

**THE PROCESS OF CHANGE IN THE TREATMENT OF
PERSONALITY DISORDER IN A FORENSIC INPATIENT SETTING**

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Abstract

This thesis explores the question, what are the important change processes in the treatment of personality disorder in a male forensic inpatient setting? A number of empirically supported therapies for personality disorder stress the importance of the therapist-client relationship in the change process. Therapist-patient relationships are therefore an important focus in this thesis. However, given the lack of research into change processes in this population, the focus is not limited to the therapist-patient relationship, but also considers other relationships and other aspects of the treatment milieu. A model of change processes for this patient group is developed through a series of studies.

The first study, in chapter 3, is a qualitative investigation of patients' perceptions of the process of change and the factors involved. Twelve patients completed a semi-structured interview and the results were analysed using thematic analysis. The study concludes that the cognitive dissonance between how patients expect to be treated and how they are actually treated is an important factor in motivating them to engage in treatment. It also concludes that the therapist-patient relationship and the wider interpersonal environment are both important to therapeutic change with this population.

Chapters 4 and 5 describe the process of developing an appropriate dependent outcome measure for the thesis. Social functioning was selected as the dependent outcome variable. Chapter 4 is a systematic review of social functioning measures used with people with a diagnosis of personality disorder and concludes that there is a need to develop a new self-report measure specifically for people with a diagnosis of personality disorder in inpatient settings. Chapter 5 describes the development and validation of this new

measure, the Hospital Social Functioning Questionnaire (HSFQ). Fifty-four patients completed a range of measures including the HSFQ. The HSFQ shows good internal consistency, test-retest reliability and concurrent validity with other measures. It appears to measure different aspects of social functioning from the Global Assessment of Functioning (GAF), the most widely used social functioning measure, and the two measures appear to complement each other.

Chapter 6 is a quantitative study using the HSFQ and a self-report measure of patients' perceptions of therapeutic change processes to test the initial model of change developed in chapter 3. Fifty patients completed a checklist about how they had changed during treatment and the factors that had contributed to that change, as well as measures of social functioning. Self-reported levels of change were highly correlated with measures of patient functioning, though significant levels of change did not occur until the latter stages of treatment. The behaviour of therapists was particularly important throughout treatment, though participants in the final stage of therapy reported that the behaviour of other staff was as important as that of therapists, suggesting that, by this stage of treatment they are able to extend their range of supportive and therapeutic relationships. The results support a limited reparenting attachment-based model of therapeutic change.

Chapter 7 is a pattern matching study that tests and refines the model of change. Ten patients completed a semi-structured interview about their interactions with their therapist. Their responses were analysed using a modified version of pattern matching to test hypotheses generated by the limited reparenting attachment-based model of change. The results support the limited reparenting model and suggest that patients' attachment relationships

with their therapists are an important change process for this population, particularly in the earlier stages of treatment.

Chapter 8 presents a three-stage model of change based on the results of this thesis. On first admission, patients enter the *orienting/ cognitive dissonance phase*, in which they start to engage in treatment after perceiving a consistent improvement in how they are currently regarded and treated compared to how they have been regarded and treated previously, particularly in prison. Next, they enter the *reparenting phase*, during which their relationship with their therapist is the most important factor affecting change. Many features of the therapist-patient relationship during this phase parallel attachment processes between children and caregivers. Finally, patients enter the *exploration/ generalisation phase* in which they are able to explore from the secure base of their relationship with their therapist and develop supportive and therapeutic relationships with other staff members. This model provides a useful framework for working therapeutically with this patient group.

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List of Published Papers and Prizes

Published Papers

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Prizes

2013 Institute of Mental Health Prize for best publication for work flowing from a doctoral dissertation.

A Note on Language

While in general in this thesis I refer to the users of mental health services as *clients* or *service users*, I refer to the participants in my research as *patients*. This is consistent with the British Psychological Society's (2004) guidance that "[i]n medical contexts, where *patient* is the normal word to use for the recipient of medical services, it is acceptable to use the term for all purposes" (p. 37). It is also the term that participants in these studies would most commonly use to refer to themselves and, in my opinion, reflects the position of detained forensic inpatients more accurately than alternatives such as client or service user. Elsewhere, I use the term service user as a general term to describe people using mental health services, while I use the term client specifically to describe a service user engaged with a therapist in psychological therapy.

I also distinguish between the words *therapy* and *treatment*. I use the term therapy to describe any psychological therapy carried out by a psychologist or psychotherapist with an individual or a group of clients. In contrast, I use the term treatment to describe the combination of psychological therapies, medical treatments, nursing care, occupational and speech and language therapies, and the therapeutic milieu in the secure hospital environment.

While I generally use inclusive terms—he/ she or they—in describing clients and service users, I use masculine pronouns to refer to the participants in this research study who were all male.

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1. Introduction

Abstract

The aim of this thesis is to investigate the process of change during treatment for men with a diagnosis of personality disorder in a secure setting. Given the difficulty in clearly defining what personality disorder is, the introduction begins with a review of different conceptualisations of personality disorder. There are now a number of empirically supported therapies for personality disorder, each with its own theoretical model of the aetiology of personality disorder traits and symptoms. Each therapy has its own model of the change processes involved in therapy, both in-treatment processes and the internal processes within the patient that these trigger that in turn lead to clinical change. However, there is little empirical support for any of these proposed models. One factor common to all therapies for personality disorder is an emphasis on the therapist-client relationship. Attachment theory provides a useful framework for researching the process of change in the treatment of personality disorder since it offers a theoretical basis for understanding the importance of therapist-client relationships as well as some of the other proposed aetiological factors.

1.1 Personality Disorder

1.1.1 Definition and Diagnosis

Personality disorder is a complex condition with biological, social and psychological antecedents, leading to wide-ranging cognitive, emotional, behavioural, interpersonal and identity disturbance (Livesley, 2003; Millon,

Grossman, Millon, Meagher, & Ramnath, 2004). The International Classification of Diseases (10th ed.; ICD-10; World Health Organisation, 1992) defines personality disorder as “deeply ingrained and enduring behaviour patterns, manifesting themselves as inflexible responses to a broad range of personal and social situations. 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” (p. 156).

The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013) defines personality disorder as “[a]n enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual’s culture. This pattern is manifested in two (or more) of the following areas:

- Cognition (i.e. ways of perceiving and interpreting self, other people and events).
- Affectivity (i.e. the range, intensity, lability, and appropriateness of emotional response).
- Interpersonal functioning.
- Impulse control.” (p. 646).

Both diagnostic systems describe a number of categories of personality disorder. DSM-5 lists paranoid, schizoid and schizotypal personality disorders (collectively known as cluster A, or *odd or eccentric disorders*); antisocial,

borderline, histrionic and narcissistic personality disorders (cluster B or *dramatic, emotional or erratic disorders*); and avoidant, dependent and obsessive-compulsive personality disorders (cluster C or *anxious or fearful disorders*). ICD-10 lists paranoid, schizoid, dissocial, emotionally unstable (borderline type and impulsive type), histrionic, anankastic, anxious (avoidant) and dependent.

Both ICD and DSM general definitions of personality disorder have a number of shortcomings. The definition of personality disorder as an enduring pattern of behaviour and inner experience is so broad as to be arguably of little use. Neither definition refers to aetiological factors, or the relationship between different symptoms. Finally, while all psychiatric diagnoses require a degree of judgement, the core definitions of personality disorder refer to deviation from cultural norms, while the criteria for individual personality disorders contain many references to “excessive”, “extreme”, “inappropriate”, “unusual”, or “unrealistic” thoughts, feelings and behaviours that introduce an even greater degree of subjectivity and potential for bias into the process of diagnosing personality disorders. This has arguably added to the stigma attached to a diagnosis of personality disorder, and to the sense that people with a diagnosis of personality disorder are simply “the patients psychiatrists dislike” (National Institute for Mental Health, 2003, p. 20).

An alternative approach has been to define personality disorder in terms of the function of personality. Cantor (1990) conceptualises personality as functioning to solve important tasks, such as ensuring survival and group cohesion, and enabling individuals to negotiate life transitions. Livesley (2003) summarises these tasks as “developing a coherent sense of self or identity and

the capacity for effective relationships with others within kinship and social groups” (p. 19). He goes on to define personality disorder as the failure to achieve key life tasks, specifically:

- the failure to establish or maintain stable, integrated representations of self or others;
- the failure to establish or maintain intimacy or attachment relationships; and
- the failure to function in prosocial or cooperative way in society.

A number of theoretical approaches also propose self-definition and relatedness as key goals for personality development and organisation. For example, Beck’s (1983) cognitive model proposes that adaptive personality development involves balancing the needs for autonomy (focusing on achievement) and sociotropy (focusing on investment in, and attachment to, others). Ryan and Deci’s (2000) self-determination theory proposes that self-motivation and mental health depend on the achievement of a sense of competence, autonomy and relatedness. Meanwhile, Luyten and Blatt (2011) argue that the two main dimensions underlying attachment behaviour—attachment avoidance and attachment anxiety—overlap respectively with the self-definition/ autonomy and the relatedness/ sociotropy dimensions. This approach is also reflected in the alternative DSM-5 model for personality disorder (American Psychiatric Association, 2013), which states that “[d]isturbances in self and interpersonal functioning constitutes the core of personality psychopathology”, and defines a number of personality disorder categories in terms of problems with identity and self-direction, empathy and intimacy.

1.1.2 Categorical and Dimensional Models of Personality Disorder

Categorical models of personality disorder, such as those proposed by the American Psychiatric Association (2013) and the World Health Organisation (1992) have been criticised for showing poor discriminant validity and high levels of co-morbidity between different categories (Blais & Norman, 1997). They also show low internal consistency, with none of the symptoms of personality disorders showing large correlations with other symptoms of the same disorder (Morey, 1988; Zapolski, Guller, & Smith, 2012). Finally, the DSM and ICD classification systems for personality disorder are polythetic, that is to say, no diagnostic criterion is essential for any personality disorder diagnosis. This leads to great heterogeneity of individuals with the same diagnosis. For example, it is possible for two individuals to both meet the DSM-IV-TR criteria for obsessive-compulsive personality disorder (American Psychiatric Association, 2000) and to have no diagnostic criteria in common (Widiger & Trull, 2007).

Criticisms of the categorical classification of personality disorder have led to attempts to replace it with a dimensional model (Clark, 2007; Widiger & Trull, 2007; Tyrer et al., 2011), based upon the Five-Factor model of personality (McCrae & Costa, 2003). The Five-Factor model proposes five broad dimensions of personality; extraversion (the tendency to be energetic and sociable), agreeableness (the tendency to be warm and non-confrontational), emotional instability (the tendency to be emotionally unstable and to experience negative emotions), conscientiousness (the tendency to be responsible and organised), and openness to experience (the tendency to value exploration of new feelings and ideas over traditionalism). Table 1.1 illustrates how

maladaptive and normal levels of each trait lie on a spectrum. There is extensive evidence for the validity of such a dimensional model (Lynam, 2012; Widiger & Costa, 2012), which allows dysfunctional personality functioning to be understood as extreme or maladaptive variations of normal personality functioning. Tyrer, Reed and Crawford (2015) have outlined a system for describing personality disorder based on these five traits for the next version of the International Classification of Diseases (ICD-11), though this system has yet to be validated. While a dimensional system has the advantage of providing more precise definitions of personality dysfunction that could inform treatment planning (Zapolski et al., 2012), it does not provide a simple way of describing the variety of personality disorders since, if personality were described in terms of three levels (maladaptive high, normal, maladaptive low) of each of the five factors, this would yield 242 different combinations of factors that could be described as personality disorder.

Table 1.1. The Five-Factor Model of Personality (adapted from Widiger & Costa, 2012)

Trait	Maladaptive high	Normal high	Normal low	Maladaptive low
Agreeableness	Gullible Subservient	Cooperative Humble Empathic	Critical Contrary	Arrogant Suspicious Manipulative Aggressive
Conscientiousness	Perfectionist Workaholic	Organised Self-disciplined	Casual Carefree	Careless Irresponsible
Emotional Instability	Rageful Suicidal Overemotional	Worrisome Vulnerable	Relaxed Resilient	Overly restrained Oblivious to threat
Extraversion	Intense attachments Dominant Pushy	Affectionate Sociable	Reserved Independent	Cold Distant Socially isolated
Openness	Eccentric Unrealistic	Imaginative Creative	Realistic Pragmatic	Concrete Dogmatic

In summary, while a dimensional model appears to provide a more comprehensive and theoretically coherent framework for describing personality disorder, a categorical model provides a more manageable and widely recognised method of describing research samples.

1.1.3 Prevalence

Studies using structured diagnostic interviews with representative population samples have suggested prevalence rates for personality disorder in the general population ranging from 4.4% (Coid, Yang, Tyrer, Roberts, & Ullrich, 2006) to 13.4% (Torgersen, Kringlen, & Cramer, 2001). Within criminal justice and forensic mental health settings, the prevalence of personality disorder is significantly higher than in the community. A systematic review of epidemiological studies among prisoners by Fazel and Danesh (2002) reported that 47% of prisoners assessed for personality disorder traits met the

criteria for a diagnosis of antisocial personality disorder, and 65% met the criteria for any personality disorder.

1.1.4 Problems Associated with a Diagnosis of Personality Disorder

People with a diagnosis of personality disorder are at increased risk of axis I conditions. Those diagnosed with a Cluster A (paranoid, schizoid or schizotypal) personality disorder are at increased risk of comorbid psychotic disorders (Oldham et al., 1995). Those with Cluster B (antisocial, borderline, histrionic and narcissistic) personality disorders are at increased risk of comorbid substance misuse, psychotic, anxiety and eating disorders (Oldham et al.; Tyrer, Gunderson, Lyons, & Tohen, 1997). Rates of comorbidity between borderline personality disorder and a number of axis I disorders are particularly high (Zimmerman & Mattia, 1999), while rates of suicidal behaviour are higher among those with a diagnosis of borderline personality disorder than among those with major depression or substance misuse (Black, Blum, Pfohl, & Hale, 2004). A diagnosis of antisocial personality disorder is strongly associated with substance misuse disorders (Compton, Conway, Stinson, Colliver, & Grant, 2005). Those with Cluster C (avoidant, dependent and obsessive-compulsive) personality disorders are at increased risk of anxiety, mood, eating and somatoform disorders (Oldham et al.; Tyrer et al.). People with a diagnosis of personality disorder are also more likely to experience interpersonal difficulties (Hengartner, Müller, Rodgers, Rössler, & Ajdacic-Gross, 2014a; Reich, Yates, & Nduaguba, 1989) and occupational problems (Coid et al., 2006; Drake & Vaillant, 1985; Hengartner et al. 2014b).

1.1.5 Health and Social Care Burden

Not only is a diagnosis of personality disorder associated with serious and widespread effects on people with the diagnosis, it is also associated with a significant burden to mental health and social care providers. People with a diagnosis of personality disorder tend to be heavy users of outpatient and inpatient mental health services (Bender et al., 2001). Soeteman, Roijen, Verheul, and Busschbach (2008) reported that the economic burden of people with a diagnosis of personality disorder in a Dutch community sample was €11126 (£8687) per person per year, of which two thirds was due to direct medical costs, and the rest due to productivity loss. This compared to €7419 (£5792) per person per year for schizophrenia (Rössler, Joachim Salize, van Os, & Riecher-Rössler, 2005).

1.1.6 Criminal Justice Burden

A meta-analysis by Yu, Geddes, and Fazel (2012) reported a threefold increase in the odds of violent behaviour among individuals with a diagnosis of personality disorder compared to the general population, while among those with a diagnosis of antisocial personality disorder, the odds ratio was 12.8. Yu et al. also found that offenders with any personality disorder diagnosis had twice the odds of reoffending compared to non-mentally disordered offenders. A primary diagnosis of personality disorder is also associated with increased risk of serious offending on discharge among psychiatric inpatients (Coid, Hickey, Kahtan, Zhang, & Yang, 2007).

In summary, personality disorder is a serious public health problem, not only associated with significant distress and functional impairment to those with a diagnosis of personality disorder, but also leading to a significant burden

on health and social care providers and the criminal justice system. Developing and applying effective treatments for people with a diagnosis of personality disorder is therefore important.

1.2 Psychological Therapies for People with a Diagnosis of Personality Disorder

Although there are now a number of psychological therapies that have been shown to be effective in the treatment of personality disorder, including cognitive therapy (Davidson et al., 2006), dialectical behaviour therapy (Linehan et al., 2006; van den Bosch et al., 2005), mentalization-based therapy (Bateman & Fonagy, 1999, 2001), and schema therapy (Geisen-Bloo et al., 2006), there has only been one meta-analytic study, by Kliem, Kröger, & Kosfelder (2010), of dialectical behaviour therapy. A Cochrane review of psychological therapies for people with a diagnosis of borderline personality disorder (Stoffers, Völlm, Rücker, Timmer, Huband, & Lieb, 2012) found that dialectical behaviour therapy (DBT) was the only therapy for which enough studies had been conducted to carry out a meta-analytic review. Stoffers et al. reported moderate to large statistically significant effects that showed that DBT was better than TAU for anger, parasuicidality and mental health, though DBT did not appear to be better than TAU at keeping clients in treatment. Stoffers et al. also reported a number of other therapies, including mentalization-based therapy and transference focused psychotherapy, for which a single study has shown statistically significant improvement in borderline symptoms relative to TAU. A review of psychological therapies for antisocial personality disorder (Gibbon, Duggan, Stoffers, Huband, Völlm, Ferriter, & Lieb, 2010) found

insufficient trial evidence to support the use of any model of psychological therapy in the treatment of antisocial personality disorder. Reviews of psychological therapies for other personality disorder categories, including avoidant (Ahmed et al., 2012), histrionic (Stoffers et al., 2012a), narcissistic (Stoffers et al. 2012b), and obsessive-compulsive (Alex et al., 2010), have all been discontinued due to lack of suitable studies.

According to Chambless and Hollon (1998), for a therapy to be considered empirically supported, at least two independent, well-conducted RCTs) or single case experiments with a sample size of three or more should support the treatment. Where only one RCT or single case experiment supports the treatment, then it is considered promising. The empirical evidence for a number of psychological therapies for people with a diagnosis of personality disorder is described below.

Even in non-forensic and community settings, therapy for people with a diagnosis of personality disorder is typically intensive and lasts at least a year (Geisen-Bloo et al., 2006; Linehan, Armstrong, Suarez, Allmon, & Heard, 1991). Within the service where most of the research for this thesis was carried out, treatment typically consists of dialectical behaviour therapy (Linehan, 1993), lasting approximately 12 months, followed by schema therapy (Young, Klosko, & Weishaar, 2003), lasting approximately 24 months and offence-specific treatment programmes such as the violence reduction programme (Gordon & Wong, 2000) or the sex offender group (Willmot, 2009), which typically last another 24 months.

The impetus for this thesis was to improve the effectiveness of treatment for male forensic inpatients with a diagnosis of personality disorder. One

approach to achieving this goal is to study the process of change, and this is the approach adopted in this thesis. There are a number of reasons why it is important to have a better understanding of the process of change in the treatment of personality disorder. Firstly, identifying key change processes would allow clinicians to improve the effectiveness of treatment by optimising these processes. Secondly, it would enable treatment to be better tailored to the characteristics of individual patients and could help to avoid adverse treatment effects. Thirdly, it could improve the efficiency of treatment. The total annual cost of detaining a patient in the secure hospital where this research was conducted is approximately £307,000 (BBC News, 28th November 2011). Improvements in the efficiency of treatment that allow it to be completed more quickly could save resources and reduce the time that patients need to be deprived of their liberty. Fourthly, it could allow clinicians to provide patients with more accurate information about how treatment works and to justify therapeutic processes that can at times be very distressing for patients. Finally, having a better understanding of the process of change in the treatment of individuals with a diagnosis of personality disorder could help to clarify the underlying aetiological factors.

Kazdin (2007) argues that, to study change processes, it is necessary to first define precisely what changes. This is particularly important in relation to personality disorder, which involves a heterogeneous and wide range of psychological and interpersonal problems, and for which different models of therapy consider different aspects of change to be important. Not only is it important to describe the nature of dysfunction in personality disorder. It is also

important to identify the core aetiological factors. A number of different aetiological factors have been proposed, and are described below.

Each psychological therapy for personality disorder has its own theoretical model of the causal and maintaining factors underlying the disorder, and the change processes that lead to clinical change. *Change processes* are the processes by which therapeutic change takes place in psychological therapy. Elliott (2010) defines them as “including both the in-therapy processes that bring about change and the unfolding sequence of client change” (p. 123). Other authors refer to *mechanisms of change* (Clarkin & Levy, 2006; Kazdin, 2007). Change processes appear to be closely related to mechanisms of change; indeed Clarkin and Levy (2006) frame the question posed in research into mechanism of change in almost identical terms; “what are the in-session treatment procedures that change basic patient processes... that lead to clinical change” (pp. 405-406). Some authors appear to use the terms interchangeably (Kazdin, 2009; Laurenceau, Hayes, & Feldman, 2007). In this thesis I take the terms *change process* and *mechanism of change* to be equivalent; I generally use the term *change process*, though when quoting authors who have used the term *mechanism of change* I have kept their terminology.

While various models of therapy for personality disorder have well-developed hypothesised change mechanisms, there is little or no evidence for any of these proposed (Clarkin & Levy, 2006; Fonagy & Bateman, 2006; Kellogg & Young, 2006; Levy, Clarkin, Yeomans, Scott, Wasserman, & Kernberg, 2006; Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006; Wenzel, Chapman, Newman, Beck, & Brown, 2006). While most models of therapy propose a number of change processes, each emphasises one or more aspects of

personality dysfunction as the primary focus of therapy. Because of its association with suicidal and self-harming behaviour (Black et al., 2004), and its greater burden on healthcare services (Soeteman et al., 2008), most attention has been given to therapy for borderline personality disorder. However, Dimaggio and Norcross (2008) argue that comorbidity between personality disorder categories is very common, reflecting the overlap between diagnostic categories, while Clarkin (2008) argues that therapies for personality disorder target problems that are common to all personality disorder categories, such as interpersonal or affect regulation problems. Finally, a number of therapies have been found to be effective in the treatment of other categories of personality disorder as well as borderline personality disorder, suggesting that their proposed models of aetiology and change apply equally to different personality disorder categories (Bamelis, Evers, Spinhoven, & Arntz, 2014; Bateman & Fonagy, 2008a; Leichsenring & Leibing, 2005).

1.2.1 Cognitive Therapy (CT)

According to cognitive theory, the core problem in personality disorder is dysfunctional beliefs about the self, others and the world (Wenzel, Chapman, Newman, Beck, & Brown, 2006). These beliefs develop from negative experiences in childhood, and are enduring, inflexible and self-perpetuating. The principal mechanism of change in cognitive therapy for personality disorder is the modification of these dysfunctional beliefs. Other hypothesised change mechanisms include enhancement of behavioural skills such as problem solving, anger management, stress management and interpersonal skills, as well as reducing client hopelessness and instilling a positive attitude towards therapy. Beck et al. (1990) also describe building a sense of collaboration and

trust between client and therapist as being one of the most important elements of cognitive therapy, particularly with clients with a diagnosis of personality disorder. Beck et al. stress the importance of using transference reactions as a way of helping the client to recognise and understand their dysfunctional beliefs. They also describe the therapist as being a role model whom the client can emulate in his or her interpersonal relationships.

