In testing the relationships between emotional intelligence, alexithymia, and borderline personality disorder traits using dimensional scores, a range of scores is required. Since the prevalence of borderline personality disorder traits in a community sample in Great Britain has been conservatively estimated as 0.7% (95% Confidence Interval 0.3-1.7) (Coid, Yang, Tyrer, Roberts, & Ullrich, 2006), it is expected that some of this sample meet criteria for a diagnosis of borderline personality disorder, hence there is likely to be an adequate spread of scores for the purposes of this research.

3.2. Method

3.2.1. Participants

One hundred and thirty four undergraduates and postgraduates who logged on to Cardiff University's experiment participation panel were recruited to the study. Of these, 73% were female. Eighty-nine percent were aged 18-24 years, 4% aged 25-29, 3% aged 30-34 and 1.5% aged 35-39. The majority was white British (74%), 11% were Asian, and the remainder described themselves as 'other'.

3.2.2. Measures

Bar-On Emotional Quotient Inventory: Short (Bar-On EQ-i:S; Bar-On, 2002). The Bar-On Emotional Quotient Inventory: Short is a 51-item self-report questionnaire designed to measure emotionally intelligent behaviour. Each item is rated on a 5-point scale where 1 = very seldom or not true of me, 2 =

seldom true of me, 3 = sometimes true of me, 4 = often true of me, 5 = very often true or true of me. The measure consists of seven subscales: (1) *Inconsistency index* which highlights problems with responses to items, possibly due to careless completion or lack of reading ability or comprehension. (2) *Positive impression* detects respondents who attempt to give exaggerated positive impressions of themselves. (3) *Intrapersonal scale* captures an individual's self-awareness and how in touch they may be with their emotions. (4) *Interpersonal scale* captures how well the individual establishes cooperative, constructive and satisfying relationships. (5) *Stress management* captures how well the individual copes under stress. (6) *Adaptability* measures the individual's capacity to be flexible, realistic and manage change. (7) *Mood scale* captures the individual's optimism, energy and levels of motivation. Although alpha coefficients for the scales range from .51 to .93, most are above .80, whilst test-retest reliabilities range from .46 to .80 (Bar-On, 2002).

Toronto Alexithymia Scale-20 (TAS-20; Bagby, Parker & Taylor, 1994).
The Toronto Alexithymia Scale-20 is a 20-item self-report measure designed to assess how people identify and describe their emotions. Each item is rated on a 5-point scale where 1 = strongly disagree, 2 = moderately disagree, 3 = neither disagree nor agree, 4 = moderately agree, 5 = strongly agree. The measure consists of three sub-scales: (1) *Difficulty Identifying Feelings* (DIF), which taps problems in controlling emotion when in an emotionally charged situation. (2) *Difficulty Describing Feelings* (DDF), which identifies problems

with describing feelings to others. (3) *Externally Oriented Thinking* (EOT), which measures a lack of introspection. A higher score on each subscale denotes greater severity of alexithymia. A total score can also be calculated highlighting the overall severity of alexithymia. Internal consistency for all subscales of the TAS-20 exceed alpha 0.70 (Bagby et al., 1994) and test-retest reliability ranges from .71 to .86 (Parker et al., 2003).

Personality Assessment Inventory – Borderline Features Scale (PAI-BOR; Morey, 1991). The Personality Assessment Inventory is a 344-item self-report questionnaire designed to cover the constructs most relevant to a broad-based assessment of mental disorders. The 24 borderline items of the PAI (PAI-BOR) may be used as a standalone assessment of four core features of BPD. There are 6 items in each of 4 scales: (1) Affective instability, (2) Identity problems, (3) Negative relationships, and (4) Self-harm/impulsivity (not suicidality). Each item is rated on a 4-point scale, where 0 = false, 1 = slightly true, 2 = mainly true, 3 = very true, giving a range of 0 -18 for each scale and a PAI-BOR total score ranging from 0 to 72. A higher score reflects a higher level of dysfunction. Internal consistency for the PAI-BOR is .91 and test-retest reliability is .90 in a sample of men and women under 40 years old (Morey, 1991).

3.2.3. Procedure

An online Experiment Management System (EMS) was used to access students. Students who are actively looking to participate in research studies

for course credits or financial reward access EMS. Potential participants read a short information sheet and consent form prior to participation in the study. Clicking on 'accept' was taken as informed consent to participate. Each participant then read a brief set of instructions and completed each questionnaire in turn. At the end, a debrief sheet explaining the nature of the research was provided, and participants received information on how to access either credit or payment (£4) for their participation.

3.2.4. Analyses

Data were not normally distributed, and normality was not achieved by transforming into z scores or log transformation, hence non-parametric correlations were used (Spearman's rho). Correlations were conducted between Bar-On Emotional Quotient Inventory: Short, the Toronto Alexithymia Scale-20, and PAI-BOR scale scores and total scores to investigate relationships. A forced entry multiple regression was conducted on the Bar-On Emotional Quotient Inventory: Short scales that significantly correlated with scales of the Personality Assessment Inventory-Borderline Scale to establish the extent to which each scale predicts the Personality Assessment Inventory-Borderline Scale. A simple regression was conducted on the only scale of the Toronto Alexithymia Scale-20 to correlate significantly with scales of the Personality Assessment Inventory-Borderline Scale to examine the extent to which it predicted PAI-BOR.

3.3 Results

Fourteen participants elected not to respond to the 6 items of the self-harm scale of the Personality Assessment Inventory-Borderline Scale. An examination of these individuals' scores on the Personality Assessment Inventory-Borderline Scale against those who did complete the self–harm items was conducted, removing the self-harm items from the latter group for comparability. The mean score for those who did not complete the self-harm items was 19.57 (*SD* = 6.59) and the mean for those who did respond to the self-harm items was 21.59 (*SD* = 8.93 5-48). An independent samples t-test comparing the two groups revealed no significant difference ($t_{(132)}$ = .85, p>.05). Since no difference was found, all respondents were treated all respondents as a single sample in the analyses.

The mean Personality Assessment Inventory-Borderline Scale score for the whole sample was 26.32 (*SD* = 10.61). For comparison, Morey (1991) reported a mean of 18 (*SD* = 10) in a community sample (*N*=1,000) and a mean of 31 (SD = 14) in a clinical sample (*N*=1,246). Hence, the total sample's mean was closer to that of the clinical sample than a community sample. Using a score two standard deviations above Morey's (1991) community sample mean to indicate a high degree of abnormality, 20 (15%) of the participants in this study met or exceeded the cut-off score of 38.

Table 3.1

Mean scores on the Bar-On Emotional Quotient Inventory: Short, the Toronto Alexithymia Scale-20 and the Personality Assessment Inventory-Borderline Scale

Scale	M	SD
Bar-On EQi:S		
Intrapersonal	30.38	2.90
Interpersonal	29.31	2.43
Stress Management	25.31	2.17
Adaptability	21.04	2.05
General Mood	30.88	2.32
Positive Impression	17.49	2.94
Total	154.40	6.20
TAS-20		
Difficulty Identifying Feelings	13.78	4.50
Difficulty Describing Feelings	12.89	4.69
Externally Oriented Thinking	19.23	4.00
Total	29.62	8.91
PAI-BOR		
Affective Instability	6.54	3.51
Identity Problems	7.51	3.34
Negative- Relationships	7.70	3.42

Table 3.1 continued		
Self Harm	5.28	3.18
Total	26.32	10.61
	*21.59	*8.93

*PAI-BOR total without self harm scale. M=Mean, SD=Standard Deviation

Means and standard deviations for the Bar-On Emotional Quotient Inventory: Short, the Toronto Alexithymia Scale-20, and the Personality Assessment Inventory-Borderline Scale are shown in Table 3.1 while correlations are shown in Table 3.2. Because multiple comparisons were made between each measure, a Bonferroni correction was used to reduce the likelihood of Type 1 error (i.e., identifying a significant relationship where there is none). Twenty-eight comparisons were made between the Bar-On Emotional Quotient Inventory: Short and the Toronto Alexithymia Scale-20, hence the alpha level of 0.05 was corrected to 0.001; 35 comparisons were made between the Bar-On Emotional Quotient Inventory: Short and the Personality Assessment Inventory-Borderline Scale, hence the alpha level of 0.05 was corrected to 0.001; and 20 comparisons were made between the Toronto Alexithymia Scale-20 and the Personality Assessment Inventory-Borderline Scale, hence the alpha level of 0.05 was corrected to 0.002.

Apart from the Positive Impression scale, the Bar-On Emotional Quotient Inventory: Short scales were expected to correlate negatively with all of the Toronto Alexithymia Scale-20 scales. Of the 28 comparisons 23 (82%) were

in the expected direction but only 1 (3.5%) was significant, that being between the Bar-On Emotional Quotient Inventory: Short Positive Impression scale and the Toronto Alexithymia Scale-20 Difficulty Identifying Feelings scale. It was also expected that the Bar-On Emotional Quotient Inventory: Short scales would correlate negatively with the PAI-BOR scales. Of the 35 correlations, 24 (69%) were in the expected direction and 2 (6%) were significant, these being the Positive Impression scale and Total scale of the Bar-On Emotional Quotient Inventory: Short, which related exclusively to the Self-Harm scale of the Personality Assessment Inventory-Borderline Scale. It was expected that the Toronto Alexithymia Scale-20 scales would correlate positively with the PAI-BOR scales. Thirteen (65%) of the 20 comparisons were in the expected direction with 4 (20%) significant, these relating exclusively to the total the Toronto Alexithymia Scale-20 score, which correlated significantly and positively with all but the Self-Harm scale of the Personality Assessment Inventory-Borderline Scale.

Table 3.2.

Intercorrelations between the Bar-On Emotional Quotient Inventory: Short, the Toronto Alexithymia Scale-20, and the Personality Assessment Inventory-Borderline Scale

Scale		Bar-On EQ-i:S							PAI-BOR				
		Intra	Inter	SM	Adapt	GM	PI	Total	AI	IP	NR	SH	Total
TAS-20	DIF	-.88	-.09	-.08	.03	.10	.63*	.26	-.15	-.08	-.23	-.16	-.21
	DDF	.01	-.16	-.16	-.16	-.23	.05	-.23	.26	.26	.22	-.04	.24
	EOT	.02	-.13	-.19	-.09	-.11	-.01	-.20	.06	-.02	.11	.03	.02
	Total	-.01	-.11	-.21	-.20	-.18	.05	-.22	.41*	.40*	.33*	.02	.39*
Bar-On	Intra								.03	.05	.00	.04	.04
	Inter								.07	.03	.18	-.03	.07
	SM								-.14	-.24	-.21	.01	-.14
	Adapt								-.06	-.16	-.00	-.28	-.14
	GM								-.21	-.23	-.00	-.02	-.14
	PI								.02	-.02	-.11	-.33**	-.12
	Total								-.11	-.14	-.07	-.21*	-.14

* p< 0.002 level (2-tailed); ** p<0.001 level (2-tailed) (Bonferroni corrected). Bar-On EQi:S – Intra = Intrapersonal, Inter = Interpersonal, SM = Stress Management, Adapt = Adaptability, GM = General Mood, PI = Positive Impression. TAS-20 – DIF = Difficulty Identifying Feelings, DDF = Difficulty Describing Feelings, EOT = Externally Oriented Thinking. PAI- BOR – AI = Affective Instability, IP = Interpersonal Problems, NR = Negative Relationships, SH = Self Harm

The scales that significantly correlated with Personality Assessment Inventory-Borderline Scale were selected for further analyses. A multiple regression using the forced entry method was conducted to examine the extent to which Bar-On Emotional Quotient Inventory: Short Positive Impression and Total scale score predicted the Personality Assessment Inventory-Borderline Scale. Neither of these scales significantly predicted Personality Assessment Inventory-Borderline Scale. A simple regression was conducted to establish the extent to which the Toronto Alexithymia Scale-20 Total predicted the Personality Assessment Inventory-Borderline Scale. The Toronto Alexithymia Scale-20 Total positively and significantly predicted the Personality Assessment Inventory-Borderline Scale (B =.45, $SE\,B$ = .20, β=.38, p<.001). Here B refers to the value for the regression equation for predicting the dependent variable from the independent variable whilst $SE\,B$ outlines whether the parameter is significantly different from 0 by dividing the parameter estimate by the standard error. Both B and $SE\,B$ are known as unstandardised co-efficients because they are measured in the natural units. Here β refers to the coefficients that are obtained when the variables in the regression model are standardised

3.4 Discussion

Whilst much has been written about borderline personality disorder symptomatology, little research has looked at how constructs describing emotion processing and regulation may clarify the nature the disorder. This study aimed to improve our understanding of emotion processing and

regulation in borderline personality disorder by examining the relationships between emotional intelligence, alexithymia and borderline personality disorder traits. Overall, correlations between the Bar-On Emotional Quotient Inventory: Short, the Toronto Alexithymia Scale-20, and the Personality Assessment Inventory-Borderline Scale were in the expected direction, indicating that emotional intelligence and alexithymia may be valid constructs that are related as expected to borderline personality disorder. However, a cautious approach was taken here and examination only of those scales that correlated significantly with the Personality Assessment Inventory-Borderline Scale revealed the Toronto Alexithymia Scale-20 total score to be the only predictor of borderline traits.

Failure of the emotional intelligence scales to predict borderline personality disorder traits is inconsistent with earlier findings by Lieble and Snell (2004), who found that individuals with borderline personality disorder reported less emotional clarity and poorer emotional regulation. However, they used a different measure of emotional intelligence, based upon a specific-ability model of emotional intelligence. The Bar-On Emotional Quotient Inventory: Short is based upon a mixed model of emotional intelligence, meaning that, in addition to emotion-related scales, there are scales measuring other attributes (e.g., stress management, relationship success), and hence the results of the two studies are not strictly comparable. Furthermore, emotion is based on a model of intelligence, which includes general intelligence (Schulte, Ree & Caretta, 2004), hence the emotional intelligence scores of this sample of

students may be inflated by high general intelligence thus concealing any relationships with borderline personality traits. Academically gifted students have been shown to score higher on emotional intelligence tests compared to their less gifted peers (Mayer et al., 2004). Although emotional intelligence was not found to predict borderline personality disorder traits here, research with different measures of emotional intelligence and with clinical samples may produce different results.

Alexithymia, as measured by the Toronto Alexithymia Scale-20, was the sole predictor of borderline personality disorder traits in this sample. This corroborates findings of a similar relationship in a non-clinical sample (Modestin, Furrer, & Malti, 2004) and a clinical sample (Berenbaum, 1996). If people with borderline personality disorder traits have difficulty identifying, differentiating, understanding and communicating emotions and feelings, their ability to regulate emotions is likely to be impaired. Gross (1998) describes emotion regulation in five sets of processes. The first is *situation selection*, which is avoiding situations that give rise to negative emotions and seeking out those that give rise to positive emotions. The second is *situation modification*, which encompasses active efforts to modify a situation to alter its emotional impact. The third is *attentional deployment,* which relates to strategies such as distraction, concentration and rumination, any of which may be modified to regulate emotions. The fourth is *cognitive change,* which is process of interpreting a situation to produces a positive or negative emotional response. The fifth is *response modulation,* which refers to direct

attempts to modify the situation, the experience, or the behaviour to change the emotional response. The ability consciously to regulate emotions in these ways likely requires the ability to identify, differentiate, and understand emotions. Indeed, it has been empirically shown that the ability to label negative emotional experiences clearly and specifically is associated with a greater ability to regulate emotions by using such strategies, particularly for those people who experience negative emotions at greater levels of intensity (Feldman Barrett, Gross, Christensen, & Benvenuto, 2001). Furthermore, evidence suggests that the stress response of people high in alexithymia is due to the subjective experience of negative affect rather than the physiological response, potentially leading to maladaptive attempts at regulating negative affect despite limited physiological evidence of heightened stress (Connolly & Denney, 2007).

However, there are also research studies that find no relationship between alexithymia and borderline personality disorder (Bach, de Zwaan, Ackard, Nutzinger, & Mitchell, 1994; De Rick & Vanheule, 2007). Semerari, Carcione, Dimaggio, Nicolò, Pedone, and Procacci, (2005) have suggested that there may be different malfunctioning profiles within the diagnostic category of borderline personality disorder, and that alexithymia may be characteristic of only some individuals, most probably those with dissociative symptoms. Research using more detailed analyses of both borderline personality disorder traits and facets of alexithymia with clinical populations is required to clarify the relationship.

This study is limited in that data were collected from a non-clinical sample, whose profiles may not be the same as clinical populations. This limitation is likely compounded by studying university students, whose average level of intelligence may be higher than the average of a clinical sample. However, this population was chosen on the grounds that a spread of scores on the measures would permit the best assessment of relationships between EI, alexithymia, and borderline personality disorder traits. Another limitation was reliance on self-report. It is notable that 10% (n = 14) of the sample failed to respond on the self-harm scale of the Personality Assessment Inventory-Borderline Scale, a refusal not apparent in other scales. It may be that there was a degree of personal censorship in respondents, supported by the finding that the Positive Impression scale of the Bar-On Emotional Quotient Inventory: Short correlated significantly with the Self-Harm scale of the Personality Assessment Inventory-Borderline Scale.

Despite these limitations, this study points to a relationship between alexithymia and borderline personality disorder traits. The implications for therapy are that, to improve emotional regulation, people with borderline personality disorder may benefit from therapy that focuses upon helping them to identify and discriminate emotions and feelings, describe their emotions and feelings to themselves and others, and understand the genesis of these feelings. This is in according with the findings of Connolly and Denney (2007), who suggest that clinical interventions for affect dysregulation in

alexithymic individuals should target subjective interpretations of emotional stimuli rather than presumed autonomic hyperactivity. The focus on identifying and discriminating emotions and somatic sensations may also assist in reducing self-harm, whose most common function is to regulate negative emotions (Klonsky, 2007). It may be that using Gross's (1998) model of emotion regulation within a framework of alexithymia could contribute to both the further development and evaluation of this important aspect of therapy for borderline personality disorder.

While Dialectical Behaviour Therapy (Linehan, 1993) may be the most popular and well documented therapy for borderline personality disorder a number of other therapies all pay a good deal of attention to the identification of emotional dysregulation through learning to modify or contain such periods of emotional dysregulation more productively and efficiently. This is achieved by paying considerable attention to increasing emotion regulation through attempts to get the patient to focus on what the feeling is that he or she is experiencing.

These therapies include Mentalisation Based Therapy (Bateman & Fonagy, 2000), Schema-Focused Therapy (Young, Klosko, & Weishaar, 2003) and Transference-Focused Pscyhotherapy (Clarkin, Levy & Schiavi, 2005). Mentalisation Based Therapy was designed to help patients with borderline personality disorder identify the difference between their own thoughts and feelings and the thoughts and feelings of those around them whilst Schema-

Focused Therapy targets schemas that have developed as a consequence of traumatic events in childhood. During adulthood, particular environmental stimuli may trigger a problematic schema that developed in childhood which in turn causes the individual to think and behave in unhealthy ways. The aim of Schema-Focused Therapy is to work on the negative emotions, thoughts and behaviours associated with negative schemas in order to alter these unhealthy coping styles. Transference focused therapy is concerned with the process by which the emotions of the patient are transferred to the therapist, in particular the patient's feelings about significant others in their life, so that the patient regards and reacts to the therapist as they would the significant others. The theory here is that through transference the therapist gains an insight into how the patient interacts with others, which enables the therapist to help the patient build healthier relationships.

In summary, the relationship between alexithymia and borderline personality disorder suggest that difficulty identifying, differentiating, understanding and communicating emotions and feelings (somatic sensations), impairs ability to regulate emotions. It may be that an inability to discriminate emotions and somatic sensations explains why people with borderline personality disorder who are distressed use deliberate self-harm as a means to emotion regulation.

Systemic evaluation

Chapter 4. A Survey of what Community Mental Health Team professionals want from a personality disorder consultation service

In this chapter a survey was conducted to establish what Community Mental Health Team professionals want from a personality disorder consultation service such as the Gwylfa Therapy Service.

4.1. Introduction

The primary aim of the consultation and support service is to provide support for Community Mental Health Team staff who believe that they cannot find a way to proceed with treatment for particular patients. The particular patients normally have a diagnosis of borderline personality disorder. This support consists of initially identifying the problems the Community Mental Health Team staff experience with particular patients and providing advice and collaborative problem solving. If the problems persist, the Gwylfa Therapy Service reviews the patient's case notes, and monitors and discusses the patient's progress with the Community Mental Health Team. A more intense level of support provided by the Gwylfa Therapy Service consists of a review of the patient's care plan including a risk management assessment, supervision of or joint clinical work conducted by the Community Mental Health Team and skills and/or therapy based training. If difficulties persist, the patient is assessed for inclusion in the second tier of the service, namely specialist intensive therapy. Other aims of the consultation and support

service include providing training and tuition to Community Mental Health Team staff in order to raise awareness of borderline personality disorder and to equip staff with the skills and confidence to work with this patient group.

As the Gwylfa Therapy Service is a relatively new service, the consultation service needed to be evaluated. The Gwylfa Therapy Service team members considered it important to discover what type of problems staff experience with particular patients, how staff feel about working with such patients, and levels of confidence expressed by staff. It was also seen as important to gain insight into staff's understanding of borderline personality disorder and the type of training that may be needed to raise awareness. It was concluded that highlighting staff concerns within these areas would help the Gwylfa Therapy Service formulate and deliver training and supervision procedures, which in turn would reduce the need for specialist service intervention by increasing Community Mental Health Team staff's understanding and awareness of borderline personality disorder and ability to work with this patient group.

Evidence highlighting the importance of Community Mental Health Teams influence on the development of specialist services was produced by Cleary, Siegfried & Walter (2002), who found that in a sample of 229 mental health staff 80% found dealing with individuals with borderline personality disorder moderate to difficult whilst 84% reported more difficulty dealing with this group than any other. Eighty two percent believed they had a role in the

assessment, management and referral of patients as well as providing information. Staff readily identified resources which would be useful to them when working with this group such as skills training workshops (76%), and specialist services, (70%). Ninety five percent showed a willingness to gain further education and training in the management of this group. Finally, although many staff felt confident enough when working with this group many recognised the difficulty the group poses and perceived the need for further education and training in this area.

The need for ongoing training and supervision is echoed by Markham (2003), who found that qualified mental health nurses displayed higher levels of social rejection toward patients with a diagnosis of borderline personality disorder than towards patients with a diagnosis of schizophrenia or depression. Markham (2003) also found that this social rejection reflected the perception that the group was dangerous. Markham (2003) also suggests that a lack of education, training and experience with individuals with borderline personality disorder as part of the reason for a less favourable attitude when compared to attitudes towards those with schizophrenia or depression.

Through a series of team discussions the Gwylfa Therapy Service devised a semi-structured interview to examine the areas of interest. A semi-structured interview was chosen because it is a useful method of establishing rapport with participants and allows participants to speak freely about relevant issues. In turn the interviewer can highlight certain issues and ask for clarification of

certain points in order to gather greater detail (Leech, 2002). As the Gwylfa Therapy Service is a relatively new service it was necessary to gather information on a number of areas which would aid consultation quickly. The semi-structured interview gave the Gwylfa Therapy Service the opportunity to set up a rapport with Community Mental Health Team staff involved with the service. The aim was to ensure staff felt empowered through the support from the Gwylfa Therapy Service and comfortable talking freely about issues that were deemed important. Ultimately the information obtained via the interview will be used to guide the consultation process and the implementation of training and development through a feedback mechanism from the Community Mental Health Team staff.

4.2. Method

4.2.1. Sample

Fourteen Community Mental Health Team staff from throughout Gwent Healthcare NHS Trust who had engaged with the Gwylfa Therapy Service in approximately 3-12 months of consultation responded to a telephone call requesting that they complete a short questionnaire. Forty four members of staff were engaged in consultation at the time of recruitment and all were eligible for inclusion in this study. Of these, it was possible to reach 14 who all agreed to participate in this study. The sample consisted of 2 Psychiatrists, 2 Clinical Psychologists, 6 Nurses and 4 Community Psychiatric Nurses.

4.2.2. Measure

The purpose of the consultation questionnaire (see appendix 1.) was to identify the clinician's perception of the patient referred and the problems they have been experiencing to identify the type of support the clinician feels s/he needs to assist the patient, to identify the clinician's attitudes and feelings about working with patients diagnosed as borderline personality disorder. The questionnaire was semi-structured to allow Community Mental Health Team staff to freely talk about issues and themes pertinent to the areas of interest to the Gwylfa Therapy Service without constraint. The issues that the Gwylfa Therapy Service felt needed addressing by the semi-structured interview were first identified through team discussion. A consensus was reached on which issues were to be included and the author of this work formulated these into a series of items which were presented at a second meeting. The final items were determined through team consensus and consisted of views on how the patient would be described by the Community Mental Health Team staff, an estimate of how positively or negatively the Community Mental Health Team staff feel about working with someone with a personality disorder and the feelings elicited, the reason for contacting the Gwylfa Therapy Service, the main problems experienced with the patient and the type of support needed from the Gwylfa Therapy Service. The final items also included a description of how confident staff feel about working with patients with personality disorder, what could be done to improve confidence, how well equipped staff feel working with patients with personality disorder and the skills staff feel they need to develop.

4.2.3. Procedure

When a new referral meeting was set up by Community Mental Health Team staff with the Gwylfa Therapy Service, the Community Mental Health Team staff involved were informed that they would be contacted by the researcher of the Gwylfa Therapy Service and asked to complete the consultation questionnaire. Verbal consent to complete the questionnaire was obtained by the member of the Gwylfa Therapy Service involved with the referred case. The researcher then contacted the member of the Community Mental Health Team involved with the referred patient and conducted the semi-structured interview via the telephone. Verbatim responses to each question were not recorded, instead written records of responses were made which enabled the researcher to repeat back to the respondent the answer that they had provided and asking the respondent to confirm that their answer was interpreted accurately. The key words from the responses given were recorded by the researcher.

4.2.4. Analysis and reporting

The information gathered was analysed primarily using thematic analysis. Goodley, Lawthorn, Tindall, Tobell, & Wetherall (2003) state that there is no upper limit to the number of themes that can be identified but in order to qualify as a theme a response needs to be a sentence or longer which can be formed into a quote. The thematic analysis was rated for concordance by another member of the Gwylfa therapy Service who was asked to look at the data from each questionnaire and rate the extent to which she agreed that

the responses were representative of the themes the researcher identified. The member of staff was asked to rate each response as representative of the theme (score 1) or not representative of the theme (score 0). The inter-rater concordance for all themes ranged between 80 – 100% with a mean of 90%. One question concerning how positively or negatively the Community Mental Health Team member felt about working with someone with a personality disorder was captured on a Likert-type scale, therefore the mean and range for this question is reported. Question 6, concerning the patient's psychiatric history, was omitted from the analysis as insufficient data had been collected due to the fact many respondents did not know the history of the patient they were involved with. Such data is available to all involved staff via the patient's medical notes, but most staff could not recall this.

4.3. Results

The findings from each question are analysed separately in the order that they occur in the questionnaire. The themes and sub-themes within each area are reported in terms of the frequency with which they were raised. In parentheses next to each theme are the number of respondents who raised the theme, whilst next to each sub-theme are the number of actual times the sub-theme was recorded. In total there are 9 areas of interest, and 14 identifiable themes.

Staff descriptions of patient.