Evans et al. (1999) compared six sessions of manual assisted CBT (MACT) ($n=18$) with treatment as usual ($n=16$) for patients with cluster B personality disorders and histories of deliberate self-harm. The CBT group showed significantly greater improvement in social functioning after 6 months, though there were no significant differences in self-harm. Tyrer et al., (2004) compared MACT ($n=91$) with treatment as usual ($n=90$) for people with any personality disorder and a history of deliberate self-harm for deliberate self-harm. They found no significant difference in rates of self-harm at 6 or 12-month follow-up, though MACT was cheaper than treatment as usual.

Svartberg, Stiles, and Selzer (2004) compared 40 weeks of cognitive therapy ($n=25$) and 40 weeks of short-term psychodynamic psychotherapy ($n=25$) for people with cluster C personality disorders. After two years' follow-up, both groups showed large and significant improvements on measures of distress, interpersonal problems, and psychopathology, though there were no significant differences between groups.

Emmelkamp et al. (2006) conducted an RCT of CBT for people with avoidant PD. Patients were allocated to 20 weekly sessions of CBT ($n=21$), 20 weekly sessions of brief psychodynamic therapy ($n=23$) or to a waiting list control group ($n=18$). At 6-month follow-up, the CBT group showed

significantly greater improvements on the self-report measures of obsessive and avoidant beliefs.

Davidson et al. (2006) conducted an RCT of CBT for borderline PD, in which participants received either an average of 16 weekly sessions of CBT ($n=54$) or treatment as usual ($n=52$). After 24 months, those in the CBT group showed significantly fewer suicidal acts, but no differences in hospitalization episodes, or emergency department contacts. A follow-up of the same sample, with data available for 82%, found that the significant difference in suicidal acts was maintained at two years, and just failed reach statistical significance after six years (Davidson, Tyrer, Norrie, Palmer, & Tyrer, 2010).

Davidson et al. (2009) conducted an RCT in which violent men with a diagnosis of antisocial personality disorder completed 15 sessions of CBT over 6 months ($n=12$), 30 sessions of CBT over 12 months ($n=13$), or treatment as usual ($n=27$). At 12-month follow-up, all three groups had reduced self-reported verbal and physical aggression, but there were no differences between groups. There were also no inter-group differences on measures of alcohol consumption, anxiety, depression or social functioning. However, the authors pointed out that this was a small-scale exploratory study and not sufficiently powered to detect a treatment effect.

1.2.2 Schema Therapy (ST)

Young et al. (2003) describe a range of core emotional needs that are essential to healthy childhood development. These include safety, nurturance, acceptance, autonomy, freedom to express needs and emotions, spontaneity, realistic limits and self-control. Kellogg and Young (2006) characterise personality disorder as stemming from the interaction between innate

temperamental factors and unmet emotional needs in childhood, often as a result of abuse, neglect or trauma. Kellogg and Young hypothesise that core beliefs and related coping styles are clustered into different *modes* or aspects of the self, which are activated at different times and in different situations, and which interact in destructive and, at times, contradictory ways. The goal of schema therapy is to develop the client's *healthy adult mode* and to enable him or her to manage other dysfunctional modes. Kellogg and Young list four mechanisms of change, of which the most important is *limited reparenting*, which involves the therapist meeting the client's core unmet emotional needs while maintaining appropriate professional boundaries. Other mechanisms include experiential techniques such as the use of imagery, and dialogues with and between different modes that also help to meet the client's unmet emotional needs and enable them, eventually, to meet these needs independently. Cognitive techniques in schema therapy include education about "normal" needs and emotions, and cognitive restructuring, similar to the process in cognitive therapy. Schema therapy can also involve the enhancement of skills, including anger management and interpersonal skills.

Giesen-Bloo et al. (2006) compared schema-focused therapy ($n=44$) with transference-focused therapy ($n=42$) with patients diagnosed with borderline personality disorder. Treatment sessions were twice weekly over a 3-year period. Significant improvements were shown for both therapies on all measures after 1-, 2-, and 3-year treatment periods. More patients in the schema recovered or showed reliable clinical improvement on severity of borderline symptoms, the primary outcome measure, after three years. The schema group

also showed more improvement on measures of general psychopathology and quality of life.

Ball (2007) compared Dual Focus Schema Therapy (DFST) ($n=15$), a combination of schema therapy and relapse prevention designed for substance misusers with a diagnosis of personality disorder, with 12-step therapy ($n=15$) with opioid-dependent patients with a diagnosis of personality disorder over a 6-month treatment period. Both groups also received methadone maintenance over this period. Substance use reduced more rapidly in the DFST group, there were greater reductions in negative affect in the 12-step therapy group. produced greater decreases in negative affect. Ball, Maccarelli, LaPaglia, and Ostrowski (2011) compared DFST ($n=54$) with individual drug counselling ($n=51$) for substance misusers with a diagnosis of personality disorder in residential treatment. Those in the counselling group showed greater improvement on measures of psychiatric symptoms.

Farrell, Shaw, and Webber (2009) compared 30 sessions of a schema-focused therapy group ($n=16$) with 30 sessions of individual therapy for women diagnosed with borderline personality disorder. The schema group showed significantly greater improvements both after treatment and at 6-month follow-up on measures of borderline symptoms and global functioning.

1.2.3 Mentalization-Based Therapy (MBT)

Fonagy and Bateman (2006) conceptualise borderline personality disorder as resulting from innate vulnerability and insecure patterns of childhood attachment leading to impaired *mentalization*, which they define as the ability to comprehend and apply knowledge of one's own and other people's states of mind. Bateman and Fonagy (2008a) extend the model to

antisocial personality disorder. Fonagy and Bateman hypothesise that mentalization develops in infancy within the caregiver-child relationship through the *mirroring* of the child's emotions by the caregiver. Mirroring may fail to happen because of neglect, or the child may defensively avoid mentalizing if he or she experiences hostility, anger or abuse from the caregiver. The inability to mentalize impairs the child's ability to hold a stable and consistent representation of their own or other people's mental states, leading to unstable or inconsistent representations of self and others, particularly in intimate relationships. The goal of MBT is to develop the client's mentalizing ability by activating the client's attachment system through discussing past and present attachment relationships, by encouraging attachment bonds with the therapist, and by mirroring the client's mental states in a process that parallels the development of mentalization in childhood.

Bateman and Fonagy (1999, 2001) conducted an RCT of MBT in a partial hospitalization program ($n=19$) versus general psychiatric services ($n=19$) for people diagnosed with borderline personality disorder for up to 18 months. The MBT group showed better outcomes in terms of self-harm, suicide attempts, hospital admissions, and medication use. The MBT group also reported greater improvements in levels of anxiety, depression, social adjustment, and interpersonal functioning (Bateman & Fonagy, 1999). These greater improvements were maintained both 18 months after the end of therapy (Bateman & Fonagy, 2001) five years after the end of therapy (Bateman & Fonagy, 2008b). Bateman and Fonagy (2009) conducted an RCT comparing 18 months of MBT ($n=71$) with 18 months of structured clinical management ($n=63$) for people with a diagnosis of borderline personality disorder. Both

groups showed reduced levels of self-harm, suicide attempts, and hospital admissions, and improved symptoms, social adjustment, and interpersonal functioning by the end of treatment. However, improvements were greater and more rapid in the MBT group for self-harm, suicide attempts, hospital admissions, social adjustment and interpersonal functioning.

1.2.4 Dialectical Behaviour Therapy (DBT)

In DBT, the core problem in borderline personality disorder is conceptualised as being the inability to regulate emotions effectively as a result of biological vulnerability coupled with an emotionally invalidating childhood environment in which the child's expressed thoughts, emotions and behaviours were punished, ignored, trivialised or responded to inconsistently, causing an impairment in the child's ability to label, tolerate or manage emotions effectively (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006). The model has also been extended to other categories of personality disorder (Lynch & Cheavens, 2008). The goal of dialectical behaviour therapy is described by Lynch et al. as being to reduce dysfunctional behaviours linked to dysregulated emotions. Mechanisms of change proposed by Lynch et al. include exposure to distressing emotional states, enhancing skills including insight, flexible thinking, enhanced attentional control through techniques such as mindfulness, and the dialectical approach that balances and synthesises contradictory goals, such as the need to promote change and the need to validate and accept the client and his or her experiences. Although Lynch et al. do not refer to the therapist-client relationship in their list of mechanisms, it is arguably implicit in the dialectical approach. Elsewhere Linehan (1993) describes a strong, positive therapeutic relationship as essential to keep the client in therapy and to enhance

the effectiveness of other therapeutic strategies. She concludes that “[t]he relationship is the vehicle through which the therapist can effect the therapy. It *is* also the therapy” (p. 514, emphasis in the original).

DBT is the only therapy for personality disorder for which enough trials have been conducted to carry out a meta-analysis. Kliem, Kröger, & Kosfelder (2010) conducted a meta-analytic review of both RCTs and non-RCT evaluations of DBT with people diagnosed with borderline personality disorder. They identified 26 studies involving 16 separate samples, of which eight were randomized. Sample sizes of RCTs ranged from 23 to 180 (median = 43). Since studies used different outcomes measures, an overall global effect size was calculated. Comparing pre- and post-treatment measures, the eight RCTs produced positive outcomes of a moderate magnitude. Adding six non-RCTs produced a slightly larger positive effect. Effect sizes were also calculated for effects on suicidal and self-harming behaviours. Six RCTs showed a small effect size, while the inclusion of five non-RCTs increasing the effect somewhat. Kliem et al. also studied changes between post-treatment and follow-up. Five RCTs produced negative global outcomes of a moderate magnitude, while the inclusion of two non-RCTs led to a smaller but still negative effect. Kliem et al. concluded that DBT has a moderate positive effect compared with treatment as usual, but that these positive effects appear to decay over time.

1.2.5 Transference-Focused Psychotherapy (TFP)

Levy et al. (2006) propose that borderline personality disorder results from biological factors and unresolved childhood trauma that the client has not been able to reflect on or integrate with other experiences, due to impaired

mentalizing ability. Levy et al. regard the core problem in borderline personality disorder to be an impaired ability to integrate incongruent positive and negative representations of themselves and emotionally significant others because of strong negative emotions. Emotional instability is thought to interfere with the individual's ability to create stable representations of self and others, while an unstable sense of self also leads to emotional instability, creating a vicious circle. The process of change in TFP involves integrating polarised mood states and mental representations of self and others, enabling the client to experience a more coherent sense of identity, balanced relationships and emotional stability. This is done through a focus on the therapeutic relationship in which the client's distorted internal representations of self and others are activated. The client is then helped to understand and modify his or her internal representations, using clarification, confrontation and transference interpretations. This enables the client to integrate emotions and thoughts that were previously split. The therapist-client relationship is also important in communicating to the client that the therapist can tolerate his or her negative emotions, and in providing a safe, supportive space in which exploration can occur.

Doering et al. (2010) conducted an RCT of TFP ($n=52$) versus psychotherapy ($n=52$) for one year. Rates of drop-out and attempted suicide were significantly lower in the TFP group. The TFP group also showed greater improvement in terms of borderline symptoms, social functioning, personality organisation and hospital admissions. This is the only RCT of TFP for people with a diagnosis of personality disorder, and so TFP falls short of the criteria set by Chambless and Hollon (1998) for empirically supported therapies.

1.2.6 Cognitive-Analytic Therapy (CAT)

According to Ryle (1997) young children learn about interpersonal relationships by developing internalised templates of reciprocal roles, consisting of a role for each person and rules about the pattern of relationship. When an individual takes up one pole of a reciprocal role pairing, the other person feels pressure to adopt the congruent pole. Ryle hypothesised that individuals with a diagnosis of borderline personality disorder only developed a small number of maladaptive reciprocal roles in childhood. Moreover, as a result of neglect, hostility, anger or abuse by caregivers, these individuals are unable to mentalize, and so they tend to lack self-reflective functioning switch rapidly between roles. CAT is a time-limited therapy that uses cognitive and psychodynamic techniques to help the patient identify and change their dysfunctional patterns of behaviour and reciprocal roles.

Chanen et al. (2008) conducted an RCT comparing 24 sessions of CAT ($n=41$) with manualised good clinical care ($n=37$) for young people aged 15 to 18 who met the criteria for a diagnosis of borderline personality disorder. Both groups improved on measures of borderline symptoms, self-harming behaviour, global, social and occupational functioning over the two-year follow-up period, but the rate of improvement was slightly faster for the CAT group.

Clarke, Thomas and James (2013) treated patients with personality disorder with CAT ($n=38$) or treatment as usual ($n=40$) for ten months. Those treated with CAT showed significantly better symptomatic improvement and interpersonal functioning than those in the TAU group.

1.2.7 Summation

These different models of therapy propose a range of core aetiological factors including dysfunctional core beliefs (CT, ST), a failure to integrate internal working models of self and others (CAT, CT, TFP), impaired mentalizing ability (CAT, MBT, TFP), ineffective strategies for meeting unmet emotional needs (ST) and impaired emotion regulation (DBT, TFP). However, they also have a number of features in common. All regard disruption or dysfunction in early relationships with caregivers as a key aetiological factor, often in conjunction with an innate vulnerability. With the exception of CT, all the models suggest a link between problematic early relationships with caregivers and problems of emotion regulation, leading to intense and distressing emotions that trigger dysfunctional patterns of relationships, particularly in emotionally significant relationships. Finally, while the models involve a range of therapeutic techniques, they all stress the importance of the therapist-client relationship. Though the function of this relationship is described differently in each model, in every case the therapeutic process within the relationship appears to parallel and to repair dysfunctional processes from the client's childhood. Thus, in CT, the therapist-client relationship can be seen as generating more functional beliefs about self and others, in CAT, the therapist helps the client to recognise dysfunctional relationship patterns and to develop alternative strategies, in ST the therapist meets the client's unmet emotional needs, in MBT and TFP the therapist's behaviour enables the client to mentalize, and in DBT the therapist provides emotional validation.

Although only the MBT model of therapy explicitly mentions attachment (Fonagy & Bateman, 2006), the common features of these models—

their focus on early caregiver-child relationships, links between that relationship and emotion regulation, and parallels between the caregiver-child relationship and the therapist-client relationship—suggest that attachment theory may provide a useful framework for researching the process of change in the treatment of personality disorder.

1.3 Attachment Theory

Attachment theory was developed by Bowlby (1969, 1973, 1980) to explain emotional distress following separation or loss. Attachment theory proposes that children have an innate, biological motivational system—the attachment system—that serves to promote the child’s survival by ensuring that he or she maintains proximity to the caregiver—the attachment figure—especially in dangerous or threatening situations (Bowlby, 1973, 1980). The attachment system is activated in response to external threat or internal cues, such as fear, illness or injury. When the attachment system is activated, the child engages in attachment behaviours, such as crying, clinging or approaching the caregiver, which should prompt an appropriate caregiving response that, in turn, promotes a feeling of security in the child. Once the child feels secure, the attachment behaviour ceases. The caregiver functions as a safe haven to which the child turns when distressed, and from which the child can set out to explore his or her environment. Although the attachment system functions to maintain proximity with the attachment figure, its goal is proposed to be the maintenance of a sense of security (Sroufe & Waters, 1977).

Ainsworth, Blehar, Waters, and Wall (1978) describe three distinct patterns of attachment among children, which are hypothesised to develop from

an interaction between innate temperament and caregiver behaviours.

Consistent correlations of these attachment patterns with caregiver behaviour and with infant temperament have been reported (De Wolff & van IJzendoorn, 1997; Goldsmith & Alansky, 1987). *Secure attachment* develops in response to consistently responsive caregiving and is characterised by confident exploration of the environment when the caregiver is present. When presented with a threat, the securely attached child becomes distressed, seeks proximity with the caregiver and is comforted relatively easily. *Anxious/ ambivalent attachment* develops in response to inconsistency or inept caregiving and is characterised by preoccupation with staying close to the caregiver, rather than exploring, and by intense distress when separated from the caregiver. The anxious/ ambivalent child is not easily comforted by the caregiver and displays continued distress and proximity-seeking when reunited with the caregiver. *Avoidant attachment* develops in response either to cold and rejecting caregiving or to intrusive and over-controlling caregiving, and is characterised by a lack of distress on separation from the caregiver. Children with an avoidant attachment style ignore or avoid the caregiver when reunited. Crittenden (1988) also described an *avoidant/ ambivalent attachment* style, characterised by a mixture of anxious and avoidant behaviours, while Main and Solomon (1990) described a *disorganised-disoriented attachment* style characterised by contradictory or disorganised behaviours.

Bowlby (1980) argues that the attachment system continues to operate in adulthood, and Trinke and Bartholomew (1997) found evidence that young adults have networks of attachment relationships involving family members, friends and romantic partners. Early attachment relationships are assumed to

form the templates for subsequent relationships. A meta-analysis by Fraley (2002) of longitudinal studies of attachment style reported that early attachment patterns remain largely unchanged into early adulthood, suggesting that early attachment relationships play a powerful role in shaping subsequent attachments.

Bartholomew and Horowitz (1991) developed a revised model of adult attachment consisting of four adult attachment patterns based on different combinations of positive and negative internal working models (IWMs) of self and other. The IWM of self reflects the degree of attachment anxiety. People with positive IWMs of self experience low attachment anxiety, while those with negative IWMs of self feel anxious about potential rejection and rely on others' approval to maintain their sense of self worth. The IWMs relating to others reflect the degree of attachment avoidance. People with positive IWMs of others are motivated to approach and rely on others in times of distress and to seek intimacy in relationships, while those with negative IWMs of others are motivated to avoid closeness and intimacy. Bartholomew and Horowitz's model is summarised in Figure 1.1.

Figure 1.1. Two-Dimensional Model of Attachment (Bartholomew & Horowitz, 1991)

Model of others	Positive	Secure	Low avoidance	Preoccupied
	Negative	Low anxiety Dismissing	High avoidance	High Anxiety Fearful
		Model of self		
		Positive		Negative

1.3.1 Attachment Theory and Personality Disorder

Bartholomew, Kwong, and Hart (2001) point out that insecure adult attachment is not the same as personality disorder. While the prevalence of individuals meeting the criteria for a diagnosis of personality is between 4.4 and 13.4% (Coid et al., 2006; Torgersen et al., 2001), the prevalence of insecure patterns of attachment is around 40% in the general population (Mickelson, Kessler, & Shaver, 1997; van IJzendoorn & Bakermans-Kranenburg, 1997), suggesting that insecure attachment is much more widespread than personality disorder.

Insecure patterns of attachment do, however, appear to be widespread among people with personality disorders. Fonagy et al. (1996) studied the attachment styles of patients in a specialist inpatient unit for people with a diagnosis of personality disorder. They reported that 92% of patients with a diagnosis of borderline personality disorder, 64% of those with a diagnosis of paranoid or antisocial personality disorder and 76% of those with other

personality disorder diagnoses had insecure patterns of attachment. Levy, Meehan, Weber, Reynoso, and Clarkin (2005) reported insecure patterns of attachment in 92% of individuals with a diagnosis of borderline personality disorder, while Patrick, Hobson, Castle, Howard, and Maughan (1994) found that all 12 patients with a diagnosis of borderline personality disorder in their study had insecure patterns of attachment.

1.3.2 Attachment Theory and Dimensional Models of Personality Disorder

A review by Nofle and Shaver (2006) reported consistent medium to large correlations between emotional instability and anxious attachment style, and small to medium negative correlations between agreeableness and avoidant attachment style. Nofle and Shaver's own research found that attachment anxiety and avoidance were associated with different aspects of extraversion and agreeableness. Attachment avoidance was negatively associated with the extraversion facets of gregariousness, warmth, positive emotions, assertiveness and activity, while attachment anxiety was negatively associated with assertiveness and positive emotions. Both attachment avoidance and attachment anxiety were associated with lower levels of the agreeableness facet of interpersonal trust. Attachment avoidance was also associated with lower levels of altruism, while attachment anxiety was associated with lower levels of straightforwardness. Both attachment anxiety and attachment avoidance were associated with low levels of conscientiousness. There was little association between openness and either of the attachment dimensions.

1.4 Outline Plan of this Research

Personality disorder can be understood as being an inability to develop a coherent sense of self or the capacity for effective interpersonal relationships. It is manifested in extreme and dysfunctional levels of the big five personality dimensions. It affects a number of systems that together make up personality, including core beliefs about the self and others, the organisation and expression of different self states, emotion regulation and interpersonal relationships.

There are now a number of empirically supported therapies for people with a diagnosis of personality disorder, each with their own model of the aetiology of personality disorder and of the change processes involved in therapy. However, there is little empirical support for these models. There are a number of benefits to clarifying the process of change.

The aim of this thesis is to answer the question, what are the important change processes in the treatment of personality disorder in a forensic inpatient setting? Attachment difficulties are very prevalent among people with a diagnosis of personality disorder and attachment theory appears to offer a promising framework for studying change processes during the treatment of personality disorder. Furthermore, a common theme to all the models of change described above is the importance of the therapist-client relationship in the change process, and patients' relationships with their therapists, and the role of attachment will therefore be important foci in this thesis. However, given the lack of research into change processes in this population, the focus of this thesis will not be limited to the therapist-patient relationship, but will also consider other relationships as well as other aspects of the treatment milieu.

1.4.1 Structure of this Thesis

Chapter 2 contains a discussion of the methodological and ethical issues involved in the thesis.

Chapter 3 is a qualitative study investigating patients' perceptions of the process of change and the factors involved, in order to generate testable hypotheses about the process of change. Particular attention will be given to the therapeutic relationship between therapist and patient, and the role of attachment processes. However, other relationships and other aspects of the treatment milieu will also be studied.

Chapters 4 and 5 describe the process of developing an appropriate dependent outcome measure for the thesis. Social functioning was selected as the dependent outcome variable. Chapter 4 is a systematic review of social functioning measures used with people with a diagnosis of personality disorder. Chapter 5 describes the development and validation of a self-report measure of social functioning suitable for people with a diagnosis of personality disorder in inpatient setting.

Chapter 6 is a quantitative study using the new social functioning measure and a self-report measure of patients' perceptions of therapeutic change processes to test the model of change developed in chapter 3.

Chapter 7 describes the application of a pattern matching approach to testing and refining the aspect of the model of change relating to the therapist-patient relationship, in order to test hypotheses based on attachment theory of change.

Chapter 8 presents the final model of change developed through the thesis and a discussion of future research and practical applications.

2. Methodology

Abstract

This chapter begins with a discussion of the characteristics of the research population and setting that determine the choice of research approach. Four different approaches to studying change processes are then described; *quantitative process-outcome design*, *micro-analytic sequential process design*, *significant events design* and *helpful factors design*. The reasons for selecting the *helpful factors* approach for this thesis are discussed, as are other benefits of studying the experiences of service users in treatment and, in particular, the experiences of forensic inpatients. The views of forensic patients are studied less frequently than those of other service user groups, in part because they are often assumed to be unreliable. The reasons for this assumption are discussed, and the steps taken to maximise the reliability of participants' responses in this thesis are described. Finally, the ethical issues involved in conducting qualitative research with compulsorily detained forensic patients are considered.

2.1 Introduction

The previous chapter identified the research question for this thesis: what are the important change processes in the treatment of personality disorder in a forensic inpatient setting? Before considering how best to approach this question, I will consider the factors affecting the choice of research approach.

Firstly, while change process research has generally focused on changes within psychological therapies (Elliott, 2010; Kazdin, 2007; Laurenceau,

Hayes, & Feldman, 2007), this thesis will investigate the overall treatment environment. Treatment in a secure forensic setting is much broader than just psychological therapies; like treatment in other residential settings, it also involves nursing care, medication, occupational therapy, speech and language therapy, education, and relationships with other patients and staff (Murphy & McVey, 2010; Tennant & Howells, 2010). Services are integrated, so that the goals of psychological therapies are addressed and reinforced in other areas. Factors outside treatment may also be important. Previous research with this patient group has found that events such as ward moves or episodes of violence, and staff responses to them, can be important triggers for therapeutic change (Willmot, 2011). It is therefore difficult to study the effects of one aspect of treatment in isolation, and any study of treatment processes needs to consider the interactions between different aspects of treatment, as well as interactions with other environmental factors and events.

Secondly, any study of change processes in therapy needs to take account of the fact that most patients in the services being studied will undertake a number of different types of psychological therapy while in hospital. Most will normally complete at least two psychological therapies specifically designed for people with a diagnosis of personality disorder, including dialectical behaviour therapy (Linehan, 1993), schema therapy (Young, Klosko, & Weishaar, 2003) and cognitive analytic therapy (Ryle, Leighton, & Pollock, 1997). Most will also complete offence-specific therapies designed to reduce the risk of serious violent, sexual or fire setting behaviour (Evershed, 2011a; Howard & Howells, 2010).

Thirdly, while change processes in psychological therapies have been widely studied in non-forensic settings, such studies have been rare with forensic populations. However, some conclusions can be drawn from the existing literature. First, therapeutic relationships are seen as being of central importance to the treatment process by forensic patients in secure settings (Ford, Sweeney, & Farrington, 1999; Mason & Adler, 2012; Mezey, Kavuma, Turton, Demetriou, & Wright, 2010; Schafer & Peternelj-Taylor, 2003). Second, forensic patients in secure settings are concerned about the disempowering and punitive restrictions on their liberty (Byrt & Reece, 1999; Hinsby & Baker, 2004). Third, forensic patients in secure settings report various problems in the rehabilitation process including being unaware of their care plans, feeling insufficiently prepared for discharge, and having restricted opportunities to be active outside of therapeutic programs (Craig et al., 2010; Ford et al., 1999; Morrison, Burnard & Phillips, 1996; Skelly, 1994). Forensic inpatients differ in significant ways from other mental health service users, not only in their personal characteristics and treatment needs, but also in their living environment, their relationship with the clinicians treating them, and their goals and aspirations. As a result, their experiences of treatment may well be very different from those of other service users, and conclusions drawn from research into the process of treatment in non-forensic settings may not be generalisable to forensic populations. For example, the participants in this research have very different characteristics from service users in non-forensic settings. Two previous studies of the characteristics of the population under study reported that over 70% of patients met the criteria for a diagnosis of antisocial personality disorder (Marshall & Willmot, 2011; Sheldon &

Krishnan, 2009), whereas the prevalence of this diagnosis in non-forensic inpatient settings has ranged between 1.9 and 18.2% (Zimmerman, Rothschild, & Chelminski, 2014). Sheldon and Krishnan (2009) also reported rates of paranoid personality disorder (29%) and borderline personality disorder (45%) that were at the top end of the ranges of prevalence of these diagnoses in non-forensic inpatient settings reported by Zimmerman et al. (2014) (0.5 to 27.6% and 11.0 to 42.7%, respectively). In this forensic population, 37.5% of patients met the criteria for clinical psychopathy (Sheldon & Krishnan, 2009), while in the general UK population, the prevalence is estimated to be 0.6% (Coid, Yang, Ullrich, Roberts, & Hare, 2009).

As well as the clinical characteristics that make participants in this research different from service users in non-forensic settings, the relationship between forensic inpatient and therapist operates under very different constraints from other therapeutic relationships. Forensic inpatients are legally detained, which means that decisions about care are often based more on risk management than patient choice (Maden, 2007). Particularly where it relates to offending behaviour, treatment may involve a therapist stance that is at times challenging and confrontational, rather than affirming and supportive (Mezey, Kavuma, Turton, Demetriou, & Wright, 2010).

Forensic inpatients may also have treatment goals that differ from those of service users in other settings. Mezey et al. (2010) argue that long-term, indefinite detention makes it hard for patients to foster common recovery goals of hope, self-care or independence. Brooker and Ullmann (2008) point out that they often have limited chances of even living independently, let alone achieving common personal, occupational or interpersonal goals.

Fourthly, there has been relatively little research into the treatment of forensic inpatients (Blackburn, 2004; Robertson, Barnao, & Ward, 2011). Given the differences between this population and other service user groups, it would be appropriate to start with a broad approach studying the overall treatment process, which would allow for the generation of hypotheses about change processes that could be investigated in subsequent studies.

Finally, this research should be of practical benefit to the services being studied and their patients. While it is, of course, a requirement of any clinical research that it should be useful (British Psychological Society, 2010; Emanuel, Wendler, & Grady, 2000), the paucity of research with this service user group, and the fact that the author works as a clinician in the services where the research is carried out, make it particularly important that this research should be of benefit to these services.

2.2 Selecting a Research Approach

Elliott (2010) identified four approaches to studying change processes in psychological therapies.

2.2.1 Quantitative Process-Outcome Design

This approach involves measuring the correlation between the frequency or intensity of in-session processes, such as therapist self-disclosure (Barrett & Berman, 2001) or therapeutic alliance (Horvath & Symonds, 1991) and treatment outcomes. Though widely used (Elliott, 2010), this approach has been criticised (Kramer and Stiles, 2015; Stiles and Shapiro, 1994), on the basis that it assumes that therapists will be appropriately responsive to clients and that all clients will be equally responsive to the therapist behaviour under study, when

in fact responsiveness is likely to be influenced by a number of factors including problem severity, personality factors and level of motivation. Another problem is that, unless artificially manipulated, the frequency of therapist predictor behaviours will generally be restricted, since most or all therapists studied will be competent and will display similar levels of the predictor behaviours. Furthermore, this approach can only be used to study the influence of one process at a time. In the present setting there would be a large number of confounding variables and processes affecting outcome, both within therapy and in the wider treatment setting.

2.2.2 Micro-Analytic Sequential Process Design

This approach involves analysis of therapist and client behaviours in session, looking at the effect of therapeutic interventions on client processes, and the effect of client behaviours on therapist processes (Sachse, 1992; Wiseman & Rice, 1989). Typically, the focus of this type of research is on a small number of interactions within a session, which allows for hypotheses about causal relationships to be made. Disadvantages of this approach are that its detailed focus makes it difficult to link in-session behaviours to therapy outcomes, or to study wider influences outside the therapy session, or delayed responses. Elliott (2010) describes the approach as cumbersome and not good for hypothesis generation.

2.2.3 Significant Events Design

This qualitative or mixed methods approach focuses on significant moments in therapy, both positive and negative (Rhodes, Hill, Thompson, & Elliott, 1994; Timulak & Elliott, 2003). The sequence of behaviours that therapists and clients undertake when dealing with in-session tasks such as dealing with relationship

ruptures or developing insight are analysed. The effectiveness of different approaches can be compared by measuring outcomes. This approach can be useful for guiding therapist practice, and can be used to study multiple processes together. However, it has been criticised by Elliott (2010) for often being used to study a small number of therapy events, or even a single event. Its focus on interactions between therapist and client also means that it cannot be used to study the impact of treatment events outside therapy.

2.2.4 Helpful Factors Design

This approach involves interviewing service users about both helpful and unhelpful processes in treatment or about how they have changed. This approach is flexible; the timeframe for study can range from a single session to the whole course of treatment. It can also focus specifically on therapy, on other aspects of treatment, or on treatment as a whole. The main disadvantage of this approach is that service users' self report of treatment processes may be unreliable. There is considerable evidence that peoples' judgements about the causes of events are often inaccurate and subject to biases (Nisbett & Wilson, 1977; Wilson & Dunn, 2004). Comparisons of measures of implicit and explicit personality traits, attitudes (Blair, 2002; Wilson, Lindsey, & Schooler, 2000) and self-esteem (Greenwald & Farnham, 2000) have shown that they are often significantly different. On the other hand, Elliott (2010) argues that the client is still best placed to describe his or her own change processes, and meta-analysis of helpful factors research has identified a number of common themes (Timulak, 2007), suggesting that this approach can generate reliable results.

2.2.5 Epistemology

Wilson and Dunn (2004) note that, despite evidence that introspection into mental processes is often inaccurate, people are generally able to make successful decisions and judgements based on analysing their own thoughts and feelings. Indeed, as Elliott and James (1989) point out, many forms of empirically validated psychological therapy assume that the client can accurately reflect on and express their own internal processes. Wilson and Dunn explain this apparent paradox by suggesting that many non-conscious mental processes, such as those involved in perception, emotion and motivation, have existed since before consciousness evolved and are not open to introspection. Instead, they argued, people fill in the gaps in what they know from conscious introspection by constructing a coherent narrative about themselves (McAdams, 2001), which can have an important effect on their mental well-being (Baerger & McAdams, 1999; Pennebaker & Seagal, 1999; Tedeschi & Calhoun, 2004). Given that this thesis should have practical applications for clinicians and patients in this setting, the accuracy of patients' perceptions about the change processes they have experienced is arguably of less importance than whether those perceptions are helpful to their mental well-being and recovery. In other words, it is useful to study patients' perceptions of change processes regardless of whether those perceptions are completely accurate. Social constructivism is an epistemological approach which maintains that human development is socially situated and knowledge is constructed through interaction with others (Creswell, 2014). This thesis therefore adopts a social constructivist approach in that it studies how forensic inpatients understand the processes of treatment and change and how these understandings develop through relationships with others

and the hospital environment. It shares the assumptions underlying constructivism identified by Crotty (1998):

- People construct meanings as they engage with the world and make sense of it.
- How people engage with the world is shaped by their personal, social and cultural histories.
- The generation of meaning arises in and out of social interactions.

As in other areas of qualitative study (Elliott, 2010; Glaser & Strauss, 2009), this thesis will use an inductive approach to exploring and describing patient's experiences of treatment, which can generate hypotheses that can later be tested using quantitative techniques.

2.2.6 Reasons for Selecting Helpful Factors Approach

The helpful factors approach is the one that best meets the requirements of this research. It can be used to study a broad range of treatment processes, rather than simply within-therapy processes, and it is able to study processes associated with multiple models of therapy. A qualitative, hypothesis-generating approach means that this research will not be dependent on generalisations from research with non-forensic populations and will enable the generation of hypotheses specific to this population.

2.2.7 Studying Service Users' Experiences in Treatment

There are other benefits to studying service users' experiences in treatment. This research approach can help clinicians to better understand change processes and to identify factors that promote or impede engagement and change (Elliott 2008; Timaluk, 2010). It can also help therapists to be more responsive to client needs and can lead to more effective interventions (Elliott

& James, 1989). Finally, studies of clients' views of therapy have led to an appreciation that clients are not simply passive recipients of therapy, but play an active role in the change process beyond what is asked of them by the therapist (Elliott, 2008). For example, Knox, Goldberg, Woodhouse, and Hill (1999) found that clients generated mental representations of their therapist that they used to reinforce the insight and skills between therapy sessions, while Mörtl and Von Wietersheim (2008) found that day hospital psychotherapy patients developed their own techniques for generalising learning between hospital and home. The study of clients' experiences in therapy can provide further information on these client behaviours.

Strupp and Hadley (1977) argued that service users, mental health professionals and wider society have different perspectives on mental health treatments and different priorities. In general, Strupp and Hadley argued, service users are more concerned with their own subjective well-being and satisfaction, while mental health professionals are more concerned with outcomes derived from theories underlying treatment, and wider society is most concerned with maintaining conformity to social conventions and the law. Studies of the treatment process in non-forensic settings have highlighted the differences in perspective between service users and mental health professionals. For example, Llewelyn (1988) asked clients in psychological therapies and their therapists to identify helpful events during therapy. Clients most commonly described reassurance and problem solving events, while therapists most commonly described clients gaining insight. Bachelor (2013) found that clients and therapists emphasised different aspects of the therapeutic alliance as important; clients were more concerned with therapist helpfulness

and positive interactions with the therapist, and were also more sensitive to differences and disagreements, while therapists were more concerned about clients' commitment and level of engagement.

While it might be tempting to dismiss the views of service users as inaccurate when they contradict those of mental health professionals, Elliott and James (1989) point out that most forms of psychological therapy depend upon clients reporting on their thoughts, feelings and behaviours, and assume them to be accurate. It would therefore be inconsistent to dismiss clients' views on the process of therapy. Furthermore, studies that have compared client and therapist perceptions and linked them to treatment outcomes suggest that clients' perceptions of the therapy process are actually more accurate than therapist perceptions. For example, while working alliance has been found to be an important determinant of treatment outcome (Crits-Christoph, Connolly Gibbons, & Mukherjee, 2013), a meta-analytic study by Horvath and Symonds (1991) found that clients' judgements of the client-therapist working alliance were more predictive of treatment outcomes than judgements by therapists or observers.

In studying change processes in treatment, clients may have a broader perspective of the changes that they experience and the factors that promote change than do therapists, other professionals or family members, who have only a partial knowledge of how they have changed. Moreover, clients' understanding of change processes are less likely than those of mental health professionals to be shaped by their training and theoretical allegiances.

2.2.8 Studying Forensic Patients' Experiences in Treatment

This research took place in a high security forensic setting, which differs in a number of ways from the settings where much research into the process of change in psychological therapy takes place. It therefore raises important methodological, credibility and ethical issues, which will be addressed here.

The reasons for studying service user views in general apply equally to forensic patients. Studying forensic patients' experiences of treatment can provide clinicians with a better understanding of the factors that promote or impede engagement and change, as well as how patients see themselves changing and how they play an active role in the treatment process. Indeed, given that poor engagement in treatment is a common feature of both forensic patients (Wormith & Olver, 2002) and people with a diagnosis of personality disorder (Chiesa, Drahorad, & Longo, 2000; McMurran, Huband, & Overton, 2010), such research is arguably more necessary with this patient group.

The contrast between the priorities of the three perspectives identified by Strupp and Hadley (1977) are likely to be more marked in forensic settings, particularly in a high secure setting where the goals of risk management and public safety are paramount and the views of wider society and of mental health professionals carry more weight than those of patients (Mezey et al., 2010; Tapp, Warren, Fife-Schaw, Perkins, & Moore, 2013). However, there has been little previous research into the experiences of forensic patients in treatment (Coffey, 2006).

2.2.9 Personal Reflection

Reflection by the author on his background and beliefs allows readers to judge the validity of the findings (Henwood & Pidgeon, 1992). I have worked

since 2002 as a forensic and clinical psychologist in the services where the thesis was conducted. These services are relatively small and the turnover of patients is relatively slow. Therefore, while I took care not to interview patients with whom I had a current or previous therapeutic relationship, most of the patients involved in this research knew me or knew of me, and I knew most of them. Though not directly involved in their clinical care, I have been involved in reviews and decision making for a number of patients because of my role in the service. Because of the importance of psychological therapies to the overall treatment process, psychologists are widely seen by patients as important and influential members of staff. For all these reasons, conducting research in the services where I worked carried a risk that, because of my position, patients would feel pressure to participate or to respond either in a socially desirable and compliant way, or in an adversarial way. On the other hand, with a patient group who are often mistrustful of others and with whom it can take a long time to build up a therapeutic relationship, my position may also have enabled me to gather more and better quality data than would have been possible with a researcher from outside the service. My detailed knowledge of the service may also have enabled me to explore more sensitively the experiences of participants.

Both services employ a range of theoretical models of therapy, but cognitive analytic therapy, dialectical behavior therapy and schema therapy are the most widespread. I have been trained in both dialectical behavior therapy and schema therapy, but the majority of my clinical work is informed by schema therapy. My understanding of, and approach to the treatment of people with a diagnosis of personality disorder is consistent with the summation in

section 1.2.7., namely that disruption or dysfunction in early relationships with caregivers is a key aetiological factor in personality disorder, often in conjunction with an innate vulnerability; that this leads to intense and distressing emotions that trigger dysfunctional patterns of relationships, particularly in emotionally significant relationships; and that, regardless of therapeutic approach, the therapist-client relationship is an important therapeutic factor.

2.2.10 Quality Criteria

A number of authors have suggested criteria for appraising the quality of qualitative research. The guidelines by Dixon-Woods, Shaw, Agarwal and Smith (2004) were selected on the basis that they address both aspects of reporting and of study design and execution, and have been designed to be applicable to all forms of qualitative research. The criteria suggested by Dixon-Woods et al. are listed in table 2.1.

Table 2.1. Questions for appraising qualitative research (Dixon-Woods et al., 2004)

Are the research questions clear?
Are the research questions suited to qualitative inquiry?
Are the following clearly described?
• Sampling
• Data collection
• Analysis
Are the following appropriate to the research question?
• Sampling
• Data collection
• Analysis
Are the claims made supported by sufficient evidence?
Are the data, interpretations and conclusions clearly integrated?
Does the paper make a useful contribution?

2.3 Participant Credibility

One reason why the views of forensic patients have been reported less than other service user groups may be that they are seen as less reliable or credible because of their history of both criminality and mental disorder (Bartlett & Canvin, 2003; Coffey, 2006; Dorkins & Adshead, 2011). Bartlett and Canvin (2003) point out that this is a particularly significant issue in qualitative research, which assumes that participants' self-report accurately reflects their lived experiences. It is therefore important to understand the reasons why detained forensic patients may be unreliable and to consider how to maximise their reliability. Blom Cooper (1992) provides a helpful framework for analysing the reliability of forensic inpatients. Although this framework was generated in the context of an inquiry into alleged staff abuses in a high secure hospital where most of the witnesses were patients, it is nonetheless equally relevant to qualitative research.

Blom Cooper (1992) argues that the credibility of a witness depends on their ability to give evidence and their willingness to tell the truth. The two

main factors affecting their ability to give evidence are the individual's ability to distinguish memory for real events from fantasy, known as *reality monitoring*, and their tendency to be susceptible to suggestive questioning, otherwise known as *suggestibility*. There are, therefore three factors that needed to be considered when assessing a patient's credibility; their reality monitoring abilities, their level of suggestibility and their level of untruthfulness. I will consider each of these in turn.

2.3.1 Reality Monitoring

Reality monitoring (Johnson & Raye, 1981) is commonly impaired in individuals suffering from major mental illness, such as those with a diagnosis of schizophrenia (Bentall, 1990). However, there has been little research into reality monitoring in individuals with a diagnosis of personality disorder. Minzenberg, Fisher-Irving, Poole, and Vinogradov (2006) found that reality monitoring was no poorer in individuals in the community with a diagnosis of borderline personality disorder than in community non-patient controls. However, Peters, Smeets, Giesbrecht, Jelicic, and Merckelbach (2007) reported poorer reality monitoring in students with higher levels of schizotypal personality traits. While it is difficult to draw firm conclusions from these two results, the fact that schizotypal personality disorder is understood to exist on a spectrum with schizophrenia (Nelson, Seal, Pantelis, & Phillips, 2013) suggests that problems with reality monitoring may be specific to this diagnostic category and not widespread among other people with a diagnosis of personality disorder. While Sheldon and Krishnan (2009) found that none of the current patients in one of the services being studied in this thesis met the criteria for a definite diagnosis of schizotypal personality disorder, the prevalence of

schizotypal traits is not known. In order to ensure that participants were able to monitor reality effectively, patients with a co-occurring diagnosis of mental illness that was not well controlled by medication were excluded from the research, and each potential participant's psychiatrist and psychologist were asked to comment on the patient's suitability to engage effectively in qualitative research.

2.3.2 Interrogative Suggestibility

Interrogative suggestibility is defined by Gudjonsson and Clark (1986) as "the extent to which, within a closed social interaction, people come to accept messages communicated during formal questioning" (p. 84). Individuals are more susceptible to be influenced in this way when asked leading questions or experiencing criticism or negative feedback (Gudjonsson, 1983). High levels of anxiety or depression have also been found to increase suggestibility (McGroarty & Thomson, 2013). Gudjonsson and Clark conceptualised suggestibility as a strategy for managing interview situations. Interviewee characteristics that increase suggestibility include uncertainty about how to answer the questions, a perception that they ought to be able to answer them, and trust in the interviewer. Interviewer behaviours more likely to prompt a suggestible response include asking leading questions, giving negative or critical feedback and suggesting that the interviewee is lying or mistaken. Such suggestions could be either explicit, or implicit, for example, repeating questions (Gudjonsson, 2003).

Although the problem of interrogative suggestibility is usually associated with police interrogation, it may also be relevant in secure forensic settings if interviewees feel under pressure to respond in a certain way. The fact

that individuals with high levels of anxiety or depression may be more suggestible may also be relevant for some forensic inpatient participants.

In order to minimise the risk of participants responding in a suggestible manner, the author began each interview by assuring the participant that their responses would not be made known to anyone involved in their clinical team, and that there were no right or wrong answers. The author also took care to avoid asking leading or repeated questions.

2.3.3 Untruthfulness

Blom Cooper (1992) note that lying is a universal phenomenon, and that “there is no evidence that psychiatric patients are, in general, more prone than other persons to tell malicious falsehoods” (p. 17). However, deceptiveness is a defining feature of antisocial personality disorder, while conning/ manipulativeness and pathological lying are defining features of psychopathy. Given the high prevalence of both antisocial and psychopathic personality traits in forensic populations in general, and in particular in the population under study, deceptiveness was potentially an important factor to consider in this thesis.

There have been relatively few studies of motivations for deceptiveness in forensic populations. Petitclerc and Hervé (1999), cited by Spidel (2002), identify 11 motivational categories of lying among offenders:

- *Compulsive*. Spontaneous lying that is not self-serving and likely to be discovered.
- *Secretive*. Lying to withhold personal information or preserve a sense of autonomy.