Table 4.1.

Themes and sub-themes of staff's description of the patients.

Theme	Sub-theme
Negative orientation (14)	Unpredictable (7) Difficult (6) Challenging (5) Needy (4)
Positive orientation (4)	Friendly (3) Pleasant and good natured (1)

Respondents to this area provided a total of 26 descriptions for the patient which were reduced to two themes and six sub-themes outlined in Table 4.1. The 14 respondents to this area provided almost universally negative descriptions of the patient. The most frequent sub-theme reported being that the patient is unpredictable. An example of a response is: 'This patient can be described as unpredictable' or 'I find the patient needy'. However, 4 staff reported that the patient was pleasant, friendly and good natured.

The feelings elicited when working with someone with a personality disorder.

Table 4.2.

Themes and sub-themes of the feelings elicited when working with someone with a personality disorder.

Theme	Sub-theme
Negative feelings (14)	Frustrated (8) Negative (3) Helpless (3) Anxious (3) Angry (2)
Positive feelings (3)	Curiosity (2) Interest (2)

Respondents to this area provided a total of 23 descriptions for the patient which were reduced to two themes and seven sub-themes outlined in Table 4.2. The responses provided concerning the feelings elicited were again almost universally negative. The most frequent given response was, 'I feel frustrated when working with someone with a personality disorder'. However a number of responses were positive with staff reporting that they felt curiosity and interest toward the patient.

Staff were also asked to rate how positively or negatively they felt about working with someone with a personality disorder on a Likert-type scale ranging from 0 – 10 with 1 being completely negative, 5 being neither positive nor negative and 10 being completely positive. All respondents answered this question and the responses ranged between 3-8 with the mean score being 5.5. This suggests that on average people report somewhat neutral feelings when working with someone with a personality disorder even

though when asked to describe their feelings they are usually negative.

The decision to seek support from the Gwylfa Therapy Service.

Table 4.3.

Themes and sub-themes highlighting the decision to seek support from the Gwylfa Therapy Service.

Theme	Sub-theme
Unable to progress any further with patient (14)	Need to tackle behaviours (9)
	Failing patient (3)
	Stagnation (3)
	Feel stuck (3)
	Need fresh ideas (2)
Lack of coordination at CMHT level (4)	Need strategy (3)
	Unstructured approach (3)

Respondents to this area provided a total of 26 reasons for the patient which were reduced to two themes and 7 sub-themes outlined in Table 4.3. All 14 staff contacted believed that the patient required more effective intervention. The most frequent response given was: 'The Community Mental Health Team staff said they need help with this patient to address harmful behaviours'. Four respondents believed that the Community Mental Health Team functions in an unstructured manner with this patient group and that a management strategy needs to be formulated with support form the Gwylfa Therapy Service.

The main problems experienced with the patient.

Table 4.4.

Themes and sub-themes highlighting the main problems staff have experienced with the patient referred.

Theme	Sub-theme
Harmful behaviours (14)	Self harm (9) Substance use (4) Non-compliance (4) Suicide (3)

Respondents to this area provided a total of 18 problems for the patient which were reduced to one theme and four sub-themes outlined in Table 2.4. All 14 staff reported behavioural based problems as being a central issue, for example staff report that 'The patient continues to self harm' and/or 'The patient continues to use alcohol or drugs'

The type of support staff feel they need.

Table 4.5.

Themes and sub-themes highlighting the type of support staff feel that they need.

Theme	Sub-theme
Patient focussed intervention (12)	Reduce harmful behaviours (5) Increase patient insight (4) Increase engagement (3)
Staff focussed intervention (5)	Skills learning (4) Therapy learning (3)

Respondents provided a total of 19 suggestions about the type of support needed which were reduced to two themes and five sub-themes. Table 4.5 highlights that 12 respondents cited patient focussed intervention, with a reduction in negative behaviours being the most frequently cited theme. An example of a response is 'The type of support the Community Mental Health Team needs from the Gwylfa Therapy Service is insight into the patient's problems to help reduce their negative behaviours '. Five respondents cited staff focussed intervention with skills learning being the most frequently cited theme.

Staff confidence working with someone with a personality disorder.

Table 4.6.

Themes and sub-themes highlighting levels of confidence staff have working with an individual with personality disorder.

Theme	Sub-theme
Diversity of level of perceived confidence (14)	Very confident (7)
	Varies depending on patient or day (5)
	Anxiety always present (3)

A total of 15 responses were provided concerning how confident staff feel working with an individual with personality disorder which were reduced to one theme and three sub-themes. Table 4.6 highlights that half of the 14 respondents feel very confident whilst many felt that confidence 'varies depending on the patient'. Some reported that there is always an underlying level of anxiety.

Improving staff confidence when working with someone with a personality disorder.

Table 4.7.
Themes and sub-themes highlighting how to improve staff confidence when working with someone with a personality disorder.

Theme	Sub-theme
More structured programmes of tuition (14)	Training (7)
	Support (4)
	Guidance (2)
	Supervision (2)
Feel confident enough (3)	No intervention required (3)

Respondents provided a total of 18 suggestions about how staff confidence might be improved which were reduced to two themes and five sub-themes as illustrated in Table 4.7. Staff universally requested more tuition, training and support. An example of a response in this area is 'more training is needed or could be provided that will improve my confidence with this group'. Three individuals however felt that there is nothing that they require that would improve their confidence as they feel very confident already.

How well equipped staff feel working with someone with a personality disorder.

Table 4.8.

Themes and sub-themes highlighting how well equipped staff feel when working with someone with a personality disorder.

Theme	Sub-theme
Diversity of how well equipped people perceive themselves to be (14)	Well equipped (4)
	Varies (4)
	Fairly equipped (3)
	Could be more equipped (3)

Respondents provided a total of 14 replies about how well equipped they feel to work with individuals with personality disorder which were reduced to one theme and five sub-themes as illustrated in table 4.8. The most frequent reported theme being that staff felt well equipped. The second most frequently reported theme was: 'It varies depending on the patient'. However respondents also reported feeling 'fairly well equipped' whilst others reported that they 'could be more equipped'.

Skills staff feel they need to develop.

Table 4.9.

Themes and sub-themes highlighting the skills staff feel they need to develop.

Theme	Sub-theme
Staff feel they need a range of skills training (14)	Not sure (5)
	Crisis management/complex needs (5)
	Cognitive/behavioural skills (3)
	Possess enough skills (2)

Table 4.9 shows that with regards to the skills staff feel they need to develop the most frequent response provided was that they were 'not sure' but the second most frequent response was the management of the complex needs of the patient. A typical response was 'I'm not sure but if anything I would like to develop the skills to help manage the patients effectively through crisis and understand their needs'. Cognitive behavioural skills were also cited as important.

4.4. Discussion

The results from the semi-structured interview highlight a number of issues surrounding working with people with personality disorders. Although the manner in which the semi-structured interview was constructed determined the particular areas of interest, it has been possible to highlight a number of themes and sub-themes. It appears that all staff view patients with personality disorder as unpredictable, difficult, challenging and needy. Such observations are in line with the DSM-IV (1994) diagnostic criteria of

borderline personality disorder, which include impulsive behaviours that are self-damaging, as well as suicidal behaviour, intense relationships and difficulty controlling anger. However, some staff offered more positive descriptions of patients with personality disorder, describing them as friendly and good natured. All staff felt frustrated when working with this group but some felt curiosity and interest. All staff felt unable to progress with patients when asking for the support of the Gwylfa Therapy Service, believing that they need help in tackling the patient's behaviours. Some believed that part of the problem is a lack of coordination at team level.

Staff universally reported behaviour based problems in the patient and felt that the priority is reducing harmful behaviours and increasing patient insight and engagement. All staff reported desiring more structured programmes of tuition even though some felt equipped already. Many indicated that they would like skills and therapy based learning but when asked about specific types of training required many were not sure. However some staff indicated that they would like to learn crisis management skills and learn to manage the patient's complex needs, whilst others cited more structured training in cognitive/behavioural therapy. Half of staff felt confident working with someone with a personality disorder, for others, levels of confidence are reported to vary and that anxiety can always be present.

The perceived inability to effectively manage patients with personality disorder reflects the assertions of the National Institute for Mental Health in England document: Personality Disorder Capabilities Framework (NIMHE

2003b) which notes that many agencies lack skills or an explanatory framework with which to deal with the challenging behaviours exhibited by individuals with personality disorders, in turn causing negative attitudes. This can cause exclusionary practices which prevent individuals accessing the care they need.

The fact that all participants in this study would like more structured programmes of tuition is also reflected in the Personality Disorder Capabilities Framework which notes that a capable organisation must provide staff with access to supervision, education and training as well as possess operational models that respond to the complex needs of individuals with personality disorder. The importance of ongoing training and supervision is also echoed by Cleary et al. (2002) who notes that the majority of staff when asked would like more training, and Markham (2003) who notes that a lack of training and education is responsible for less favourable attitudes towards patients with personality disorder compared to those with schizophrenia or depression.

The implications for the Gwylfa Therapy Service are that the consultation service is needed, at least by some staff, and there are a number of roles that the Gwylfa Therapy Service might develop, based on the information collected from staff in this survey. First, there is a need to advise individual practitioners on how to make progress with particular patients when the practitioner feels frustrated at a lack of progress, or anxious about the patient's self-harming behaviours. Second, formal training in treatments for

borderline personality disorder and associated problems are needed. There is evidence that an education programme about aetiology, patient behaviour, staff responses and treatment methods improves staff nurse's knowledge of and attitudes towards patients diagnosed with borderline personality disorder (Miller & Davenport, 1996). Training for Community Mental Health Team staff across the Trust might include motivational interventions, crisis management, coping with difficult behaviours, and Dialectical Behaviour Therapy and Cognitive Behavioural Therapy training. Thirdly, teams need coherent treatment strategies and practice guidelines for handling difficult behaviours, such as self harm or suicidal ideation. The Gwylfa Therapy Service already has a role in promoting practice guidelines across the Trust as outlined by the National Institute for Mental Health in England document 'Personality Disorder: No longer a Diagnosis of Exclusion' (2003a) and the National Public Health Service for Wales (2005) document 'Meeting the Health, Social Care and Wellbeing Needs of Individuals With a Personality Disorder. The Gwylfa Therapy Service has already implemented personality disorder awareness training days in line with the recommendations of the above documents.

The limitation of this study is that only a small number of staff were recruited into the study which makes it difficult to make generalisations to the wider staff population who work with individuals with borderline personality disorder, as the views shared by the participants here may not accurately reflect those of the majority of Community Mental Health Team staff. However, because all staff who were asked to participate in this study agreed

it is possible to rule out the fact that only those with a negative attitude participated, but even though both positive and negative responses were provided, overall responses tended to be negative. Those who possessed negative views about the patient group, their own confidence and ability, and the type of training required tended to produce more responses than those who possessed more favourable attitudes.

In summary, this study highlights a number of issues and concerns of mental health staff who work with individuals with borderline personality disorder. The next step is to feed this information back to the Gwylfa Therapy Service so that services can be developed in view of the expressed needs of Community Mental Health Team members. The survey could usefully be repeated at intervals to monitor staff's changing confidence and needs.

Chapter 5. Nursing staff attitudes towards patients with personality disorder

In this chapter Community Mental Health Team nurses' attitudes towards patients with personality disorder were assessed, using the Attitude to Personality Disorder Questionnaire (APDQ; Bowers, McFarlane, Kiyimba, Clark, N, & Alexander, 2000). Comparisons with scores from published APDQ data for nurses and prison officers working with patients with personality disorders were conducted.

5.1. Introduction

Community Mental Health Team nursing staff provide treatment and support for community-based patients suffering from a variety of mental health problems. The Community Mental Health Teams under study are connected with the Gwylfa Therapy Service. One of the key aims of the Gwylfa Therapy Service, consistent with the Personality Disorder Capabilities Framework (NIMHE, 2003b), is to improve mental health staff's attitudes to and capabilities for working with patients with personality disorder. Negative attitudes, which may reflect a lack of skills and knowledge in relation to the needs of people with personality disorder, may result in negative judgments and exclusionary practices, which may deny individuals the services they need (NIMHE, 2003b).

A diagnosis of personality disorder has been identified as associated with a range of negative attitudes among mental health service staff. Lewis and

Appleby (1988) gave 173 psychiatrists case vignettes of patients diagnosed with personality disorder or not, and found that patients with personality disorder were seen as manipulative, attention seeking, annoying, and in control of their suicidal urges. Deans and Meocevic (2006) studied 65 registered nurses with at least one year's experience in services treating patients with a diagnosis of borderline personality disorder. Their 50-item questionnaire examined nurses' clinical descriptions of patients with borderline personality disorder, their emotional reactions, concerns, and opinions about management. Patients diagnosed with borderline personality disorder were frequently viewed as manipulative, nuisances, and engaging in emotional blackmail. Patients with borderline personality disorder were also seen as responsible for their own actions regarding breaking the law and suicide attempts. Although almost half the respondents felt responsible for the safety of patients with borderline personality disorder, one third claimed not to know how to care for such patients. These attitudes and concerns do not lend confidence regarding Community Mental Health Team professionals working with patients with personality disorder.

Besides the influence a diagnosis of personality disorder can have on attitudes, previous experience and a willingness to work with this group can also have an influence. Carr-Walker, Bowers, Callaghan, Nijman, and Paton (2004) compared a sample of 645 psychiatric nurses working in high security psychiatric hospitals to a sample of 55 prison officers working on a Dangerous and Severe Personality Disorder Prison Unit using the Attitude to Personality

Disorder Questionnaire (L. Bowers personal communication May 8th 2006). Carr-Walker et al. (2004) found that prison officers reported significantly more warmth, liking and interest and less fear, anxiety, helplessness, anger, and sense of danger than nursing staff. Prison officers were also more likely to report more optimism and less frustration and demonstrate more positive attitudes. Carr-Walker et al. (2004) concluded that prison staff feel more secure in their work environment because training focuses on safety and security, hence staff feel more confident and less inhibited when forming relationships with patients diagnosed with personality disorder. Nursing staff on the other hand have less training in safety and security, which often leaves them feeling less confident when they are required to work with patients with personality disorder. Furthermore, nursing staff felt the need to develop greater management strategies for patients and, when these failed, blame was often apportioned to the patient, thus confirming staff's negative perceptions.

Carr-Walker et al. (2004) also compared the sample of 55 prison officers to a sample of 242 qualified and unqualified psychiatric nurses working in two high security hospital settings. Of this sample, 76 worked on a personality disorder unit that only accepted those who volunteered to work there whilst 166 were non-voluntarily placed on other personality disorder treatment wards. Nursing staff who had not volunteered to work with patients with personality disorder were more negative in their attitudes than both prison staff and nursing staff who volunteered to work with such patients. Carr-

Walker et al. (2004) argued that when recruiting nursing staff for training purposes it is better to target those with a willingness to work with individuals with personality disorder as often they possess more effective coping strategies to begin with.

Miller and Davenport (1996) looked at the effect of a self instructional programme on nurses' knowledge of, attitudes towards, and behavioural intentions of 32 psychiatric nurses split into an experimental group who received training (N=19) and a control group who did not (N=13). Miller and Davenport (1996) found that the group who received training displayed significantly improved knowledge, attitudes and behavioural intentions towards patients with personality disorder than those who did not. Findings by Krawitz (2004) echoed those of Miller and Davenport (1996). In a study of 418 mental health staff who attended workshops for 18 months, attitudes towards those diagnosed with borderline personality disorder became significantly more positive over time (Krawitz, 2004). Furthermore, a reduction in pejorative conceptualisations of patients with borderline personality disorder fostered more favourable attitudes which in turn led to better patient outcomes, such as a reduction in self harm and suicidal thoughts.

Cleary, Siegfried and Walter (2002) sought to gather baseline data to provide direction for determining staff willingness to participate in training and how such training may be developed. In a sample of 229 mental health staff who

completed a 23 item postal questionnaire, 80% reported that dealing with patients with borderline personality disorder was moderate to very difficult and 84% felt that this group was more difficult than any other group. Eighty two per cent felt they had a role in the assessment, management and referral of this patient group, as well as in educating and providing information. Ninety five per cent of staff reported a willingness to gain further education and training and identified the need for such intervention despite feeling knowledgeable and confident dealing with patients with borderline personality disorder. Cleary et al. (2002) concluded that their findings demonstrated a need for implementing training and education.

This study compares Community Mental Health Team nursing staff's attitudes towards patients with personality disorder to samples in the study conducted by Carr-Walker et al. (2004). The test of attitudes used here is the Attitude to Personality Disorder Questionnaire to permit comparison with Carr-Walker et al. (2004). Their sample consisted of nurses working in a high security setting, prison officers working in a dangerous and severe personality disorder prison unit, nurses who volunteered to work in a personality disorder unit and nurses who did not volunteer to work in a personality disorder unit. Because the participants in the Carr-Walker et al. (2004) study work in settings that bring them into much closer contact with patients with personality disorder, it is hypothesised that they will display more favourable attitudes to people with personality disorder than Community Mental Health Team nurses. This study also examines the relationship between Community Mental Health Team

nursing staff's willingness to undertake training and work with individuals with personality disorder and their attitudes towards this group of patients. It is expected that those willing to train and work with patients with personality disorder will show more favourable attitudes toward such patients.

5.2. Method

5.2.1. Participants

Participants were recruited from each of the 12 Community Mental Health Teams within Gwent Healthcare NHS Trust. A total of 117 nurses participated in the study, 88 nurses who agreed to participate when approached during a weekly multi-disciplinary team meeting, and 29 nurses who were volunteer attenders at a personality disorder awareness workshop. No participant information was collected, such as age, gender and number of years experience. Many staff objected to providing personal information because they feared identification and refused to participate if such data were needed. Even when assured that all information was strictly confidential objections were still raised. All participants highlighted that they had at least some weekly contact with patients with personality disorder. During recruitment, two participants revealed to the researcher that they had been recruited to both samples, but as the data were completed anonymously it was not possible to eliminate them from either sample.

5.2.2. Measures

Attitude to Personality Disorder Questionnaire (APDQ; Bowers et al., 2000). The APDQ (see appendix 2.) is a 37 item self-report questionnaire containing statements about how one feels towards individuals with PD. Typical statements are: 'I am interested in PD people', 'I admire PD people', or 'I feel angry toward PD people'. Responses are rated on a 6 point Likert-type scale: never, seldom, occasionally, often, very often and always. The measure consists of 5 subscales and a total score. Scale 1 focuses on a warmth or liking for and an interest in patients with PD and is called 'enjoyment vs loathing'. Scale 2 highlights fears, anxieties and helplessness in relation to PD and is termed 'security vs vulnerability'. Scale 3, 'acceptance vs rejection', indicates feeling of anger towards patients with PD and a sense of being different to them. Scale 4, 'purpose vs futility', focuses on pessimism regarding outcome. Scale 5, 'exhaustion vs enthusiasm', focuses on work effort with PD patients. A total score reflects a global level of attitude towards patients with PD with higher scores on each scale and on the total scale denoting more favourable attitudes. The APDQ shows good internal consistency (Cronbach's alpha = .94) and test-retest reliability (r = .71) as reported by Bowers et al. (2000).

5.2.3. Procedure

Trust Mental Health Borough Managers were contacted by the researcher who requested to attend one of each Community Mental Health Team's weekly multi-disciplinary team meetings to invite the Community Mental Health Team

staff to complete the Attitude to Personality Disorder Questionnaire. At each meeting staff were informed that they were being invited to participate in a study that aimed to capture attitudes towards people with personality disorder. Staff were informed that participation was voluntary and anonymous. Overall only one member of staff declined to participate in the study. During the same time period, the Borough Managers were asked to invite Community Mental Health Team staff to put their names down for a personality disorder awareness workshop which could be attended as a study day. Staff who subsequently attended the workshop were asked at the beginning of the day to complete the Attitude to Personality Disorder Questionnaire as part of their inclusion on the workshop. Again staff were informed that participation would be voluntary and anonymous. All staff who attended the workshop completed the questionnaire.

5.2.4. Analyses

Data for the sample who did not volunteer for the personality disorder awareness workshop and for the sample who did volunteer for the personality disorder awareness workshop were not normally distributed. Because distributions can be skewed due to outliers transforming scores into z scores or log transformation can often reduce the impact of such outliers thereby increasing the likelihood of achieving normality. However normality was not achieved when employing these methods. Consequently because the assumption of normality could not be achieved comparisons between the two samples was conducted using a non parametric test (Kruskal-Wallis). Both

samples were then combined and compared to a sample of 645 nurses who worked in a high security setting, 76 nurses who volunteered to work on a personality disorder unit, 166 nurses who non-voluntarily worked on a personality disorder unit and 55 prison officers who worked on a dangerous and severe personality disorder prison unit (Carr-Walker et al. 2004). As the combined samples met the assumptions of normality these comparisons were made using t-tests.

5.3. Results

Community Mental Health Team nursing staff's Attitude to Personality Disorder Questionnaire scores were compared with those of nurses working in a high security setting, prison officers working a dangerous and severe personality disorder unit, nurses who volunteered to work in a personality disorder unit and nurses who did not volunteer to work in a personality disorder unit (Carr-Walker et al., 2004). Differences were examined using t-tests. Because 24 comparisons were made there is an increased risk of a type I error, that being rejecting the null hypothesis when it is true. To account for this a Bonferroni correction was applied which consists of dividing the alpha level of 0.05 by the number of comparisons to be made. Here a Bonferroni correction indicates a new criterion for significance of 0.002.

Table 5.1.

APDQ mean scores and standard deviations for the Community Mental Health Team nurse sample and samples taken from Carr-Walker et al. (2004)

	CMHT nurse sample (N=117)		Nurses in high security setting* (N=645)		Prison Officers* (N=55)		Volunteer Nurses* (N=76)		Non-volunteer Nurses* (N=166)	
	M	SD	M	SD	M	SD	M	SD	M	SD
Enjoyment	3.16	0.66	2.67	0.78	3.10	0.60	3.23	0.83	2.63	0.78
Security	2.86	0.96	4.66	0.76	5.16	0.48	4.92	0.68	4.63	0.77
Acceptance	2.78	1.35	4.54	0.84	5.15	0.55	4.94	0.64	4.40	0.91
Purpose	3.13	0.97	3.79	1.05	4.64	0.71	4.36	0.89	3.69	1.01
Enthusiasm	3.41	0.81	3.45	1.05	4.01	0.70	3.71	1.00	3.29	1.08
Total	107.94	20.43	133.73	23.30	153.85	12.80	148.64	23.38	130.97	23.86

* Data from Carr-Walker et al. (2004)

Compared with all nurses working in a high security, Community Mental Health Team nurses reported significantly greater enjoyment ($t(180) = 7.13$, $p<0.002$), but significantly lower feelings of security ($t(143) = -19.21$, $p<0.002$), acceptance ($t(178) = -12.49$, $p<.001$), purpose ($t(169) = -6.42$, $p=<.001$) and APDQ total score ($t(175) = -12.28$, $p<0.002$). There was no significant difference in levels of enthusiasm ($t(278) = 0.36$, $p=0.7$).

Compared with prison officers, the Community Mental Health Team sample reported significantly lower feelings of security ($t(169) = -20.93$, $p<0.002$), acceptance ($t(167) = -16.33$, $p<0.002$), purpose ($t(140) = -11.51$, $p<0.002$), enthusiasm ($t(121) = -4.98$, $p<0.002$) and APDQ total score ($t(156) = -17.94$,

p<0.002). There was no significant differences in levels of enjoyment (t(115) = 0.59, p=0.55).

Compared with nurses who volunteered to work in a personality disorder unit, Community Mental Health Team nurses reported significantly lower feelings of security (t(189) = -17.43, p<0.002), acceptance (t(177) = -14.92, p<0.002), purpose (t(169) = -9.05, p<0.002) and APDQ total score (t(144) = -12.40, p<0.002). There was no significant difference in levels of enjoyment (t(134) = -0.62, p=0.53) or enthusiasm (t(136) = -2.19, p=0.03).

Compared with nurses who did not volunteer to work in a personality disorder unit, the Community Mental Health Team nurses reported significantly higher levels of enjoyment (t(271) = 6.16, p<0.002), but lower feelings of security (t(214) = -16.54, p<0.002), purpose (t(255) = -4.70, p<0.002) and APDQ total score (t(270) = -8.70, p<0.002). There was no significant difference in levels of enthusiasm (t(279) = -1.06, p=0.28).

Means and standard deviations for those who volunteered to participate in a personality disorder awareness workshop and those who did not are shown in Table 5.2. Kruskall-Wallis tests revealed that those who volunteered to participate in a PD awareness workshop reported significantly higher levels of enjoyment (X^2 (1) = 4.42, p<0.05), security (X^2 (1) = 61.79, p<0.01), acceptance (X^2 (1) = 64.4, p<0.001), purpose (X^2 (1) = 47.51, p<0.001), and

total score (χ^2 (1) = 57.72, p<0.001). There was however no significant difference in levels of enthusiasm between groups (χ^2 (1) = .81, p=0.37).

Table 5.2.

APDQ mean scale scores and standard deviations for Community Mental Health Team nurse samples

	Did not volunteer (N = 88)		Volunteered (N = 29)	
	M	SD	M	SD
Enjoyment	3.09	0.69	3.37	0.51
Security	2.42	0.60	4.21	0.47
Acceptance	2.09	0.63	4.86	0.63
Purpose	2.78	0.82	4.2	0.53
Enthusiasm	3.46	0.81	3.24	0.79
Total	98.68	11.06	136.03	16.23

5.4. Discussion

This study compared Community Mental Health Team nursing staff attitudes towards patients with personality disorder to the attitudes of nurses working in a high security setting, prison officers working a dangerous and severe personality disorder prison unit, nurses who volunteered to work in a personality disorder unit and nurses who did not volunteer to work in a personality disorder unit. Overall, comparisons revealed that Community Mental Health Team nurses said they enjoy working with personality disordered patients but feel less secure, less accepting, and less purposeful than other groups. Feeling less secure in a community setting by comparison with staff in secure settings is understandable by the nature of the setting alone. However, feeling less accepting and less purposeful cannot be explained by setting but may reflect the greater training and experience of

the dangerous and severe personality disorder staff. It would be expected that those trained to work in dangerous and severe personality disorder settings would have more favourable attitudes to patients with personality disorder and feel more purposeful than untrained staff. Nonetheless, Community Mental Health Team workers are expected to engage with and treat patients with personality disorder and so this reveals the need for improving the skills and capabilities of this section of the workforce (NIMHE, 2003b). As reported by Miller and Davenport (1996) and Krawitz (2004), training can change knowledge, attitudes, and intentions towards patients with personality disorder. Nonetheless, security issues also need to be addressed – feeling unsafe is a significant issue in community treatment.

This study also examined how Community Mental Health Team nursing staff's attitudes towards patients with personality disorder differed depending on whether or not they volunteered to participate in personality disorder awareness workshop. It was found that those who volunteered to participate in a personality disorder awareness workshop reported significantly higher levels of enjoyment, security, acceptance and purpose, plus a higher overall total score on the Attitude to Personality Disorder Questionnaire, although levels of enthusiasm did not differ significantly. These findings have implications for selection of staff working with personality disorder patients in that volunteers may start at a higher baseline than non-volunteers.

One of the limitations of this study is that it reports findings from Community Mental Health Teams in one NHS Trust only, however it is probable that Community Mental Health Team staff in other trusts experience the same types of difficulties in working with patients with personality disorder. Here, the need for specialist services, such as the Gwylfa Therapy Service, to implement and maintain training and support for all Community Mental Health Team staff involved with patients with personality disorder is supported, given the apparent need to raise awareness of the particular needs of patients with personality disorder, encourage more positive attitudes, and give a purpose to treatment. Training Community Mental Health Team professionals in risk assessment, and the development, implementation and management of effective care plans for patients with personality disorder is important. Such recommendations are being adopted by the Gwylfa Therapy Service and are in line with the Personality Disorder Capabilities Framework (NIMHE, 2003b).

A second limitation of this study is that the focus is on nurses' attitudes to personality disorder in general. Although the data collected here and the data provided by Carr-Walker et al. (2004) offer insight into attitudes towards personality disorder generally, it may be that the various types of personality disorder induce various levels of positive and negative attitudes. It may be inappropriate, therefore, to draw specific conclusions from comparisons made between Community Mental Health Team staff and nurses or prison officers working in secure settings, where there may be a different personality disorder patient profile. Future research may benefit from looking at attitudes

to different personality disorder in a range of settings. A third limitation of this study is that it was not possible to collect personal information about respondents. Future research would benefit by the inclusion of such information because it may highlight specific training and supervision issues in relation to issues such as age, gender, and professional experience.

In summary, despite these limitations, this research described here shows that Community Mental Health Team nursing staff require help to feel safer, more accepting and more purposeful when working with patients with personality disorder. Some of these issues may be addressed through the formulation of policies and good practice procedures, but staff also need to be trained for working with people with personality disorder. The next step is to design suitable training and evaluate its effectiveness with respect to how it changes knowledge, attitudes, and skills and, eventually, how this benefits patients.

Chapter 6. Delphi survey of patient's views of services for borderline personality disorder: A preliminary report

Department of Health guidelines stipulate that specialist personality disorder services should gather feedback from service users. Consequently a Delphi survey was conducted to elicit patients' views on services they have had contact with and then to identify levels of consensus on the views generated.

6.1. Introduction

The National Institute for Mental Health in England guidelines, 'Personality Disorder: No longer a Diagnosis of Exclusion' (2003a), states that helpful features of a personality disorder service is that it listens to feedback from service users and involves patients as experts. The views of service users will help the Gwylfa Therapy Service to plan and deliver treatment more effectively, as well as highlight training and supervision needs of staff who work with patients with personality disorder. Furthermore, the Gwylfa Therapy Service recognises the importance of gathering users' views on services sought and/or received prior to the inception of the Gwylfa Therapy Service, because, according to NIMHE (2003a) guidelines, a specialist personality disorder service needs to be well integrated with other services used by its patients. Therefore, gathering views on these services will likely highlight at least some of the issues to be targeted with the aim of improving the level of cohesion between services.

Patient feedback studies are not new but, over time, studies examining patient satisfaction with health services have been increasing in number, influenced in part by Conservative government policy, highlighted in the Department of Health's 'Patient's Charter' (1991), and with the Labour-spearheaded 'Personality Disorder: No longer a Diagnosis of Exclusion' (NIMHE, 2003a).

Studies illustrate that the views of healthcare users can facilitate the development of more effective services that cater for a variety of patient needs. Guadagnoli and Ward (1998) reviewed research for and against the use of patient participation in decision making and found that patients wanted to be involved in all aspects of the treatment process, preferring to be consulted about differing treatment methods and being involved in treatment decisions.

An examination of user involvement into the planning and delivery of mental health services by surveying NHS trusts and mental health user groups in Greater London revealed factors which promote user involvement (Crawford, Aldridge, Bhui, Rutter, Manley, weaver, Tyrer, & Fulop, 2003). These included national policies and managerial support for user involvement, good personal relationships between managers and users, and acceptance by staff that user involvement is required. Crawford et al. (2003) also highlighted obstacles to service user involvement, which included the belief that users'

views are not representative, staff resistance to user involvement, and lack of staff training with regard to how users may be meaningfully involved.

A community based mental health centre in Birmingham called the Shenley Fields that consists of a multidisciplinary team that includes Nurses, Occupational Psychologists, Psychologists and Psychiatrists that provides support for people who experience short term mental health difficulties. Staff gave a semi-structured interview with 42 clients who attend the centre and revealed that integrating service users' views into the design and delivery of the service made the centre a more user friendly place (Spencer, 1996). Morant and King (2003) conducted a multi-perspective evaluation of a specialist outpatient service called the Henderson Outreach Service Team for people with personality disorder. One strand of the evaluation focused on users' feedback of the service, gathering qualitative information using a semi-structured interview with 15 patients discharged from the service. The information was analysed using thematic analysis that explored the nature and frequency of themes discussed. Morant and King (2003) concluded that gathering service users' views and implementing recommended solutions to problem areas provided tangible benefits which include reduced drop-out rates, increased public accountability for service development, improvements in meeting patient's needs, as well as sending out a message to users of respect and inclusion.

Although semi-structured interviews have proved useful, Hopkins and Niemiec (2006) argued that such methods are flawed due to the power differential between service provider and service user, and because they do not reflect active involvement by the service user in the feedback process. One method that avoids these problems is the Delphi survey (Hasson, Keeney, & McKenna, 2000). The Delphi method allows a body of experts to convey their opinions anonymously about particular topics, issues or problems. It is a flexible method that aims to arrive at consensus on almost any subject by any type of group of participants. The technique is constructed into rounds in which data are collected. Round 1 involves the gathering of information using open ended questions that allow the participants to freely provide opinions in their own words. Each separate identifiable opinion is listed and the resulting items form the basis of a checklist that is presented in Round 2 to the original respondents, who rate their agreement with each item. In this way, a level of consensus for each statement is reached. Hasson, Keeney and McKenna (2000) note that there is no universal level of consensus required for the opinions expressed in a Delphi survey, and it can be as low as 51%.

The Delphi method has been commonly used in medical, nursing and health service research. Due to the open approach of the Delphi method, respondents may express their own views, unguided by leading questions, hence it overcomes the problems of power and passivity. The Delphi method is employed in this study with the aim of eliciting the views of Gwylfa Therapy Service users on their experiences of services sought and received for

personality disorder. Since the "results' of the responses to the checklist in Round 2 is based upon items that are not really known until the specific opinions are generated from Round 1, there can be a disconnect between particular research questions and the type of results that are eventually obtained. This study investigates whether the Delphi Survey can be used in a setting such as Gwylfa Therapy Service, and if the results obtained can provide information that will be useful in future program planning and evaluation.

6.2. Method

6.2.1. Participants

Participants were recruited from the Gwylfa Therapy Service, which serves patients with a diagnosis of borderline personality disorder, as identified using the International Personality Disorder Examination for ICD-10 (IPDE; Loranger, 1999) in the month before recruitment to the Gwylfa Therapy Service. Each diagnosis of borderline personality disorder was made by the clinician assigned to work with a particular patient. The sample consisted of seven women patients, who were all in group Dialectical Behaviour Therapy at the time of the study. The mean age of the sample was 34 years (range 26 to 44).

6.2.2. The Delphi Survey

In Round 1, patients were asked to work individually and write down as much information as possible on the following points: i) Where they sought and/or

received support before the Gwylfa Therapy Service, ii) What they liked or valued about these services, iii) What they disliked or found unhelpful about these services, iv) What they liked or valued about the Gwylfa Therapy Service, and v) What they disliked or found to be unhelpful about the Gwylfa Therapy Service. Completion of the task took no longer than 20 minutes.

The opinions generated in Round 1 were collated into two lists, one expressing participants' opinions of services sought and/or received before the Gwylfa Therapy Service, and one expressing participants' opinions of the Gwylfa Therapy Service. Because similar views are often expressed using slightly different phraseology, the list of items representing each unique view was collated by consensus between the first author and another member of the Gwylfa Therapy Service on each opinion that was generated. From Round 1, after removing duplications, there were 47 opinions regarding services sought and/or received by the participants before the Gwylfa Therapy Service and 38 opinions about the Gwylfa Therapy Service. These lists of opinions were used in Round 2.

Round 2, which took place one week after Round 1, required participants to rate each item on the total list of views to reflect their own personal experiences. A five point scale was used: none of the time, some of the time, half the time, most of the time, all of the time. These response choices captured overall experiences, acknowledging variation within services from

one time to the next. Responses were identified as: (1) *agreement*, when an item was experienced 'half the time or more' (i.e., half the time, most of the time, or all of the time), and (2) *disagreement*, when an item was experienced 'less than half the time' (i.e., none of the time or some of the time). The level of consensus was set at 4 people (57%) endorsing one or other of these positions.

The information was then subject to thematic analysis (Braun & Clarke, 2006), in which participants' key experiences are identified within the data. Because the themes emerge from the data, their relation to the questions posed may seem tenuous, however themes represent what is most meaningful to the participants. Themes regarding the services before Gwylfa Therapy Service and the Gwylfa Therapy Service itself differed.

6.3. Results

6.3.1. Views on Services Received Before Gwylfa Therapy Service

Respondents named the professional disciplines with whom they had dealings before Gwylfa Therapy Service. These were the police, General Practitioners, general hospital staff, general psychiatric staff, Community Psychiatric Nurses, Psychologists and Counsellors. The results are viewed in two ways. First, the views expressed are taken as identification of the key aspects of a professional group's role in the view of service users. Second, the direction of consensus is reported to indicate how the professional group met

expectations of the of service users in this study.

6.3.2. The police

One positive opinion that respondents agreed upon was that the police were kind (6 agreed). Two negative opinions were expressed but disagreed upon. These were that police were unhelpful (6 disagreed) and abysmal (5 disagreed). One positive opinion was expressed but disagreed with: that police were responsive to the patient's needs (5 disagreed). These opinions identify the key aspects of the police in the views of service users, in that they should be kind, helpful, and responsive to needs. Overall, the responses of the police to the needs of people with borderline personality disorder were perceived as kind and helpful, but not responsive to needs.

6.3.3. General Practitioners

Three positive opinions that respondents agreed upon were that General Practitioners were good (5 agreed), helpful (5 agreed), and understanding (5 agreed). However, two negative opinions were expressed and agreed upon. These were that General Practitioners never had time for the patient and misunderstood the level of crisis (in each case, 4 agreed). These opinions identify the key aspects of General Practitioners in the views of service users, in that they should be useful, helpful, understanding, offer time, and not underestimate the magnitude of the crisis. Overall, people with borderline personality disorder were mixed in their views of how General Practitioners

responded to their needs.

6.3.4. General hospital staff

Here the term 'general hospital staff refers to the staff that patients who commit acts of self-harm are most likely to have contact with, those primarily being accident and emergency department staff. The term may also apply to staff from other departments who may provide care for the patient should they require admission as an in-patient. Two positive opinions were expressed and most respondents disagreed with these: that general hospital staff were caring (5 disagreed) and understanding (4 disagreed). Seven negative opinions were expressed and agreed upon. These were that general hospital staff were judgemental (6 agreed), dismissive (6 agreed), treated the patient like they were not worthy of treatment (6 agreed), were blaming (5 agreed), treated the patient like they were stupid (5 agreed), treated patients like second class citizens (6 agreed), and were cross (5 agreed). These opinions identify the key aspects expected of general hospital staff in the views of service users, in that they should be caring, understanding, non-judgemental, respectful, patient, and not dismissive of patients. Overall, general hospital staff were not perceived by people with borderline personality disorder as responding well to them or their needs.

6.3.5. General psychiatric staff

Two positive opinions were expressed and agreed with, these being that general psychiatric staff were available to talk to and helped patients

overcome issues (in each case, 4 agreed). Eight negative opinions about general psychiatric staff were expressed but disagreed with. These were that staff were disjointed (6 disagreed), did not respect confidentiality (6 disagreed), uncommunicative (5 disagreed), did not provide care plans (5 disagreed), punitive (4 disagreed), arrogant (4 disagreed), unsure of practice (4 disagreed), and neglectful (4 disagreed). One positive opinion was expressed but disagreed with: that general psychiatric staff made patients feel safe (6 disagreed). Respondents agreed about seven negative statements: that general psychiatric staff were controlling (6 agreed), judgemental (5 agreed), unhelpful (5 agreed), did not know how to deal with the patient's symptoms (5 agreed), were threatening (4 agreed), isolated the patient (4 agreed), and lacked understanding (4 agreed). These opinions identify the key aspects of general psychiatric staff in the views of service users, in that they should be available, helpful, cohesive, respectful of confidentiality, not punitive, not arrogant, not controlling, non-threatening, professionally knowledgeable, considerate, understanding, make patients feel safe, not isolate patients, and provide care plans. Overall, people with borderline personality disorder were mixed in their views of how general psychiatric staff responded to their needs.

6.3.6. Community Psychiatric Nurses

Two positive opinions that respondents agreed upon were that Community Psychiatric Nurses were useful (4 agreed) and provide a good service (5 agreed). Five negative opinions were expressed but disagreed with. These

were that Community Psychiatric Nurses were judgemental (6 disagreed), unhelpful (5 disagreed), obstructive (5 disagreed) and lacked empathy (5 disagreed). Three positive opinions were expressed but disagreed with: that Community Psychiatric Nurses were supportive, caring, and took an interest in the patient's problems (in each case, 4 disagreed). These opinions identify the key aspects of Community Psychiatric Nurses in the views of service users, in that they should be useful, non-judgemental, helpful, non-obstructive, empathic, supportive, caring, interested, and provide a good service. Overall, the responses of Community Psychiatric Nurses to the needs of people with borderline personality disorder were mixed.

6.3.7. Psychologist

All participants agreed with the single statement that Psychologists were helpful half the time or more.

6.3.8. Counsellor

Most disagreed with the single opinion that Counsellors were unhelpful (5 disagreed).

6.3.9. Views on Gwylfa Therapy Service

With regard to the participants' experiences of the Gwylfa Therapy Service, responses did not relate to specific professional groups but to the overall service. In this analysis, five themes were identified: Respect, Professionalism, Therapy, Support, and Practicalities. Respect had 10

statements and on 7 statements, all seven patients agreed. On 3 statements, 6/7 patients agreed. Professional had 6 statements. All seven patients agreed on all six statements. Therapy had 11 statements with all seven patients agreeing on 5 statements, 6/7 patients agreeing on 5 statements and 5/7 agreeing on one statement. Support generated 6 statements, and on one statement all 7 patients agreed, on 3 statements 6/7 agreed, and on 2 statements, 5/7 agreed. Finally Practicalities had 5 statements, all seven patients agreed on 1 statement, 6/7 agreed on 2 statements, and 5/7 agreed on 2 statements. More details as to the themes and the statements are presented in Table 6.1.

Table 6.1.

Patients' Experiences of Gwylfa Therapy Service and Level of Consensus

Theme 1. Respect

I am not judged	7 agreed
I am accepted for who I am	7 agreed
I am not punished	7 agreed
I am not laughed at	7 agreed
The team is honest and sympathetic	7 agreed
The service is humane	7 agreed
I am totally involved in my treatment	7 agreed
I am treated as a person and not a label	6 agreed
You are allowed to talk things over	6 agreed
You are not forced to say more than you can manage	6 agreed

Table 6.1. continued

Theme 2. Professionalism	
What is discussed remains confidential	7 agreed
The team has better knowledge and understanding about mental health	7 agreed
There is good communication between team members	7 agreed
There is good communication between team members and patients	7 agreed
I have regular appointments	7 agreed
I have regular access to team members	7 agreed
Theme 3. Therapy	
It is a more direct and personal service	7 agreed
The therapy is well structured	7 agreed
It helps you build relationships with others	7 agreed
It is productive	7 agreed
It is consistent	7 agreed
It is appropriate to needs	6 agreed
It is well paced	6 agreed
It is self-empowering	6 agreed
The service facilitates goal achievement	6 agreed
It is useful being taught skills	6 agreed
It is individualised	5 agreed

Table 6.1. continued

Theme 4. Support	
I am supported by team members	7 agreed
I am supported by other patients	6 agreed
I can see I'm not the only person with these problems	6 agreed
You can share your experiences with others	6 agreed
You can gain hope from other people's achievements	5 agreed
Others understand where you are coming from	5 agreed
Theme 5. Practicalities	
The places are limited	7 agreed
There is a lot of work	6 agreed
The chairs are uncomfortable	6 agreed
Table 4.1. continued	
Travelling is difficult	5 agreed
Dislike early starts	5 agreed

6.4. Discussion

The results of this Delphi survey of the views of borderline personality disorder patients on the general and specialist services they have received is illuminating. Broadly speaking, these patients desire respect and to have their needs acknowledged, understood and met by a professional service. These reasonable requirements are not, it seems, always perceived as being fulfilled. The police were perceived as kind and helpful, but not responsive to needs, which suggests a need for training of police in mental health issues.

General Practitioners were generally understanding and helpful, but pressed for time and misunderstood the level of crisis, suggesting a need for some revision of how they provide a service for people with borderline personality disorder. General hospital staff were perceived as being disrespectful, disdainful, and dismissive, and there appears to be an urgent need here for education and training. The more specialised psychiatric hospital staff and Community Psychiatric Nurses were viewed as more helpful, but with room for improvement. Other specialist staff (Psychologist, Counsellor) were rarely mentioned, but were viewed satisfactorily.

These views are important in their own right in that all professionals who deal with borderline personality disorder patients should do so respectfully and to the best of their abilities, within their own professional remit. Another consideration is that these are the services through which the patient passes in order to reach a specialist service, such as the Gwylfa Therapy Service. To avoid distress, damage and disaffection from clinical services, the patient needs to be treated well at all levels of service. In the National Institute for Mental Health in England's (2003b) 'Personality Disorder Capabilities Framework', skills for working with people with personality disorder are considered relevant to a whole range of agencies, including those within the criminal justice system, health care, social services, and housing. 'Whole-systems' workforce development is recommended, with targeted training for specific staff groups. This research makes it clear where training is most needed.

Despite some negative experiences of previous services, respondents' views about the Gwylfa Therapy Service were positive, the consensus being that the Gwylfa Therapy Service respects the individual, operates professionally, provides a useful therapy, and enables users to identify with and offer support to each other. This suggests that the Gwylfa Therapy Service is getting things right and could be used as a resource for training and support of other staff.

The limitations of this study are that it was conducted on a small sample of service users, which limits its representativeness, though the goal was to see if it was possible to apply Delphi methodology and garner results that appeared to have face validity and that could help in future service planning and evaluation. But nonetheless, the small sample does limit what can be said about the findings and whether it can be applied to other settings.

However, the sample did consist of all patients engaged in therapy with the Gwylfa Therapy Service and so were the views of the entire group at that time. The results, however, may be of limited generalisability, pertaining only to the particular geographical location in which this study was conducted. Services in other regions should collect views locally. Another limitation is that the survey was conducted when all the participants were actively involved in therapy and it was conducted when patients attended for a therapy session with group facilitators present. Participants may, therefore,

have responded according to the demands of the situation, with a bias in favour of Gwylfa Therapy Service and possibly providing overcritical views about the services sought and/or received before the Gwylfa Therapy Service. Furthermore, patients' responses may reflect their current clinical functioning, which may vary from time to time. It may be useful to plot patients' views of the Gwylfa Therapy Service in relation to periods of good and poor self-regulation.

Despite these limitations, this study presents the first steps towards the Gwylfa Therapy Service listening to and using service users' views. Listening to service users is only a first step in user involvement, and there are many other ways of involving users as experts in service planning and delivery (Crawford et al., 2003). Involving service users can improve the quality of services, accessibility of information, and staff attitudes, with consequent benefit to patients (Crawford, Manley, Weaver, Bhui, Fulop, & Tyrer, 2002). These benefits are clearly needed in relation to patients with borderline personality disorder.

This study begins to shed light upon the education, training and supervision needs of staff from services that come into contact with patients with borderline personality disorder and the Delphi method appears to be an appropriate method to try to uncover what these needs might be. Future research into how education, training and supervision needs are met and assessing the effectiveness of such methods will prove useful. Further, the

way these services may be better integrated with each other and Gwylfa Therapy Service is identified as requiring more attention. Helping professionals to listen to, respect, and respond more professionally to vulnerable patients will facilitate a more effective and humane system of assessment, treatment and referral both within and outside of specialized services.

In summary the findings presented here identify what service users value in the treatment they receive, namely respect, professionalism, a service that meets their needs, and personal support. Opinions regarding non-specialist services indicated that, overall, police, General Practitioners, Community Psychiatric Nurses, Psychologists and Counsellors were viewed positively, and psychiatric hospital staff were viewed positively but with room for improvement. General hospital staff were viewed unfavourably. Users' views of the Gwylfa Therapy Service were favourable. This study begins to shed light upon the education, training and supervision needs of staff from services that come into contact with patients with borderline personality disorder. Furthermore, the way these services may be better integrated with each other and Gwylfa Therapy Service is identified as requiring attention. Care must be taken to avoid distressing, damaging and disaffecting patients as they pass through general services *en-route* to a specialist team.

Clinical evaluation

Chapter 7. A comparison of women who continue and discontinue treatment for borderline personality disorder

Treatment non-completion is a significant problem for personality disorder treatment services. Therefore in this chapter an examination into the differences between those who continue Dialectical Behaviour Therapy for borderline personality disorder with those who discontinue therapy with the Gwylfa Therapy Service was conducted.

7.1. Introduction

Engaging and retaining clients in therapy is important for achieving good clinical outcomes as well as ensuring the cost-efficiency of clinical services. In this paper, the focus is on patients of the Gwylfa Therapy Service. As many as two-thirds of people with a personality disorder recruited to treatment do not complete (McMurran, Huband & Duggan, 2008). Patients with borderline personality disorder can be particularly difficult to engage in treatment (Ben-Porath, 2004) and treatment non-completion can be associated with more prolonged and severe negative outcomes compared to treatment completion or no treatment at all (Dahlsgaard, Beck & Brown, 1998).

Research into the factors associated with dropout of people with borderline personality disorder from treatments in general have identified several relevant factors: young age (Smith, Koenigsberg, Yeomans, Clarkin, & Selzer,

1995); being male (Links, Mitton, & Steiner, 1990); being single, separated or divorced (Links et al., 1990), having antisocial personality disorder (Links et al., 1990); having a drug use disorder (Kelly, Soloff, Cornelius, George, Lis, & Ulrich, 1992); high anger and hostility (Kelly et al., 1992; Smith, Koenigsberg, Yeomans, Clarkin, & Selzer, 1995); high impulsiveness (Kelly et al., 1992; Yeomans, Gutfreund, Selzer, Clarkin, Hull, & Smith, 1994); and a poor therapeutic alliance (Yeomans et al., 1994). With regard to retention in treatment, Dialectical Behaviour Therapy compares well with other therapies, yet still around one-quarter of people with borderline personality disorder drop out of Dialectical Behaviour Therapy (Linehan, Cotois, Murray, Brown, Gallop, Heard, Korslund, Tutek, Reynolds, & Lindenboim, 2006). A study by Rüsch, Schiel, Corrigan, Liehner, Jacob, Olschewski, Lieb, & Bohus, (2008) into predictors of dropout specifically from Dialectical Behaviour Therapy revealed that non-completers were higher on anxiety, experiential avoidance (i.e., an unwillingness to remain in contact with bodily sensations, thoughts, and emotions), and anger and hostility, and held stronger perceived stigma beliefs regarding mental illness.

A fuller understanding of the factors associated with treatment non-completion by people with borderline personality disorder is required in order to take appropriate steps to reduce non-completion rates. It is important, therefore, to examine the characteristics of those who do and those who do not complete treatment. Here, the focus is on four areas: 1) personality

disorder severity; 2) motivation for therapy; 3) mood; and 4) social problem solving.

The severity and complexity of personality disorder may be related to a patient's ability to continue in treatment. Tyrer and Johnson (1996) proposed an empirically-based system for classifying the severity of personality disorder based upon the number of conditions diagnosed and whether or not these are from the same cluster. A simple personality disorder is personality disorder in one cluster only, whereas a complex personality disorder is personality disorder's from more than one cluster.

Engendering commitment to therapy is an important aspect of treatment and it may be the case that treatment discontinuers are less committed to therapy than continuers. Ryan, Plant, and O'Malley (1995) suggested that motivation for treatment is generally a powerful predictor of treatment seeking, duration and success, and that "lack of motivation is one of the most frequently cited reasons for patient dropout, failure to comply, relapse, and other negative treatment outcomes" (p. 279). Ryan et al. posited two types of motivation - external and internal. External motivation derives from external pressures to enter therapy, such as interpersonal, medical or legal pressures. Internal motivation derives from self-determination, for example personal desires, beliefs and values. Ryan et al. looked at the type of motivation in substance abusers seeking treatment, using the Treatment Motivation Questionnaire (TMQ), and found that individuals who reported greater levels of internal

motivation remained in therapy longer and reported greater levels of improvement. Individuals who reported more externally motivated reasons for being in therapy dropped out of therapy sooner and reported more negative outcomes. Here, the Treatment Motivation Questionnaire is employed to examine motivation for treatment.

Mood disorder, particularly depression, is a predictor of treatment dropout in general mental health service users (Wang, 2007). Co-occurring mood disorders may be the underlying reason for treatment non-completion among people with personality disorders (Kokkevi, Stefanis, Anastasopoulou, & Kostogianni, 1998) and anxiety has been identified as a factor associated with dropout from Dialectical Behaviour Therapy (Rüsch et al., 2008). Anxiety or depression may interfere with a patient's ability to make use of and experience success in therapy, thus leading to early termination.

In a study of completers and non-completers of an inpatient personality disorder treatment programme, McMurran et al. (2008) found that completers were more rational and less impulsive in their approach to problem solving, as measured by the Social Problem Solving Inventory-Revised (SPSI-R; D'Zurilla, Nezu, & Maydeu-Olivares, 2002). Rational problem solving consists of the deliberate attempt to systematically gather facts and information, identify demands and obstacles, set goals and identify a number of solutions, consider possible consequences, looks at alternative solutions when faced with a problem. A rational problem solver is someone who adheres to such an

approach. The skill of rational problem solving may be important for making use of and experiencing success in therapy, thus leading to continued engagement.

Here, a comparison of the Gwylfa Therapy Service treatment continuers and discontinuers on the four factors hypothesised to be associated with treatment engagement is conducted. Discontinuers are defined as those whose termination of therapy is unplanned. The criteria are non-attendance of four consecutive sessions without good reason or unilaterally deciding to quit therapy. First, groups are compared on severity of personality disorder and it is expected that more discontinuers have complex personality disorder. Second, groups are compared on motivation for treatment and it is expected that discontinuers will have higher external motivation and lower internal motivation. Third, groups are compared on levels of anxiety and depression and it is expected that discontinuers to have higher levels of mood problems. Fourth, groups are compared on social problem solving abilities and it is expected continuers to be more rational in their approach to problem solving. Finally, because individuals diagnosed with personality disorder who do not receive adequate help in outpatient services may end up requiring inpatient treatment, an examination of hospital admissions and lengths of stay in hospital is completed and it is expected that discontinuers use more inpatient services.