- *Avoiding punishment.* Lying to avoid negative consequences. This can be either *ego-syntonic* (to avoid personal responsibility) or *ego-dystonic* (to avoid incriminating others).
- *Avoiding negative evaluation.* Lying to avoid negative evaluation by the person being lied to.
- *Protective.* Lying to avoid physical retaliation.
- *Obtain a reward.* Lying to obtain a physical (e.g. sexual gratification), material (e.g. money) or internal (e.g. attention) reward.
- *Heightening self-presentation.* Lying to present oneself in a positive light.
- *Altruistic.* Lying to protect another from negative consequences.
- *Carelessness.* Impulsive or careless lying.
- *Duping delight.* Deriving pleasure from deceiving others.

Blom Cooper (1992) suggests one further reason why forensic patients might lie, namely to denigrate or discredit the institution or particular individuals. He argues that this is particularly likely in settings where there is an adversarial culture between staff and patients.

Spidel (2002) found that psychopathic offenders lied more often than other offenders. She also reported different patterns of lying associated with different cluster B personality disorder diagnoses. Duping delight was more common among those with a diagnosis of narcissistic personality disorder, lying to gain attention was more common among those with a diagnosis of histrionic personality disorder, and compulsive lying or lying to gain sympathy were more common among those with a diagnosis of borderline personality disorder.

Rogers and Cruise (2000), and Spidel (2002) found that, compared to non-psychopaths, psychopathic offenders were more likely to lie in order to often to obtain a reward, heighten self-presentation, for duping delight and for ego-syntonic avoidance of punishment, but were no more likely to lie for other reasons. Spidel, Hervé, Greaves, and Yuille (2011) reported similar results with young offenders, apart from finding no differences in the rates of lying to avoid punishment. While deceptiveness has sometimes been represented as a stable and persistent trait among psychopathic individuals (Cleckley, 1988; Hare, Forth, & Hart, 1989), these studies suggest that deceptiveness is often a state-dependent behaviour that is more likely to occur in particular interpersonal situations.

These results suggest that interviews can be conducted in a way that minimises the risk of participants with antisocial and psychopathic traits behaving deceptively. This is supported by Thornberry and Krohn (2000) who found that self-report measures of criminal behaviour by offenders were generally reliable and valid, particularly when steps were taken to reassure respondents that there would be no adverse consequences to disclosing such information. During all the interviews conducted during this research, it was made clear to participants that there would be no positive or negative consequences to their participation or non-participation, and that their responses would not be made known to members of their clinical team. The author did not interview any patients with whom he had a current or previous therapeutic relationship, and care was taken to ensure that participants could not be identified from any quotes or other information that appeared in publications arising from this thesis. These precautions ensured that the risks of participants

lying for the reasons that were more likely among psychopathic offenders, namely to obtain a reward, avoid punishment or heighten self-presentation, were minimised. It also minimised the risk that participants would make malicious statements to discredit the hospital or individual staff members. While it was harder to arrange contingencies in order to minimise the risk of lying for duping delight, the fact that each participant's psychiatrist and psychologist were asked to comment on their suitability for inclusion meant that any patients for whom this was an issue could be identified and, if necessary, excluded from the study. No patients were excluded for this reason. Establishing participant credibility is important in any qualitative research (Elliott, Rennie, & Fischer, 1999; Tracy, 2010). The above measures would have been taken with participants in any setting. Credibility could have been enhanced by triangulating participants' responses with other sources of information, such as records or third party informants. However, this is problematic when reviewing the credibility of patients' perceptions of their therapists and of therapy. While the therapist's account of therapy could be triangulated with that of the patient, knowing that the therapist would be consulted, and that his/ her experiences would be compared with those of the patient might deter a significant number of patients from participating, or from being candid in such research. Such triangulation was not, therefore carried out in this thesis, which may, unfortunately, reduce its credibility.

2.4 Ethical Considerations

While there are a number of arguments in favour of conducting qualitative research with this patient group, the detained status of potential

participants makes them potentially vulnerable to perceived pressure to participate (Bartlett & Canvin, 2003). Moreover, research into personal experiences is potentially risky to participants with severe mental health problems if it causes them guilt, shame or embarrassment (Renzetti & Lee, 1993). Research in this setting therefore needs to provide potential participants with choice and control over the kind of research they participate in, and balance the need to collect personal and sensitive data with the need to protect vulnerable patients.

In order to protect patients, there was a two-stage gatekeeping process for all studies. At the start of each study, the author first approached the responsible clinician for each potential participant. The responsible clinician was asked to confirm that the potential participant met the inclusion and exclusion criteria for the study, and to give their consent for him to be approached about participating. Once the responsible clinician had given their written consent, the potential participant's psychologist was approached and asked whether they approved of the patient being involved in the study at the present time. On two occasions, the psychologist advised that the patient was currently going through a period of crisis and advised that he not be approached at that time, though on both occasions the psychologist later indicated that the patient could be approached. On both occasions the patient subsequently took part in the study.

Bartlett and Canvin (2003) raise the possibility that allowing clinicians to act as gatekeepers for detained patients participating in qualitative research might enable them to prevent access in order to stifle criticism of themselves. Three patients were excluded from the study on the recommendation of their

responsible clinician on the basis that they did not meet a study's inclusion and exclusion criteria. In each of the three cases, the grounds for exclusion were independently verifiable from the patient's clinical record. No patients were excluded on the recommendation of their psychologist, though, as mentioned above, the participation of two patients was delayed on the advice of their psychologist.

In each empirical study, potential participants were approached by their psychologist, who informed them about the study and gave them a copy of the participant information sheet. In the studies in chapters 3, 5 and 6, potential participants were asked to indicate to their psychologist whether they were willing to speak to the author about taking part in the research. In considering the proposal for the study in chapter 7, the NHS ethics committee expressed concern that patients might feel obliged to participate or unable to refuse if they gave their response directly to their psychologist. Therefore, for the study in chapter 7, patients were asked to complete a form to indicate whether they wished to meet the author to discuss the study further. They then sealed their response in an envelope and gave it to their psychologist, who passed it to the author. The psychologist was not aware of the patient's response.

Finally, Bartlett and Canvin (2003) recommended a cooling-off period of at least 24 hours between potential participants giving consent to participate in the study and being interviewed. This was implemented in each of the empirical studies.

3. The Views of Male Forensic Inpatients on how Treatment for Personality Disorder Works

This chapter is based on the following publication:

Willmot, P., & McMurren, M. (2013). The views of male forensic inpatients on how treatment for personality disorder works. *Journal of Forensic Psychiatry & Psychology*, 24, 594-609.

Abstract

Purpose. This study explores the process of change among male forensic inpatients with primary diagnoses of personality disorder.

Method. Twelve patients completed a semi-structured interview about their experiences of personal change in treatment. Their responses were analysed using thematic analysis.

Results. Participants' responses indicated that they observed change in a variety of domains: core beliefs, awareness, and behaviour. Their experiences of relationships in their current setting were often inconsistent with their expectations and schemas of self and others. Interactions with therapists were seen as important, as were interactions with nursing staff, while specific therapeutic techniques were cited relatively rarely.

Conclusions. These results suggest that the cognitive dissonance between how patients expect to be treated and how they are actually treated is an important factor in motivating them to engage in treatment. Both the therapist-patient relationship and the wider interpersonal environment are important to therapeutic change with this population.

3.1 Introduction

The previous chapter described the factors determining the research approach for this thesis. The approach must be flexible enough to study the effects of multiple therapy models, and to study the effects of within-therapy processes as well as wider treatment processes and the environment. Given the differences between forensic inpatients and other service user groups in relation to their personal characteristics, treatment goals, motivations and relationships with clinical staff, the approach should investigate patients' experiences of treatment and of change since they may be very different from the experiences of service users in other settings. Finally, the paucity of previous research with this population suggests an approach that allows for the generation of hypotheses for subsequent studies. In order to meet these criteria, the first study is a qualitative study exploring the views of patients with a diagnosis of personality disorder on the process of change during treatment. Kazdin (2007) argues that to study change processes it is necessary to first define precisely what changes. This is particularly important in relation to personality disorder, which involves a wide range of heterogeneous psychological and interpersonal problems, and for which different models of therapy consider different aspects of change to be important. Any study of change processes with this population will therefore need first to identify what changes during treatment. This study therefore explores two research questions: how do participants believe they have changed while in this service; and, what was responsible for these changes?

3.2 Method

3.2.1 Design

Participants were interviewed using a semi-structured interview (Appendix A) in which they were asked to describe their experiences of therapeutic change, specifically how they believed they had changed and the processes they thought were responsible for these changes. This enabled exploration of the details of participants' subjective experiences of therapeutic change that would not be readily accessible using quantitative approaches.

3.2.2 Participants

Twelve patients participated in the study. All participants were engaged in some form of psychological therapy. All were detained under the Mental Health Act and had been assessed as meeting the criteria for one or more personality disorders using the International Personality Disorder Examination, DSM-IV version (IPDE; Loranger, 1999). Most participants met the criteria for two or more personality disorders. The number and proportion of participants with each DSM-IV personality disorder, assessed using the IPDE, was: 11 antisocial (91.67%); 7 borderline (58.33%); 5 paranoid (41.67%); 3 avoidant (25.00%); 1 schizoid, 8.33%); 1 narcissistic (8.33%). Four participants were diagnosed with comorbid axis I conditions (three with schizophrenia, one with delusional disorder), though in all four cases the condition was judged by their psychiatrist to be well controlled with medication. Participants had also been assessed using the Psychopathy Checklist-Revised (PCL-R; Hare, 2003). The mean psychopathy score was 19.25 ($SD = 4.96$). All participants were convicted of serious violent or sexual offences. The average age of participants was 44.07

years ($SD = 15.42$ years). Their average total length of current detention in prison or hospital was 14.93 years ($SD = 10.16$ years) and their average length of time in this service was 7.85 years ($SD = 9.58$ years).

3.2.3 Treatment

Treatment in the service in which this study took place is primarily psychological. Patients progress through a four-stage treatment process (Evershed, 2011a) based on the model of treatment for personality disorder treatment described by Livesley (2007). Stage 1 involves assessment and the establishment of therapeutic relationships and support. Stage 2 involves psychological therapies primarily aimed at improving the patient's self-management of emotions and impulses. For the participants in this study, stage 2 most commonly involved dialectical behaviour therapy (Linehan, 1993). Stage 3 involves psychological therapies primarily aimed at changing the dysfunctional core beliefs that patients use to make sense of themselves, others and the world and which are widely assumed to be core components of personality disorders (Livesley, 2007). For participants in this study, stage 3 most commonly involved schema therapy (Young, Klosko, & Weishaar, 2003). Stage 4 involves the integration and application of skills, insight and changes from stages 2 and 3 to patterns of offending behaviour. For participants in this study, stage 4 generally involved the Violence Reduction Programme (Gordon & Wong, 2000) or the Sex Offender Group (Willmot, 2009). All therapies involve weekly individual sessions with a therapist, and most also involve weekly group therapy sessions. Patients progress through the four stages of treatment in sequence, although the rate at which they progress varies between patients. The overall length of time in therapy in the service is usually at least

five years and can be considerably longer where patients have difficulty in engaging.

3.2.4 Procedure

Ethical approval was obtained from the local NHS Research Ethics Committee (reference number 10/H0408/97). Twelve participants were recruited, out of a total of 63 patients in the service. This sample size was based on the findings of Guest, Bunce, and Johnson (2006), who reported that, in qualitative research, 92% of themes were identified after 12 interviews. All patients in the service were allocated a number and a pool of twenty patients was selected for the study using a web-based random number generator. The author wrote to the responsible clinician for each of these patients to ask whether the patient was eligible to participate in the study. Because the study was exploring experiences of therapeutic change, patients were eligible for inclusion in the study if, in the opinion of their clinical team, they were able to understand the research procedure and give their informed consent to participate in the study, and had made progress in psychological therapy within the service. This last criterion was deliberately kept as broad as possible in order to allow a broad range of participants. One potential participant was excluded because his clinical team considered that he had not made significant progress in therapy. Potential participants were approached in the order they had originally been selected using the random number generator, until 12 had been recruited. Potential participants were approached by their psychologist, who informed them about the study, gave them a copy of the participant information sheet (Appendix B) and asked if they were willing to meet with the author to discuss taking part in the study. Three patients declined to participate.

Potential participants who agreed to speak to the author were given the opportunity to ask questions about the study before deciding whether to participate. All potential participants who spoke to the author agreed to participate. A mutually agreed date and time was arranged for the interview. This was a minimum of 24 hours after meeting with the author.

Interviews were conducted face-to-face on the participant's ward and were audio-recorded. At the start of the interview, the interviewer discussed the participant information sheet and consent form with the participant, and the participant was offered the chance to ask further questions before signing the consent form. Interviews lasted between 30 and 50 minutes. Nine interviews were conducted by the author, and three participants for whom the author was the psychological therapist were interviewed by a Master's level research assistant with interviewing experience. Neither interviewer was involved in the care or treatment of any of the patients they interviewed. Following a pilot interview, a number of minor adjustments were made to the wording of the interview protocol. This pilot interview was included in the final analysis. In order to standardise interview techniques, one interview was carried out jointly by both interviewers.

The semi-structured interview schedule for this study consisted of two broad questions about participants' experiences of therapeutic change. The participant was first asked in what ways he thought he had changed since admission. He was asked to consider changes in the key areas of dysfunction in personality disorder identified by Livesley (2003) and Millon, Grossman, Millon, Meagher, and Ramnath (2004), namely relationships with other people, dealing with emotions, dealing with urges and impulses, and beliefs about the

self and others. For each of the changes the participant listed, he was then asked what he thought had caused this change and about critical incidents and experiences in the change process. Prompts and follow-up questions were used where appropriate.

3.2.5 Analysis

Transcripts were analysed and coded using thematic analysis. Braun and Clark (2006) describe thematic analysis as “a method for identifying, analysing and reporting patterns within data (p. 79). Thematic analysis involved the author carefully reading the interview transcripts and identifying *codes*. Codes are defined as “tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study” (Miles & Huberman, 1994, p. 56). In this case, the codes were words or phrases that described either an aspect of the participant that had changed or a factor that he thought was responsible for such a change. An initial list of codes was compiled by the author. The author and another rater, an experienced clinical psychologist, then independently organised related codes into overarching themes, or recurrent ideas found in the codes. They then met to discuss their results and resolve any differences. At the end of this process both raters agreed on the organisation of codes into themes.

3.3 Results

Preliminary analysis generated 286 codes. After similar codes had been merged, 67 remained. These codes were then viewed by both raters to classify themes. Once agreement had been reached, there were 39 themes related to aspects of change and 28 themes related to change processes. Illustrative

interview extracts are presented below to allow readers to observe the fit between the data and the themes. In addition, a full list of themes and codes is included in appendix C, and a sample of coded transcript is included in appendix D. No new themes were found in the twelfth interview, suggesting that *data saturation* had been achieved, that is, the point in the collection of qualitative data when no new or relevant information emerges. In order to illustrate the results of the analysis, the data are grounded in examples (Elliott, Fischer, & Rennie, 1999), and each theme is presented with supporting extracts from interview transcripts. The number in parentheses after each quote refers to the participant who made the quote.

Participants described changes relating to the superordinate themes of self, other people, and the future. These changes related to core beliefs, increasing awareness, and improving skills.

3.3.1 What Changed?

3.3.1.1 The self. Participants described having a more positive view of themselves than they had previously, and as seeing themselves as capable of changing for the better:

“Being somebody I think is important to me, instead of just ‘I’m nobody’”. [P1]

“Now with the insight and the confidence to feel that I am changing and that my outlook is different, there is a possibility that I have got a future outside and I can get out and I can do what I’ve always wanted to do”.
[P8]

They also presented as more self aware, better able to understand their current behaviour and to accept and make sense of early traumas:

“Insight. Understanding that a lot of my problems stem from me, whereas years ago I’d think that a lot of problems stemmed from other people.” [P8]

“I think that one important thing for me is to gain knowledge of my past, instead of growing up being a nobody and rejected and believing that it was my fault for what happened to me many years ago, when it’s not my fault, it was other people’s fault.” [P1]

Participants also described being better able to regulate their thoughts, impulses and emotions. While some participants attributed this in part to the effects of medication in slowing down their thoughts, participants also described a range of effective self-regulation skills:

“My head used to run at 100 mph, and now I know coping strategies and took new medication it’s slowed down my thinking processes so I don’t think of more than one thing at a time.” [P2]

“It’s about breathing exercises and listening to relaxing music and slowing yourself down until you’re ready to start thinking. [P2]
DBT; that helped me to understand my emotions and regulate them.”
[P8]

“I’ve never been able to relax before; they’ve told me how to relax and not be uptight all the time, because I’ve been violent all my life and relaxation was something that never came into my life.” [P6]

3.3.1.2 Other people. Participants described perceiving other people as being more trustworthy and less hostile than they had previously:

“I assume people are there to help me, whereas before I didn’t see people as there to help me, I saw them as there to drag me down. I

always used to think if they talk to me they're after something, but now I realise that people can talk to me and they're not after something, they're interested in me." [P6]

They also reported a greater awareness of other people. This involved themes of greater empathy for others, greater understanding and respect for other people's perspectives, greater awareness of the effect they had on other people and a less judgemental approach to other people's views:

"I've more empathy and compassion for others, which I never really had before... I just didn't consider people to be worthy of consideration and sympathy". [P9]

"Before, I was quite a violent and aggressive person; I didn't really care about inflicting violence on other people or about being aggressive. I didn't really see it as a problem to be honest... I knew it was wrong, obviously, but that didn't concern me in the slightest." [P9]

"Thinking about other people like my children and the rest of my family, and the people around me who it would affect, whereas before I wouldn't care what they thought." [P11]

"I give people a lot more respect. Before, I painted everybody with the same brush." [P11]

Participants described improved interpersonal skills, such as being more assertive, and better at building stable relationships and resolving conflicts:

"I am more confident. I can stand up for myself more too. I am more assertive too." [P4]

"I go out to try and keep relationships rather than break them down all the time, I mean I'm still hypersensitive, but it's about understanding

that when I am hypersensitive, that's when I start feeling a bit paranoid in a relationship.” [P8]

“Working with people while I'm here is great for me, because it allows me to get to know me and get to have good relations with people that are helping me.” [P7]

Participants also described seeing themselves as similar to other people, both in terms of their past experiences and in the way they thought and felt. They described having changed, both in how they saw themselves and in how they related to other people:

“Just saying about [other patients'] life outside, that they lived the same kind of life as what I did and they were putting it behind them and they were looking forward to a different life outside and getting jobs and things. I've not had a job in years and I thought well, if they're thinking that they can get out there must be some hope for me, because I'd like to get out, get some kind of work.” [P6]

“...Not just nurses but fellow patients as well... we'd be chatting and they'd say 'I felt like this today', and I thought 'Bloody hell, did you? So did I!' ” [P11]

3.3.1.3 The future. Participants described being more hopeful and positive about the future:

“When I came here I thought I wouldn't see the outside world again. I thought I'd be here for the rest of my life till I die. But now I can see a bit of a future, where I can get to a (less secure unit) and start again”.
[P6]

They also described finding it easier to consider the future, particularly the long-term future:

“Before, I didn’t really care about my future, about how things were for me; I lived day to day and I didn’t set any targets, have any goals, whereas now I do look at my future and I look at setting a goal for where I’m going to be this time next year and having a target for that and my ultimate goal is to be able to get out and run my own tattooist shop.” [P8]

They described developing skills that allowed them to engage in goal-directed behaviour, such as decision making and target setting:

“I’m more able to make up my mind.” [P2]

“It feels good to have a target, even if it’s next Sunday I’ll have achieved this and I achieve it, that’s a hell of a lot more than I was doing, and it gives you confidence in yourself.” [P8]

3.3.2 What were the Change Processes?

Most of the themes relating to the process of change described the behaviour of other people. The most frequently mentioned groups of people were nursing staff and therapists, though other patients and family members were also mentioned. Participants noticed being treated differently to how they had been treated previously. Some felt they were being treated positively for the first time in their lives:

“I used to think that nobody would be interested in me, but now I’ve learnt that people are interested in me and in what I do... [Before] they never used to help me... [Now] they just talk to me normal. If I’ve got a

problem I can go and talk to them and they'll listen to me and help me find a way of solving it." [P6]

"Constant support from people which I never had before, as in prison there isn't that support and people trying to help you." [P9]

"As soon as I came to hospital, it was the way I was treated with respect I suppose... people took time to really sit and listen to me, not like on the outside people just make their own judgements from what I was like, without even stopping to listen." [P11]

A number of themes related to the culture of treatment in hospital.

Several patients who had previously been in prison felt that the hospital took treatment more seriously, and that staff were committed to treatment:

"Whereas prisons are just about confinement and containment- that's all that prisons are about. I don't care what people say like that prisons do treatments-they don't, that's just merely window dressing. Whereas here, it is all about treatment and getting better." [P9]

"A lot of the staff ... they're proud that they work the way they do on here, which is good, they like being caring. It's not as if they're being forced into it; they just prefer to have that approach; it's what they're here for." [P3]

Others mentioned the persistence of nursing staff and therapists, and their greater availability than in prison:

"What helped was the fact that whereas with the rest I'd be like 'piss off I don't want to talk to you' and I might have said that to [therapist] at one point but then the next week he was there again, and the following week he is there again and the following week too. It was like, do you

know what, I'm actually not going to get rid of this guy; I can't get rid of this guy so I'm going to have to work with him." [P9]

"In gaol you get paranoid you've got no one, you just go to your room and stew on it, but here you can pull one of the nursing staff, and then once you talked about it at the end of it you're not as paranoid, you can see a bit of sense in it." [P12]

3.3.2.1 The self. Factors that participants linked to changes in the self domain included staff members giving accurate feedback on participants' behaviour, demonstrating trust in them, and showing care and a non-judgemental attitude:

"I think a good working relationship is important [by] helping the person understand themselves by focusing on what they've done wrong but also focusing on their positives, which sometimes, like myself, I don't realise." [P7]

"Well because they've allowed me to do things, to have scissors out when other people's been around and it makes it go better ...That's a big trust in me... so it gave me a good boost that." [P10]

"People were telling me not to beat myself up and to respect myself and love myself. People say I'm not worthless and I have got a meaning in life and being there for me, trusting me." [P2]

"[Named nurse] can seem to see through my crimes and he can see through the person that I was to the person that he's always suspected I am, which is I'm not too bad a bloke, that will make a go of it, that tries. He can see the changes." [P11]

One participant talked about how achieving something outside of psychological therapy changed the way he felt about himself:

“In woodwork I made a big totem pole for a family theme park; it’s got all animals’ faces and stuff on it; it took about a year to do, and it’s up in the park now. People from all over the hospital they’d be coming to the woodwork area to have a look at it. I seemed to get a lot of respect from people, I didn’t feel worthless, I felt like I’m good at something, there’s more to my life than hitting and walloping people.” [P11]

3.3.2.2 Other people. Factors that participants linked to change in the other people domain included other people listening to them, being reliable, helping with problem solving, self disclosure and demonstrating trust:

“Talking to people and people listening to me. That’s how I trust them more, because they listen to what I’ve got to say.” [P6]

“Before I came here I wouldn’t trust anybody because I’d been lied to that many times I just felt they were just going to keep me forever and were just warehousing me. But when I came here, things started moving. I feel more trust here.” [P10]

“When people are trying to bully you [staff] go out of their way to make you feel comfortable, talk to the other party, tell him how he’s making me feel, make us have a [meeting].” [P2]

“[Staff and patients] opened up to me; if they can open up to me I can trust them to open up to them... They had problems and they disclosed them to me, about family or just their own personal problems.” [P2]

“[In] prison I met a psychologist... Staff wouldn’t come in [to my cell]... because of the risk I posed to people... she came straight in, she sat on the chair and she asked me what my problem was, and I think

what happened was that it showed me that there is people that care, that understand, that want to give you time.” [P7]

One participant also reported learning about relationships in general from his therapeutic relationships with his therapist:

“I think a good working relationship is important in places like this, because not only are you building a good relationship with people you work closely with, but also helping the person understand themselves by focusing on what they’ve done wrong but also focusing on their positives, which sometimes, like myself, I don’t realise.” [P7]

Participants identified that other patients’ self-disclosure about their backgrounds and current thoughts and emotions helped to promote the belief that they were similar to other people:

“I used to think that I’m the only one that these things have happened to, and when I was listening to other people’s stories and they were the same as mine, I thought well I’m not on my own.” [P6]

“That [therapy] group helped a lot because I learnt that everybody’s the same really, they’ve all got the same problems in different ways and it affects people in different ways.” [P10]

3.3.2.3 The future. Factors that participants linked to change in the future domain included talking about the future:

“It’s been a gradual change. Just talking to staff, them saying wouldn’t you like to be outside and go for a meal and go for a walk in the park, things like that; that’s things that I’ve missed.” [P6]

3.3.2.4 Other change processes. Patients mentioned realisations that reflected improved mentalization, that is, the ability to perceive and interpret one's own and others' mental states.