7.2. Method

7.2.1. Participants

The Gwylfa Therapy Service operates an outpatient service, during daytime working hours, primarily serving people who have a probable or definite diagnosis of borderline personality disorder and who are thought likely to benefit from Dialectical Behaviour -based therapy. Referrals come from the 12 Community Mental Health Teams of Gwent Healthcare NHS Trust. All participants were referred because Community Mental Health Teams could no longer cope with the patients' self-harm, suicidal behaviour, and severe emotion dysregulation. The participants in this study were all patients recruited for therapy between January 2005 and December 2007. During this period, 80 people were referred of whom 14 (17.5%) were considered suitable for therapy. The others were rejected because they did not have a diagnosis of borderline personality disorder (N=25), had serious co-occurring problems (e.g., psychosis) (N=18), were directed into other therapies (N=12), or were considered manageable by the Community Mental Health Team under the guidance of the Gwylfa Therapy Service (N=11).

7.2.2. Therapy

Dialectical Behaviour-based therapy was conducted by four clinically qualified mental health professionals (two Clinical Psychologists, a Psychiatrist, and a Nurse Consultant). All had completed the intensive training offered by Behavioral Tech, LLC, a group founded in the USA by Marsha Linehan to train mental health professionals in the application of scientifically valid treatments

for people with complex needs. Patients were offered individual therapy and group sessions addressing mindfulness skills, interpersonal effectiveness skills, emotion modulation skills, and distress tolerance skills. The four skills modules were scheduled in order of the need that most prevailed among the client group, and patients joined the next scheduled module after recruitment. Skills groups were offered by any two of the four trained therapists. Weekly case consultation meetings were attended by all therapists. The Gwylfa Therapy Service offers an open-ended programme of therapy. Patients are considered to have completed treatment when the patient and the team agree that sufficient gains have been made. While the therapy offered was based upon Dialectical Behaviour Therapy, it was not consistent with Linehan's (1993) method of delivering Dialectical Behaviour Therapy in terms of the scheduling of modules, the unavailability of 24-hour coaching calls, and the open-ended programme of therapy (classic Dialectical Behaviour Therapy lasts 12 months).

7.2.3. Measures

International Personality Disorder Examination- ICD-10 interview (*IPDE*; Loranger, 1999). The IPDE is a semi-structured diagnostic interview that consists of 99 items, each scored as the behaviour or trait being absent or normal (score 0), exaggerated or accentuated (score 1), or at the criterion level or pathological (score 2). The item scores contribute to the criteria for personality disorders, with the number of criteria that need to be definitely met (score 2) for a diagnosis of personality disorder ranging from 4 to 6. The IPDE shows an interrater reliability and temporal stability roughly similar to

instruments used to diagnose the psychoses, mood, anxiety, and substance use disorders (Loranger, Andreoli, Berger, Buchheim, Channabasavanna, Coid, Dahl, Diekstra, & Ferguson, 1994).

Treatment Motivation Questionnaire (TMQ; Ryan, Plant, & O'Malley, 1995). The TMQ (see appendix 3.) is a 26-item questionnaire assessing treatment motivation (α = .70 - .90) with four subscales: Internal motivation for change (11 items), External Motivation for Change (4 items), Help Seeking (6 items), and Confidence in Treatment (5 items). The TMQ predicts treatment attendance, engagement, and outcome in clients in treatment for alcohol problems (Ryan et al., 1995) and is associated with an adaptive motivational profile in offenders in treatment (Sellen, McMurran, Theodosi, Cox, & Klinger, 2009).

Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). The HADS is a 14-item, self-report questionnaire with 7 items each measuring anxiety (HADS-A) and depression (HADS-D). Items are rated on a 4-point scale, giving a range of 0 to 21 on each factor. A score of 8 or more is indicative of caseness on both Anxiety and Depression scales. A literature review of studies that used the HADS indicated a mean Cronbach's alpha of .83 for HADS-A and .82 for HADS-D, and that HADS, despite its brevity, showed good to very good concurrent validity with longer anxiety and depression measures (Bjelland, Dahl, Haug, & Neckelmann, 2002).

Social Problem Solving Inventory – Revised (SPSI-R; D'Zurilla et al., 2002). The SPSI-R is a 52-item self-report questionnaire, which has five scales: Positive Problem Orientation (PPO), Negative Problem Orientation (NPO), Rational Problem Solving (RPS), Impulsivity/Carelessness Style (ICS), and Avoidance Style (AS). Of these scales, higher scores on PPO and RPS indicate constructive problem solving, whereas higher scores on NPO, ICS, and AS indicate dysfunctional problem solving. According to the test manual, the SPSI-R scales show test-retest reliabilities between 0.68 and 0.91, and alpha co-efficients between 0.69 and 0.95 (D'Zurilla et al., 2002). The validity of the SPSI-R has been examined by confirmatory factor analysis, correlation with other problem solving measures, and correlation with measures of psychological distress, with all of these upholding the validity of the SPSI-R as an assessment instrument (D'Zurilla, et al., 2002).

7.2.4. Procedure

Upon referral to the Gwylfa Therapy Service, each patient was interviewed and given an explanation as to the nature and purpose of the assessments. Patients were then asked for consent for their clinical assessment information to be used anonymously for research and evaluation. Patients were provided with written information to read and retain, and written consent was obtained. IPDE interviews were conducted by a trained clinician, and other assessments were administered by a researcher.

7.2.5. Analyses

Because of the small numbers, non-parametric statistical analyses were used. Non-parametric tests make fewer assumptions about the population distribution. With few participants, hence few data points it is difficult to determine if the distribution of scores is normal or not. When a sample consists of many data points it is possible to apply a Kolmogorov-Smirnoff test to determine how different from a standard distribution a given sample is. However this test does not have sufficient power when applied to small samples such as the one here. As visual inspection of graphed data will also not suffice a non-parametric test is more suitable. Differences between the number of simple and complex personality disorder were determined using Fisher's exact probability test. Differences between scale scores of the Treatment Motivation Questionnaire, the Hospital Anxiety and Depression Scale and the Social Problem Solving Inventory -Revised were analysed using Mann Whitney U tests.

7.3. Results

7.3.1. Participants

Fourteen patients began therapy with the Gwylfa Therapy Service during the study period. All were women and their mean age was 36.90 years (*SD* = 9.15). Of the 14 starters, seven continued with therapy and seven discontinued therapy. Of the discontinuers, four did not attend regularly in that they missed four consecutive weeks of therapy. If there was no valid reason to miss therapy, such as hospitalisation, their treatment was

discontinued. The other three chose to stop attending; they no longer wished to continue with therapy because they believed that therapy could not help them. Efforts were made to re-engage these patients by the clinicians describing cases where therapy had proved successful and from testimonials from other patients who were undergoing therapy at that time.

At the time of the study, the continuers were in therapy for a mean of 21.14 months (*SD*=11.75). The discontinuers completed a mean of 4.43 months (*SD*=3.65) of therapy. A Mann Whitney test revealed this difference to be significant ($U_{(7,7)}$ = -3.14, $p<.01$). The mean age of those who continued with therapy was 40.43 years (*SD*=10.84) and for those who did not continue therapy was 33.29 years (*SD*=5.85). A Mann Whitney test revealed no significant difference in age between the two groups ($U_{(7,7)}$ = -1.06, $p>.05$).

7.3.2. Personality disorder

All participants were diagnosed with borderline personality disorder. International Personality Disorder Examination diagnoses of continuers and discontinuers were classified as simple (i.e., personality disorder from only one cluster) or complex those (i.e., personality disorders from more than one cluster). For both continuers and discontinuers a simple personality disorder consisted of cluster B. Of the continuers, the mean number of personality disorders was 1.57 (SD = 1.13). Five had simple personality disorders and 2 had complex personality disorders. Of those who discontinued therapy the mean number of personality disorders was 4.29 (SD = 2.43) and all seven

had complex personality disorders. A Fisher's exact probability test indicated a significant difference ($p<.02$, two tailed).

7.3.3. Motivation for treatment, mood and problem solving

Means and standard deviations on the scales of the Treatment Motivation Questionnaire, the Hospital Anxiety and Depression Scale and the Social Problem Solving Inventory-Revised are presented in Table 7.2. Mann Whitney U tests revealed that those who discontinued therapy had significantly more external reasons to be in therapy compared to those who continued, whilst those who continued therapy reported significantly more internal reasons to be in therapy. No other scales of the Treatment Motivation Questionnaire or any other measure were significantly different.

Table 7.1.

Mean Treatment Motivation Questionnaire, the Hospital Anxiety and Depression Scale, and the Social Problem Solving Inventory-Revised scale scores for those who continued with therapy and those who did not

	Continued therapy	Discontinued	U
TMQ			
External	5.40 (1.94)[a]	12.80 (3.27)	-2.65**
Internal	70.00 (2.64)	48.18 (8.68)	-2.65**
Help-seeking	37.00 (3.80)	31.64 (5.89)	-1.47
Confidence in therapy	25.84 (4.20)	22.62 (4.27)	-1.37
HADS			
Anxiety	14.53 (3.88)	17.14 (1.67)	-1.58
Depression	14.15 (5.05)	14.14 (1.95)	-0.21
SPSI-R			
Positive Problem Orientation	7.16 (3.31)	5.57 (4.35)	-0.57
Negative Problem Orientation	26.33 (5.68)	31.71 (5.18)	-1.08
Rational Problem Solving	42.50 (18.49)	32.57 (21.46)	-1.00
Impulsive/Careless Style	16.01 (7.64)	20.14 (10.82)	-0.94
Avoidant Style	13.33 (7.42)	16.14 (4.59)	-0.43

[a] Standard deviations in parentheses. **p<.01

7.3.4. Cost of hospital admissions

Hospital admissions and stays in hospital were monitored via Gwent Healthcare NHS Trust's main patient records system known as Epex. Data on the number of admissions and length of stay in hospital were gathered for a

period of nine months after acceptance into the Gwylfa Therapy Service (see Table 2.2). This period was selected because it was the minimum period that all of the continuers were in therapy at the time of the study. The total cost of hospital treatment per patient was calculated using the Gwent Healthcare NHS Trust inpatient cost of £260 per person per day. Discontinuers cost three times as much as those who continued with therapy in respect of hospital treatment.

Table 7.2.

Total number of hospital admissions and days spent in hospital with costs for patients who continued therapy and patients who did not.

Group	Number of patients admitted	Total number of admissions	Total number of days in hospital	Total cost
Continued	4	16	151	£39,187
Discontinued	6	17	379	£122,444

7.4. Discussion

This study compared patients with borderline personality disorder who continued therapy in a specialist outpatient service with those who did not. Before examining the implications of the results, the limitations of the study must be acknowledged. First, the sample size is small, comparing only seven continuers with seven discontinuers. Future research would benefit from examining a larger sample. However, specialist tertiary services have a slow throughput and the time taken to accrue sufficient numbers for adequately

powered studies will be long. Information needs to be gathered in the meantime to assist with an iterative improvement of clinical provision. Second, the reasons for discontinuation were mixed, with four people being discharged for non-attendance and three dropping out of treatment. These subgroups may differ in critical ways. Third, because therapy is open-ended, the continuers may yet become discontinuers by defaulting on sessions or dropping out. Finally, only a limited number of factors were studied here and other issues may be better predictors of dropout, namely co-morbid Axis I disorders, substance use (Kelly et al., 1992), anger and hostility (Kelly et al., 1992; Smith et al., 1995), and impulsiveness (Kelly et al., 1992; Yeomans et al., 1994). Nonetheless, this study adds to our knowledge of factors associated with discontinuation of therapy by people with borderline personality disorder.

Those who discontinued therapy had more personality disorders in total, and their personality disorders were more complex; that is, they had personality disorders from more than one cluster (Tyrer & Johnson, 1996). Having a complex personality disorder may be associated with non-completion because features of the odd and anxious personality clusters (clusters A and C respectively) militate against effective utilisation of the skills and strategies for self-regulation and distress tolerance that treatment aims to develop. Experiential avoidance may underpin this observation. Experiential avoidance is an unwillingness to experience negative physical sensations, emotions, and thoughts (Hayes, Strosahl, Wilson, Bissett, Pistorello, Toarmino, 2004).

Certain disorders from clusters A and C are typified by the use of strategies to increase experiential avoidance, for example schizoid, schizotypal, obsessive-compulsive, avoidant disorders. The mechanisms whereby having a complex personality disorder increases the likelihood of dropout need to be examined.

No group differences were observed on the Treatment Motivation Questionnaire lack of confidence in treatment scale. Significant differences between groups were observed on internal and external motivation, with treatment non-completers showing lower internal motivation and higher external motivation for treatment. These scales differentiate between people who feel they need therapy to help them solve problems, feel better about themselves, and make personal changes, and those who have entered therapy because others have pressured them to do so. Those who discontinue treatment, who are those with more complex personality disorders, may benefit from a motivational intervention before therapy begins. Bornovalova and Daughters (2007) suggest role induction to clarify expectations, reconcile discrepancies in client and therapist expectations, and explain the treatment process. Issues relating to co-occurring personality disorders and the added layer of complexity could be introduced here.

Mood did not differentiate those who continued in treatment from those who did not. Both groups scored well above the caseness cut-off of 8 on both the HADS Anxiety and Depression scales. However, those who did not continue with therapy spent on average almost three times longer in hospital than

those who did continue with therapy, which suggests that they were more distressed or more frequently distressed.

There were no group differences on the Social Problem Solving Inventory-Revised. Both groups scored equally on Rational Problem Solving to a non-clinical sample (McMurran, Blair & Egan, 2002) and considerably higher than a sample of people in treatment for personality disorder (McMurran, Huband & Duggan 2008). Hence, these patients were apparently not lacking in problem solving skills. However, they were high on negative problem orientation compared with a non-clinical sample (McMurran, Blair & Egan, 2002) and equalled the scores of a sample of people in treatment for personality disorder (McMurran, Huband & Duggan 2008). Negative problem orientation is defined as a cognitive-emotional set in which problems are seen as a threat and problem-solving self-efficacy is low, leading to feelings of upset and frustration. Among all the facets of problem solving, this is thought to be a primary contributor to dysfunction (D'Zurilla & Nezu, 1999). Both continuers and discontinuers of therapy in this study appear to be highly negative in their response to problems and steps need to be taken to encourage more positive cognitive-affective schemas.

The data presented here suggest that those with complex personality disorders who are not motivated for treatment and who discontinue therapy are highly distressed and dysfunctional. They require specific attention to engage them effectively in therapy. The higher level of use of inpatient bed

days by treatment discontinuers means that this group of people are costly to services. This provides an economic case for commissioners to invest in the development of services for this group.

In summary those who did not continue with therapy had more complex personality disorder profiles, were more externally motivated for treatment, and were less internally motivated for treatment. Although all patients scored high on the Hospital Anxiety and Depression Scale, problem solving abilities were apparently intact, but adversely affected by a negative problem orientation. Treatment discontinuers spent on average three times longer in hospital than continuers. Engaging people with complex personality disorders and low motivation for therapy is a challenge for services.

Chapter 8. Designing a method for the clinical evaluation of patients in Dialectical Behaviour Therapy.

In this chapter a method of clinically evaluating patients in Dialectical Behaviour Therapy is examined.

8.1. Overview

The Gwylfa Therapy Service offers therapy informed by Dialectical Behaviour Therapy (Linehan, 1993) to people with borderline personality disorder. As highlighted in the introduction chapter, Dialectical Behaviour Therapy has demonstrated its effectiveness with borderline adult patients (Linehan, Armstrong, Suarez, Allmon, & Heard, 1991), borderline adolescents (Rathus & Miller, 2002) as well as with individuals with problems associated with borderline personality disorder such as binge eating disorders (Telch, Agras & Linehan, 2001), substance abuse (Linehan, Schmidt, Dimeff, Craft, Kanter, & Comtois, 1999; Linehan et al. 2002) and co-morbid depression, (Lynch, Morse, Mendelson, & Robins, 2003).

Patients who are referred to the Gwylfa Therapy Service from their local Community Mental Health Team are assessed to establish their suitability for inclusion in Dialectical Behaviour Therapy. The criteria set out by the Gwylfa Therapy Service that assesses a patient's suitability for inclusion in Dialectical Behaviour Therapy include 1) having a diagnosis of borderline personality disorder; (2) repeated and risky deliberate self-harm, with a high suicide risk; (3) treatment or responsivity needs that cannot be met within resources

currently available to Community Mental Health Teams; (4) the capacity and motivation to commit to treatment; and (5) do not require out of area residential treatment.

Evaluating change that occurs in therapy is important because it is necessary to establish if the individual under evaluation is changing for the better or not. Any evaluation conducted needs to be systematic. Whilst group comparisons may be possible, a thorough clinical evaluation can be carried out by employing a single case design. The study here is an attempt to devise a single-case design method of evaluating change in patients with borderline personality who enter Dialectical Behaviour Therapy.

8.1.1. Single-case designs

Single-case designs are "characterised by the investigation of a given individual, a few individuals, or one group over time" (Kazdin, 1980, p. 81). The underlying approach is identical to that of group designs in that "the aim is to implement conditions that permit valid inferences about the independent variable" (Kazdin, 1980 p. 81).

The overarching aim of the single-case design is to exclude explanations for change within the client that is not attributable to an intervention. To do this, single-case designs rely on a number of important principles which all aim to reduce other explanations for observed patient change. What follows is a description of each of the principles.

1. A single and well specified treatment

Because single-case experimental designs examine the effectiveness of an intervention, it is important to ensure that the intervention is clearly defined prior to being administered and its integrity maintained over the course of its application. Within the clinical setting, extraneous variables such as the effects of medication and the influence of outside multidisciplinary agencies can jeopardise the integrity of an intervention and therefore need to be anticipated.

2. Repeated measures

The most common repeated measures are behavioural measures. When comparing within subject measures prior to treatment, during treatment and once treatment ceases, one would expect change across the measures that occurs as a consequence of the intervention applied. Turpin (2001) notes that the greater number of repeated measures obtained, the greater the consistency of change across the measures, the more confidence one can have that an effect has taken place. However, measures need to be easily repeated and free from error or bias. This can be relatively simple when using short psychometric measures based on structured self-reports that are easy to complete or when observing particular behaviours. This also raises the question as to how well particular measures lend themselves to repetition. Turpin (2001) notes that the application of repeated measures at pre and post intervention does not constitute a single-case experimental design alone

but goes on to say that measures that can be completed often such as daily diaries can complement measures that are completed less often. The greater the level of consistency between scores from measures collected at different levels of frequency, the more robust a single-case experimental design evaluation.

3. Stable baselines

Clinical change can be hypothesised that following the introduction of an intervention and for the magnitude of an effect to be fully assessed a stable baseline needs to be obtained. Turpin (2001) notes that the greatest confidence that a therapy has been effective can only be made when a stable baseline has been established. Turpin suggests that baseline information should ideally be collected until stability occurs. Huitema (1985) examined 881 studies and discovered that the most frequent baseline size ranged between three and ten observations. However, ethical questions can be raised when deciding the length of a baseline, for if the individual can be included in therapy immediately it may be unethical to deny them access to therapy whilst a baseline is recorded.

4. Reversibility

Single-case designs usually start with a baseline measure of functioning before an intervention and during an intervention. Such an approach is known as the AB design, where the A phase is the time period before intervention and the B phase is the period during an intervention. Whilst this

approach may indicate that an intervention is working, it is limited because it cannot be determined with certainty that the change that occurs in the intervention phase is down to the intervention. The ABA design overcomes this by measuring patient functioning once the intervention has ceased. If patient functioning changes in the B phase and returns to baseline once intervention has ceased, the effect of the intervention is more likely to have caused the patient change. There are ethical considerations with the ABA design in that withdrawing an intervention from a patient is not always desirable.

The ABAB design takes things a step further because it measures the effect of an intervention after a baseline, then, measures the effect of withdrawing the intervention, with an anticipated return to baseline. Finally it incorporates a second intervention phase. A more effective intervention can be inferred if the effects can be replicated and manipulated through either reversals or withdrawals. If the effects of an AB design can be replicated it is more likely that the intervention can explain patient change and less likely that an extraneous variable is responsible for the original change from baseline to intervention. However, as with the ABA design, within clinical settings it is not necessarily ethical or practical to withdraw and reapply an intervention. The effects of a clinical intervention are intended to be permanent, such as within cognitive behavioural therapy and Dialectical Behaviour Therapy, which are designed to assist the patient to assimilate information that changes thinking and behaviour patterns for the remainder of life.

5. Generalisability

Although the information gathered in a single-case experimental design has limited generalisability, a series of individual studies can identify consistency of change that can support generalisability. Generalisability is important as it is often necessary to make general explanations or identify general laws of behaviour change. Types of generalisability include: across individual patients or patients with similar attributes, across different clinicians or clinical settings (Turpin, 2001).

8.1.2. The present study

The aim of this study is to devise a method of assessing and measuring an individual's response to and progress in Dialectical Behaviour Therapy using single case experimental methods. Here, the focus is on three areas of measurement: 1) change on daily diary cards, a routine method used within Dialectical Behaviour Therapy to track urges and acts of self harm, emotional dysregulation and skills use, 2) change on psychometric measures of features of borderline personality disorder, and 3) change on psychiatric hospital admission rates and length of hospital stays. The diary card is important because it measures actual change that occurs on a daily basis. The psychometric tests are important because they demonstrate how change may have occurred over the duration of therapy. The hospital admission data are also important because it is relatively free from error, difficult to manipulate and can be used as a criterion measure.

The psychometric measures that are employed in this study are: *Brief Symptom Inventory* (BSI; Derogatis, 1993), *The Inventory of Interpersonal Problems* (IIP; Horowitz, Alden, Wiggins, & Pincus, 2000), *The Novaco Anger Scale and Provocation Inventory*, (NAS-PI; Novaco, 2003), and the *Social Problem Solving Inventory – Revised* (SPSI-R; *D'Zurilla et al., 2002).* The Brief Symptom Inventory was chosen because it targets a range of areas of functioning associated with emotion regulation and interpersonal functioning including anxiety, depression, paranoia, and psychoticism as well as interpersonal sensitivity, hostility and obsessive compulsion. The Inventory of Interpersonal Problems was chosen because it focuses on how an individual behaves in interpersonal relationships. Linehan posits that the patient with borderline personality disorder experiences short intense relationships that do not last. Such relationships are the result of emotional vulnerability and a fear of abandonment in the individual with borderline personality disorder which leads to an over reliance on others. The Novaco Anger Scale and Provocation Inventory was chosen because it is a measure of anger which according to Linehan (1993) is an expressive tendency associated with problems regulating emotions within the person with borderline personality disorder. Finally the Social Problem Solving Inventory-Revised was chosen because it focuses on a range of problem solving techniques. According to Linehan (1993) problem solving strategies are the core Dialectical Behaviour Therapy change strategies. Problem solving, cognitive flexibility and mood are inextricably linked. Flexibility is related to the ability to actively choose cognitive strategies that fit the goal, to adapt to the environment and find relevant

solutions to problems (Linehan, 1993). A strong positive mood aids cognitive flexibility and an increased ability to solve problems (Fredrickson, 1998).

If the diary card data, the psychometric data, and hospital data scores all change in the expected direction, then there can be greater confidence in the validity of the information, whether there is positive change, no change, or deterioration.

8.1.3. Data analysis

The daily diary cards

A key component of Dialectical Behaviour Therapy that is routinely employed in therapy is the daily diary card. The diary card was designed to capture ongoing daily change over a range of areas of patient functioning, such as urges to self-harm, acts of self-harm, legal and illicit substance use, emotional dysregulation and use of coping skills. The purpose of the diary is to capture daily information which allows the therapist to monitor changes in areas that would otherwise be potentially missed. Few studies however have focussed on analysing diary card data and those that have tend to focus on group comparisons instead of examining individual cases via a single case designs (Lindenboim, Comtois, & Linehan, 2007).

The Conservative Dual-Criteria approach

The Conservative Dual-Criteria approach (CDC; Fisher et al. 2003) is a new approach to the analysis of single case data. The Conservative Dual Criteria

approach accounts for autocorrelation within data, that being a correlation within a set of serially ordered scores indicating that each score depends upon the previous score and is more similar to its predecessor than the mean. It is important to account for autocorrelation for its presence can increase the risk of a type I error because the error variance is artificially deflated. The Conservative Dual Criteria approach computes a baseline mean and regression line. The standard deviation of the baseline mean is then computed and multiplied by .25 then added to the baseline mean line and the regression line. Because autocorrelation increases the risk of a type I error, Fisher et al. (2003) suggest that multiplying the standard deviation of the baseline mean by .25 is a compromise between creating a type I or type II error. The adjusted mean lines and trend lines are plotted in the intervention phase. When a decrease in scores between the first and second phases is desirable any intervention score that falls below both of the lines is considered a success. When an increase in scores between the first and second phases is desirable any intervention score that falls above both of the lines is considered a success. The number of successes in the intervention phase can be compared to the number expected by chance. The number of intervention successes needed to conclude that a statistically significant change occurred with $p < .05$ depends on the number of intervention data points, normally anywhere between 5 and 20 points, but not less than 5. The Conservative Dual Criteria approach can be easily computed using SINGWIN which is a computer package designed to help assess the effectiveness of interventions using visual and statistical analysis (Auerbach, Laporte, Conboy,

Beckerman, & Johnson, 1999). The Conservative Dual Criteria approach using the SINGWIN software package accounts for autocorrelated data, can be applied to short data ranges and highlights significant change when present over phases.

The Conservative Dual Criteria approach is applied to the diary card data collected by the Gwylfa Therapy Service because it permits the comparison of a time period at the beginning of therapy with a time period at the end of therapy for each patient. No baseline data were collected as it was not ethical to prevent patients from entering therapy as soon as possible. The length of time periods that are compared at the beginning and end of therapy for each patient vary patient by patient and are therefore described in more detail under each patient analyses. By comparing two such time periods it is possible to establish the extent of change that has occurred over the duration of therapy. The findings from the analysis of the diary card data is examined in parallel with the findings from the analysis of the psychometric measures and hospital admission data to establish the extent to which they corroborate.

Analyses of psychometric measures

Psychometric tests are an important tool for the clinical practitioner as they permit examination of a range of behavioural, characterological and psychological attributes of an individual. Tests should have good construct validity, i.e., they actually measure the construct they purport to measure, good content validity, i.e., they measure only the area of interest, good

predictive validity, i.e., they can predict scores on a criterion measure, good internal validity, i.e., changes in scores reflect the intervention of interest rather than extraneous variables, and good external validity, i.e., the observed relationship can be generalised to other individuals and settings. A robust measure should also have good test-retest reliability in that scores on a test should remain similar when the test is run on the same individual under identical conditions.

Comparisons between scores collected at different time points during an intervention have normally been examined using traditional statistical methods, however Jacobson and Truax (1991) note that such an approach can be problematic and such techniques are no use when assessing treatment efficacy. This is because statistical change may have little to do with clinical change, that being change within the individual that reflects a considerable improvement. Jacobson and Truax (1991) propose a technique for measuring the clinical significance of change.

Clinical significance

Jacobson and Truax (1991) proposed that a client be viewed when entering therapy to belong to a particular population (normally believed to be a non-functional population due to their presence in therapy), and leaves therapy as a member of another population, that being a functional population. When a patient moves from a non-functional population to a functional population clinically significant change is thought to have occurred. Jacobson and Truax

(1991) noted that there are three ways to establish clinically significant change. Calculation 1 relies on the availability of only a functional population mean and requires the post-treatment score to fall within two standard deviations of the functional population mean when compared to the pre-treatment score which must fall beyond two standard deviations of the functional mean. Two standard deviations are chosen by Jacobson and Truax because this traditionally defines the range of any population. Calculation 2 relies on the availability of only a non-functional population mean and requires the post-treatment score to fall at least two standard deviations away from the non-functional population mean. Kendall, Marrs-Garcia, Nath, and Sheldrick (1999) point out that standard deviations can vary greatly from measure to measure, which means that employing a benchmark of two standard deviations with some measures may be too stringent, whilst with other measures it may be too conservative. Kendall et al. (1999) note that it is up to the clinician to decide whether to use one standard deviation or two. Calculation 3 is the most rigorous calculation of clinical significance and relies on the availability of both functional and non-functional population means and standard deviations, and requires the post-treatment score to fall nearer the functional population mean than the non-functional population mean. Jacobson and Truax recommended that a cut off point be established, that being the point that the post-treatment score must cross to be regarded as clinically significant. For this calculation the following formula is used:

$$\frac{(\text{SD of functional pop} \times \text{M of dysfunctional pop}) + (\text{SD of dysfunctional pop} \times \text{M of functional pop})}{\text{SD of functional pop} + \text{SD of dysfunctional pop}}$$

If the post-treatment score is greater than the figure derived from the above formula, the change may be regarded as clinically significant.

Reliable change

Reliable change refers to whether the difference between pre- and post-test scores is greater than the difference expected due to measurement unreliability (Jacobson & Truax, 1991). Tests are not completely reliable and the reliable change index is an estimate of change, taking into account the level of reliability of the measure. Reliable change can only be calculated when both the standard deviation for the scores of a functional population and the reliability of the measure are known. According to (Jacobson & Truax 1991) when functional and non-functional populations are non-overlapping reliable change information is superfluous because by definition anyone who has crossed a cut-off point will have changed a great deal during therapy. But when distributions do overlap it is possible for post-treatment scores to cross a cut-off point but not be reliable. The reliable change index accommodates this situation. A test-retest reliability coefficient is the preferred reliability estimate, although an internal consistency alpha coefficient may be used. The Reliable Change Index is a z score calculated as described in Table 8.1. A score above 1.96 demonstrates reliable change,

indicating that there is a less than 5 per cent chance that the score is not reflecting actual change (Jacobson & Truax, 1991). A z score greater than 1.96 indicated that there is less than a 5 percent chance that the score is not reflecting actual change (Jacobson & Truax, 1991).

Table 8.1.

Calculations required to assess reliable change

Statistical measure	**Calculation**
Standard error (SE)	SD of functional population $\sqrt{}$ 1- test-retest reliability
Standard difference (Sdiff)	$\sqrt{2}$ (standard error of measurement)
Reliable change (RC)	$\frac{\text{Post intervention score} - \text{Pre-intervention score}}{\text{Sdiff}}$

Jacobson and Truax (1991) point out that their approach has a broad application, can facilitate comparisons between studies, and provides information on variability in outcome as well as clinical significance. However it is not always possible to produce functional norms for certain measures as they are weighted towards pathology and may produce either floor or ceiling effects. Furthermore clinical significance calculations operate on the assumption that population distributions are normal.

The psychometric data collected in this study is analysed using clinical significance calculations. Reliable change calculations are carried out where applicable. Data collected at the beginning of therapy is compared to data collected at the end of therapy to determine if clinically significant change and

reliable change has occurred. The data will also be compared to the diary card data and hospital admission data to establish if any change that occurs on the psychometric measures is in accordance with the expected change on those measures.

Hospital admission data

Patients with borderline personality disorder are often heavy users of clinical services, normally experiencing high admission rates and lengths of stay in psychiatric hospitals. From the perspective of the Gwylfa Therapy Service it is useful to monitor a patient's hospitalisation as it is anticipated that inclusion in Dialectical Behaviour Therapy will help patients to cope better in day-to-day living which will be reflected in reduced numbers and durations of hospital admissions. A reduction in hospital admission will be associated in reduced levels of distress which in turn are determined by the effectiveness of the intervention and by the level of support provided by the service outside of the therapy setting.

8.1.4. Hypotheses

1. Diary card ratings of 1) *urges*, such as to self-harm, attempt suicide or use substances, 2) *actions*, such as actual self–harm, suicide attempts, or substance use, 3) *experience of strong negative emotions*, such as pain anger, shame, sadness, fear, will reduce over the course of therapy, and diary card ratings of 4) *skills use*, that is, effective use of

the skills taught in therapy such as distress tolerance, mindfulness interpersonal effectiveness and emotion regulation will increase.

2. If Dialectical Behaviour Therapy is effective, as measured by the diary ratings, then there will be clinically significant change on psychometric measures of pre-to post-therapy. Specifically, it is hypothesised that there will be a decrease in reported levels of emotional dysregulation as measured by the Brief Symptom Inventory, a decrease in the total score of the Inventory of Interpersonal Problems, a decrease in Novaco Anger Scale scores, and an increase in Social Problem Solving Inventory-Revised scores.

3. If Dialectical Behaviour Therapy is effective, as measured by the diary ratings, then there will be a significant reduction in days spent in hospital pre- to post-therapy.

8.2. Method

8.2.1. Participants

Eight women participants in this research were referred from their local Community Mental Health Teams. On referral each participant was made aware that the GTS was undergoing an evaluation and were invited to be included as part of the evaluation. Each participant was provided with an information sheet and consent form (see appendix 4.) outlining where practical the nature of the evaluation. Diagnoses were made using the

International Personality Disorder Examination, ICD-10 (Loranger, 1999) by the clinician assigned to work with the client in question. A more detailed description of each patient can be found in appendix 5. Table 8.2. shows patient information, including the number of months each patient spent in therapy and whether the patient had simple or complex personality disorder as defined by Tyrer and Johnson (1996). Tyrer and Johnson (1996) proposed an empirically-based system for classifying the severity of personality disorder based upon the number of conditions diagnosed and whether or not these are from the same cluster. A simple personality disorder is personality disorder in one cluster only, whereas a complex personality disorder is personality disorders from more than one cluster.

Table 8.2.

Description of patients who completed DBT

Patient	Age	Weeks in therapy	Simple or complex PD
1	37	44	Simple
2	30	22	Simple
3	36	55	Simple
4	28	48	Complex
5	35	70	Simple
6	45	92	Complex
7	62	55	Simple
8	44	150	Simple

8.2.2. Diary Card

The diary card (see appendix 6.) is designed capture four domains: 1) *urges*, such as to self-harm, attempt suicide or use substances, 2) *actions*, such as actual self-harm, suicide attempts, or substance use, 3) *experience of strong*

negative emotions, such as pain anger, shame, sadness, fear, and 4) *skills use*, that is, effective use of the skills taught in therapy such as distress tolerance, mindfulness interpersonal effectiveness and emotion regulation. Urges to self-harm and experience of strong negative emotions are rated on a scale of 0-5 where 0 denotes a total absence of urges or the experience of strong negative emotions, whilst 5 denotes intense urges to self harm that last all day long. 5 also denotes the experience of intense negative emotions that also last all day. Acts of self-harm are not recorded via a scale, instead a total number of acts of self harm are recorded per day. Skills are rated on a scale of 0-7. A score of 0-2 denotes that skills were not thought about or used, whilst a score of 3-4 denotes that skills were thought about and used but were not helpful. A score of 5 or more denotes that skills were used and were found to be helpful. The diary cards can record a large number of data points which permits the recording of a lengthy and broad range of areas of functioning. However recording such a lengthy and broad range can make the data time consuming to analyse and more difficult to interpret. In order to make the data easier to analyse and interpret, scores were collapsed into four domains: urges to self harm, commit suicide or to use substance where grouped into an *urges domain*, the experience of strong negative emotions such as pain anger, shame, sadness, fear were grouped into an *emotional dysregulation domain.* Acts of self-harm such as actual self-harm, suicide attempts, or substance use were grouped into an *actions domain*. With regard to skills, only skills that were used and found to be helpful were examined and were grouped into a *skills domain*. Each patient was required

to complete a diary card on a daily basis but this often did not occur, hence a large number of data points can be missing, therefore instead of analysing daily scores it was more effective to examine changes across weekly means for each domain. The data is then plotted graphically in 5-week intervals for the entire duration that each patient underwent therapy.

8.2.3. Measures

The International Personality Disorder Examination (IPDE; Loranger, 1999). The IPDE is a diagnostic questionnaire which can 'provide for a definitive, probable or negative diagnostic score for each personality disorder and a unique dimensional score for all patients for each disorder regardless of whether or not they fulfil the criteria for the disorder' (Loranger, 1999, p.5). The IPDE consists of 99 items, each scored as the behaviour or trait being absent or normal (score 0), exaggerated or accentuated (score 1), or at the criterion level or pathological (score 2). The item scores contribute to the criteria for personality disorders, with the number of criteria that need to be definitely met (score 2) for a diagnosis of personality disorder ranging from 4 to 6. Dimensional scores are obtained by adding together all criteria scores relating to each personality disorder.

Brief Symptom Inventory (BSI; Derogatis, 1993). The Brief Symptom Inventory is designed to reflect psychological symptom patterns. This self-report measure is the short form of the Symptom Checklist-90-R. Each item on the scale is rated on a five-point scale of distress ranging from 'not at all'

(0) to 'extremely' (4). There are nine dimensions and, those being: 1) Somatization, 2) Obsessive Compulsive, 3) Interpersonal Sensitivity, 4) Depression, 5) Anxiety, 6) Hostility, 7) Phobic Anxiety, 8) Paranoid Ideation, 9) Psychoticism. There are also three global indices, those being; Global Severity Index, Positive Symptom Total and Positive Symptom Distress Index. The scale that is examined in this study is the Global Severity Index, which is the total score of the scale scores. In this study for the sake of clarity the Global Severity Index will be called the BSI-Total score.

The Inventory of Interpersonal Problems (IIP; Horowitz et al., 2000). The IIP is a 64-item self-report questionnaire that lists problems that people report in relating to others. There are nine scales for the IIP, those being: 1) Domineering/Controlling, 2) Vindictive/Self centred, 3) Cold/Distant, 4) Socially Inhibited, 5) Non-assertive, 6) Overly Accommodating, 7) Self-Sacrificing, 8) Intrusive/Needy, 9) IIP-Total Score For each item respondents indicate on a five-point scale how much they have been distressed by the problem, ranging from 'not at all' (0) to 'extremely' (4). The scale that is used in this study is the IIP-Total score.

Novaco Anger Scale and Provocation Inventory, (NAS-PI; Novaco, 2003). The NAS-PI is a 60-item questionnaire and focuses on how an individual experiences anger. The measure is divided into two parts: An anger scale and a provocation inventory. The Anger Scale yields five scale scores: 1) Cognitive, 2) Arousal, 3) Behavioural, 4) Anger regulation, 5) NAS-total.

The Provocation Inventory focuses on the kind of situations that can lead to anger in five content areas: disrespectful treatment, unfairness, frustration, annoying traits of others and irritations-to produce a single PI-Total-score. With regards to the anger scale, for each item respondents indicate on a three-point scale how true of them particular statements are. Scores range from 'never true' (1) to 'always true' (3). Statements can be positive or negative. Examples of typical positive statements are 'People can be trusted to do what they say or 'I try to see positive things in other people'. Examples of typical negative statements are 'When something wrong is done to me I am going to get angry' or 'when I think about something that make me angry, I get even more angry'. With regards to the provocation inventory each item outlines a situation and respondents indicate how angry each situation would make them feel on a four-point scale ranging from 'not at all angry' (1) to 'very angry' (4). Typical situations described on the provocation inventory include: 'Being slowed down by another persons mistakes', or 'being accused of something that you didn't do'. In this study only the NAS-Total score is used.

Social Problem Solving Inventory – Revised (SPSI-R; D'Zurilla et al., 2002). The SPSI-R is a 52-item self-report questionnaire, which has five scales and a total scale: Positive Problem Orientation (PPO), Negative Problem Orientation (NPO), Rational Problem Solving (RPS), Impulsivity/Carelessness Style (ICS), and Avoidance Style (AS). An SPSI-Total score can also be calculated. Of these scales, higher scores on PPO and RPS indicate constructive problem

solving, whereas higher scores on NPO, ICS, and AS indicate dysfunctional problem solving. For each item respondents indicate on a five-point scale how true of them each statement is. Scores range from 'not at all true of me' (0) to 'extremely true of me' (4). In this study the SPSI-Total scale is used.

8.2.4. Test information

Table 8.3.

Means, standard deviations and reliabilities for the Brief Symptom Inventory, the Inventory of Interpersonal Problems, the Novaco Anger Scale and Provocation Inventory, and the Social Problem Solving Inventory -Revised totals

	Functional population		Non-functional population norms		Reliability
	Mean	SD	Mean	SD	
BSI – Total	0.35	0.37	1.40	0.72	0.90*
IIP – Total	51.00	33.00	Not available		0.96**
NAS-PI – Total	83.90	15.60	Not available		0.84*
SPSI – Total	11.19	3.02	7.40	3.54	0.95**

*Test-retest reliability. **Internal consistency. BSI functional norms based on adult female non-patient (N=358). BSI non-functional norms based on adult female psychiatric out-patient (N=577), both taken from BSI manual (Derogatis, 1993). IIP functional norms taken from manual (Horowitz et al., 2000) and based on adult female non-patient (N=400). NASPI functional norms taken from manual (Novaco, 2003) and based on adult female non-patient (N=693). SPSI Functional norms based on young adult population (N=530) taken from SPSI manual (D'Zurilla et al. 2002). Non Functional norms based PD population (N=87) taken from McMurran, Huband and Duggan (2008).

Presented in Table 8.3. are the means, standard deviations and reliabilities of each of the measures employed in this study. Because only functional population means are available for the Novaco Anger Scale and Provocation Inventory and the Inventory of Interpersonal Problems clinical significance calculation 1 as described by Jacobson and Truax (1991) is conducted. For

the Brief Symptom Inventory and the Social Problem Solving Inventory-Revised both functional and non-functional population means are available allowing clinical significance calculation 3 to be conducted. Because the standard deviations of both the functional and non functional populations are large, a cut off point of 1 standard deviation is employed. This is because when employing two standard deviations, populations overlap to an extent that they reach the mean of the other population. Where clinically significant change occurs reliable change calculations are conducted but only when clinically significant change occurs in the desired direction. Reliable change scores above 1.96 indicate that change is reliable. Where reliable change cannot or need not be calculated, it is reported in the following tables as non-applicable (NA).

8.2.5. Service Use Data

Hospital admissions and number of days spent in hospital were accessed via the NHS Trust's electronic patient administration system (Epex) which records patients' service use.

8.2.6. Procedure

Patients were told that information collected may be anonymously used as part of the service evaluation and informed consent was taken in writing. The psychometric measures were completed during the initial assessment and approximately every six months thereafter during the client's time in therapy. The diary card was completed either daily by each patient in their own time or

weekly during the one-to-one session with the therapist assigned to work with the particular patient. None of the patients expressed a preferred method for completing the diary card and patients were generally expected to complete them in their own time each day. However when this did not occur, the therapist would invite the patient to complete the card during the weekly therapy session. This process occurred on a week-by-week basis when necessary and no record was kept as to when a diary card was completed either by the patient alone or when in therapy with the clinician.

8.2.7. Statistical analyses

The focus of the analyses presented here is on the rate and extent of change that occurs during therapy. An AB single-case design is employed to examine the diary card data, analysed using the Dual Conservative Criteria approach (Fisher et al., 2003). It was not possible to collect baseline data for the diary cards because, if a referred patient met the criteria for inclusion in therapy, it was considered unethical to prevent patients from entering therapy as soon as possible. Instead of a pre-treatment baseline, the early and later stages of therapy were compared. The Dual Conservative Criteria approach using SINGWIN permits the analysis of a total of 14 data points which can are divided into 2 phases totalling 7 per phase. In this study, 7 data points will be analysed at the beginning of Dialectical Behaviour Therapy and 7 at the end of Dialectical Behaviour Therapy making a total of 14 data points. A data point is one week, two weeks or three weeks of diary card entries, depending on how long the patient spent in therapy. Because patients spent different

amounts of time in therapy, the lengths of time periods that are compared at the beginning and end of therapy are decided on a patient-by-patient basis. Within shorter treatment durations (up to approximately 50 weeks) each data point represents the mean score on a diary rating scale over one week. In medium length treatment durations (approximately 70-90 weeks) each data point represents the mean score on a diary rating scale over two adjacent weeks. With the longest treatment durations (150 weeks) each data point represents the mean score on a diary rating scale over three adjacent weeks.

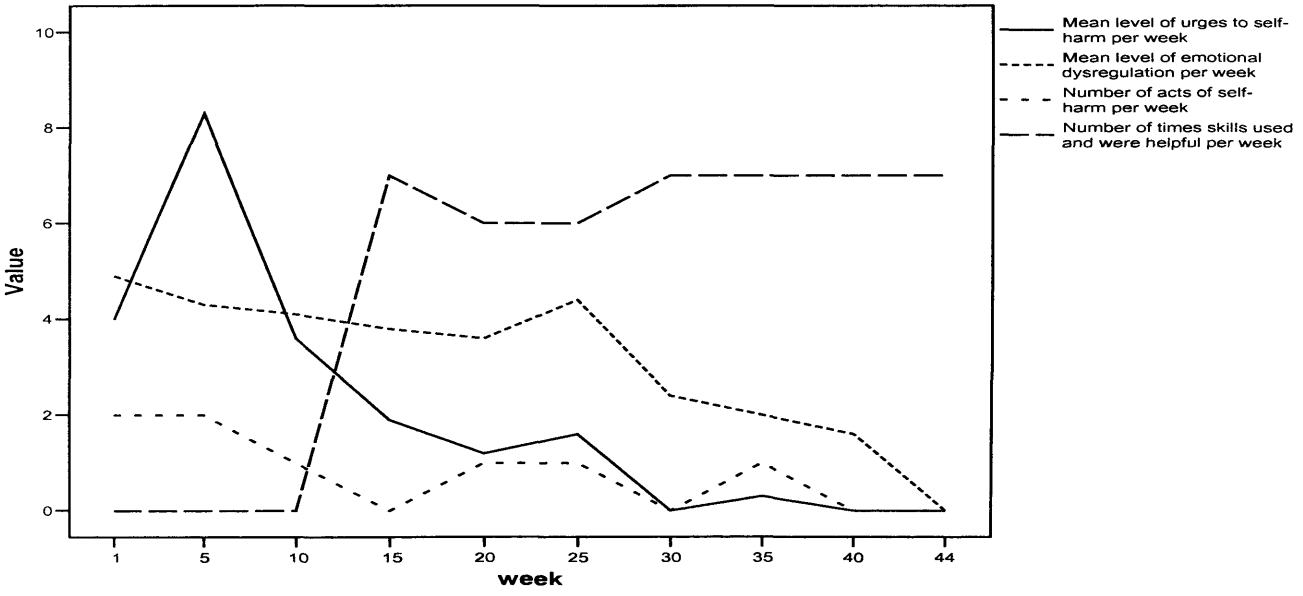
Changes in psychometric tests scores from pre- to post-intervention are analysed using clinical significance calculations (Jacobson & Truax, 1991). Hospital admission data are recorded on the Epex database and can be examined over long time periods prior to entering therapy. Time periods of the hospital admission data that are compared prior to entering Dialectical Behaviour Therapy and once the patient is in Dialectical Behaviour Therapy depend upon the length of time the patient spends in Dialectical Behaviour Therapy. For therapy durations of less than a year the length of the baseline information is the same length as the duration of therapy. With therapy durations of a year or more the length of the baseline is one year.

8.3. Results

8.3.1. Patient 1.

Diary card

Graph 8.1. shows change over 44 weeks of Dialectical Behaviour Therapy on the diary ratings. Table 8.4 presents results of the Conservative Dual Criteria approach comparing diary card scores from the first five weeks of Dialectical Behaviour Therapy with scores taken from the last seven weeks. Patient 1 did not record weeks six and seven, therefore this data was missing. Table 8.4. highlights that for Patient 1 significant change occurred across all four domains of the daily diary card.



Graph 8.1. Mean Scores for urges to self-harm, number of acts of self-harm, emotional dysregulation and skills use over 44 week period of Dialectical Behaviour Therapy for Patient 1.

Table 8.4.

Conservative Dual Criteria approach results for analyses of diary card domains for Patient 1.

	Urges to self-harm	Acts of self-harm	Emotional dysregulation	Skills use*
Obs – needed	6	6	6	6
Actual – obs	7	7	7	6
Significant to $p<0.05$	Yes	Yes	Yes	Yes

Obs-needed=Observations needed below (*above) the adjusted mean and trend lines in the intervention phase to indicate a statistically significant decrease in scores. Actual – obs=Number of observations that were actually below (*above) the adjusted mean and trend lines in the intervention phase.

Psychometric tests

Comparisons of scores taken at the beginning of therapy and end of therapy presented in Table 8.5. reveal that clinically significant change occurred on the Inventory of Interpersonal Problems and the Novaco Anger Scale and Provocation Inventory reflecting a significant improvement in interpersonal functioning and anger expression.

Table 8.5.

Pre and post DBT psychometric test scores for Patient 1.

Measure	Pre-DBT	Post-DBT	Clinically Significant	Reliable Change	Range
BSI – Total	3.41	3.18	No	NA	0 – 4.00
IIP – Total	126.00	40.00**	Yes	NA	0 - 256.00
NAS-PI – Total	124.00	85.00*	Yes	NA	0 – 144.00
SPSI – Total	14.65†	15.00	No	NA	0 – 20.00

*Clinically significant change to within 2 standard deviations of the functional population mean. **Clinically significant change to within one standard deviation of the functional population mean. †Client score fell within functional population range prior to treatment. NA=Reliable change non-applicable

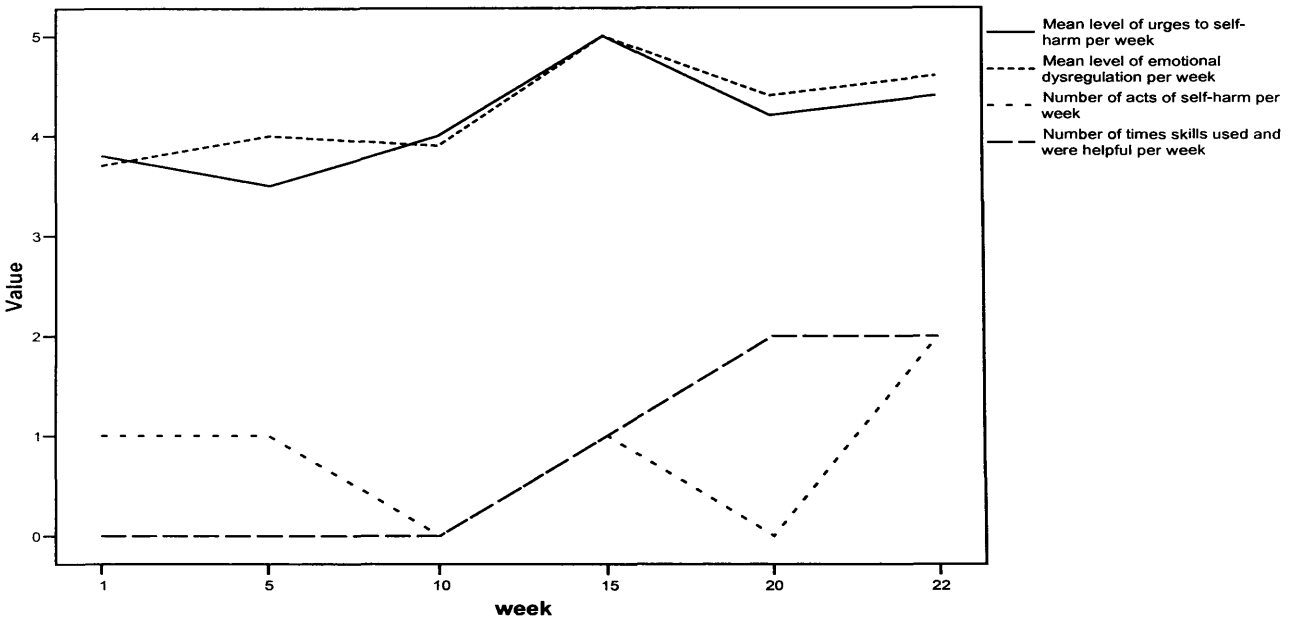
Service user data

Patient 1 did not require any hospital admissions for one year prior to inclusion in Dialectical Behaviour Therapy nor during participation in Dialectical Behaviour Therapy.

8.3.2. Patient 2.

Diary Card

Graph 8.2. shows change over 22 weeks of Dialectical Behaviour Therapy on the diary ratings. Table 8.6 presents results of the Conservative Dual Criteria approach comparing diary card scores from the first seven weeks of Dialectical Behaviour Therapy with scores taken from the last seven weeks. Table 8.6. highlights that for Patient 2 significant change did not occur in the urges to self-harm, acts of self-harm or the emotional dysregulation domains but significant change did occur on the skills use domain.



Graph 8.2. Mean Scores for urges to self-harm, number of acts of self-harm, emotional dysregulation and skills use over 22 week period of Dialectical Behaviour Therapy for Patient 2.

Table 8.6.

Conservative Dual Criteria approach results for analyses of diary card domains for Patient 2.

	Urges to self-harm	Acts of self-harm	Emotional dysregulation	Skills use*
Obs - needed	6	6	6	6
Actual - obs	2	2	0	6
Significant	No	No	No	Yes

Obs-needed=Observations needed below (*above) the adjusted mean and trend lines in the intervention phase to indicate a statistically significant decrease in scores. Actual – obs=Number of observations that were actually below (*above) the adjusted mean and trend lines in the intervention phase.

Psychometric tests

Comparisons of scores taken at the beginning of therapy and end of therapy presented in Table 8.7. reveal that clinically significant change occurred on the Inventory of Interpersonal Problems and the Social Problem Solving Inventory-Revised reflecting a significant improvement in anger expression and social problem solving.

Table 8.7.

Pre and post DBT psychometric test scores for Patient 2.