“A massive change is my urges to commit suicide. I asked myself, what's the point? Thinking about other people like my children and the rest of my family, and the people around me who it would affect, whereas before I wouldn't care what they thought.” [P11]

“I used to think that I'm the only one that these things have happened to, and when I was listening to other people's stories and they were the same as mine, I thought well I'm not on my own.” [P6]

Patients also mentioned life events, occurring both within and outside the hospital as triggers for change.

“My Dad passing away last year, it made me look at life in a different angle.” [P5]

“[Another patient was] threatening me and I threatened him and I went for him, and they separated us and I thought well if there hadn't have been staff there what I could have done to him, I could have seriously hurt him and that would have been more guilt and I might have gone to prison for him, and I just thought then I've got to change, I've got to stop losing my temper, being violent.” [P6]

Although participants were selected on the basis that they had made progress as a result of psychological therapy, specific therapeutic techniques or approaches were not commonly cited as change processes. The twelve participants made a total of ten references to dialectical behaviour therapy and eighteen references to schema therapy, the two main personality disorder-

specific therapies used in the service. Furthermore, where therapy was mentioned it was generally the non-specific elements of therapy, such as the therapeutic relationship or group support, rather than therapy-specific factors, such as mindfulness or schema dialogues. The majority of change processes described by participants were behaviours of other people outside formal therapy sessions.

3.4 Discussion

The study of change processes in treatment involves identifying both the in-treatment processes that trigger change, and the internal processes of change in the client that lead to clinical change (Clarkin & Levy, 2006; Elliott, 2010). A qualitative approach to the study of how treatment works is, perhaps uniquely, able to elucidate both elements. This study is a first step towards identifying changes experienced by male forensic inpatients with a diagnosis of personality disorder during treatment, along with the processes by which change occurs.

Participants described an initial process of orienting/ cognitive dissonance, in which they noticed a consistent difference in how they were regarded and treated in the personality disorder service compared to how they had been regarded and treated previously, particularly in prison. Several participants felt they had often or always been disregarded and judged negatively by others, and described a process of cognitive dissonance on admission to this service because their treatment was inconsistent with their established schemas of self and others, and their expectations of how they would be treated. Important themes that contributed to this cognitive dissonance

and sense of difference included persistence, the availability of support and a commitment to treatment by the clinical team.

Participants reported improved self-esteem, acceptance of responsibility for behaviour, and increased hope and optimism. Feeling that one is worth changing, that one is responsible for change, and that change is possible are key drivers of successful engagement in therapy and positive outcomes for people with personality disorder, as they are for other groups (Livesley, 2012; Miller & Rollnick, 2012). An improved ability to trust other people, reduced egocentricity, and improved empathy were all identified as positive changes. This is of clear importance for those diagnosed with personality disorder, since interpersonal dysfunction is central to the diagnosis (Livesley & Lang, 2005). Skills for change were also identified as important, including improved self-regulation and better relationship skills. This reflects the therapies available to this sample (DBT; Linehan, 1993). Processes of change were improved insight and understanding, and experiences of being accepted, trusted and valued by others. These processes are central to many psychotherapies (Farber & Lane, 2002; Rogers, 1957), and particularly with clients with a diagnosis of personality disorder (Smith, Barrett, Benjamin, & Barber, 2006). The relationships with, and behaviours of, nursing staff and therapists were the most commonly cited antecedents of change, though the behaviour of other patients was also mentioned. This finding is consistent with existing evidence of the importance of therapeutic relationships in the treatment of personality disorder (Smith et al., 2006). However, whereas previous research has largely focused the therapist-client relationship, these results suggest that, within this long-term

inpatient setting, the interpersonal milieu and relationships with a number of staff are important.

While participants confirmed the importance of the therapeutic relationship in treatment for personality disorder (Smith et al., 2006), they made relatively few references to the specific content of psychological therapies. This may reflect the fact that processes relating to the observable behaviours of others are more obvious and easier to describe than unobservable internal processes, such as changing core beliefs or developing a more secure attachment style. It may also be indicative of the widely held view that the important end products of therapy are arrived at through processes that are largely unconnected with the specific content of therapies (Luborsky, Singer & Luborsky, 1975; Luborsky et al., 2002; Rogers, 1957). Here, participants mentioned enhanced self-worth, a greater ability to trust other people, and a less egocentric stance, all of which are important therapy outcomes. Improved self-regulation and relationship skills were mentioned as contributing factors in attaining these outcomes, but few other specific aspects of the content of therapy were mentioned.

Lack of reporting of specific therapy content may also reflect the fact that, in an inpatient environment, patients are likely to spend much more time interacting with nursing and other staff than they do in formal therapy sessions, and so describe more therapeutic encounters outside therapy than in.

While the importance of relationships with others was not surprising, the fact that this was not limited to relationships with therapists was unexpected. Participants described relationships with other staff, mainly nurses, as important, as well as the overall treatment culture. This suggests that a model of

change that simply focuses on the therapist-patient relationship may be inadequate. The fact that these findings were unexpected, and were at odds with the author's personal reflection in section 2.2.9, add to the validity of these findings.

3.4.1 Limitations

The validity of this study could have been improved by the author checking his understanding of what had been said with participants (Elliott, Rennie, & Fischer, 1999) or by checking whether participants agreed with the codes (Silverman, 1993). Validity would also have been enhanced if a second coder had analysed the data, independently of the author (Elliott et al.). Also, data could have been triangulated by comparing the responses of participants with other sources of data such as third party observers (therapists or other staff, or patient records (Stiles, 1993), although this would have risked deterring some patients from participating, or from being candid about their experiences.

While efforts were made to minimise the risk of patients responding in socially desirable, this remains a risk with detained patients, and particularly for those patients with whom the author had worked, who were aware that the author would be analysing their transcripts and may have been able to identify them.

Participants' responses may have been constrained by the instructions given at the start of each interview, which listed the key areas of dysfunction associated with a diagnosis of personality disorder. This may have led participants to omit discussing change in other areas that were important to them.

While all participants had a primary diagnosis of personality disorder, no consideration was taken of the specific personality disorder or other diagnoses of participants or of other factors that could affect their ability to engage in and benefit from psychological therapy, such as levels of motivation or cognitive ability, or previous experiences of therapy. Given that the vast majority of the forensic population who meet the criteria for a diagnosis of personality disorder are in prison or the community, and that most participants in this study met the diagnostic criteria for at least two personality disorders, this sample is atypical of forensic service users meeting the criteria for a diagnosis of personality disorder, both in terms of the severity of their disorder and the setting in which treatment took place. Moreover, the participants in this study were relatively old (mean 44.07 years) and had spent a long time both in detention (mean 14.93 years) and in this service (mean 7.85 years), so they may not be representative of patients in this service.

This social constructivist approach taken to the experiences of forensic inpatients in a high secure hospital setting in this study could be criticised on the grounds that the overwhelming priority in treating these individuals must be the reduction of risk to others, and that, the perceptions of patients are irrelevant to this objective. While this study has not considered the relationships between patients' subjective experiences of treatment and objective measures of risk to others, a number of factors suggest that patients' views of treatment may have some relevance to the question of risk. Firstly, participants were selected on the basis that they had made progress in treatment, which included progress in reducing their risk to others. Studying the views of such patients may help to identify links between perceptions of treatment and factors relating to risk.

Secondly, participants described a number of changes that would be associated with a reduction in risk of violence according to standard violence risk assessment measures such as the Violence Risk Scale (Wong & Gordon, 2009) and HCR-20v3 (Douglas, Hart, Webster, & Belfrage, 2013), including improved insight, emotion regulation skills and interpersonal relationships, and the development of more pro-social attitudes (e.g. respect and concern for others, empathy, shared interests and concerns).

Reflecting on the quality criteria of Dixon-Woods et al. (2004) set out in section 2.2.10, this study started with a clearly defined research question that was suited to qualitative inquiry. The sampling, data collection and analysis were clearly described and largely appropriate to the research question, although a number of limitations have been acknowledged. The study's conclusions were each supported by illustrative quotes from participants, and data, interpretations and conclusions have been integrated.

3.4.2 Implications

Despite these limitations, these findings are useful. Studies of the processes by which psychological treatments work have, until recently, been relatively rare (Kazdin, 2007), as have studies of forensic patients and people with a diagnosis of personality disorder. This study shows that this group can generate rich and complex ideas about the processes of change.

There are parallels between this study and the work of Maruna (2001), who compared the narratives of ex-offenders who had stopped offending and offenders who continued to offend. The self-narratives of those who continued to offend involved themes of feeling condemned and ostracised by others, and a sense that they could do little to change their lives or

themselves. In contrast, the self-narratives of those who had desisted from offending involved themes of redemption, which Maruna summarised as seeing themselves as “a victim of society who gets involved with crime and drugs to achieve some sort of power over otherwise bleak circumstances. This deviance eventually becomes its own trap, however, as the narrator becomes ensnared in the vicious cycle of crime and imprisonment. Yet, with the help of some outside force, someone who ‘believed in’ the ex-offender, the narrator is able to accomplish what he or she was ‘always meant to do’” (p. 87). There are similarities between the themes in Maruna’s redemption narrative and the way participants in this study saw themselves as previously being ostracised and different but, with the help of staff in the personality disorder service, being able to change and now seeing a more positive future for themselves. These similarities suggest that participants in this study have gone through a similar process to the ex-offenders studied by Maruna.

These results suggest a model of change for male forensic inpatients with a diagnosis of personality disorder. These patients have developed dysfunctional patterns of relating to others as a result of developmental adversity. These dysfunctional patterns have tended to be played out repeatedly in different settings, reinforcing negative and dysfunctional beliefs about the self, others and the future.

An important factor for patients who have made progress in treatment appears to have been noticing a difference in how they are treated in this service. Patients described a process of cognitive dissonance on admission to this service when their treatment by their clinical team was inconsistent with

their established schemas of self and others, and their expectations of how they would be treated.

Once patients are oriented to treatment, the most important factor affecting change appears to be relationships with staff. The importance of the therapist-client relationship has been widely cited as an important factor in therapy for people with a diagnosis of personality disorder (e.g., Bateman & Fonagy, 2000; Critchfield & Benjamin, 2006; Muran, Safran, Samstag, & Winston, 2005). Relatively little attention has been given to the wider interpersonal environment and, specifically, to relationships with nursing staff and other patients in hospital, and with family members. However, naturalistic studies of change in people with personality disorder (Gunderson et al., 2003; Links & Heslegrave, 2000) have suggested that the person's interpersonal environment is often an important catalyst for change. In contrast to the therapist-client relationship, there has been relatively little research into the effects of the wider interpersonal environment on psychotherapy outcomes. From this qualitative study, it has not been possible to elucidate the interactions between therapist-patient relationships and nurse-patient relationships, or between these relationships and the content of therapy, nor has it been possible to judge their relative importance. In order to explore these relationships further a quantitative study of these factors is required; this is described in chapter 6.

4. A Systematic Review of Measures of Social Functioning in People with a Diagnosis of Personality Disorder

Abstract

Purpose. Before conducting the quantitative study to test the model generated in chapter 3, it was necessary to identify an appropriate dependent outcome measure.

Method. This chapter begins by explaining why the close association between personality disorder and impaired social functioning makes social functioning a suitable outcome measure. A general definition of impaired social functioning is provided, and there is a discussion of the differences between impairments in social functioning associated with different mental health conditions, including personality disorder. This information is used to construct a definition of social functioning associated specifically with a diagnosis of personality disorder.

This definition is then used to systematically identify and review social functioning measures used with people with a diagnosis of personality disorder, with a focus on measures that may be used in an inpatient setting.

Results. The review identifies 133 published studies, involving 16 measures of social functioning used with individuals with a diagnosis of personality disorder. Measures fell into three categories: self-report measures; clinician-rating scales based on semi-structured interviews; and single-item rating scales completed by clinicians. The review considers whether each measure is consistent with the definition of social functioning associated with a diagnosis of personality disorder, its practicality, evidence for its reliability, validity and the availability of norms, discriminant validity, responsiveness in studies of

people with a diagnosis of personality disorder and its appropriateness for use in an inpatient setting. A number of measures are unsuitable for use with people with a diagnosis of personality disorder because they were designed for assessing functional impairments associated with acute conditions. A number of other measures have little or no evidence for their reliability, validity or responsiveness. All the measures were designed for use in community settings and several were not suitable for use in inpatient settings.

Conclusions. Of the existing measures, the single-item rating scales are best suited for use as outcome measures in this setting. Given the significant drawbacks associated with all the self-report social functioning measures reviewed, there is a need to develop a new self-report measure specifically for people with a diagnosis of personality disorder in inpatient settings.

4.1 Introduction

A suitable outcome measure is needed to contribute to a quantitative validation of the change process model generated in the previous chapter, that is, to assess whether the identified processes of change actually work to effect improvement. This outcome variable and its measure needs to be useful for a patient population that is extremely heterogeneous in terms of personality disorder diagnoses, traits and symptoms, and for individuals at all stages of treatment. Participants in the previous chapter largely described changes resulting from treatment in terms of improvements in interpersonal relationships and social functioning. Since impairments in social functioning are central to the diagnosis of personality disorder (Livesley & Lang, 2005), are associated with all personality disorder diagnostic categories (Hengartner,

Müller, Rodgers, Rössler, & Ajdacic-Gross, 2014a, b; Jackson & Burgess, 2000) and since social functioning measures are widely used in studies of personality disorder (Duggan, Huband, Smailagic, Ferriter, & Adams, 2007), social functioning was chosen as the dependent outcome variable for this study. The purpose of this chapter is to review existing measures of social functioning that have been used with people with a diagnosis of personality disorder, in order to select the most appropriate outcome measure.

The only published review of social functioning measures for use with people with a diagnosis of personality disorder is over 20 years old and is not a systematic review (Tyrer, 1991). Given the association between impaired social functioning and personality disorder, an up-to-date, systematic review is in order.

4.1.1 Social Functioning Impairments Associated with a Diagnosis of Personality Disorder

People with a diagnosis of personality disorder are more likely than those without to report a solitary lifestyle, interpersonal conflict, distressing relationships and lack of social support, with borderline and schizotypal traits being particularly associated with interpersonal dysfunction (Hengartner et al., 2014a). People with a diagnosis of personality disorder are less likely than those without to be married (Nakao et al, 1992; Samuels, Eaton, Bienvenu, Brown, Costa, & Nestadt, 2002), and more likely to experience marital problems (Reich, Yates, & Nduaguba, 1989). They are also more likely than those without a diagnosis of personality disorder to be unemployed (Coid, Yang, Tyrer, Roberts, & Ullrich, 2006; Drake & Vaillant, 1985) and more likely to encounter conflict in the workplace, demotion or dismissal, while

those with Cluster A or B personality disorder traits are also more likely to have poor educational attainment and to be unemployed (Hengartner et al. 2014b). People with a diagnosis of personality disorder are less likely to have their own accommodation than those without (Coid et al., 2006).

Impaired social functioning is a more stable feature of personality disorder than symptoms. Zanarini, Frankenburg, Reich, and Fitzmaurice (2010) found that, over a ten-year period, 93% of people with a diagnosis of personality disorder achieved symptom remission lasting at least two years but, over the same two-year period, only 50% achieved good social and vocational functioning, which they defined as having at least one emotionally sustaining relationship and a successful work or school record. Similarly, Gunderson et al. (2011) reported that 85% of individuals with a diagnosis of borderline personality disorder and 86% of those with other personality disorder diagnoses achieved symptom remission lasting at least 12 months, but only 21% of those with borderline personality disorder and 48% of those with other personality disorders achieved “normal” levels of global functioning (a composite of social functioning and symptoms), as measured by Global Assessment of Functioning (GAF; American Psychiatric Association, 1994).

4.1.2 Social Functioning Impairments Associated with Other Diagnoses

As well as being associated with the diagnosis of personality disorder, impaired social functioning is associated with a number of other mental health diagnoses, including bipolar disorder (Zarate, Tohen, Land, & Cavanagh, 2000), depression (Hirschfield et al., 2000), obsessive-compulsive disorder (Torres et al., 1986) and schizophrenia (Morrison & Bellack, 1987). However, while impaired social functioning is widely associated with mental health

conditions, the causes and manifestations of this impairment vary between conditions. For example, the impairments associated with a diagnosis of schizophrenia are understood to be associated with neurocognitive impairments in memory and executive functioning (Addington & Addington, 2000; Green, Kern, Braff, & Mintz, 2000), and affect areas such as self-care and other activities of daily living (Semkovska, Bédard, Godbout, Limoge, & Stip, 2004; Velligan et al, 1997), as well as interpersonal functioning. In contrast, impairments associated with a diagnosis of depression have been attributed to particular symptoms of depression, principally depressed mood, fatigue, loss of interest and concentration problems. Depressed mood is associated with impaired functioning in all domains, while loss of interest is associated with impairments in social activities, and fatigue with impairments in home management (Fried & Nesse, 2014; Tweed, 1993).

As discussed in chapter 1, there are a number of competing theories about the core dysfunction in personality disorder, including dysfunctional core beliefs (Wenzel, Chapman, Newman, Beck, & Brown, 2006), a failure to integrate internal working models of self and others (Levy et al., 2006; Wenzel et al, 2006), impaired mentalizing ability (Fonagy & Bateman, 2006; Levy et al., 2006) and impaired emotion regulation (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006). Given the lack of consensus about the factors underlying impaired social functioning in people with a diagnosis of personality disorder, any definition of this impaired social functioning must, at present, be based on the observed patterns of impaired social functioning, its phenotype, rather than its aetiology.

4.1.3 Defining Impaired Social Functioning Associated with a Diagnosis of Personality Disorder

Definitions of social functioning are rare, and those that do exist are brief and somewhat circular; for example, Hirschfield et al. (2000) define social functioning as “an individual’s ability to perform and fulfil normal social roles” (pp. 268-269), while Tyrer (1993) defines it as “the level at which an individual functions in his or her social context” (p. 8). In his review of social functioning measures, Tyrer (1991) does not define the term. A specific definition of impaired social functioning associated with a diagnosis of personality disorder is required.

Both DSM-5 (American Psychiatric Association, 2013) and ICD-10 (World Health Organisation, 1992) define personality disorder in terms of problems in social situations. DSM-5 defines personality disorder as “[a]n enduring pattern of inner experience and behaviour...” that is “inflexible and pervasive across a broad range of personal and social situations”, and “... leads to clinically significant distress or impairment in social, occupational, or other important areas of functioning” (p. 646). ICD-10 defines it as “markedly disharmonious attitudes and behaviour...” that are “pervasive and clearly maladaptive to a broad range of personal and social situations...”, “...leads to considerable personal distress but this may only become apparent late in its course...”, and “...is usually, but not invariably, associated with significant problems in occupational and social performance” (pp. 157-158). The two definitions imply particular features of impaired social functioning associated with personality disorder. First, they both suggest that it is pervasive, affecting a wide range of social and occupational activities, and second, the DSM-5

definition suggests that it is frequently associated with significant distress.

While these features may not be unique to impaired social functioning associated with a diagnosis of personality disorder, if the diagnostic definitions are accepted, then pervasiveness and distress are both necessary, but not sufficient conditions for impaired social functioning associated with a diagnosis of personality disorder. This suggests the following definition of impaired social functioning in individuals with a diagnosis of personality disorder:

“Social functioning in people with a diagnosis of personality disorder, may be defined as the individual’s ability to interact successfully in his or her social and occupational world so that he or she is able to fulfil those roles that lead to satisfaction in work, social activities, and relationships with partners, friends, and family. Impaired social functioning associated with a diagnosis of personality disorder is frequently manifested across a broad range of social and occupational settings and is associated with significant distress for the individual”.

This definition is consistent with a number of similar and overlapping constructs:

Social Adjustment. Barrabee, Barrabee, and Finesberger (1955) define social adjustment as the degree to which a person fulfils the normative social expectations of behaviour that constitutes his [*sic*] role” (p.252). Weissman (1975) defines it as reflecting “interactions with others, satisfactions and performance in role” (p. 357), and specifies a number of such roles: occupational, marital, as a parent, within an extended family, and in the community.

Social Competence. Mueser, Bellack, Morrison, and Wixted (1990) define social competence as “the overall ability of a person to impact favourably on his or her social environment” (p. 52). It is an element of social functioning, though it does not include any subjective sense of distress or satisfaction arising from interactions.

Global functioning. Sometimes also referred to simply as “functioning”, global functioning is the construct assessed in axis V of DSM-IV (American Psychiatric Association, 1994). Global functioning is a composite construct, consisting of clinician ratings of psychological, social and occupational functioning. Although DSM-IV does not define these terms, examples given suggest that symptoms reflecting psychological functioning include depression, insomnia, psychotic symptoms, suicidal ideation and behaviour, and violence towards others, while social and occupational functioning reflect areas such as relationships with friends or family, performance in school or work, and personal hygiene.

Psychosocial functioning. The terms psychosocial functioning and social functioning have been used interchangeably (Hellerstein et al., 2010; Skodol et al., 2002).

Social dysfunction. Burns and Patrick (2007) define social dysfunction as “an impaired ability to get along with others and function in society” (p. 414). The term is generally used to signify impairment in social functioning.

Functional impairment. Though not defined, functional impairment is used by various authors to describe impairment in social or psychosocial functioning (Nakao et. al., 1992; Skodol et al., 2002).

A search of National Library of Medicine's MeSH thesaurus (<https://www.nlm.nih.gov/mesh/>) failed to identify any further synonyms for any of these terms.

4.1.4 Aims of this Review

The aim of this review is to identify and describe all published measures of social functioning that have been used with individuals with a diagnosis of personality disorder, and to review the suitability of these measures for use with people with a diagnosis of personality disorder in general, and specifically in an inpatient setting. The review will also examine the psychometric properties of these measures. Specific questions are:

1. What is measured by the measure?
2. Is the measure's definition consistent with the necessary conditions of social dysfunction associated with a diagnosis of personality disorder, namely that it is pervasive and distressing?
3. How practical is the measure to use?
4. What evidence is there for the measure's reliability?
5. What evidence is there for the measure's validity?
6. Are norms for individuals with a diagnosis of personality disorder available for the measure?
7. What evidence is there for the measure's discriminant validity in studies involving individuals with a diagnosis of personality disorder?
8. What evidence is there for the measure's responsiveness in studies involving individuals with a diagnosis of personality disorder?
9. How appropriate is the measure for use in an inpatient setting?

The review was carried out in accordance with the PRISMA reporting guidelines (Moher, Liberati, Tetzlaff, & Altman, 2009)

4.2 Method

4.2.1 Inclusion Criteria

The inclusion criteria for studies in this review were

- an empirical study in which social functioning or a related construct (functioning, psychosocial functioning, social adjustment, social competence, global functioning, functional impairment or social dysfunction) was measured in adults with a diagnosis of personality disorder based on a psychometric assessment of personality disorder or clinical judgement by a psychiatrist;
- published in English;
- participants aged over 18;
- using a measure of social functioning or a related construct; and
- reporting on the relationship between personality disorder and social functioning.

Non-peer-reviewed studies, such as dissertations were not included.

Unstructured interviews were not included because of the difficulty in replication and the lack of psychometric data. Studies that were not published in English and could not feasibly be translated were also not included.

4.2.2 Search Strategy

A systematic electronic search of five databases, PsycInfo, Medline, AMED, CINAHL, and Web of Science, was conducted on 26th August 2014 to identify empirical studies of social functioning, its synonyms (social

adjustment, social competence, global functioning and psychosocial functioning) and antonyms (social dysfunction and functional impairment) in people with a diagnosis of personality disorder published between January 1980 and August 2014. A start date of 1980 was chosen because this marked the publication of DSM-III (American Psychiatric Association, 1980). The databases were searched for the occurrence of the keywords ("personality disorder" AND ("social functioning" OR "social adjustment" OR "social competence" OR "global functioning" OR "functioning" OR "social dysfunction" OR "functional impairment"). The same search terms were used for all the databases.

4.2.3 Study Selection

The author inspected the title and abstract of each reference identified by the search and determined the potential relevance of each article. For potentially relevant articles the full article was obtained and inspected and inclusion and exclusion criteria were applied.

4.2.4 Analysis

The studies selected for inclusion in this review were reviewed by the author using the following criteria to address the questions listed:

4.2.4.1 What is measured by the measure? The primary reference for the measure was inspected to identify a definition of social functioning, impaired social functioning, or one of their synonyms and to identify the domains of functioning covered by the measure.

4.2.4.2 Is the measure's definition consistent with the necessary conditions of social dysfunction associated with a diagnosis of personality disorder? A measure was judged to reflect the pervasive nature of functional impairment if

it measured both interpersonal and occupational functioning. A measure was judged to reflect the distressing nature of functional impairment if it included any items rating either distress or satisfaction associated with social functioning.

4.2.4.3 How practical is the measure to use? Information on practicality, included the length of time the measure takes to administer, its cost and the need for and availability of training.

4.2.4.4 What evidence is there for the measure's reliability? Since none of the studies contained data on the measure's reliability with populations with a diagnosis of personality disorder, evidence for the reliability of each measure was assessed by conducting a systematic electronic search of five databases, PsycInfo, Medline, AMED, CINAHL, and Web of Science, for empirical studies using the measure with any population with mental health problems published between January 1980 and August 2014. The databases were searched for the occurrence of the keywords reliability AND [name of measure].

4.2.4.5 What evidence is there for the measure's validity? Since none of the studies contained data on the measure's validity with populations with a diagnosis of personality disorder, evidence for the validity of each measure was assessed by conducting a systematic electronic search of five databases, PsycInfo, Medline, AMED, CINAHL, and Web of Science, for empirical studies using the measure with any population with mental health problems

published between January 1980 and August 2014¹. The databases were searched for the occurrence of the keywords validity AND [name of measure].

4.2.4.6 Are norms for individuals with a diagnosis of personality disorder available for the measure? Studies were searched for any norms for individuals with a diagnosis of personality disorder.

4.2.4.7 What evidence is there for the measure's discriminant validity in studies involving individuals with a diagnosis of personality disorder? A study was judged to demonstrate evidence for the discriminant validity of a social functioning measure if it reported significantly poorer functioning among participants with a diagnosis of personality disorder than among those without.

4.2.4.8 What evidence is there for the measure's responsiveness in studies involving individuals with a diagnosis of personality disorder? A study was judged to demonstrate evidence for the responsiveness of a social functioning measure if it reported significant improvements in social functioning following some form of treatment for individuals with a diagnosis of personality disorder for which one or more of the primary outcome measures also showed significant improvement.

4.2.4.9 How appropriate is the measure for use in an inpatient setting? Measures were rated on their appropriateness for inpatient settings based on whether their items all describe situations and activities that would generally be found in an inpatient setting.

¹ This review was initially completed in 2012, before the study in chapter 5. However, the study questions were later revised, necessitating a second review. This did not materially affect the design of the study in chapter 5.

4.3 Results

The review process is summarised in Figure 4.1. Electronic searches identified 4169 records, which reduced to 2146 after removing duplicates. Detailed inspection of titles and abstracts by the author resulted in the removal of 1988 records that did not meet the study's inclusion criteria, leaving 158 for which a full copy was obtained. After inspecting these 158 records, 25 were removed. Nineteen studies did not use a published measure of social functioning, four did not involve participants with a diagnosis of personality disorder, and two reported on data that was the same or a subset of data from an earlier study also included in the review.

The remaining 133 studies used 16 different published measures of social functioning. These studies are marked with an asterisk (*) in the Reference section. The names and acronyms of these measures are listed in Table 4.1. Measures fell into three categories: eight self-report measures; five clinician-rating scales based on semi-structured interviews; and three single-item rating scales completed by clinicians either based on interview or file review. Studies were assessed using the Critical Appraisal Skills Programme (CASP) framework (Bradley & Burls, 1999), which provides guidelines on the appraisal of randomised controlled trials and cohort studies. Table 4.2 provides a brief description of each measure.

Figure 4.1. Summary of Review Process

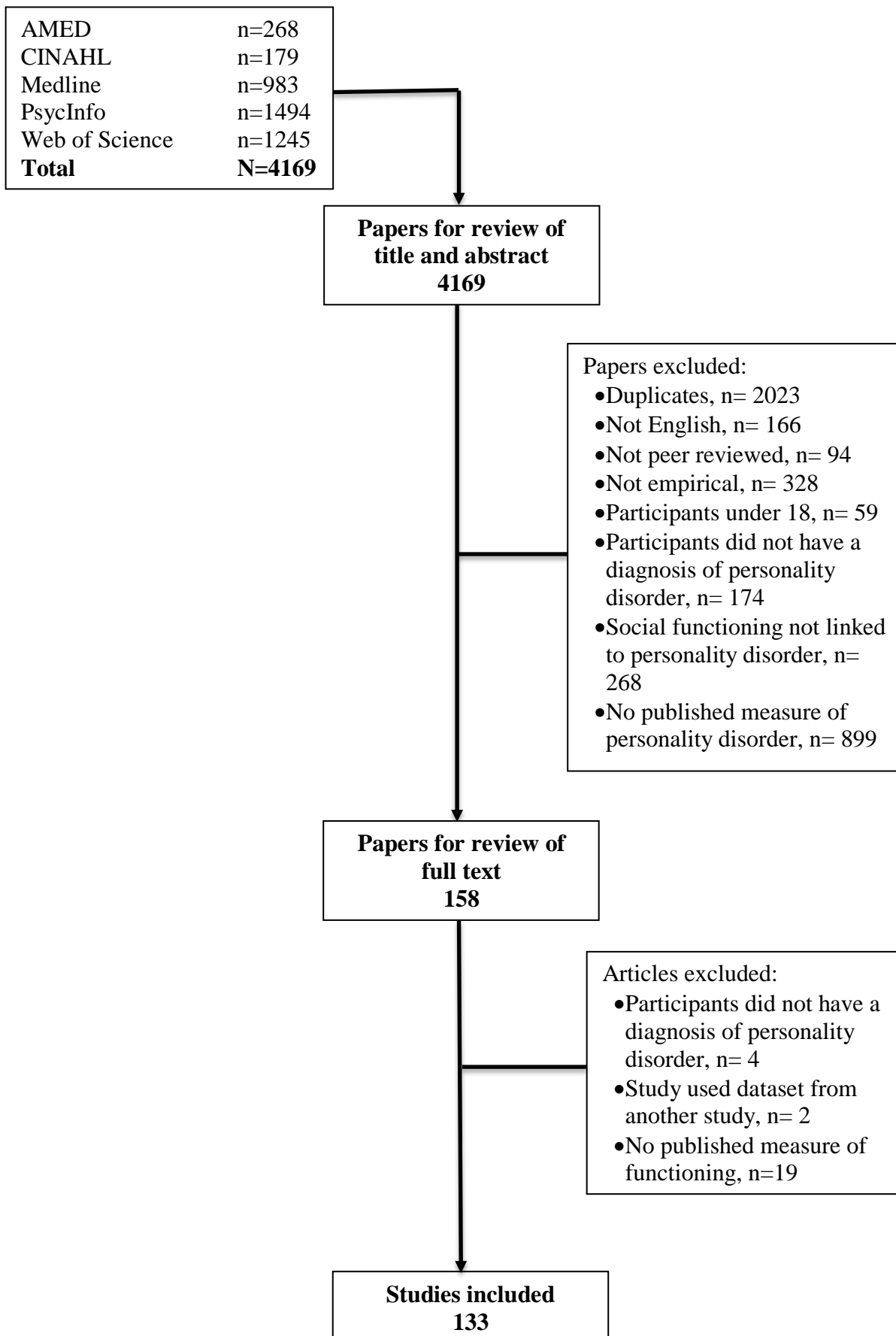


Table 4.1. List of Social Functioning Measures Reviewed

Measure	Acronym	Authors
a) Self-report measures		
Outcome Questionnaire-45	OQ-45	Lambert et al. (1996)
Personality and Social Network Adjustment Scale	PSNAS	Clark (1968)
SF-36	SF-36	Ware, Kosinski, Dewey, & Gandek (2000)
Social Adjustment Scale- Modified	SAS-M	Cooper, Osborn, Gath & Feggetter (1982)
Social Adjustment Scale- Self-Report Version	SAS-SR	Weissman & Bothwell (1976)
Sheehan Disability Scale	SDS	Sheehan, Harnett-Sheehan & Raj (1996)
Social Functioning Questionnaire	SFQ	Tyrer et al. (2005)
Work and Social Adjustment Scale	WSAS	Mundt, Marks, Shear & Greist (2002)
b) Clinician rating scales		
Adult Personality Functioning Assessment	APFA	Hill, Harrington, Fudge, Rutter & Pickles (1989)
Longitudinal Interval Follow-up Evaluation	LIFE	Keller et al. (1987)
Revised Adult Personality Functioning Assessment	RAPFA	Hill et al. (2008)
Social Adjustment Scale- Interview Version	SAS-I	Weissman & Paykel (1974)
Social Functioning Scale	SFS	Remington & Tyrer (1979)
c) Single-item rating scales		
Global Assessment of Functioning	GAF	American Psychiatric Association (2000)
Global Assessment Scale	GAS	Endicott, Spitzer, Fleiss & Cohen (1976)
Social and Occupational Functioning Assessment Scale	SOFAS	Goldman, Skodol & Lave (1992)

Table 4.2. Summary of Functioning Measures

Measure	Description	Definition of functional impairment		Number of studies involving personality disorder (number of different samples) and populations ²	Study design
		Dysfunction is pervasive?	Dysfunction results in distress?		
a) Self-report measures					
OQ-45	45-item self-report questionnaire designed for repeated administration and to assess psychotherapy outcomes	Yes	Yes	6 (5) 5 inpatient 6 outpatient 5 community	4 non-randomised controlled trials 1 cohort study 1 cross-sectional
PSNAS	17-item self-report questionnaire	Yes	Yes	2 (1) 1 day hospital 1 outpatient	2 non-randomised controlled trials
SF-36	36-item self-report measure of general health. Only 2 items relate to social functioning	No	No	4 (4) 1 inpatient 2 outpatient 2 prisoner	1 cohort 3 cross-sectional
SAS-M	45-item self-report questionnaire covering 7 domains of functioning	Yes	Yes	2 (1) 1 day hospital 1 outpatient	2 RCT
SAS-SR	42-item self-report questionnaire covering 6 domains of functioning	Yes	Yes	15 (15) 2 inpatient 13 outpatient	7 RCT 2 non-randomised controlled trials 1 case series 4 cohort 1 cross-sectional
SDS	3-item self-report scale	Yes	Yes	7 (7) 1 inpatient 4 outpatient 2 community	2 RCT 1 non-randomised controlled trial 2 case series 2 cross-sectional

² Numbers of different populations may add up to more than the total number of studies because some studies involved participants from more than one population

SFQ	8-item self-report questionnaire	Yes	Yes	10 (10) 1 day hospital 9 outpatient	7 RCT 1 case series 1 cohort 1 cross-sectional
WSAS	5-item self-report scale of functional impairment attributable to an identified problem	Yes	Yes	2 (2) 1 inpatient 1 outpatient	1 RCT 1 cohort
b) Clinician rating scales					
APFA	Interview-based assessment covering 6 domains of functioning	Yes	Yes	1 (1) 1 community	1 cross-sectional
LIFE	Semi-structured interview covering 7 domains, includes GAF	Yes	Yes	9 (4) 1 inpatient 6 outpatient 2 community	1 RCT 7 cohort studies 1 cross-sectional
RAPFA	Interview-based assessment covering 6 domains of functioning from the APFA, plus a measure of domain disorganisation	Yes	Yes	2 (2) 2 outpatient	2 cross-sectional
SAS-I	Semi-structured interview involving 48 ratings across 6 domains of functioning	Yes	Yes	7 (4) 5 inpatient 2 day hospital 5 outpatient	2 RCT 4 non-randomised controlled trials 1 cross-sectional
SFS	Semi-structured interview. 16 clinician rating scales	Yes	Yes	4 (4) 4 outpatient	1 cohort 3 cross-sectional
c) Single-item rating scales					
GAF	Single-item clinician rating of current functioning	Yes	No	64 (57) 7 inpatient 13 day hospital 42 outpatient 6 community	11 RCT 7 non-randomised controlled trials 15 case series 17 cohort studies 15 cross-sectional
GAS	Single-item clinician rating of	No	No	18 (14)	4 RCT

	current functioning			9 inpatient 1 day hospital 10 outpatient 3 community	6 non-randomised controlled trials 3 case series 3 cohort studies 2 cross-sectional
SOFAS	Single-item clinician rating of current functioning	Yes	No	11 (11) 1 mixed 10 outpatient	4 RCT 5 case series 2 cross-sectional

4.3.1 What is Measured by the Measure?

Table 4.3 shows the domains of functioning covered by each measure. None of the measures provides a definition of social functioning, for example how impairment in functioning is manifested or whether functioning includes elements of stress or satisfaction as well as performance in particular situations. Most measures list the domains of functioning that they cover. However, the GAF, GAS and SOFAS lack both a definition of functioning and a list of domains to consider in judgements about functioning.

All measures cover interpersonal relationships, and, apart from the GAS, all differentiate between family and social relationships. Some scales, such as the different forms of the SAS, also differentiate between different types of family relationship. Most scales, apart from the GAS and SF-36, mention occupational activity, with the LIFE, SAS, SFS and WSAS containing separate items for work, domestic tasks and study. Some measures include ratings of leisure activities (LIFE, OQ-45, SAS, SFQ, SFS, WSAS), while some measures include domains that are not mentioned by others, including negotiations (APFA, RAPFA) domain disorganisation (RAPFA) and financial management (SFQ, SFS).

Table 4.3. Domains Covered by Measures Reviewed in this Study

	Interpersonal relationships				Occupational activities				Self management				
	Sexual	Family	Parenting	Social	Inter-personal	Work, study	House work	Leisure	Self care	Financial	Negotiations	Everyday coping	Domain disorganisation
a) Self-report measures													
OQ-45					✓	✓		✓					
PSNAS		✓		✓		✓							
SDS		✓		✓		✓							
SAS-M	✓	✓	✓	✓		✓	✓	✓					
SAS-SR	✓	✓	✓	✓		✓		✓					
SF-36				✓				✓					
SFQ	✓	✓		✓		✓	✓	✓		✓			
WSAS				✓	✓	✓	✓	✓					
b) Clinician rating scales													
APFA	✓				✓	✓					✓	✓	
LIFE	✓				✓	✓		✓					
RAPFA	✓			✓		✓					✓	✓	✓
SAS-I	✓	✓	✓	✓		✓		✓					
SFS	✓	✓	✓	✓		✓	✓	✓	✓	✓			
c) Single-item rating scales													
GAF		✓			✓	✓							
GAS					✓								
SOFAS		✓			✓	✓							

4.3.2 Do Measures Reflect Impairments in Social Functioning that are Pervasive and Likely to be Distressing?

Most measures reflect impaired functioning in more than one type of interpersonal relationship as well as in occupational activities. The exceptions are the GAS, which only asks about interpersonal relationships and does not specify which types of interpersonal relationships, and the SF-36, which only refers to social activities. Other measures vary in the number of domains of social functioning they cover. The GAF, PSNAS, SDS, and SOFAS cover just three domains: work, family relationships, and other relationships. The rest include these three, but also included domain disorganisation (RAPFA), everyday coping (APFA, RAPFA), financial management (SFQ, SFS), leisure/ recreation (LIFE, SAS-I, SAS-M, SAS-SR, SFQ, SFS, WSAS), negotiations (APFA, RAPFA), romantic/ sexual relationships (APFA, LIFE, RAPFA, SFQ) and self care (SFS).

Most measures involve judgements about the degree of satisfaction or distress experienced by the person, as well as their performance in the task. The exceptions are the GAF, GAS, SOFAS and SF-36, which only measure performance.

4.3.3 Practicality

All the self-report measures reviewed here can be completed in less than 10 minutes, while the semi-structured interviews generally take considerably longer. Single-item clinician ratings (GAF, GAS, SOFAS) vary in how long they take to score, depending on how familiar the rater is with the person being assessed.

Of the self-report measures, the OQ-45, SAS-SR, and SF-36 and their manuals are all published commercially. The SDS and WSAS are freely available online and the PSNAS, SAS-M and SFQ are reproduced in their primary references, though none of these measures have manuals.

All of the clinician rating measures require training in coding responses. Of these measures, the APFA has been superseded by the RAPFA, which is available from its lead author. The lead author states that training is necessary both to administer the interview and to code the information. However, he currently has no plans to deliver training (J. Hill, personal communication, 25th August 2015). No information on the manual or training for the SAS-I or SFS was found, and the most recent studies in this review that used these measures were in 2006 and 2004 respectively. Both measures have been superseded by self-report measures, the SAS-SR and SFQ respectively, and it would appear that training in these measures is no longer available. No information on the manual or training for the LIFE was found. While the LIFE has been used more recently (Morey et al., 2014), all the studies using the LIFE since 2000 have been carried out as part of the Collaborative Longitudinal Personality Disorder Study (CLPS; Skodol, Gunderson et al., 2005), a long-term personality disorder cohort study, and it would appear that training in this measure is no longer available. In summary, with the exception of the RAPFA, neither manuals nor training are available for any of the clinician rating scales.

All three single-item rating scales are available in the primary reference. A number of online training resources are available for the GAF, though none was found for the GAS or SOFAS. It is not clear whether any of the available online training resources for the GAF are sufficiently rigorous to address concerns about inter-rater reliability.

4.3.4 Reliability

The review process for each of the measures is summarised in Appendix C. Data on reliability are summarised in Table 4.4. Only five out of thirteen measures for which it was applicable provided data on internal consistency (OQ-45, SF-36, SDS,

SAS-SR and WSAS). All reported internal consistency coefficients in the acceptable or good range. Internal consistency was not relevant for the three single-item rating scales. Only four measures out of sixteen, the GAF, OQ-45, SF36 and WSAS, reported on test-retest reliability. For the GAF, the test-retest reliability coefficient was at the high end of the questionable range (.69), while for the other measures, coefficients were in the acceptable or good range ($\geq .70$). All of the clinician rating scales, apart from the SFS, reported on inter-rater reliability. While all the measures that reported inter-rater reliability achieved coefficients of .80 or above, some measures showed considerable variability in inter-rater reliability (APFA, GAF, GAS and LIFE). For example, in the case of the GAF, Goldman et al. (1992) and Vatnaland, Vatnaland, Friis, and Opjordsmoen (2007) reported good levels of inter-rater reliability when ratings were completed by trained researchers, but poor reliability between clinicians who had not been trained in the use of the GAF. Söderberg, Tungström, and Armelius (2014) however, reported good inter-rater reliability (.81) among clinicians experienced in using the GAF. Four measures, the PSNAS, SAS-M, SFQ and SFS, provided no reliability data.

Table 4.4. Reliability and Validity of Social Functioning Measures

Measure	Reliability			Construct validity	
	Internal consistency (α)	Test-retest reliability	Inter-rater reliability (ICC)	Convergent validity (r)	Comparative variable (name of measure ³)
a) Self-report measures					
OQ-45 (Doerfler, Addis & Moran, 2002; Lambert et al., 1996; Umphress, Lambert, Smart, Barlow & Clouse, 1997)	.82	.71 over 3 weeks	-	.19 - .72 .78 - .88 .71 - .81 .66 - .81	Symptoms (BASIS-32) Symptoms (SCL-90-R) Social functioning (SAS-SR) Interpersonal functioning (IIP-C)
PSNAS	-	-	-	-	
SF-36 (McHorney, Ware, Lu & Sherbourne, 1994; Ruta, Abdalla, Garratt, Coutts & Russell, 1994; Ware et al., 2000)	.85 for SF items	.87 over 2 weeks	-	-.67 -.41	Social functioning (SIS: SF scale) Social Isolation (NHP: SI scale)
SDS (Leon, Shear, Portera & Klerman, 1992)	.85	-	-	-	
SAS-M	-	-	-	-	
SAS-SR (Edwards, Yarvis, Mueller, Zingale & Wagman, 1978; Weissman, Prusoff, Thompson, Harding & Myers, 1978)	.74	-	-	.59- .84 .36- .72	Symptoms (SCL-90) Depression (HDRS)
SFQ	-	-	-	-	
WSAS (Mundt et al. 2002)	.70 - .94	.73 over 2 weeks	-	.76	Depression (HDRS)
b) Clinician rating measures					
APFA (Mufson et al. 1994)	-	-	.43- .89	-	
LIFE (Warshaw, Keller & Stout, 1994)	-	-	.53- .81	-.57	Global functioning (GAS)
RAPFA (Stepp, Hallquist, Morse & Pilkonis, 2011)			.84	.37	Interpersonal functioning (IIP-C)

³ BASIS-32: Behavior and Symptom Identification Scale (Eisen & Culhane, 1999). BDI: Beck Depression Inventory (Beck, Steer, & Brown, 1996). BSI: Brief Symptom Inventory (Derogatis, 1993). HDRS: Hamilton Depression Rating Scale (Hamilton, 1960). IIP-C: Inventory of Interpersonal Problems- Circumplex Scales (Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). NHP: Nottingham Health Profile (Hunt, McEwen, & McKenna, 1985). SCL-90: Symptom Checklist (Derogatis, Lipman, & Covi, 1977). SCL-90-R: Symptom Checklist- Revised (Derogatis, 1992); SIS: Stroke Impact Scale (Duncan et al. 1999).