Measure	Pre-DBT	Post-DBT	Clinically Significant	Reliable Change	Range
BSI – Total	3.46	3.52	No	NA	0 – 4.00
IIP – Total	145	146	No	NA	0 - 256.00
NAS-PI - Total	99	80*	Yes	NA	0 – 144.00
SPSI – Total	9.60	4.77	Yes	NA	0 – 20.00

*Clinically significant change to within 2 standard deviations of the functional population mean. >Clinically significant change to beyond functional population range. NA=Reliable change non-applicable

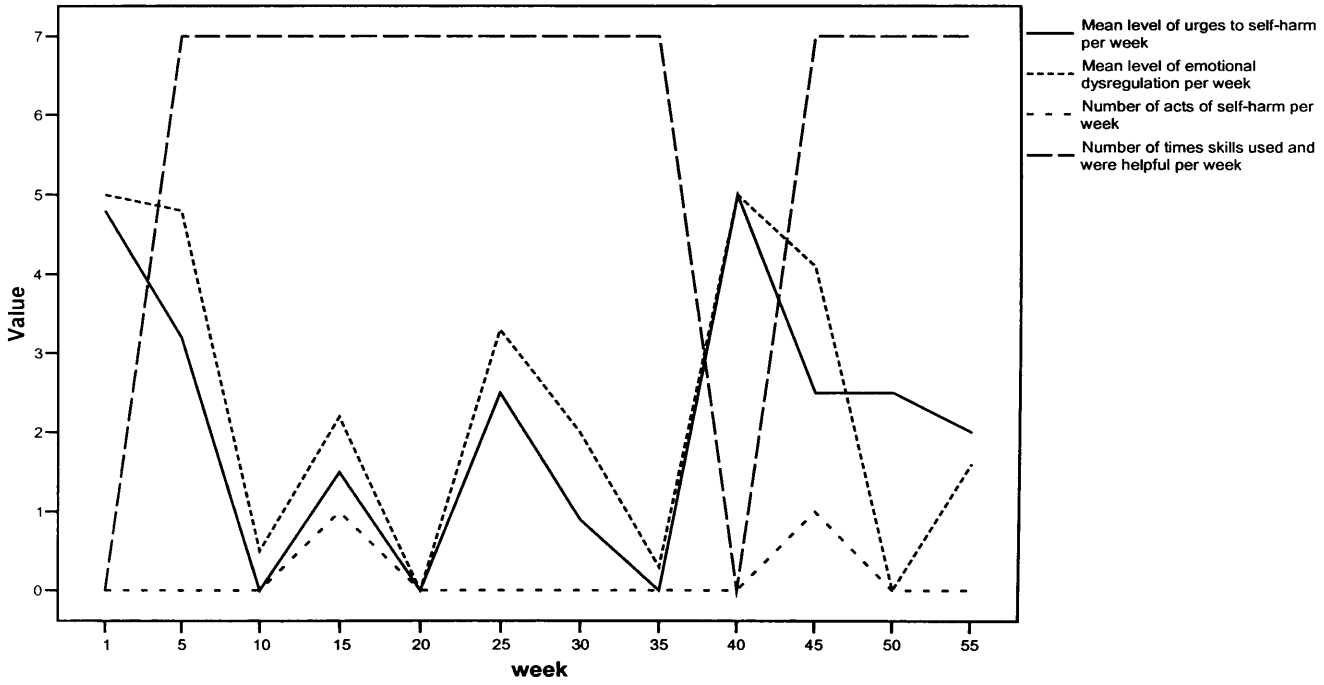
Service user data

Patient 2 required no hospital admissions over the 1 year prior to participation in therapy. However after one month in therapy Patient 2 required one admission and remained in hospital up to the end of this study. Therefore no analyses was necessary.

8.3.3. Patient 3.

Diary Card

Graph 8.3. shows change over 57 weeks of Dialectical Behaviour Therapy on the diary ratings. Table 8.8 presents results of the Conservative Dual Criteria approach comparing diary card scores from the first seven weeks of Dialectical Behaviour Therapy with scores taken from the last seven weeks. Table 6.8. highlights that for Patient 3 significant change did not occur in the urges to self-harm, acts of self-harm or skills use domains but significant change did occur in the emotional dysregulation domain.



Graph 8.3. Mean Scores for urges to self-harm, number of acts of self-harm, emotional dysregulation and skills use over 57 week period of Dialectical Behaviour Therapy for Patient 3.

Conservative Dual Criteria approach

Table 8.8.

Conservative Dual Criteria approach results for analyses of diary card domains for Patient 3.

	Urges to self-harm	Acts of self-harm	Emotional dysregulation	Skills use*
Obs - needed	6	6	6	6
Actual - obs	5	3	7	1
Significant	No	No	Yes	No

Obs-needed=Observations needed below (*above) the adjusted mean and trend lines in the intervention phase to indicate a statistically significant decrease in scores. Actual – obs=Number of observations that were actually below (*above) the adjusted mean and trend lines in the intervention phase.

Psychometric tests

Comparisons of scores taken at the beginning of therapy and end of therapy presented in Table 8.9. reveal that clinically significant change occurred on the Inventory of Interpersonal Problems and the Novaco Anger Scale and Provocation Inventory reflecting a significant improvement in interpersonal functioning and anger expression.

Table 8.9.

Pre and post DBT psychometric scores for Patient 3.

Measure	Pre-DBT	Post-DBT	Clinically Significant	Reliable Change	Range
BSI – Total	1.67	2.16	No	NA	0 – 4.00
IIP – Total	89	58**	Yes	NA	0 - 256.00
NAS-PI - Total	83†	99>	Yes	NA	0 – 144.00
SPSI – Total	10.30†	12.00	No	NA	0 – 20.00

**Clinically significant change to within one standard deviation of the functional population mean. †Client score fell within functional population range prior to treatment. >Clinically significant change to beyond functional population range. NA=Reliable change non-applicable

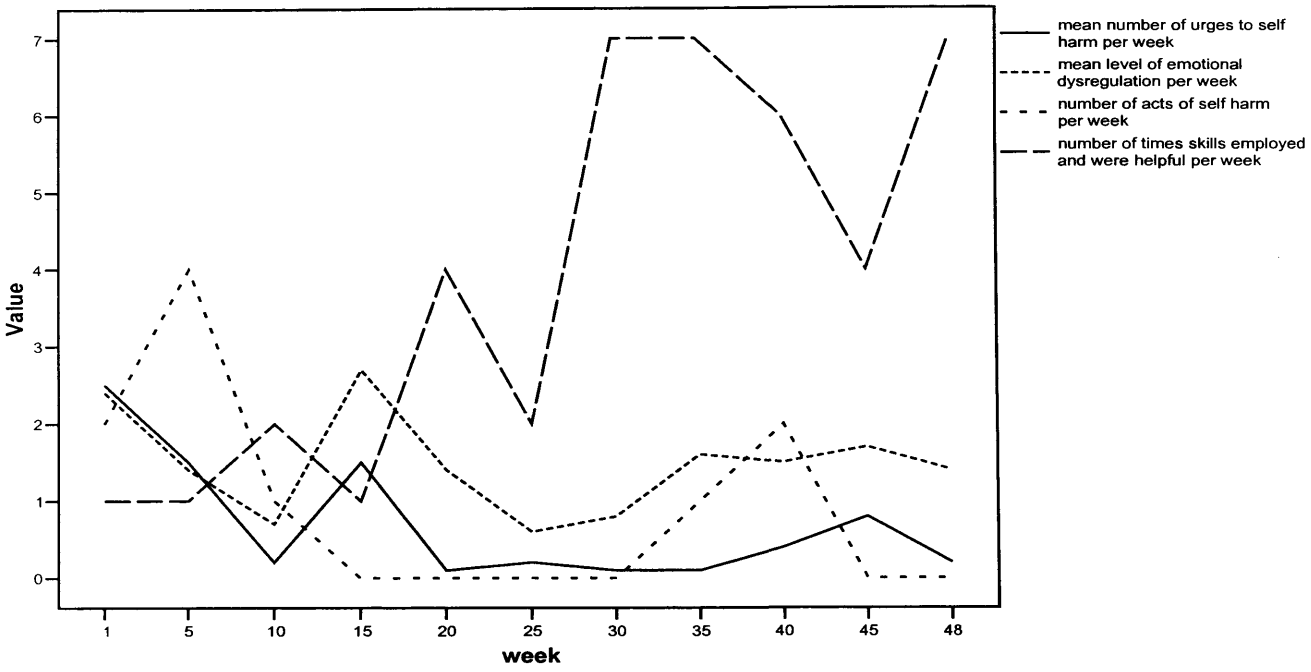
Service user data

For Patient 3, comparisons between 52 weeks prior to entering therapy and the approximate 57 weeks of therapy was made. A repeated measures t-test revealed no significant difference between number of admissions prior to therapy (M=.50, SD=.67) when compared with number of admissions during therapy (M=.42, SD=.51, t(11) = .29, p >0.05). A repeated measures t-test also revealed no significant differences between overall number of days spent in hospital prior to entering therapy (M=9.50, SD=11.02) when compared to during therapy (M=15.33, SD=13.70, t(11) = -1.36, p >0.05).

8.3.4. Patient 4.

Diary Card

Graph 6.4. shows change over 48 weeks of Dialectical Behaviour Therapy on the diary ratings. Table 8.10 presents results of the Conservative Dual Criteria approach comparing diary card scores from the first seven weeks of Dialectical Behaviour Therapy with scores taken from the last seven weeks. Table 8.10 highlights that for Patient 4 significant change did not occur in the urges to self-harm domain. However significant change did occur for emotional dysregulation acts of self-harm and skills use.



Graph 8.4. Mean Scores for urges to self-harm, number of acts of self-harm, emotional dysregulation and skills use over 48 week period of Dialectical Behaviour Therapy for Patient 4.

Conservative Dual Criteria approach

Table 8.10.

Conservative Dual Criteria approach results for analyses of diary card domains for Patient 4.

	Urges to self-harm	Acts of self-harm	Emotional dysregulation	Skills use*
Obs - needed	6	6	6	6
Actual - obs	2	7	7	7
Significant	No	Yes	Yes	Yes

Obs-needed=Observations needed below (*above) the adjusted mean and trend lines in the intervention phase to indicate a statistically significant decrease in scores. Actual – obs=Number of observations that were actually below (*above) the adjusted mean and trend lines in the intervention phase.

Psychometric tests

Comparisons of scores taken at the beginning of therapy and end of therapy presented in table 8.11. reveal that clinically significant change did not occur for any of the psychometric tests examined.

Table 8.11.

Pre and post DBT psychometric scores for Patient 4.

Measure	Pre-DBT	Post-DBT	Clinically Significant	Reliable Change	Range
BSI – Total	1.94	2.03	No	NA	0 – 4.00
IIP – Total	120†	121	No	NA	0 - 256.00
NAS-PI - Total	85†	84	No	NA	0 – 144.00
SPSI – Total	8.74	8.59	No	NA	0 – 20.00

†Client score fell within functional population range prior to treatment. NA=Reliable change non-applicable

Service user data

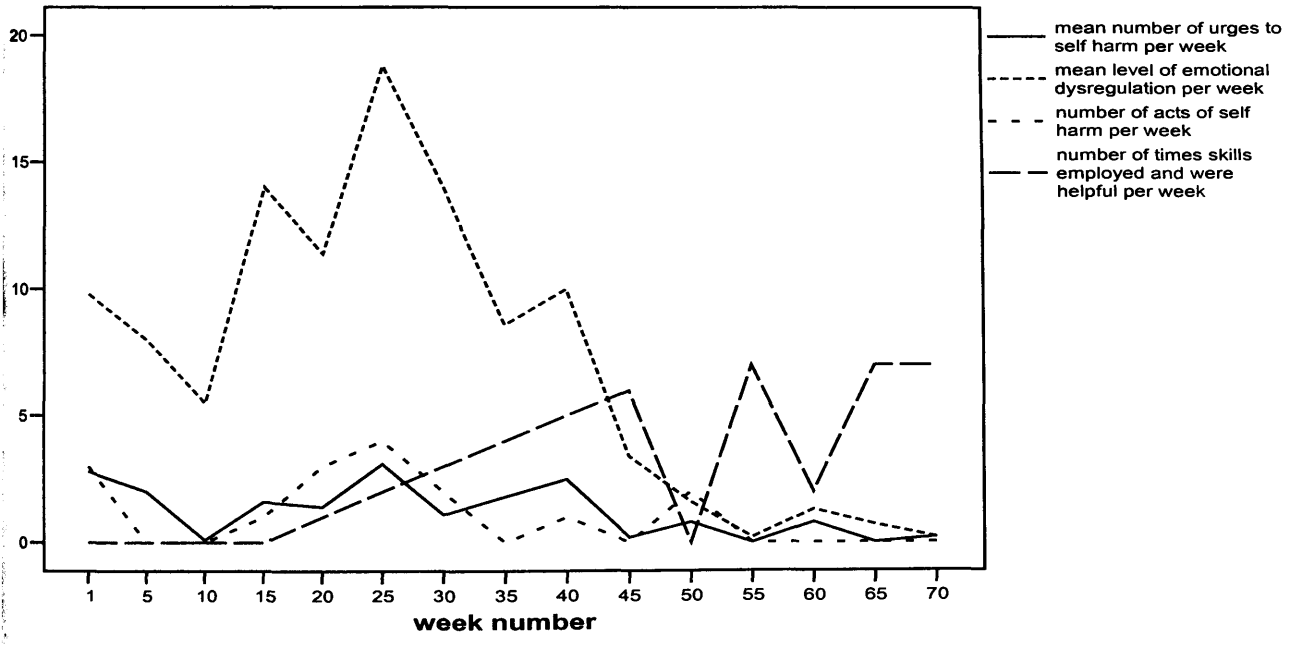
Patient 4 required only one hospital admission lasting for 3 days which occurred 11 months prior to entering therapy. There were no admissions during the course of therapy.

8.3.5. Patient 5.

Diary Card

Graph 8.5. shows change over 70 weeks of Dialectical Behaviour Therapy on the diary ratings. Table 8.12. presents results of the Conservative Dual Criteria approach comparing diary card scores from the first 14 weeks of Dialectical Behaviour Therapy with scores taken from the last 14 weeks.

Because patient 5 spent 70 weeks in therapy each data point in the Conservative Dual Criteria analysis presents 2 weekly scores averaged to provide a fortnightly score per data point. Table 8.12. reveals that for patient 5 significant change did not occur on the urges to self-harm domain. However significant change did occur for emotional dysregulation acts of self-harm and skills use.



Graph 8.5. Mean Scores for urges to self-harm, number of acts of self-harm, emotional dysregulation and skills use over 70 week period of Dialectical Behaviour Therapy for Patient 5.

Conservative Dual Criteria approach

Table 8.12.

Conservative Dual Criteria approach results for analyses of diary card domains for Patient 5.

	Urges to self-harm	Acts of self-harm	Emotional dysregulation	Skills use*
Obs - needed	6	6	6	6
Actual - obs	0	6	7	7
Significant	No	Yes	Yes	Yes

Obs-needed=Observations needed below (*above) the adjusted mean and trend lines in the intervention phase to indicate a statistically significant decrease in scores. Actual – obs=Number of observations that were actually below (*above) the adjusted mean and trend lines in the intervention phase.

Psychometric tests

Comparisons of scores taken at the beginning of therapy and end of therapy presented in Table 8.13. reveal that clinically significant change occurred on all psychometric measures reflecting a significant improvement in emotion regulation interpersonal functioning and anger expression and social problem solving. Reliable change calculations could be applied to the Brief Symptom Inventory and the Social Problem Solving Inventory-Revised which reveal that the change is unreliable.

Table 8.13.

Pre and post DBT psychometric scores for Patient 5.

Measure	Pre-DBT	Post-DBT	Clinically Significant	Reliable Change	Range
BSI – Total	2.07	0.39**	Yes	No (1.05)	0 – 4.00
IIP – Total	159	91**	Yes	NA	0 - 256.00
NAS-PI - Total	95	113>	Yes	NA	0 – 144.00
SPSI – Total	7.60	12.48**	Yes	No (1.63)	0 – 20.00

**Clinically significant change to within one standard deviation of the functional population mean. >Clinically significant change to beyond functional population range. NA=Reliable change non-applicable

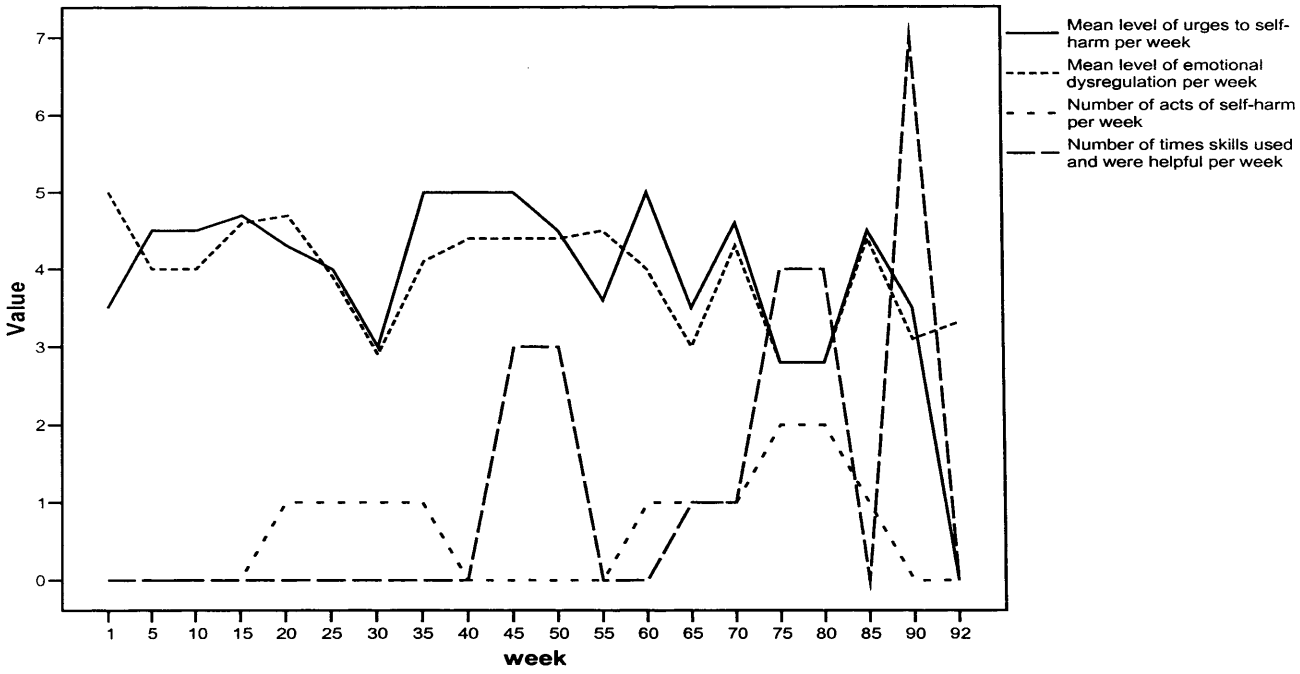
Service user data

Patient 5 required no hospital admissions over one year before entering therapy or during participation in therapy.

8.3.6. Patient 6.

Diary Card

Graph 8.6. shows change over 92 weeks of Dialectical Behaviour Therapy on the diary ratings. Table 8.14. presents results of the Conservative Dual Criteria approach comparing diary card scores from the first seven weeks of Dialectical Behaviour Therapy with scores taken from the last seven weeks. Although Patient 6 spent approximately 92 weeks in therapy it was not possible to make comparisons of larger periods of time because the much of the data was missing. Table 8.14. highlights that for Patient 6 significant change did not occur in the urges to self-harm, acts of self-harm and skills use. However, significant change did occur for emotional dysregulation.



Graph 8.6. Mean Scores for urges to self-harm, number of acts of self-harm, emotional dysregulation and skills use over 92 week period of Dialectical Behaviour Therapy for Patient 6.

Conservative Dual Criteria approach

Table 8.14.

Conservative Dual Criteria approach results for analyses of diary card domains for Patient 6.

	Urges to self-harm	Acts of self-harm	Emotional dysregulation	Skills use*
Obs - needed	6	6	6	6
Actual - obs	2	0	7	3
Significant	No	No	Yes	No

Obs-needed=Observations needed below (*above) the adjusted mean and trend lines in the intervention phase to indicate a statistically significant decrease in scores. Actual – obs=Number of observations that were actually below (*above) the adjusted mean and trend lines in the intervention phase.

Psychometric tests

Comparisons of scores taken at the beginning of therapy and end of therapy presented in Table 8.15. reveal that clinically significant change occurred on, the Novaco Anger Scale and Provocation Inventory and the Social Problems Solving Inventory-Revised reflecting a significant improvement in anger expression and social problem solving.

Table 8.15.

Pre and post DBT psychometric scores for Patient 6.

Measure	Pre-DBT	Post-DBT	Clinically Significant	Reliable Change	Range
BSI – Total	3.20	2.80	No	NA	0 – 4.00
IIP – Total	168	163	No	NA	0 - 256.00
NAS-PI - Total	101	85*	Yes	NA	0 – 144.00
SPSI – Total	7.90	4.21	No	NA	0 – 20.00

*Clinically significant change to within 2 standard deviations of the functional population mean. NA=Reliable change non-applicable

Service user data

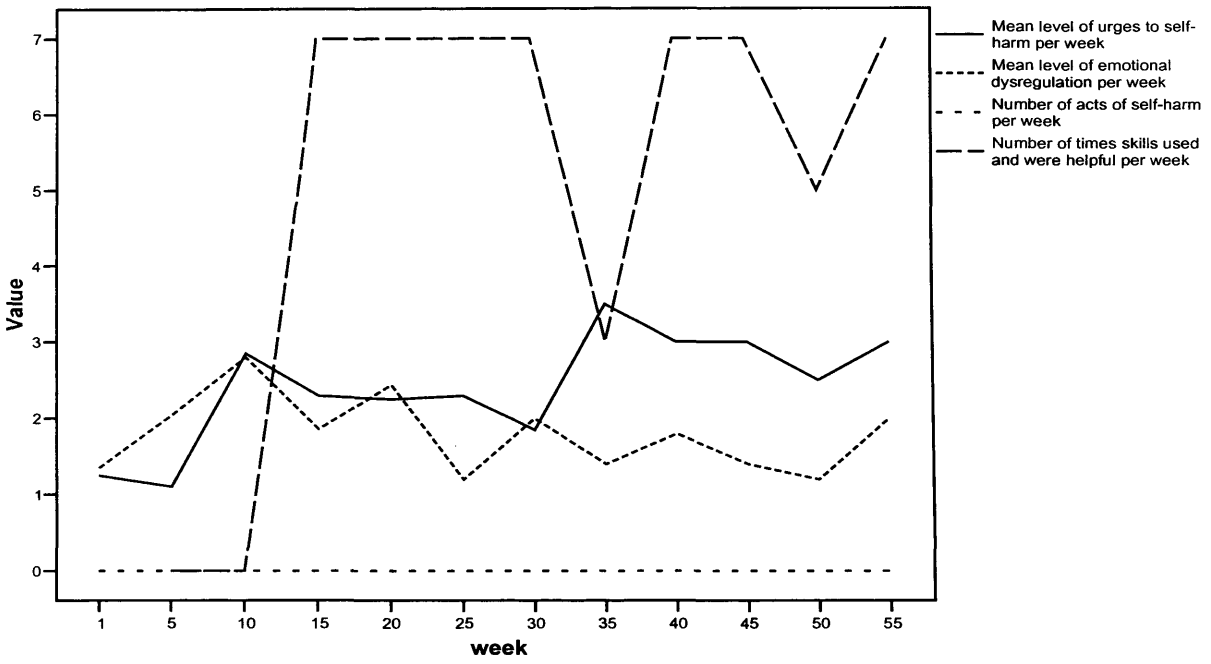
For patient 6, comparisons between 52 weeks prior to entering therapy and the approximate 96 week period of therapy was made. A repeated measures t-test revealed no significant difference between number of admissions prior to therapy (M=.42, SD=.66) when compared with number of admissions during therapy (M=.58, SD=.66, $t(11) = -.69$, $p > 0.05$). A repeated measures t-test also revealed no significant differences between overall number of days spent in hospital prior to entering therapy (M=2.00, SD=3.43) when

compared to participation therapy (M=2.00, SD=3.01, t(11) = -1.36, p >0.05).

8.3.7. Patient 7.

Diary Card

Graph 8.7. shows change over 56 weeks of Dialectical Behaviour Therapy on the diary ratings. Table 8.16. presents results of the Conservative Dual Criteria approach comparing diary card scores from the first 7 weeks of Dialectical Behaviour Therapy with scores taken from the last 7 weeks. Table 8.16. reveals that for Patient 7 significant change did not occur in urges to self-harm and emotional dysregulation. However significant change did occur for skills use. Acts of self-harm were not analysed because they were zero for the 7 weeks at the beginning of therapy and zero at the end.



Graph 8.7. Mean Scores for urges to self-harm, number of acts of self-harm, emotional dysregulation and skills use over 56 week period of Dialectical Behaviour Therapy for Patient 7.

Conservative Dual Criteria approach

Table 8.16.

Conservative Dual Criteria approach results for analyses of diary card domains for Patient 7.

	Urges to self-harm	Acts of self-harm	Emotional dysregulation	Skills use*
Obs - needed	6		6	6
Actual - obs	0		1	7
Significant	No		No	Yes

Obs-needed=Observations needed below (*above) the adjusted mean and trend lines in the intervention phase to indicate a statistically significant decrease in scores. Actual – obs=Number of observations that were actually below (*above) the adjusted mean and trend lines in the intervention phase.

Psychometric tests

Comparisons of scores taken at the beginning of therapy and end of therapy presented in Table 8.17. reveal that clinically significant change occurred on the Social Problem Solving Inventory-Revised reflecting a significant improvement in social problem solving. Reliable change calculations could be applied to the Social Problem Solving Inventory-Revised which reveal that the change is unreliable.

Table 8.17.

Pre and post DBT psychometric scores for patient 7.

Measure	Pre-DBT	Post-DBT	Clinically Significant	Reliable Change	Range
BSI – Total	1.57	0.96	No	NA	0 – 4.00
IIP – Total	57†	79	No	NA	0 - 256.00
NAS-PI - Total	65†	62	No	NA	0 – 144.00
SPSI – Total	6.90	11.80**	Yes	No (1.63)	0 – 20.00

**Clinically significant change to within one standard deviation of the functional population mean. †Client score fell within functional population range prior to treatment. NA=Reliable change non-applicable

Service user data

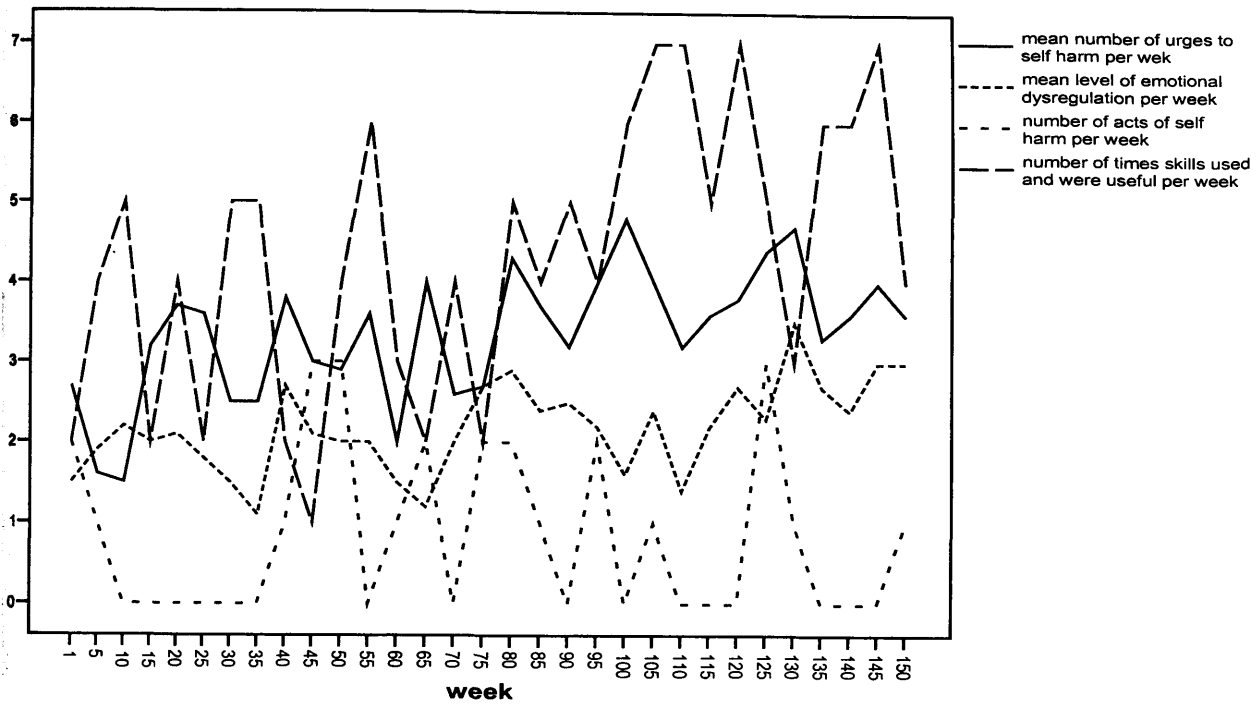
For Patient 7, comparisons between 52 weeks prior to entering therapy and the approximately 56 weeks of time spent in therapy were made. A repeated measures t-test revealed no significant difference between number of admissions prior to therapy (M=.33, SD=.49) when compared with number of admissions during therapy (M=.08, SD=.28, $t(11) = 1.39$, $p > 0.05$). However a repeated measures t-test revealed significant differences between overall

number of days spent in hospital prior to entering therapy (M=18.33, SD=11.74) when compared to participation in therapy (M=1.42, SD=4.05, $t(11) = -5.30$, $p < 0.01$).