				.40	Symptoms (BSI)
				.46	Social functioning (SAS-SR)
SAS-I (Weissman, Paykel, Siegel & Klerman, 1971).	-	-	.80	-	
SFS	-	-	-	-	
c) Single-item rating scales					
GAF (Hilsenroth et al, 2000; Söderberg et al., 2014; Spitzer & Forman, 1979; Vatnaland et al. 2007)	-	.69 over 2 weeks	.39 -.81	-.46 -.31 -.16	Symptoms (SCL-90R) Social functioning (SAS-SR) Interpersonal functioning (IIP-C)
GAS (Dworkin et al., 1990; Sohlberg, 1989)	-	-	.66- .92	-.69 -.54- -.87	Symptoms (SCL-90) Depression (BDI)
SOFAS (Hilsenroth et al., 2000)	-	-	.89	-.37 -.47 -.46	Symptoms (SCL-90R) Social functioning (SAS-SR) Interpersonal functioning (IIP-C)

4.3.5 Validity

The review process for each of the measures is summarised in Appendix D. Data on convergent validity with other mental health-related psychometric measures is summarised in Table 4.4. All measures, with the exception of the APFA, SDS, SAS-I, SAS-M, SFQ and SFS provided evidence of convergent validity with at least one other mental health-related psychometric measure. In the case of the SDS, convergent validity was reported for a number of physical health-related outcome measures, reflecting that the SDS is most commonly used as a physical healthcare outcome measure. The GAF, OQ-45, RAPFA and SOFAS all reported on correlations with the SAS-SR. These correlations ranged in size from moderate (.31) for the GAF to large (.71 to .81) for the OQ-45. Although ranges of correlations were reported for some measures, mean correlations between the self-report social functioning measures and other measures were generally greater than .70, while mean correlations between clinician rating and single-item rating scales and other measures were generally less than .50.

4.3.6 Norms

None of the measures provided norms for populations with a diagnosis of personality disorder.

4.3.7 Discriminant Validity

Data on discriminant validity is summarised in Table 4.5. Studies were judged to demonstrate evidence for the discriminant validity of a social functioning measure if they reported significantly poorer functioning among participants with a diagnosis of personality disorder than among those without. The GAF showed the most evidence of discriminant validity, with 24 studies reporting poorer functioning among individuals with a diagnosis of personality disorder. Seven studies reported similar

findings for the LIFE, five for the SAS-SR, four each for the SF-36, SFQ and SFS, three for the GAS, two for the SDS and SOFAS, one each for the OQ-45, RAPFA, SAS-I and WSAS, and none for the APFA, PSNAS and SAS-M, none of which were used in any cross sectional studies comparing individuals with and without a diagnosis of personality disorder.

4.3.8 Responsiveness

Data on responsiveness is summarised in Table 4.5. Studies were judged to demonstrate evidence for the responsiveness of a social functioning measure when they reported significant improvements in social functioning following some form of treatment for individuals with a diagnosis of personality disorder for which one or more of the primary outcome measures also showed significant improvement. The GAF showed most evidence of responsiveness, with 35 studies reporting significant improvement in social functioning following treatment. Thirteen studies reported similar findings for the GAS, seven each for the SAS-I and SAS-SR, five for the OQ-45 and SFQ, four for the SDS, two for each of the PSNAS and SAS-M, one each for the LIFE and WSAS. Five studies showed evidence of responsiveness for the SOFAS, while another five showed no evidence of responsiveness, which casts doubt on the responsiveness of the SOFAS. No studies reported evidence for responsiveness for the APFA, RAPFA, SF-36, or SFS.

Table 4.5. Discriminant Validity and Responsiveness of Social Functioning Measures

Measure	Evidence for/against discriminant validity	Evidence for/against responsiveness
a) Self-report measures		
Outcome Questionnaire-45	<p>Evidence for Verheul et al. (2007)</p> <p>Evidence against N/A</p>	<p>Evidence for Bales et al (2012); Bartak et al. (2010, 2011a, 2011b); Horn et al. (2015)</p> <p>Evidence against N/A</p>
Personality and Social Network Adjustment Scale	<p>Evidence for N/A</p> <p>Evidence against N/A</p>	<p>Evidence for Petersen et al. (2008, 2010)</p> <p>Evidence against N/A</p>
SF-36	<p>Evidence for Black et al. (2007), Black, Gunter, Loveless, Allen, & Sieleni (2010), Narud et al. (2005), Skodol, Grilo et al. (2005)</p> <p>Evidence against N/A</p>	<p>Evidence for N/A</p> <p>Evidence against N/A</p>
Social Adjustment Scale- Modified	<p>Evidence for N/A</p> <p>Evidence against N/A</p>	<p>Evidence for Bateman & Fonagy (1999, 2001)</p> <p>Evidence against N/A</p>
Social Adjustment Scale- Self-Report Version	<p>Evidence for Lenzenweger et al. (2012), Mulder, Joyce, & Luty (2003), Schiavone, Dorz, Conforti, Scarso, & Borgherini (2006), Najavits & Gunderson (1995), Stepp et al. (2011)</p> <p>Evidence against N/A</p>	<p>Evidence for Bateman & Fonagy (2009), Clarkin et al. (2007), Jørgensen et al. (2013), Linehan et al. (1993, 1994), Villeneuve & Lemelin (2005), Winston et al. (1994)</p> <p>Evidence against Blum et al. (2008)</p>
Sheehan Disability Scale	<p>Evidence for Bellino et al. (2005) Huppert et al. (2008)</p>	<p>Evidence for Gratz & Tull (2011), Huppert et al. (2008), Pozzi et al. (2008), Zanarini et al. (2011)</p>

	Evidence against Kose et al. (2009)	Evidence against Zanarini & Frankenberg (2008)
Social functioning Questionnaire	Evidence for Newton-Howes, Tyrer & Weaver (2008), Seivewright, Tyrer & Johnson (2004), Tyrer, Merson, Onyett, & Johnson (1994), Pagan, Oltmanns, Whitmore, & Turkheimer (2005)	Evidence for Barr et al. (2010,) Davidson et al. (2006), Huband, et al. (2007), Ranger et al. (2009), Tyrer et al. (2011)
	Evidence against N/A	Evidence against N/A
Work and Social Adjustment Scale	Evidence for Fortune et al. (2011)	Evidence for Bamelis et al. (2014)
	Evidence against N/A	Evidence against N/A
<hr/> b) Clinician rating scales <hr/>		
Adult Personality Functioning Assessment	Evidence for N/A	Evidence for N/A
	Evidence against N/A	Evidence against N/A
Longitudinal Interval Follow-up Evaluation	Evidence for Ansell et al. (2007), Dunayevich et al. (2000), Gunderson et al. (2006, 2011), Markowitz et al. (2007), Morey et al. (2014), Skodol, Pagano et al. (2005)	Evidence for Linehan et al. (1994)
	Evidence against N/A	Evidence against N/A
Revised Adult Personality Functioning Assessment	Evidence for Hill et al. (2008) Stepp et al. (2011)	Evidence for N/A
	Evidence against N/A	Evidence against N/A

Social Adjustment Scale- Interview Version	<p>Evidence for N/A</p> <p>Evidence against N/A</p>	<p>Evidence for Chiesa et al. (2002, 2004, 2006), Chiesa & Fonagy (2000, 2003), Linehan et al. (1993), Piper et al. (1993)</p> <p>Evidence against N/A</p>
Social Functioning Scale	<p>Evidence for Casey & Tyrer (1986), Casey, Tyrer & Platt (1985), Patience et al. (1995)</p> <p>Evidence against Casey et al. (2004)</p>	<p>Evidence for N/A</p> <p>Evidence against N/A</p>
c) Single-item rating scales		
Global Assessment of Functioning	<p>Evidence for Bahorik & Eack (2010), Byrne, Henagulph, McIvor, Ramsey & Carson (2014), Coles et al. (2008), Garyfallos et al. (1999), Hummelen et al. (2007), Johnson et al. (1996), Johnson, Rabkin, Williams, Remien & Gorman (2000), Kvarstein & Karterud (2012), Lenzenweger et al. (2012), Markowitz et al. (2007), Morey et al. (2014) Nakao et al. (1992) Narud et al. (2005), Norén et al. (2007), Ozkan & Altindag (2005), Razzouk, Bordin & Jorge (2000), Rowe et al. (2008), Rowe et al. (2011), Skodol, Oldham & Gallaher (1999), Skodol, Johnson, Cohen, Sneed & Crawford (2007), Stevenson et al. (2011), Tillfors, Furmark, Ekselius & Fredrikson (2004), Wilberg et al. (2008, 2009)</p> <p>Evidence against Asnaani, Chelminski, Young, & Zimmerman (2007)</p>	<p>Evidence for Amianto et al. (2011), Arnevik et al. (2009, 2010), Bamelis et al. (2014), Bateman & Fonagy (2009), Benedetti et al. (1998), Bohus et al. (2004), Bond & Perry (2006), Chengappa, Ebeling, Kang, Levine and Parepally (1999), Clarkin et al. (2007), Doering et al. (2010), Farrell et al. (2009), Gratz, Lacroce, & Gunderson (2006), Gunderson et al. (2011), Halsteinli et al. (2008), Jørgensen et al. (2013), Junkert-Tress et al. (2001), Karterud et al. (2003), Leirvåg, Pedersen & Karterud (2010), Lorentzen and Høgglend (2003), Miyaoka et al. (2008), Perrella et al. (2007), Petersen et al. (2008, 2010), Pozzi et al. (2008), Prendergast & McCausland (2007), Rocca et al. (2002), Schulz et al. (1999), Simpson et al. (2004), Van Orden, Gordon, Counts-Allan, James, Caron & Joiner (2011), Villeneuve & Lemelin (2005), Vinnars et al. (2005), Wilberg et al. (1998, 1999, 2003)</p> <p>Evidence against Zanarini et al. (2011)</p>
Global Assessment Scale	<p>Evidence for Black, Baumgard & Bell (1995), Najavits & Gunderson (1995), Reich (1993)</p> <p>Evidence against Plakun, Burkhardt & Muller (1985)</p>	<p>Evidence for Chiesa et al. (2002, 2004, 2006), Chiesa & Fonagy (2000, 2003), Frankenburg & Zanarini (1993), Gruettert & Friege (2005), Hollander et al. (2001), Korner, Gerull, Meares & Stevenson (2006), Linehan et al. (1993, 1994, 1999), Salzman et al. (1995)</p>

Social and Occupational Functioning Assessment Scale	Evidence for Bellino, Patria et al. (2005), Coles et al. (2008)	Evidence against N/A
	Evidence against N/A	Evidence for Bamelis et al (2014), Bellino et al. (2006, 2011), Bellino, Paradiso et al. (2010), Bellino, Rinaldi et al. (2010)
		Evidence against Bellino et al. (2007, 2008, 2014), Bellino, Paradiso et al. (2005), Bellino, Rinaldi et al. (2010)

A caveat must be expressed about the apparent responsiveness of the single-item clinician rating scales, the GAF, GAS and SOFAS. Thirty-four clinical trials in this review used the GAF as an outcome measure. In 16 of these studies, pre- and post-treatment ratings were both made by the treating clinician, and were therefore potentially open to bias. In only eight studies were blind ratings made by independent raters, while in the other ten studies the rating process was not described. No studies using the GAS or SOFAS described treating clinicians making ratings, though again, in many cases, the rating process was not fully described.

4.3.9 Appropriateness for Inpatient Settings

None of the measures were designed specifically for inpatient populations, though most measures have been used in both inpatient and community settings, with the exception of the APFA, RAPFA and SFS, which were only used in community settings.

The wording of a number of measures makes them unsuitable for inpatient settings, particularly long-term institutions. For example, the SF-36 refers to physical activities that would be unlikely to occur in inpatient settings, such as carrying groceries, playing golf or walking more than a mile. Over half the items in all three versions of the SAS refer to family relationships, which are likely to be of limited relevance in long-term inpatient settings, while a number of other measures (APFA, LIFE, RAPFA, SFQ) refer to sexual relationships, which are also likely to be of limited relevance in inpatient settings.

The GAS instructs raters to “[r]ate actual functioning independent of whether or not subject is receiving and may be helped by medication or some

form of treatment”. This is likely to lead to overestimates of functioning in inpatients requiring high levels of support. This may not matter for studies where participants stay in the same location. However, in some studies that used the GAS (Chiesa & Fonagy, 2003, Chiesa, Fonagy, & Holmes, 2006), participants were treated as inpatients and followed up after discharge, and in these studies the GAS would be likely to underestimate improvements in functioning.

4.4 Discussion

This review raises a number of issues for researchers and clinicians to consider in selecting a measure of functioning in populations with a diagnosis of personality disorder.

4.4.1 Definition and Measurement

None of the measures of functioning reviewed here provides an explicit definition of what they are measuring, and users must therefore infer the definition from each measure’s content and scope. Most measures of social functioning cover social, family and intimate relationships, employment and leisure activities. However, some also include other areas such as self-care, leisure and recreational activities (Mueser & Tarrier, 1998; Tyrer, 1993). On the whole, these areas are not defined, so it is not always clear whether, for example, functioning in work or leisure relates specifically to the interpersonal aspects of these activities, or includes other elements such as technical competence or conscientiousness. Some measures also include ratings of the subjective degree of satisfaction or distress associated with activities and roles, as well as ratings of the individual’s ability to engage in those activities and

roles. As Remington and Tyrer (1979) point out, this allows respondents to report on how stressful they find a role, as well as their level of performance in that role. Since measures vary in the areas of functioning they cover, and in the relative importance of different areas of functioning, users should select measures that most closely match their hypotheses (see Table 4.3). Researchers and clinicians should consider using more than one measure of functioning, preferably of different modalities, in order to measure different aspects of functioning.

Several of the measures reviewed measure social functioning idiosyncratically or in ways that may be problematic with an inpatient population. Both the GAF and GAS combine an assessment of symptoms and social functioning (Bacon, Collins & Plake 2002; Goldman, Skodol & Lave, 1992; Hilsenroth et al. 2000). The use of a single scale carries an implicit assumption that, if psychological and social functioning were rated separately, individuals' scores on both scales would be similar. However, this equivalence could lead to anomalies; for example an individual who engages in deliberate self-harm to manage distress, but otherwise demonstrates good psychological and social functioning would be rated lower than someone whose behaviour was considerably influenced by delusions or hallucinations and who stays in bed all day.

The SAS-I uses apparently arbitrary norms against which to judge social functioning (McDowell, 2006; Platt, 1981; Tyrer, 1991). For example, it suggests that the "typical" person will have between five and eight close friends, or that the "typical" single person will date once or twice a week. The authors provide no evidence for such norms, and assume that the same norms

apply universally, regardless of cultural, generational or socio-economic factors.

The LIFE also has an anomalous definition of social functioning. LIFE ratings of occupational functioning are described as reflecting impairments due to mental health problems, whereas ratings of interpersonal functioning are described as reflecting the “usual level of social adjustment” (Keller et al., 1987, p.543). The authors do not explain why social and occupational functioning are judged differently.

Social functioning in people with personality disorder is poorly defined. Researchers and clinicians seeking to use social functioning measures with people with this diagnosis should have a clear definition of what they are measuring. In particular, they should select a measure that reflects the pervasive and distressing nature of impaired social functioning associated with a diagnosis of personality disorder. The GAS and SF-36 do not reflect its pervasiveness, while the GAF, GAS, SOFAS and SF-36 do not reflect its distressing nature.

4.4.2 Psychometric Issues

In selecting appropriate measures, researchers and clinicians should be aware that basic data on the reliability of some measures is not available, and should use these measures with caution. Measures vary considerably in the degree to which convergent and discriminant validity and sensitivity have been reported. Users should consider which forms of validity are most important to them and select measures with the strongest record of that type of validity.

Data on the internal consistency, test-retest reliability and inter-rater reliability were lacking for a number of measures. Of the self-report measures,

only the OQ-45, SF-36 and WSAS provided data on internal consistency and test-retest reliability. Of the clinician rating measures, all except the SFS provided inter-rater reliability data and none provided internal consistency data. Inter-rater reliability data was available on all the single-item rating scales, but only the GAF provided test-retest reliability data.

Data on convergent validity with other measures was available for most measures, most commonly with measures of psychiatric symptoms, depression and interpersonal functioning. Several measures reported on convergent validity with the SAS-SR, with correlations ranging from weak ($-.31$ for the GAF) to strong ($.71$ to $.81$ for the OQ-45). No data on convergent validity with other measures was available for the PSNAS, SAS-M, SFQ, APFA or SFS.

4.4.3 Practical Issues

Assessments based on semi-structured interviews are time consuming and require training, but can provide rich, qualitative data on multiple domains of functioning and interactions between symptoms, the environment and functioning. They are often better suited to research than to clinical applications. Self-report measures and single-item clinician ratings are simpler to use and have been reported to be more responsive to change (Endicott et al., 1976; Stepp et al., 2011), though generally provide a less detailed measure of overall functioning, and appear better suited to clinical settings. In general, they show higher rates of convergent validity with other psychometric measures. Single-item clinician rating scales, particularly the GAF, have been widely used for all types of research because of their ease of use, their association with DSM-IV and their widespread use in mental health settings. However, their reliability is dependent on effective inter-rater reliability training (Goldman et

al., 1992, Vatnaland et al., 2007), and they may be less reliable when used in clinical settings, unless clinicians are fully trained in their use. While ratings carried out by treating clinicians who know participants may be more accurate than blind ratings, they are also more open to bias. While clinician rating should ideally be carried out blind, particularly in treatment trials, this may well lead to a reduction in their accuracy.

Self-report measures generally require minimal training to administer. Clinician rating scales and single-item scales all require training in their scoring. Such training is not available for a number of measures that have been superseded.

4.4.4 Appropriateness for Individuals with a Diagnosis of Personality Disorder

A number of self-report measures (OQ045, SF-36, SDS and WSAS) were originally designed to measure functional impairment due to a particular physical or mental health condition, and specifically ask respondents to what extent their functioning has been impaired by that condition. This approach seems better suited to acute conditions where respondents can reflect relatively easily on the impact of the condition on their functioning. However, respondents with chronic personality problems are unlikely to be able to reflect on the effect of chronic or life-long symptoms on their functioning. These measures are therefore probably not suitable for use with individuals with a diagnosis of personality disorder.

4.4.5 Appropriateness for Inpatient Settings

While most measures have been used in inpatient settings, none was designed for this purpose. In inpatient settings, relationships with care staff and

with other patients are considered important, but neither of these categories exactly match the domains of these measures. Key occupational activities will include psychological and occupational therapies, which also do not match the domains assessed by existing measures. Finally, inpatients are likely to have significantly greater impairments in functioning than those who are able to live in the community, so the fact that a measure is valid in community settings does not necessarily mean that it will also be valid in an inpatient setting.

4.4.6 Other Issues

A number of measures have been superseded. The GAS and SFS have been superseded by the GAF and SFQ respectively. The GAF itself has also now been superseded by the WHO Disability Assessment Scale (WHODAS; World Health Authority, 2012), though no studies using the WHODAS met the inclusion criteria for this study. Furthermore, the WHODAS is not a pure measure of social functioning as it also measures domains such as communication, mobility and self-care. It also contains a mixture of general items that ask how well the individual functions in general, and items that specifically ask about the impact of a health condition on functioning.

4.4.7 Limitations

Decisions about which studies to include exclude were made by the author alone and were not reviewed by another researcher. The reliability of these decisions cannot therefore be assessed. While efforts have been made to make this review as comprehensive as possible, it has not included unpublished measures. Given the paucity of definitions of social function, and the number of closely related concepts that have been included in this review, it is also possible that measures of different, but closely related concepts may have been

missed. The search for information on the reliability and validity of measures may have missed studies that referred to “psycho metric properties” or other summary terms.

This review has not considered the quality of research in the studies it reviewed. However, in the absence of previous systematic reviews of social functioning measures, it has reviewed as wide a range of measures as possible.

4.5 Conclusions

The original purpose of this review was to select a social functioning measure for research in detained adults with a diagnosis of personality disorder. The strengths and weaknesses of the measures reviewed in this chapter are summarised in Table 4.6. Of the self-report measures, the OQ-45, SDS, SF-36 and WSAS are all designed for assessing people with acute conditions and are not suitable for assessing functioning in people with chronic conditions such as personality disorders. Of the others, the PSNAS, SAS-M and SFQ have little or no data on reliability or validity, and this data would need to be collected if one of these measures were to be used in an inpatient setting. The SAS-SR is the only self-report measure with adequate data on reliability and validity, though its emphasis on family relationships means that it would need to be adapted for use in a long-term inpatient setting. Indeed, the poor match between the content of the self-report measures reviewed here and the lived experiences of patients in a long-term inpatient setting means that all the self-report measures would need to be adapted for use in such a setting.

While all the clinician rating measures require training in coding responses, the RAPFA was the only one for which such training is available. There is no published evidence that the RAPFA is responsive to change in

people with a diagnosis of personality disorder, and its usefulness as an outcome measure is therefore questionable.

Single item rating scales need little or no modification for use in research in inpatient settings, though the need for training to establish inter-rater reliability makes them less practical than self-report measures for use across different settings or for evaluating outcomes in routine clinical practice.