8.3.7. Patient 8.

Diary card

Graph 8.8. shows change over 150 weeks of Dialectical Behaviour Therapy on the diary ratings. Because Patient 8 spent 150 weeks in therapy each data point in the Conservative Dual Criteria analysis presents 3 weekly scores averaged to provide an overall score per data point. Table 8.18. presents results of the Conservative Dual Criteria approach comparing diary card scores from the first 21 weeks of Dialectical Behaviour Therapy with scores taken from the last 21 weeks and reveals that for significant change did not occur on any of the domains of the diary cards.



Graph 8.8. Mean Scores for urges to self-harm, number of acts of self-harm, emotional dysregulation and skills use over 150 week period of Dialectical Behaviour Therapy for Patient 8.

Conservative Dual Criteria approach

Table 8.18.

Conservative Dual Criteria approach results for analyses of diary card domains for Patient 8.

	Urges to self-harm	Acts of self-Harm	Emotional dysregulation	Skills use*
Obs - needed	6	6	6	6
Actual - obs	0	3	0	5
Significant	No	No	No	No

Obs-needed=Observations needed below (*above) the adjusted mean and trend lines in the intervention phase to indicate a statistically significant decrease in scores. Actual – obs=Number of observations that were actually below (*above) the adjusted mean and trend lines in the intervention phase.

Psychometric tests

Comparisons of scores taken at the beginning of therapy and end of therapy presented in Table 8.19. reveal that clinically significant change occurred on the Novaco Anger Scale and Provocation Inventory and the Social Problem Solving Inventory-Revised reflecting a significant improvement in and anger expression and social problem solving. Reliable change calculations could be applied to the Social Problem Solving Inventory-Revised which reveal that the change is unreliable.

Table 8.19.

Pre and post DBT psychometric scores for Patient 8.

Measure	Pre-DBT	Post-DBT	Clinically Significant	Reliable Change	Range
BSI – Total	2.28	2.86	No	NA	0 – 4.00
IIP – Total	123	153	No	NA	0 - 256.00
NAS-PI – Total	111	119>	Yes	NA	0 – 144.00
SPSI – Total	8.91	9.47**	Yes	No (0.18)	0 – 20.00

**Clinically significant change to within one standard deviation of the functional population mean. >Clinically significant change to beyond functional population range. NA=Reliable change non-applicable

Service user data

For Patient 8, comparisons between 52 weeks prior to entering therapy and the approximately 150 weeks of time spent in therapy were made. A repeated measures t-test revealed no significant difference between number of admissions prior to therapy (M=.67, SD=.65) when compared with number of admissions during therapy (M=.75, SD=.62, $t(11) = -.32$, $p > 0.05$). A

repeated measures t-test also revealed no significant differences between overall number of days spent in hospital prior to entering therapy (M=9.08, SD=9.61) when compared to during therapy (M=4.58, SD=3.98, t(11) = 1.59, p >0.05).

Summary of results

Table 8.20.

Summary of results

	Significant change							
Patient	1	2	3	4	5	6	7	8
Diary Card								
Urges	Y	N	N	N	N	N	N	N
Actions	Y	N	N	Y	Y	N	*	N
Emotional dysregulation	Y	N	Y	Y	Y	Y	N	N
Skills use	Y	Y	N	Y	Y	N	Y	N
Psychometric tests								
BSI	N	N	N	N	Y	N	N	N
IIP	Y	N	N	N	Y	N	N	N
NAS	Y	Y	Y	N	Y	Y	N	Y
SPSI	N	Y	Y	N	Y	N	Y	Y
Hospital data								
Number of admissions	*	*	N	*	*	N	N	N
Lengths of stay	*	*	N	*	*	N	Y	N

*data not analysed

8.4. Discussion

The aim of this study was to devise a method of measuring an individual's response to and progress in Dialectical Behaviour Therapy using single-case methods. The focus of interest was on three methods of data collection,

those being daily diary cards, psychometric measures and hospital admission data.

It was hypothesised that if Dialectical Behaviour Therapy is effective, diary card ratings of urges to self-harm, acts of self-harm, and emotional dysregulation would reduce over the course of therapy, and skills use would increase. It was hypothesised that if Dialectical Behaviour Therapy is effective, as measured by the diary card ratings, there would be clinically significant change on psychometric measures of pre-to post-therapy. In particular, it was hypothesised that there would be a decrease in the total scores for the Brief Symptom Inventory, the Inventory of Interpersonal Problems and the Novaco Anger Scale-scores, and an increase in, the total score on the Social Problem Solving Inventory-Revised. Finally, it was hypothesised that if Dialectical Behaviour Therapy is effective, as measured by the diary card ratings, there would be a significant reduction in days spent in hospital pre-to post-therapy. It was also expected that if the diary card data, the psychometric data, and hospital data scores all change in the expected direction, then there can be greater confidence in the validity of the information, whether there is positive change, no change, or deterioration.

The results are inconsistent regarding these hypotheses. For example, Patient 1 improved on all diary measures, whereas Patient 8 improved on none of the diary measures, yet both showed improvement on two

psychometric tests. Also, Patient 4 showed improvement on 3 of the diary card measures yet no improvement on any of the psychometric measures.

8.4.1. Diary card data

Graphical presentation of the diary card data offers the opportunity to visually inspect trends in data whilst the Conservative Dual Criteria approach offers an original method of collating and representing such data. However there are a number of limitations to the diary card. One limitation is how the diary card is scored. The diary card is designed to capture up to 10-12 areas of functioning which are to be completed daily. The potential problem here is that patients who are already feeling pressured are expected to undertake tasks such as complete the diary cards which burden them further. This often leads to patients not completing the diary cards as requested and ultimately leaving large sections of data to be analysed missing. Patients may also question the relevance of some of the domains and subsequently play down their importance and not complete them. Moreover when a patient does complete the diary card it can be difficult to establish the accuracy of the information. Demand characteristics, social desirability or a patient's lack of willingness to regularly complete the diary cards are some of the threats to the validity of the data.

In this study the 10-12 areas of functioning were collapsed into 4 domains to ease the analysis. But collapsing a large number of domains into only 4 domains risks a loss of sensitivity of that data.

However the diary cards are a flexible method of recording data and can be tailored to monitor very specific areas of patient's functioning. These areas may then form targets of change in Dialectical Behaviour Therapy that may be more important to record than those found on the standard Dialectical Behaviour Therapy diary card. Linehan notes that the level of detail recorded on the diary card varies patient by patient suggesting that tailoring the diary card to suit the patient is important. Also, by focusing on very specific targets of change it is possible to reduce the time it takes for the patient to complete the diary card each day. Future research and clinical practice might benefit from limiting the number of areas of functioning that are to be recorded on the diary card, thereby reducing the time needed to record information, in turn helping to maintain a patient's willingness to complete the cards and minimising the threat to the validity of the data.

Another limitation of the diary card is that it is mainly used as a measure of change only when Dialectical Behaviour Therapy begins. This makes it difficult to firmly conclude that changes as measured on the diary cards are a clear reflection of inclusion in Dialectical Behaviour Therapy rather than fluctuations in functioning. The recording of a stable and lengthy baseline prior to inclusion in Dialectical Behaviour Therapy would help to better establish the effectiveness of Dialectical Behaviour Therapy as measured by the diary card. This may be achieved by asking patients who are referred to the Gwylfa Therapy Service to begin completing diary cards immediately even

if ultimately they do not enter Dialectical Behaviour Therapy. This may help highlight targets of therapy should the patient enter Dialectical Behaviour Therapy and also provide more evidence as to whether or not the patient actually needs or will benefit from Dialectical Behaviour Therapy.

8.4.2. Psychometric test data

Employing psychometric tests in a clinical evaluation of Dialectical Behaviour Therapy offers the opportunity to gather a second tier measure of targets of therapy rather than simply relying on diary cards. However this data collection method is also limited. One limitation is that tests may not be the most accurate measures of targets of change in therapy. The selection of appropriate tests is clearly important. A second limitation of the psychometric data stems from the population norms. For two of the measures, the Inventory of Interpersonal Problems and the Novaco Anger Scale and provocation Inventory only functional population norms were available which means when applying clinical significance calculations as described by Jacobson and Truax (1991) it was not possible to apply the most stringent calculation for clinical significance. For this calculation both functional and non-functional population means and standard deviations are required.

In future, the choice of psychometric measures in a clinical evaluation of Dialectical Behaviour Therapy should be those that have demonstrated an ability to assess specific targets of therapy. Using those that have both functional and non-functional population norms available may also be a

benefit. From both a statistical and a practical point of view, only a few well-chosen tests should be used.

8.4.3. Hospital data

It is important to analyse hospital data as it is relatively free from error or bias and may provide hard evidence that treatment works. However analyses of the hospital admission data revealed that meaningful comparisons could only be made with half the patients.

In conclusion there appears to be a number of ways how single case methods of evaluating Dialectical Behaviour Therapy might be improved. With regards to the diary card fewer domains that are tailored to the particular patient would reduce the time needed to complete the cards thereby helping to maintain a patient's enthusiasm. This would also improve the analysis because it is easier to focus on few domains without collapsing across several domains and risk a loss of sensitivity of the data. When a patient is referred to the Gwylfa therapy Service it would also be helpful if patients were asked to keep a diary card in anticipation that they may be included in Dialectical Behaviour Therapy at a later data. This would help to establish a stable baseline with the diary card which would permit an AB design to be implemented with this data which would thereby reduce the reliance on the hospital data as a baseline.

With regards to the psychometric measures, the selection of fewer measures that take shorter time periods to complete, consisting of scales that more accurately map onto specific areas of interest would help to reduce the time needed to complete the measures whilst maximising the validity of that data. Shorter time periods required for completion of psychometric measures may help to maintain a patient's interest in completing such measures thus ensuring greater accuracy in answers given by patients which again increases the validity of the data. It may also be possible to complete the psychometrics more regularly which will help to highlight gradual change; fewer measures that take shorter time periods to complete may not over-burden patients which may increase their willingness to complete the measures more often.

In summary, this study highlights limitations with the methods of evaluating Dialectical Behaviour Therapy using single case methods and begins to highlight how such methods might be improved.

Chapter 9. Discussion.

9.1. Overall summary

This thesis presented an evaluation of the Gwylfa Therapy Service, a relatively new service for people with borderline personality disorder and an examination into theoretical constructs thought to be related to borderline personality disorder. The Gwylfa Therapy Service operates along the lines for a specialist service proposed in the directive, Personality Disorder: No longer a diagnosis of exclusion (National Institute for Mental Health in England, 2003a), and offers therapy based upon Dialectical Behaviour Therapy. The evaluation consisted of three sections.

Section 1. The first section focused on examining the theoretical basis for Dialectical Behaviour Therapy. The first in this section study consisted of examining the relationship between emotional dysregulation, cognitive dysregulation and features of borderline personality disorder. The second study examined the relationship between emotional intelligence, alexithymia and features of borderline personality disorder.

Section 2. The second section consisted of a systemic evaluation that looked at how training might be developed and delivered to National Health Service staff and other agencies that come into contact with patients with personality disorder. The systemic evaluation comprised of three studies. The first study in this section examined what Community Mental Health Team staff felt they

need from the Gwylfa Therapy Service consultation service, the second study examined nursing staff attitudes towards patients with personality disorder, and the third study looked at patients' views of services they may have come into contact with *en-route* to the Gwylfa Therapy Service.

Section 3. The last section focused on clinical evaluation. The first study in this section looked at reasons why patients continue or discontinue with therapy and the second study examined if an effective method of clinically evaluating Dialectical Behaviour Therapy using single-case methods could be established.

9.2. Main findings

9.2.1. Theory driven research

An examination of the theoretical underpinnings of Dialectical Behaviour Therapy looked at the relationships between emotional dysregulation, cognitive dysregulation and features of borderline personality disorder. This study revealed that emotional and cognitive dysregulation were significantly correlated with features of borderline personality disorder. Total scores of both the Affective Control Scale and the Cognitive Distortion Scale predicted the Personality Assessment Inventory-Borderline Scale. However, the relative contributions of the separate scales of the Affective Control Scale and the Cognitive Distortion Scale revealed that, depressed mood was the only emotional dysregulation predictor of features of borderline personality

disorder, whilst a preoccupation with danger was the only cognitive dysregulation predictor. Depressed mood was the greater predictor.
A second study examining the theoretical underpinnings of Dialectical Behaviour Therapy examined the relationships between borderline personality disorder, emotional intelligence and alexithymia. Overall, emotional intelligence and alexithymia were negatively correlated. The Toronto Alexithymia Scale-20 total score was only predictor of borderline traits.

9.2.2. Systemic evaluation

The evaluation of the consultation service highlighted reasons why patients are referred to the Gwylfa Therapy Service, the problems patients present to teams, how staff feel about and cope with the patients and their problems, what could be done to improve coping, and what training, support and guidance that staff feel most in need of from the Gwylfa Therapy Service. This evaluation highlighted what works, what does not and how the consultation service might be improved. Patients with personality disorder were more likely to be seen in a negative manner and generally left staff feeling frustrated. Patients were seen as challenging and staff felt they needed help working with this group. A lack of team co-ordination was cited as part of the problem. Priority for staff was to reduce harmful behaviours, and increase patient insight and engagement. More structured programmes of tuition were requested.

The examination of staff attitudes towards patients with personality disorder helped clarify how training may help improve staff attitudes. Overall, Community Mental Health Team nurses said they enjoy working with personality disorder patients but feel less secure, less accepting, and less purposeful than other groups. Feeling less secure in a community setting by comparison with staff in secure settings is understandable by the nature of the setting alone. However, feeling less accepting and less purposeful cannot be explained by setting alone and may reflect the greater training and experience of the dangerous and severe personality disorder staff. Community Mental Health Team workers are expected to engage with and treat patients with personality disorder and so this study highlights the need for improving the skills and capabilities of this section of the workforce (NIMHE, 2003b). This study also examined how Community Mental Health Team nursing staff's attitudes towards patients with personality disorder differed depending on whether or not they volunteered to participate in a personality disorder awareness workshop. It was found that those who volunteered to participate in a personality disorder awareness workshop overall reported significantly more positive attitudes towards patients with personality disorder but not on levels of enthusiasm.

The Delphi survey of patients' views on the attitudes of staff from the services with which they had contact revealed that these patients desire respect and to have their needs acknowledged, understood and met by a professional service. These reasonable requirements are not, it seems, always perceived

as being fulfilled. The police were perceived as kind and helpful, but not responsive to needs. General Practitioners were generally understanding and helpful, but pressed for time and misunderstood the level of crisis. General hospital staff were perceived as being disrespectful, disdainful, and dismissive, indicating an urgent need for education and training. The more specialised psychiatric hospital staff and Community Psychiatric Nurses were viewed as more helpful, but with room for improvement. Other specialist staff, such as psychologists and counsellors were rarely mentioned, but were viewed satisfactorily.

9.2.3. Clinical evaluation

Those who discontinued therapy had more personality disorders in total, and their personality disorders were more complex; that is, they had personality disorders from more than one cluster (Tyrer & Johnson, 1996). Significant differences between groups were observed on internal and external motivation, with treatment non-completers showing lower internal motivation and higher external motivation for treatment. These scales differentiate between people who feel they need therapy to help them solve problems, feel better about themselves, and make personal changes, and those who have entered therapy because others have pressured them to do so. No group differences were observed on the Treatment Motivation Questionnaire lack of confidence in treatment scale. Mood did not differentiate those who continued in treatment from those who did not. Both continuers and discontinuers of therapy in this study appear to be highly negative in their

response to problems. Those who did not continue with therapy spent on average almost three times longer in hospital and cost three times as much as those who did continue with therapy.

Using single case methodology, change on daily diary cards, psychometric measures and hospital admissions data were examined to establish if an effective method of evaluating Dialectical Behaviour Therapy could be established. The findings were inconsistent in that hypothesised change on diary cards did not reflect hypothesised change with the psychometric measures. Although the diary card can be a flexible method of recording data and can be tailored to monitor very specific areas of patient functioning a number of limitations to the diary card were discovered. The diary card is designed to capture up to 10-12 areas of functioning which are to be completed daily which may over-burden the patient and risk missing data. Collapsing a large number of domains into only 4 domains risks a loss of sensitivity of that data. Demand characteristics, social desirability or a patient's lack of willingness to regularly complete the diary cards were revealed as threats to the validity of the data.

This study also revealed that employing psychometric tests in a clinical evaluation of Dialectical Behaviour Therapy offers the opportunity to gather a second tier measure of targets of therapy rather than simply relying on diary cards, but this method of data collection was also found to be limited. The tests chosen in this study may not be the most accurate measures of targets of change in therapy and non-functional population norms were not available

for two measures which limited clinical significance calculations as described by Jacobson and Truax (1991).

9.3. Implications

9.3.1. Theory driven research

The study examining the relationship between emotional dysregulation, cognitive dysregulation and features of borderline personality disorder indicates that theories concerned with the development of borderline personality disorder may be overlooking the extent to which negative cognitions as measured by the Cognitive Distortion Scale such as unnecessary self-criticism and self-blame, feelings of helplessness and hopelessness or preoccupation with danger may be involved in borderline personality disorder symptomatology. It may be that elements of cognition, such as an ability to think about and control emotion, mediate the link between emotional vulnerability and the development of borderline personality disorder. An emotionally vulnerable individual may experience abuse or neglect which has the potential to develop into borderline personality disorder but is protected from this outcome because of an ability to think about their emotional reactions and control them, thus preventing the development of increasingly dysregulated emotions which potentially could result in borderline personality disorder.

With regards to the emotional intelligence, alexithymia and features of borderline personality disorder study, the implications for therapy are that, to

improve emotional regulation, people with borderline personality disorder may benefit from therapy that focuses upon helping them to identify and discriminate emotions and feelings, describe their emotions and feelings to themselves and others, and understand the genesis of these feelings. This is in according with the findings of Connolly and Denney (2007), who suggest that clinical interventions for affect dysregulation in alexithymic individuals should target subjective interpretations of emotional stimuli rather than presumed autonomic hyperactivity. The focus on identifying and discriminating emotions and somatic sensations may also assist in reducing self-harm, whose most common function is to regulate negative emotions (Klonsky, 2007). It may be that using Gross's (1998) model of emotion regulation within a framework of alexithymia could contribute to both the further development and evaluation of this important aspect of therapy for borderline personality disorder.

9.3.2. Systemic evaluation

The findings from the consultation service indicate that without the support of the Gwylfa Therapy Service, Community Mental Health Teams may not provide patients with optimal support. Moreover, Community Mental Health Teams that lack a coordinated approach to patients with personality disorder may also fail to deliver optimal support. A lack of coordination within teams may lower staff morale and increase staff turnover which can also have an impact on the level of support a patient receives.

The findings from the study that examined nursing staff attitudes towards patients with personality disorder indicate that nursing staff who are not prepared to undertake training may not deliver optimal care to patients with personality disorder. There are also implications for selection of staff working with patients with personality disorder in that volunteers may start at a higher favourable baseline attitude than non-volunteers which means their attitudes may increase to a level higher than those who do not volunteer for training but for whom training is mandatory. Some of these issues may be addressed through the formulation of policies and good practice procedures, but staff also need to be trained for working with people with personality disorder. The results of this study have led to the design of more suitable training for Community Mental Health Team staff.

The Delphi survey of patients' views of the services they have had contact with *en-route* to the Gwylfa Therapy Service has helped to identify which services require training and support from the Gwylfa Therapy Service to better manage the needs of patients presenting with complex psychological difficulties. The results of this Delphi survey of the views of borderline personality disorder patients on the general and specialist services they have received is illuminating and indicate that a lack of training to effectively understand and manage the needs of individuals with personality disorder limits the level of care that such individuals receive. Involving service users can improve the quality of services, accessibility of information, and staff attitudes, with consequent benefit to patients (Crawford et al., 2002). These

benefits are clearly needed in relation to patients with borderline personality disorder. These views are important in their own right in that all professionals who deal with borderline personality disorder patients should do so respectfully and to the best of their abilities, within their own professional remit.

9.3.3. Clinical evaluation

A comparison of those who continue with therapy with those who discontinue adds to our knowledge of factors associated with discontinuation of therapy by people with borderline personality disorder. The findings suggest that those with complex personality disorders who are not motivated for treatment and who discontinue therapy are highly distressed and dysfunctional. They require specific attention to engage them effectively in therapy. The high cost to services of treatment discontinuers provides an economic case for commissioners to invest in services for this group. Without more rigorous assessment at the beginning of therapy resources may be misdirected towards those who will not do well in therapy, thereby diminishing the effectiveness of the Gwylfa Therapy Service to deliver a model of therapy to its full potential. On the other hand this illustrates that the Gwylfa Therapy Service should develop in ways that allows it to better suit the needs of those who are most in need of help.

The examination of single-case methods of the evaluation of Dialectical Behaviour Therapy highlights that effective methods of evaluation need to be

established. Although the diary card is a useful measure within Dialectical Behaviour Therapy asking patients to complete large numbers of domains on a daily basis can be problematic as it can lead to a lack of enthusiasm and missing data, however, collapsing a large number of domains into only four domains risks a loss of sensitivity of that data.

9.4. Limitations and strengths

9.4.1. Theory driven research

The strengths and limitations of the emotional dysregulation, cognitive dysregulation and features of borderline personality disorder study and the study that examined emotional intelligence, alexithymia and features of borderline personality disorder are discussed together. The first limitation is that the data presented were collected from a non-clinical sample of students, and it may be that studying a sample diagnosed as suffering from borderline personality disorder would produce different results. However, the sample's Personality Assessment Inventory-Borderline Scale scores were more like that of a non-clinical sample than a clinical sample and 15% met the cut-off for borderline personality disorder. Trull, Useda, Conforti and Doan (1997) argued that non-clinical young adults have been a neglected area of research on borderline personality disorder because only the more severe clinical cases have tended to be studied. Evidence suggests that borderline personality disorder is relatively prevalent in non-clinical populations (Gunderson & Zanarini, 1987; Zimmerman & Coryell, 1989), and non-clinical young adults with features of borderline personality disorder can present with levels of

dysfunction across a number of domains which merit further study (Trull 1995). Studying university students, whose average level of intelligence may be higher than the average of a clinical sample may also cause problems. However, this population was chosen on the grounds that a spread of scores on the measures would permit the best assessment of the constructs of interest and borderline personality disorder traits. The measures chosen in both studies were self-report measures, which risks poor validity in reporting complex experiences and thoughts, especially where distress may currently be elevated. In regards to the study that examined the relationship between emotional intelligence, alexithymia and features of borderline personality disorder it is notable that 10% (n = 14) of the sample failed to respond on the self-harm scale of the Personality Assessment Inventory-Borderline Scale, a refusal not apparent in other scales. It may be that there was a degree of personal censorship in respondents, supported by the finding that the Positive Impression scale of the Bar-On Emotional Quotient Inventory: Short correlated significantly with the Self-Harm scale of the Personality Assessment Inventory-Borderline Scale. Despite the limitations both studies begin to shed light on which constructs appear to associate with particular features of borderline personality disorder.

9.4.2. Systemic evaluation

A limitation of the evaluation of the consultation service is that only a small number of staff were recruited into the study which makes it difficult to make generalisations to the wider staff population who work with individuals with

borderline personality disorder, as the views shared by the participants here may not accurately reflect those of the majority of Community Mental Health Team staff. However, because all staff who were asked to participate in this study agreed it is possible to rule out the fact that only those with a negative attitude participated. Even though only a small number of participants were recruited the study offers insight into the problems Community Mental Health Team staff experience with patients with borderline personality disorder and how the consultation process can be refined to better support both Community Mental Health Team staff and patients.

A limitation of the evaluation of nursing staff attitudes towards patients with personality disorder is that it reports findings from Community Mental Health Teams in one NHS Trust only, however it is probable that Community Mental Health Team staff in other Trusts experience the same types of difficulties in working with patients with personality disorder so it may be possible to generalise the findings to other Trusts. A second limitation of this study is that the focus is on nurses' attitudes to personality disorder in general. Although the data collected here and the data provided by Carr-Walker et al. (2004) offer insight into attitudes towards personality disorder generally, it may be that the various types of personality disorder induce various levels of positive and negative attitudes. It may be inappropriate, therefore, to draw specific conclusions from comparisons made between Community Mental Health Team staff and nurses or prison officers working in secure settings, where there may be a different personality disorder patient profile. The final

limitation of this study is that it was not possible to collect personal information about respondents. This study begins to shed light upon the training needs of nursing staff and which staff might benefit the most from therapy. This study also highlights how services such as the Gwylfa Therapy Service can identify which staff are best suited to work closely at Community Mental Health Team level with patients with personality disorder.

The limitations of the Delphi survey of patients' views of services they have had contact with is that it was conducted on a small sample of service users, which limits its representativeness, though the goal was to see if the Delphi methodology could help in future service planning and evaluation. Nonetheless, the sample here was small in relation to the number of patients who have had contact with the Gwylfa Therapy Service and limits what can be said about the findings and whether it can be applied to other settings. However, the sample did consist of all patients engaged in therapy with the Gwylfa Therapy Service and so were the views of the entire group at that time. The results, however, may be of limited generalisability, pertaining only to the particular geographical location in which this study was conducted. Services in other regions should collect views locally. Another limitation is that the survey was conducted when all the participants were actively involved in therapy and it was conducted when patients attended for a therapy session with group facilitators present. Participants may, therefore, have responded according to the demands of the situation, with a bias in favour of Gwylfa Therapy Service and possibly providing overcritical views

about the services sought and/or received before the Gwylfa Therapy Service. Furthermore, patients' responses may reflect their current clinical functioning, which may vary from time to time. It may be useful to plot patients' views of the Gwylfa Therapy Service in relation to periods of good and poor self-regulation. This study begins to shed light upon the education, training and supervision needs of staff from services that come into contact with patients with borderline personality disorder. Furthermore, the way these services may be better integrated with each other and the Gwylfa Therapy Service is identified as requiring attention. The findings of this study suggests that the Gwylfa Therapy Service is getting things right and could be used as a resource for training and support of staff from other services.

9.4.3. Clinical evaluation

The limitations of the comparison between those who continued with therapy and those who discontinued are: First, the sample size is small, comparing only seven continuers with seven discontinuers. Second, the reasons for discontinuation were mixed, with four people being discharged for non-attendance and three dropping out of treatment. These subgroups may differ in critical ways. Finally, only a limited number of factors were studied here and other issues may be better predictors of dropout, namely co-morbid Axis I disorders, substance use (Kelly et al., 1992), anger and hostility (Kelly et al., 1992; Smith et al., 1995), and impulsiveness (Kelly et al., 1992; Yeomans et al., 1994). However this study begins to shed light on factors that need to be taken into account when establishing an individual's suitability for therapy.

The examination of single-case methods of the evaluation of Dialectical Behaviour Therapy begins to shed light upon how multiple sources of information can be used to monitor individual's progress as they undergo and eventually complete Dialectical Behaviour Therapy. This study also highlighted some of the problems that may be encountered when employing particular data collection methods.

9.5. Future directions

9.5.1. Theory driven research

The study examining emotional and cognitive dysregulation and their relationship to the development of borderline personality disorder illustrate the need for future research to determine the relative importance of cognitive dysregulation and its specific constituents in explaining and treating borderline personality disorder. These issues need to be explored in clinical samples. Future research may benefit from attention to methods that more accurately capture emotional and cognitive dysregulation. It may also be useful to examine the extent to which behavioural, self and interpersonal dysregulation, as described by Linehan (1993), may correlate with each other and with features of borderline personality disorder. Finally, because borderline personality disorder is viewed as a disorder that develops over the life span, it would be useful to conduct longitudinal research to examine the childhood emotional and cognitive indicators of adult borderline personality disorder at different stages of development. Such studies may reveal more

about how risks can be managed earlier, before the development of borderline personality disorder, and may also help guide the development of therapies for borderline personality disorder in adulthood.

9.5.2. Systemic evaluation

With regards to the evaluation of the consultation service there are a number of roles that the Gwylfa Therapy Service might develop, based on the information collected from staff in this survey. There is a need to train individual practitioners on how to make progress with particular patients when the practitioner feels frustrated at a lack of progress, or anxious about the patient's self-harming behaviours. Furthermore, formal training in treatments for borderline personality disorder and associated problems is needed, as recommended by NIMHE's (2003b) 'Personality Disorder Capabilities Framework'. There is evidence that an education programme about aetiology, patient behaviour, staff responses and treatment methods improves staff nurses' knowledge of and attitudes towards patients diagnosed as borderline personality disorder (Miller & Davenport, 1996). Findings from the evaluation of the consultation service have been used to improve and streamline the consultation process. Information is continually fed back to the Gwylfa Therapy Service so that the consultation service recognises and caters for the expressed needs of Community Mental Health Team members. Because information is garnered during each telephone call from a Community Mental Health Team to the Gwylfa Therapy Service future work could look into devising a standardised consultation checklist to establish the

level of support Community Mental Health Team members require when working with particular patients and the level of care that the patient might require. Training for Community Mental Health Team staff across the Trust has also begun to be implemented. Other training might include motivational interventions, crisis management, coping with difficult behaviours, and Dialectical Behaviour based Therapy. Teams need coherent treatment strategies and practice guidelines for handling difficult behaviours, such as self harm or suicidal ideation. The Gwylfa Therapy Service already has a role in promoting practice guidelines across the Trust as outlined by the National Institute for Mental Health in Engalnd document 'Personality Disorder: No longer a Diagnosis of Exclusion' (NIMHE, 2003) and the National Public Health Service for Wales (2004) document 'Meeting the Health, Social Care and Wellbeing Needs of Individuals With a Personality Disorder'. The Gwylfa Therapy Service has already implemented personality disorder awareness training days in line with the recommendations of the above documents.

The evaluation of nursing staff attitudes towards patients with personality disorder shows that Community Mental Health Team nursing staff require help to feel safer, more accepting and more purposeful when working with patients with personality disorder. Some of these issues may be addressed through the formulation of policies and good practice procedures, but staff also need to be trained for working with people with personality disorder, again as recommended by NIMHE's (2003b) 'Personality Disorder Capabilities Framework'. Because the research here only focused on working with

individuals with borderline personality disorder, future research may benefit from looking at attitudes to different personality disorders in a range of settings in particular Community Mental Health Teams and also in general hospital staff and psychiatric ward staff. It was not possible to collect personal information about respondents therefore future research would benefit by the inclusion of such information because it may highlight specific training and supervision issues in relation to issues such as age, gender, and professional experience. Future work needs to design suitable training and evaluate its effectiveness with respect to how it changes knowledge, attitudes, and skills and, eventually, how this benefits patients. Here, the need for specialist services, such as the Gwylfa Therapy Service, to implement and maintain training and support for all Community Mental Health Team staff involved with patients with personality disorder is supported, given the apparent need to raise awareness of the particular needs of patients with personality disorder, encourage more positive attitudes, and give a purpose to treatment. Training Community Mental Health Team professionals in risk assessment, and the development, implementation and management of effective care plans for patients with personality disorder is important. Such recommendations are being adopted by the Gwylfa Therapy Service and are in line with the National Institute of Mental Health in England's document, the 'Personality Disorder Capabilities Framework' (NIMHE, 2003).

Another consideration is that these are the services through which the patient passes in order to reach a specialist service, such as the Gwylfa Therapy Service. To avoid distress, damage and disaffection from clinical services,

patients need to be treated well at all levels of service. In NIMHE's (2003b) 'Personality Disorder Capabilities Framework', skills for working with people with personality disorder are considered relevant to a whole range of agencies, including those within the criminal justice system, health care, social services, and housing. 'Whole-systems' workforce development is recommended, with targeted training for specific staff groups. This research makes it clear where training is most needed.

The Delphi survey of patients' views of services they have contact with begins to shed light upon the education, training and supervision needs of staff from services that come into contact with patients with borderline personality disorder and the Delphi method appears to be an appropriate method to try to uncover what these needs might be. Care must be taken to avoid distressing, damaging and disaffecting patients as they pass through general services *en-route* to a specialist team. Future research into how education, training and supervision needs are met and assessing the effectiveness of such methods will prove useful. Further, the way these services may be better integrated with each other and Gwylfa Therapy Service is identified as requiring more attention. Helping professionals to listen to, respect, and respond more professionally to vulnerable patients will facilitate a more effective system of assessment, treatment and referral both within and outside of specialised services. This study presents the first steps towards the Gwylfa Therapy Service listening to and using service users' views which is only the first step in user involvement, and there are many other ways of

involving users as experts in service planning and delivery (Crawford et al., 2003).

9.5.3. Clinical evaluation

With regards to the comparison of those who continued with therapy with those who discontinued, because the sample size is small future research would benefit from examining a larger sample. However, specialist tertiary services have a slow throughput and the time taken to accrue sufficient numbers for adequately powered studies will be long. Information needs to be gathered in the meantime to assist with an iterative improvement of clinical provision. Because only a limited number of factors were studied here and other issues may be better predictors of dropout, namely co-morbid Axis I disorders, substance use (Kelly et al., 1992), anger and hostility (Kelly et al., 1992; Smith et al., 1995), and impulsiveness (Kelly et al., 1992; Yeomans et al., 1994) future research may benefit from accounting for other factors.

Future directions for the evaluation of Dialectical Behaviour Therapy using single-case methods need to focus on several aspects. Choosing fewer domains on the diary cards tailored to the particular patient may reduce the time needed to complete, helping to maintain a patient's enthusiasm. Establish a stable baseline using the diary card by asking patients to keep a diary card on referral to the consultation service. Choosing fewer psychometric measures that are relatively quick and easy to complete and have few scales that more accurately map onto specific areas of interest

would reduce time needed to complete the measure helping to maximise the validity of that data. This in turn may also increase the accuracy of the data and its validity. Completing the measures more regularly may help to record gradual change.

9.6. Overall Conclusion

Adopting a three-pronged approach the studies described in this thesis begin to shed light on how services for individuals with personality disorder might be developed in line with the recommendations of the National Institute for Mental Health in England's documents 'Personality Disorder: No Longer a Diagnosis of Exclusion (2003a) and 'Personality Disorder Capabilities Framework' (2003b).

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Appendix 1.

Consultation Service Questionnaire

Your perceptions of people who suffer from a personality disorder

Key-worker/involved staff name:

Patient Name:

Profession:

Date of interview:

1. How would this particular person be described by members of the team?

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.....
.....

2. Please rate how positively or negatively do the team feel about working with someone with a Personality Disorder.

Negative Neither Positive

0....5....10....15....20....25....30....35....40....45....50....55....60....65....70....75....80....85....90....95....100

3. Describe the feelings elicited when working with someone with a Personality Disorder

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4. What prompted decision to seek support from GTS?

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5. What are the main problems you have experienced with the client

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8. Describe the type of support you feel you require from the Consultation Service?

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9. Describe how confident you feel working with PD sufferers?

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10. What could be done to improve your confidence in working with PD sufferers?

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11. Describe how equipped you feel to work with PD sufferers?

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12. What skills do you feel you need to develop?

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Additional Comments.

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Appendix 2.

Attitude to Personality Disorder Questionnaire

Staff name (optional):

_____

Pseudo-name (for example, mother's maiden name or father's Christian name):

_____

Date:

_____

Profession (optional):

_____

Place of Work:

_____

This questionnaire is designed to capture your thoughts and feelings about people who have been described as having a personality disorder as detailed in ICD – 10 and/or DSM-IV diagnostic systems. This can include personality disorder combined with other conditions, for example, Learning Disability or Schizophrenia.

As you know, patients with a personality disorder vary greatly and present in many different ways.

For the purposes of this questionnaire we would like you to think about your feelings towards people with personality disorder. We realise that you may have mixed feelings about patients you have worked with in the past but we ask you to recall these experiences as a whole and report your general perception of this group.

Please take a moment to reflect upon your experience of working with people with this problem. For each response listed please indicate the frequency or your feelings towards people with a personality disorder. Please circle your response quickly rather than spending time considering it.

Thank you

Attitude to Personality Disorder Questionnaire

		Never	Seldom	Occasionall	Often	Very Often	Always
1	I like PD people	1	2	3	4	5	6
2	I feel frustrated with PD people	1	2	3	4	5	6
3	I feel drained by PD people	1	2	3	4	5	6
4	I respect PD people	1	2	3	4	5	6
5	I feel fondness and affection for PD people	1	2	3	4	5	6
6	I feel vulnerable in PD people company	1	2	3	4	5	6
7	I have a feeling of closeness with PD people	1	2	3	4	5	6
8	I feel manipulated or used by PD people	1	2	3	4	5	6
9	I feel uncomfortable or uneasy with PD people	1	2	3	4	5	6
10	I feel I am wasting my time with PD people	1	2	3	4	5	6
11	I am excited to work with PD people	1	2	3	4	5	6
12	I feel pessimistic about PD people	1	2	3	4	5	6
13	I feel resigned about PD people	1	2	3	4	5	6
14	I admire PD people	1	2	3	4	5	6
15	I feel helpless in relation to PD people	1	2	3	4	5	6
16	I feel frightened of PD people	1	2	3	4	5	6
17	I feel angry towards PD people	1	2	3	4	5	6
18	I feel provoked by PD people behaviour	1	2	3	4	5	6
19	I enjoy spending time with PD people	1	2	3	4	5	6
20	Interacting with PD people makes me shudder	1	2	3	4	5	6
21	PD people make me feel irritated	1	2	3	4	5	6
22	I feel warm and caring towards PD people	1	2	3	4	5	6
23	I feel protective towards PD people	1	2	3	4	5	6
24	I feel oppressed or dominated by PD people	1	2	3	4	5	6
25	I feel that PD people are alien, other, strange	1	2	3	4	5	6
26	I feel understanding towards PD people	1	2	3	4	5	6

27	I feel powerless in the presence of PD people	1	2	3	4	5	6
28	I feel happy and content in PD people company	1	2	3	4	5	6
29	I feel cautious and careful in the presence of PD people	1	2	3	4	5	6
30	I feel outmanoeuvred by PD people	1	2	3	4	5	6
31	Caring for PD people makes me feel satisfied and fulfilled	1	2	3	4	5	6
32	I feel exploited by PD people	1	2	3	4	5	6
33	I feel patient when caring for PD people	1	2	3	4	5	6
34	I feel able to help PD people	1	2	3	4	5	6
35	I feel interested in PD people	1	2	3	4	5	6
36	I feel unable to gain control of the situation with PD people	1	2	3	4	5	6
37	I feel intolerant. I have difficulty tolerating PD people behaviour	1	2	3	4	5	6

Appendix 3.

Treatment Motivation Questionnaire

This questionnaire is concerned with people's reasons for entering treatment and their feelings about treatment. Participation is voluntary, so you do not have to complete this questionnaire if you don't want to. Different people have different reasons for entering treatment and we want to know how true each of the following reasons is for you. Please indicate how true each reason is for you using the following scale

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

A. I came for treatment because:

1. I really want to make some changes in my life.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

2. I won't feel good about myself if I don't get some help.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

3. I was referred by the legal system.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

4. I feel so guilty about my problem that I have to do something about it.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

5. It is important to me personally to solve my problems.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

B. If I remain in therapy it will be because:

6. I'll get into trouble if I don't.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

7. I'll feel very bad about myself if I don't.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

8. I'll feel like a failure if I don't.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

9. I feel like it's the best way to help myself.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

10. I don't really feel like I have a choice about staying in treatment.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

11. I feel it is in my best interests to complete treatment.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

C. Rate each of the following in terms of how true each statement is for you.

12. I came to treatment now because I was under pressure to come.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

13. I am not sure this program will work for me.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

14 I am confident this program will work for me.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

15. I decided to come to treatment because I was interested in getting help.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

16. I'm not convinced this program will address my problems.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

17. I want to openly relate to others in the program.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

18. I want to share some of my concerns and feeling with others.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

19. It will be important for me to work closely with others in solving my problems.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

20. I am responsible for this choice of treatment.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

21. I doubt that this program will solve my problems.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

22. I look forward to relating to others who have similar problems.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

23. I chose this treatment because I think it is an opportunity for change.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

24. I am not very confident that I will get results from treatment this time.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

25. It will be a relief for me to share my concerns with other program participants.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

26. I accept the fact that I need help and support from others to beat my problems.

1	2	3	4	5	6	7
Not at all true			Somewhat true			Very true

Appendix 4.

Patient information sheet.

Evaluation of the Gwylfa Therapy Service

You are being invited to take part in a research study. Before you decide, it is important for you to understand why this research is being done and what it will involve. Please take the time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take the time to decide whether or not you wish to take part.

What is the purpose of the study?

As you may already know, The Gwylfa Therapy Service is a relatively new service and it is the first of its kind in Wales for people who experience the complex and distressing psychological problems that are called personality disorders. It is therefore important for us to know what the strengths and weaknesses of the new service are. We aim to evaluate our therapies to see if they produce the expected benefits to you and whether you find them useful. One important way is to work with service users to look for improvements in their wellbeing and ask if they are satisfied with the service. Such feedback will help us to improve our skills and provide a better service.

Why have I been chosen?

You have been chosen to participate in this study because we are asking all of our patients to provide us with their views. your views. The information you provide will tell us how we can improve the help provided by the Gwylfa Therapy Service.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time or a decision not to take part will not affect the standard of care you receive.

What will happen to me if I take part?

You will be asked to complete some additional questionnaires with either the researcher or another member of staff. This will require several hours of your time spread out over a month. This will happen as part of your initial assessment and before you enter therapy. When your therapy is finished, you will be asked to complete some of the questionnaires again. This will enable us to see what changes you have undergone. We will contact you again 6 and 12 months after therapy to assess the longer term impact of treatment. This will mean having an interview with either the researcher or another member of staff. You may choose which member of staff you feel most comfortable with to help you complete the questionnaires. There

are no restrictions on any aspect of your day to day life, only a request to engage in and complete therapy.

What are the disadvantages and risks of taking part?

There are no risks involved in taking part in this study, but a possible disadvantage is that you may need to set some time aside to complete the additional questionnaires. You may find some of the questions may ask you personal information.

What are the possible benefits of taking part?

Although there are benefits of this study for users of The Gwylfa Therapy Service, these benefits may not necessarily affect you. The aim of this study is to improve the service, both in Gwent Health Care Trust and in other NHS Trusts, and the benefits are most likely to be experienced by future service users. If you need to use the service again in the future, you may notice some of the improvements that were guided by this study.

What if new information becomes available?

Sometimes during the course of a study new information becomes available about the treatment or therapy that is being studied. If this happens a member of staff will tell you about it and discuss with you whether you want to continue in the study. If you decide to withdraw it will not affect the level of care you receive. If you decide to continue in the study you will be asked to sign an updated consent form.

Will my taking part in this study be kept confidential?

All information which is collected about you during this study will be kept strictly confidential and will only be viewed by members of The Gwylfa Therapy Service. Sharing information with other members of the service will only occur if it might benefit you. Wherever possible, information that may identify you will be removed before information is shared with other members of the service.

What will happen to the results of the study?

The results will help in the development of the service and inform services in other trusts. Anonymised data will be included in presentations to research meetings, professional clinical meetings and service management meetings. The results will be submitted to academic journals at periods throughout the evaluation and will eventually form part of a thesis that will be submitted for a higher degree at Cardiff University. It will not be possible to identify you in any reports. You will also be offered a copy of the results of the study and any questions you may have about the results will be answered.

Who is organising and funding the research?

This study is organised by the Gwylfa Therapy Service with assistance from Cardiff University. The research is supervised by Cardiff University and it is funded by Gwent Healthcare NHS Trust.

Who has reviewed the study?

This study has been reviewed by Gwent Healthcare NHS Trust's Research Ethics Committee and Gwent Healthcare NHS Trust's Scrutiny Committee.

Contact for further information.

Daniel Webb

Researcher

01633 436793

Professor Mary McMurran

Senior Research Fellow at Nottingham University

02920 876758

Dr Bob Colter

Consultant Clinical Psychologist for The Gwylfa Therapy Service

01633 436724

If you agree to participate in this study you will receive a consent form to sign and another to keep along with a copy of this information sheet.

Centre Number:

Study Number:

Patient Identification Number:

Consent Form

Title of study: Evaluation of The Gwylfa Therapy Service.

Name of Researcher: Daniel Webb.

Please tick box

1. I confirm that I have read and understand the information sheet dated 22 August 2005 (version 002) for the above study and have had opportunity to ask questions.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason and without my care or legal rights being affected.
3. I understand that information collected as part of my assessment for therapy will be used anonymously for the research project.

4. I consent to the completion of additional questionnaires for the research study that are beyond those required for the initial assessment.

5. I understand that my anonymised data will on occasion be included in presentations to research meetings, professional clinical meetings, service management meetings and will be submitted to academic journal and/or books for publication before finally being included in a PhD thesis submitted to Cardiff University.

6. I agree to take part in the above study.

Name of patient	Date	Signature
Name of person taking consent (if different from researcher)	Date	Signature
Researcher	Date	Signature

Appendix 5.

Patient Profiles

Patient 1. 37 year old female

Childhood

Only child from parents marriage although both had much older offspring from previous marriages

Close to father who left home when she was 10. Contact eventually lost

Neglected by mother, always came home to empty house

Anorexic and bulimic episodes in teens

Adulthood

Trained and worked as nurse until aged 32

Began relationship age 21 and produced daughter. Relationship ended.

Entered second relationship aged 25 and produced son.

Third relationship reflected themes from childhood and triggered problems

Daughter leaving to leave with father also trigger

Service contact

GP referral with recurrent depression

2 admissions since first contact

On referral to GTS

Diagnosis of BPD

Alcohol abuse to cope with negative feelings

Thoughts and acts of self harm (bingeing, head-butting, erratic driving)

Suicide attempts (overdose on prescription drugs)

Feelings of shame and self loathing of physical appearance

Therapy Agreement/treatment targets

Reduce self harm behaviours

Increase emotion regulation

Increase interpersonal effectiveness

Develop and employ skills designed to accommodate and overcome inter and intra personal difficulties

Patient 2. 30 year old female

Childhood

Father who was violent and abusive to her mother and brother but idolised Patient 2. Subsequent poor relationship with mother and brother. Patient felt confusion over her father's behaviour. Her mother also blew hot and cold with her. Father wanted Patient 2 to be a perfect person. Patient 3 feared rejection from her father. Possible sexual abuse by two relatives.

Adulthood

Due to highly charged situations in childhood Patient 2 did not learn life skills which disappointed her father who rejected her.

Suffer great deal of invalidation and strong emotional reactions to daily events.

Suffered at hands of a violent partner.

Service contact

Numerous contacts with services since 1998

On referral to GTS

Diagnosis of BPD

Thoughts and acts of self harm

Strong urges to kill herself

Feelings of shame and self loathing of physical appearance

Therapy Agreement/treatment targets

Reduce self harm behaviours

Increase emotion regulation

Increase interpersonal effectiveness

Develop and employ skills designed to accommodate and overcome inter and intra personal difficulties

Patient 3. 36 year old female

Childhood

Lived with mother and grandparents until 10

Physically abusive grandmother and neglectful mother

Sexually abused by cousin between ages 6-10

Began self harming at 12-13

Although doing well in school was bullied at age 15 resulting in alcoholic OD

Turned to alcohol at this time

Adulthood

Raped by unknown male

Amphetamines and cannabis use in early twenties

Frequent service contact has prevented patient from leading any life outside of services

Service contact

Referred to CAMHS at 15 for 2 years

First adult contact at 21 hearing voices and experiencing suicidal thoughts

Gradual escalation in self harm behaviour (cutting, burning, starving, ligatures)

Frequent admissions to local and out-of-area services acute and forensic

Diagnosed with BPD and paranoid schizophrenia

Experiencing self loathing and despair

On referral to GTS

Pre-existing diagnosis of BPD and Schizophrenia

Therapy Agreement/treatment targets

Reduce thoughts to commit suicide

Reduce thoughts to commit self harm

Reduce acts of self harm

Develop and employ skills designed to accommodate and overcome inter and intra personal difficulties

Patient 4. 28 year old female

Childhood

Violent father

Sexually abusive stepfather

Very poor relationship with mother

Poor diet developing into anorexia

Adulthood

Embarked on nurse training

Developed steady relationship with boyfriend who has since become controlling

Service contact

Frequent service contact since early twenties

Diagnosed with BPD and avoidant PD as well as eating disorder

Experiences anxiety and nightmares relating to previous abuse

Parental family life persists to be a trigger for a number of problem areas

Element of denial surrounding this area

On referral to GTS

Presenting with urges to commit suicide and self harm (cutting, scratching, punching walls, starving)

Therapy Agreement/treatment targets

Reduce thoughts to commit suicide

Reduce thoughts to commit self harm

Reduce acts of self harm

Develop and employ skills designed to accommodate and overcome inter and intra personal difficulties

Patient 5. 35 year old female

Childhood

Idolised older brother but recalls a sexually suggestive encounter with him at age 8

Strict mother who slapped patient and used 'guilt tripping' to control children

Sometime mother was perceived as violent

Experienced separation anxiety when her brother was sent to boarding school to curb a drug problem. 'if you misbehave you will be sent away'.

Starting hearing inner voice and began self harming in mid teens and overdosed on pills one time

Purposely broke her arm at age 14

Had problems due to homosexual orientation

Felt depressed for most of childhood

Adulthood

Left home at earliest convenience

Dropped out of college and was homeless for 2 years

Used cannabis and LSD briefly during this time

Used alcohol to contain emotions

Began several career paths in late 20's but had breakdown at just before age 30

Service contact

Brief GP contact asking for counselling during early 20's

Five brief in-patient admissions beginning at approx age 30

Verbally abusive

Hears commanding voices to harm people close to her

Diagnosed with BPD but apparent that anxiety depression self harm and anger problems have been present since childhood

Obsessive lifestyle routines surrounding eating dressing and sleeping

Reclusive

Has given different parts of her personality different names

On referral to GTS

Previous diagnosis of BPD

Reports feeling anxious and depressed

Therapy Agreement/treatment targets

Increase assertiveness

Reduce thoughts of self harm

Reduce acts of self harm

Increase emotional regulation through reduction of; vulnerability, pain, shame, anger, fear,

Self hatred and dissociation

Develop and employ skills designed to accommodate and overcome inter and intra personal difficulties

Patient 6. 45 year old female

Childhood

Distant, aloof father

Critical and controlling mother who used physical and verbal abuse

Fraught relationship with maternal grandmother

Sexually abused by older brothers

Difficult schooling due to fear of being 'shown up'

Adulthood

Started out in bedsit

Embarked on mechanics course but gave up due to fear of failure

Met her husband very early and fell pregnant but found out husband was seeing ex who was also pregnant

Husband remained with patient but responsibility for husband's children (boys) from previous fell on the patient along with her own daughter

Husband very controlling

Daughter reveals being sexually abused by half brother

Daughter has own offspring which due to legal proceeding the patient is prevented from seeing, causing further distress

Service contact

Referred to services aged 34

Repeated suicide attempts using prescription medication

Thoughts of killing daughter to protect her from further abuse

On referral to GTS

Diagnosis of anxious PD, and emotionally unstable PD

Probable diagnosis of dependent PD

Anxiety and depression

Alcohol misuse

Auditory hallucinations instructing patient to self harm

Thoughts and urges to kill her daughter

Therapy Agreement/treatment targets

Reduce suicidal urges and suicide attempts

Reduce urges and acts of self harm

Reduce alcohol use

Develop and employ skills designed to accommodate and overcome inter and intra personal difficulties

Patient 7. 60 year old female

Childhood

Violent father

Sexually abusive uncle

Adulthood

Married a caring supportive husband whom she is still married to

Produced a son

Worked as a home carer for 17 years

Depression first occurred at end of this employment

First reported psychological problems at 43

Service contact

First contact aged 43

Number of admissions over last 4 years

Reports feeling depressed

Impulsive

Threats to commit suicide and self harm

Traumatic dreams

Gradual deterioration

Social phobia

On referral to GTS

Probable diagnosis of emotionally unstable PD and schizoid PD

Therapy Agreement/treatment targets

Reduce urges to commit suicide and self harm

Reduce suicide attempts

Reduce acts of self harm

Reduce social anxiety

Reduce levels of sadness that occur most evenings

Increase confidence

Develop and employ skills designed to accommodate and overcome inter and intra personal difficulties

Patient 8. 45 year old female woman

Childhood

Authoritarian father

Absent and neglectful mother

Sexually abused as teenager

Experienced death of a close friend for which she feels to blame

Adulthood

Married young to an affectionate man and produced 2 children

Husband became increasingly authoritarian

Diagnosed with cervical cancer whilst pregnant for the third child

Subsequent termination and hysterectomy

Husband blamed patient for the loss of the child

Service contact

Began in early thirties

Gradual deterioration

Auditory hallucination began 2 years later with suicidal ideation and self harm following shortly after requiring several stays in hospital

Fantasises about killing ex husband

On referral to GTS

Diagnosed with BPD and dependent PD

Binge eating disorder

Severe PTSD

Depression

Therapy Agreement/treatment targets

Reduce thoughts of suicide and self harm

Reduce acts of self harm

Reduce thoughts of killing husband

Reduce negative emotional responses; vulnerability, pain, shame, anger, fear, Self hatred and dissociation

Develop and employ skills designed to accommodate and overcome inter and intra personal difficulties