Table 4.6. Strengths and Weaknesses of Social Functioning Measures used with People with a Diagnosis of Personality Disorder

Measure	Strengths	Weaknesses
a) Self-report measures		
OQ-45	<ul style="list-style-type: none"> • Commercially available • Quick to administer • No training required 	<ul style="list-style-type: none"> • Designed for acute conditions
PSNAS	<ul style="list-style-type: none"> • Freely available • Quick to administer • No training required • Wording largely appropriate for inpatient settings 	<ul style="list-style-type: none"> • No data on reliability or validity
SF-36	<ul style="list-style-type: none"> • Commercially available • Quick to administer • No training required 	<ul style="list-style-type: none"> • Designed for acute conditions • Does not reflect pervasive or distressing nature of impairment • Wording makes it impractical for inpatient setting • No evidence of responsiveness with personality disorder populations
SAS-M	<ul style="list-style-type: none"> • Freely available • Quick to administer • No training required 	<ul style="list-style-type: none"> • No data on reliability • Emphasis on family relationships makes it impractical for inpatient setting
SAS-SR	<ul style="list-style-type: none"> • Commercially available • Quick to administer • No training required • Most widely validated against other measures of functioning 	<ul style="list-style-type: none"> • Emphasis on family relationships makes it impractical for inpatient setting
SDS	<ul style="list-style-type: none"> • Freely available • Quick to administer • No training required 	<ul style="list-style-type: none"> • Designed for acute conditions
SFQ	<ul style="list-style-type: none"> • Freely available • Quick to administer • No training required 	<ul style="list-style-type: none"> • No data on reliability or validity • Wording makes it impractical for inpatient setting
WSAS	<ul style="list-style-type: none"> • Freely available online • Quick to administer • No training required 	<ul style="list-style-type: none"> • Designed for acute conditions
b) Clinician rating measures		
APFA		<ul style="list-style-type: none"> • Wording makes it impractical for inpatient setting • Superseded by RAPFA • No evidence of responsiveness with PD

		populations
LIFE		<ul style="list-style-type: none"> • Wording makes it impractical for inpatient setting • Different criteria applied to social and occupational functioning • Training not available
RAPFA	<ul style="list-style-type: none"> • Available from lead author 	<ul style="list-style-type: none"> • Wording makes it impractical for inpatient setting • No evidence of responsiveness with PD populations
SAS-I		<ul style="list-style-type: none"> • Uses arbitrary norms • No data on reliability • Emphasis on family relationships makes it impractical for inpatient setting • Training not available
SFS	<ul style="list-style-type: none"> • Covers a wide range of functioning domains 	<ul style="list-style-type: none"> • Superseded by SFQ • No data on reliability or validity • No evidence of responsiveness with PD populations
c) Single-item rating scales		
GAF	<ul style="list-style-type: none"> • Freely available • Training available online • Widely used • Most reliability & validity data available • Most evidence of responsiveness with PD populations • Wording appropriate for inpatient settings 	<ul style="list-style-type: none"> • Not a true measure of social functioning as it combines rating of symptoms and functioning • Inter-rater reliability requires adequate training, not clear that available online training is sufficient • superseded by WHODAS
GAS	<ul style="list-style-type: none"> • Wording appropriate for inpatient settings 	<ul style="list-style-type: none"> • Does not reflect pervasive or distressing nature of impairment • Rates functioning independent of treatment • Superseded by GAF • Training not available
SOFAS	<ul style="list-style-type: none"> • Wording appropriate for inpatient settings 	<ul style="list-style-type: none"> • Does not reflect distressing nature of impairment • No training available • No data on reliability • Ambiguous data on responsiveness

Since the different approaches to measuring social functioning have different strengths and weaknesses and measure different aspects of social functioning, it would be advisable to select two different forms of social functioning measure for this thesis. The GAF was selected on the basis of its applicability to inpatient settings, its extensive evidence base, the availability of training and its practicality. The GAF does, nevertheless, have significant drawbacks; not only does it conflate psychological and social functioning, it

also uses a single item to rate impairment that, by definition, affects multiple domains of functioning; and it is unable to measure the degree of distress or satisfaction that the respondent feels about his or her social functioning. This subjective element of social functioning, which is an important consideration in individuals with a diagnosis of personality disorder, can be assessed using a self-report measure. Given the significant drawbacks associated with all the self-report measures reviewed here, a new self-report measure needs to be developed, specifically for use in inpatient settings, that addresses the limitations of other self-report measures in this setting. The construction and validation of this measure are described in Chapter 5.

5. The Development of a Self-Report Social Functioning Measure for Forensic Inpatients

This chapter is based on the following publication:

Willmot, P., & McMurren, M. (2015). Development of a self-report measure of social functioning for forensic inpatients. *International Journal of Law and Psychiatry*, 39, 72-76.

Abstract

Purpose. There are currently no social functioning measures specifically for forensic or other inpatients with a diagnosis of personality disorder. This paper describes the development and validation of the Hospital Social Functioning Questionnaire (HSFQ), a self-report measure of social functioning for forensic inpatients.

Method. A focus group of patients assisted in the design of the HSFQ. A sample of 54 male forensic inpatients with a diagnosis of personality disorder completed the HSFQ. A subsample of 14 patients completed the HSFQ again two weeks later as a reliability check. For validation purposes, information was collected on a range of measures indicative of social functioning, namely self-report measures of psychological wellbeing and symptoms, recorded incidents of self-harm and aggression, clinicians' ratings of global functioning, and clinically assessed personality disorder severity.

Results. The HSFQ showed good internal consistency and test-retest reliability, good concurrent validity with self-report measures of personality pathology, other symptoms and psychological wellbeing, but only a moderate correlation

with clinician-rated global functioning and with frequency of self-harm and aggressive behaviour.

Conclusions. The HSFQ is a potentially useful assessment of social functioning in secure and other inpatient settings. The HSFQ and GAF measure different aspects of social functioning and appear to complement each other.

5.1 Introduction

The revision of the DSM and ICD diagnostic criteria for personality disorder has drawn attention to the assessment of personality disorder severity. The DSM-5 alternative model for personality disorders (American Psychiatric Association, 2013) proposes that severity of personality disorder should be measured in terms of self- and interpersonal functioning. Self functioning is defined as the stability and accuracy of the sense of self and the ability to pursue coherent and meaningful goals, while interpersonal functioning is defined as the ability to empathize, and to form and maintain close, mutual interpersonal relationships. In the new DSM-5 classification system, each of these aspects of self and interpersonal functioning is rated for severity on a five-point scale. Tyrer et al. (2011) propose an alternative severity scale for ICD-11. They argue that persistent and pervasive interpersonal and social dysfunction is both a defining feature and the core of personality disorder and their severity scale assesses this dysfunction. Although Tyrer et al. acknowledge the importance of a dysfunctional sense of self in personality disorder, they consider its measurement to be too complex to be clinically useful. However, both systems define severity of personality disorder in terms of social functioning.

This chapter describes the development of a new measure of social functioning for use with inpatients with a diagnosis of personality disorder. As discussed in chapter 4, existing measures of social functioning fall into three categories: self-report measures, clinician rating scales based on semi-structured interviews, and single-item rating scales. Since each category has different strengths and weaknesses, and since measures reflect different aspects of social functioning, combining different methods of assessment is advisable. Single-item rating scales have the largest evidence base and can be used in inpatient settings without modification. However, they are unable to measure the degree of distress or satisfaction that the respondent feels about his or her social functioning. Self-report measures can assess this subjective element of social functioning, which is an important consideration in individuals with a diagnosis of personality disorder. Existing self-report measures of social functioning assess functioning across a number of domains that reflect the demands of independent living in the community. However, there is a mismatch between the domains assessed by these measures and the lived experiences of psychiatric inpatients, and particularly forensic inpatients, whose opportunities to engage in activities such as employment, family interactions, and intimate relationships are both limited and highly controlled. Moreover, most interpersonal interactions for these patients will be with mental health professionals or other patients, neither of whom match any of the categories referred to in existing measures. A measure for use in forensic inpatient settings should therefore more closely reflect the experiences and demands encountered by forensic inpatients. In order to do this, a new measure was developed in

consultation with patients in a high secure hospital who were diagnosed with personality disorder.

Based on the premise that good social functioning is associated with good psychological health and wellbeing (Casey, Tyrer & Platt, 1985; Weissman, Myers & Harding, 1978), the concurrent validity of the new measure was examined by correlating its scores with other measures indicative of social functioning, namely self-report measures of psychological wellbeing and symptoms, recorded incidents of self-harm and aggression, clinicians' ratings of functioning, and clinically-assessed personality disorder severity. It was hypothesized that participants' level of functioning, as measured by the new measure would show a positive correlation with clinicians' assessment of functioning, and negative correlations with measures of psychological distress, personality pathology, self-harm and aggressive behaviours. Internal consistency and test-retest reliability were also examined.

5.2 Construction of the Hospital Social Functioning Questionnaire (HSFQ)

The Responsible Clinicians for the pre-discharge ward were informed that their patients would be approached to take part in the focus group, and were asked to confirm that these patients met the study's inclusion criteria. The author attended a ward community meeting where he distributed a participant information sheet, explained the purpose of the study and the focus group and asked for volunteers to join the focus group. It was explained that attendance was voluntary and that participants could withdraw at any point before or during the focus group. It was also explained that data gathered from the focus group would not be placed in any of their clinical records or assessments (apart

from a brief entry in their multidisciplinary notes to document their participation and whether any risk issues were raised). Seven patients volunteered to participate.

The focus group met on three occasions, each lasting approximately one hour. At the start of each session, the author explained the purpose and process of the focus group, and patients who still wished to participate signed a consent form. All seven participants attended the first session, six attended the second session and five attended the third session.

In the first session, the focus group was presented with the following definition of social functioning which was adapted from Tyrer and Casey (1993); “social functioning is the level at which a person is able to carry out a range of important everyday activities including basic living skills, work, leisure, friendships, family and intimate relationships”.

Participants were presented with a list of twelve domains of social functioning measured in existing measures of social functioning in a community setting (family relationships, housework, money, negotiations, parenting, recreation and leisure, relationships with partner, self-care, sexual functioning, social relationships, study, and work). They were first asked to reword any domain names to make them more relevant for psychiatric inpatients. The group reworded the item “housework” as “looking after living environment” and divided “social relationships” into “social relationships with staff” and “social relationships with patients”. They also added three domains that were not covered by the existing items. These were “professional relationships with staff”, “spiritual needs”, and “managing stress”. They were

then asked to individually rate the importance of each domain, in describing social functioning in a hospital setting, on a scale of 0 to 10.

Ten domains (housework, self-care, finance, work, recreation, family relationships, social relationships with staff, social relationships with patients, professional relationships, and managing stress) were rated as relevant to the inpatient setting by all participants. The average rating of importance for these domains ranged between 8.0 and 9.7. The other six domains (study, relationships with partner, parenting, sexual functioning, negotiations, and spiritual needs) were not rated as relevant by two or more participants. The average rating of importance for these domains ranged between 1.8 and 6.8). The group agreed to the removal of these domains from subsequent discussions since they were not regarded as relevant by all the group members.

In the second focus group session, the group was asked to describe good institutional social functioning in each of the ten remaining domains. Their responses are listed in Table 5.1. Within each of these domains, the focus group was also asked to identify those descriptors that they thought were particularly representative of good social functioning, and to compose a questionnaire item for each of these descriptors . These items are identified in Table 5.1 with a *.

Table 5.1. Focus Group Results

Domain of social functioning	Descriptions	HSFQ Item
Looking after living environment	*Keeping room clean	My room is a mess.
	Having a routine	
	Keeping ward clean	
Self care	*Good personal hygiene	I don't care about my appearance. I care about my health.
	Taking medication	
	Dressing appropriately	
	Healthy diet	
	Looking after teeth	
	Attending gym	

	Keeping fit Washing your clothes Showering daily	
Finance	Knowing how much money you've got *Being able to budget Saving money Knowing the value of money	I find it hard to budget.
Work (daycare)	Keeping yourself busy *Enjoying work *Being motivated to work *Having long term goals Learning new skills	I enjoy day care activities.
Leisure & hobbies	Keeping fit and healthy *Being able to manage own time, having structure Being able to relax Being able to socialise Enjoying other people's company	I find it hard to relax.
Family Relationships	*Being able to turn to family for support *Keeping in regular contact Family motivating you, giving you a reason to carry on *Caring for and loving family Respect; being there for them, listening to them, appreciating them. Understanding them Enjoying visits	I have family and friends outside hospital that I care about.
Social relationships with staff / patients	Being a good role model Being friendly Good communication Considerate Socialising Interacting, playing games Common interests Good banter Being able to open up Looking out for people Accepting help Telling jokes Not taking advantage Spending time with people	There are members of staff that I enjoy spending time with. There are patients that I enjoy spending time with.

Professional relationships with staff	Using named nurse sessions Trusting MDT Being open and honest Attending therapy sessions *Learning, remembering and using skills from therapy Being confident with MDT Allowing people to make mistakes *Being able to repair relationships when things go wrong Challenging appropriately Taking responsibility Taking on advice	When I have a problem with someone in my clinical team, we are able to sort it out without falling out. I am able to use the skills I pick up in therapy.
Managing stress		I find it hard to cope with stress.

Thematic analysis of the focus group's descriptors by the author and an experienced clinical psychologist (Braun & Clarke, 2006) identified the following superordinate themes:

- having a routine;
- having long term goals;
- keeping motivated;
- enjoying activities;
- enjoying contact with others; and
- being able to use support.

Based on the results of the focus group, the author then generated a questionnaire item based on the most important descriptor for each domain and a questionnaire item based on each of the superordinate themes (Table 5.2).

Two domains required two items to represent them. The 11 items generated by participants in table 5.1 and the seven items generated by the author in table 5.2 made up the first draft of the HSFQ. Eleven items were positively worded and seven items negatively worded. The order of items was randomized and a four-

point scale added (0 = most of the time, 1 = quite often, 2 = sometimes, 3 = not at all).

Table 5.2. Superordinate Themes from Thematic Analysis of Focus Group Responses

Theme	HSFQ item
Having a routine	I have a clear routine
Having long term goals	I know what I want to be doing in 12 months time.
Keeping motivated	I find it hard to keep motivated at things.
Enjoying activities	I feel bored in my spare time.
Enjoying contact with others	I prefer being on my own to being with other people.
Being able to use support	There are people in this hospital that I can turn to when I am struggling. I have friends and family outside the hospital that I can turn to when I am struggling. ⁴

In the third focus group session, participants were asked to complete the draft questionnaire and to comment on its ease of use and clarity. They agreed that the wording was clear, the timescale (the last month) was appropriate and the response options clear. The wording of one item (I don't care about my appearance) was changed because its negative wording was confusing for some participants.

The group were then asked whether they felt the questions reflected the descriptions of good social functioning they had previously suggested. They suggested the inclusion of one additional item (I have friends and family outside the hospital that I can turn to when I am struggling). This item is included in the final draft of the HSFQ in table 5.3.

5.3 Testing the Reliability and Validity of the HSFQ

5.3.1 Design

The study was cross-sectional in design. A sample size calculation was carried out using STPLAN software version 4.5. Assuming a significance level of .05, a power of .80 and a small to medium level of correlation between variables (.40), a sample size of 46 was indicated to obtain reliable correlations.

5.3.2 Participants

Participants were male patients in the personality disorder treatment services of a high secure psychiatric hospital. Potential participants were excluded if they lacked the mental capacity to give informed consent to participate in the study or were unable to comprehend research procedures. From a total of 105 male patients with a primary diagnosis of personality disorder, 54 (51.43%) agreed to participate. All were detained under the Mental Health Act and had been assessed as meeting the criteria for one or more personality disorders using the International Personality Disorder Examination, DSM-IV version (IPDE; Loranger, 1999).

5.3.3 Measures

5.3.3.1 Patient information. Information on participants' age, date of admission, axis I diagnoses, and personality pathology was collected from files. Personality disorder is routinely assessed on admission to the service using the IPDE, a structured clinical interview. Thereafter, personality disorder pathology is assessed regularly using the self-report Personality Assessment Inventory (PAI; Morey, 2007). Here, IPDE information is used to describe the sample, but data from the two PAI scales measuring personality pathology, the antisocial

⁴ Item added by focus group after testing the draft questionnaire.

and borderline scales, were used in the analysis to reflect more current personality pathology.

5.3.3.2 Hospital Social Functioning Questionnaire (HSFQ). The HSFQ is presented in Table 5.3. To score the HSFQ items 1, 3, 4, 5, 6, 7, 8, 9, 11, 15, 16, and 19 are reverse-scored and the item scores added together. Higher scores correspond to better functioning.

Table 5.3. The Hospital Social Functioning Questionnaire (HSFQ)

For each item, please tick the response that best describes how you have felt over the last month.

0: Most of the time

1: Quite often

2: Sometimes

3: Not at all

-
1. I have a clear routine.
 2. I find it hard to relax.
 3. I have friends and family outside the hospital that I can turn to when I am struggling.
 4. There are people in this hospital that I can turn to when I am struggling.
 5. I have family and friends outside hospital that I care about.
 6. I care about my appearance.
 7. There are patients that I enjoy spending time with.
 8. When I have a problem with someone in my clinical team, we are able to sort it out without falling out.
 9. I care about my health.
 10. I run out of money.
 11. I know what I want to be doing in twelve months time.
 12. I find it hard to cope with stress.
 13. My room is a mess.
 14. I find it hard to keep motivated at things.
 15. I am able to use the skills I pick up in therapy.
 16. There are members of staff that I enjoy spending time with.
 17. I prefer being on my own to being with other people.
 18. I feel bored in my spare time.
 19. I enjoy day care activities.
-

5.3.3.3 General Health Questionnaire (GHQ-12; Goldberg, 1992). The GHQ-

12 is a 12-item self-report measure of psychological wellbeing that is widely used in non-forensic community-based clinical practice, epidemiological studies, and research (Hankins, 2008). Each item is scored on a scale of 0 to 3 and a single composite score used for analyses. Higher scores correspond to poorer psychological wellbeing. Cronbach's alpha for the GHQ-12 is between .82 and .90, while its correlation with standardised diagnostic interview assessments ranges from .53 to .71 (Goldberg & Williams, 1988).

5.3.3.4 Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). The HADS is a 14-item self-report measure of caseness and severity of anxiety and depression. Seven items relate to anxiety and seven to depression.

Each item is scored on a scale of 0 to 3, with higher scores corresponding to higher levels of anxiety and depression. It has been widely used and validated in community mental health and inpatient general hospital populations (Bjelland, Dahl, Haug, & Neckelmann, 2002). Cronbach's alpha is .93 for the anxiety scale and .90 for the depression scale. The correlation between clinician ratings of the severity of anxiety and scores on the anxiety scale is .54, and between clinician ratings of the severity of depression and scores on the depression scale is .79 (Snaith & Zigmond, 1994).

5.3.3.5 Clinician ratings. Participants were assessed by their psychologist using the Global Assessment of Functioning (GAF; American Psychiatric Association, 1994), a widely used measure of psychological, social and occupational functioning. Functioning is rated on a single scale ranging from 1 to 100, with higher scores corresponding to better functioning. Inter-rater reliability for the GAF has been reported as varying between .39 between untrained clinicians and .85 between trained researchers (Vatnaland, Vatnaland, Friis, & Opjordsmoen, 2007). Hilsenroth et al. (2000) reported a correlation of -.46 between GAF score and overall symptom severity measured by the SCL-90-R (Derogatis, 1992). All raters in this study were trained in the administration of the GAF by the author using a training package based on the guidelines developed by Aas (2011). They then rated two case vignettes to establish their reliability before they rated their patients. Raters whose scores were within ten points of the author's score on both vignettes were passed to carry out assessments for the study. This range was based on the results of Söderberg, Tungström, and Armelius (2014), who calculated the 95% confidence interval for the GAF in an outpatient setting to be ± 11.4 . Raters whose scores were

outside this range were to receive feedback and further coaching from the author before re-taking the test with different vignettes, though in fact, this was not necessary for any of the raters.

5.3.3.6 Behavioural data. Information from the hospital's incident recording system was used to calculate the total number of recorded incidents of aggression towards others and deliberate self-harm during the three months before each participant completed the psychometric measures.

5.3.4 Procedure

Ethical approval was obtained from the local NHS Research Ethics Committee (reference number 11/EM/0197). Potential participants were approached individually by their psychologist, who informed them about the study and gave them a copy of the participant information sheet (Appendix E) and asked if they were willing to participate in the study. Once a patient had given their verbal consent to participate, his psychologist saw him again, at least 24 hours later, to obtain written consent and administer the psychometric measures (HSFQ, GHQ, and HADS). The psychologist also completed the GAF. To examine the HSFQ's test-retest reliability, a subsample of 14 participants, selected beforehand at random using a computer-based random number generator, was asked to complete the HSFQ two weeks after initially completing it. File data were collected by the lead author after the psychometric data had been collected.

5.3.5 Data Analyses

The internal consistency of the HSFQ was examined using Cronbach's alpha. Test-retest reliability was examined by correlating the same individuals' ratings over a two-week interval using Pearson's r . Concurrent validity was

examined using Pearson's r to assess the correlations between the HSFQ and other measures of functioning, psychological wellbeing and personality disorder pathology.

5.4 Results

5.4.1 Sample Description

The mean number of DSM-IV personality disorder categories for the 54 participants was 2.4 ($SD = 1.4$, range = 0-6). The number and proportion of participants with each DSM-IV personality disorder, assessed using the IPDE, was: 41 antisocial (75.92%); 29 borderline (53.70%); 24 paranoid (44.44%); 20 avoidant (37.04%); 5 narcissistic (9.26%); 5 schizoid (9.26%); 3 obsessive-compulsive (5.56%); 2 dependent (3.70%); 2 schizotypal (3.70%); and 1 histrionic (1.85%). Thirteen participants were diagnosed with comorbid axis I conditions (11 with schizophrenia, 1 with delusional disorder, 1 with schizoaffective disorder), though in all cases the condition was judged by their psychiatrist to be well controlled with medication. All participants were convicted of serious violent or sexual offences. The average age of participants was 42.61 years ($SD = 9.72$ years). Their average length of time in the hospital was 5.30 years ($SD = 3.04$ years). Participants' mean scores on the measures for this study are presented in Table 5.2.

Table 5.4. Summary of Participants' Scores

Measure*	N	Range of measure	Mean	Standard deviation
GAF	54	1-100	49.22	10.46
GHQ-12	54	0-36	10.96	5.77
HADS anxiety	54	0-21	8.21	4.92
HADS depression	54	0-21	4.52	3.68
HSFQ	54	0-57	40.67	7.83
PAI antisocial	54	0-72	29.93	12.20
PAI borderline	54	0-72	36.74	15.37

* GAF: Global Assessment of Functioning; HADS: Hospital Anxiety and Depression Scale; HSFQ: Hospital Social Functioning Questionnaire; PAI: Personality Assessment Inventory.

5.4.2 Reliability of the HSFQ

Cronbach's alpha for the 19 items of the HSFQ was .79, which is considered to be acceptable (Kline, 1999). Alpha was not improved by the removal of any items. Test-retest reliability ($n=14$) was .78, which is highly significant ($p=.001$).

5.4.3 Validity of the HSFQ

5.4.3.1 Concurrent validity. There was a significant positive correlation between HSFQ and GAF scores ($r=.34$, $n=54$, $p=.011$). There were significant negative correlations between the HSFQ and GHQ-12 total score ($r=-.55$, $n=54$, $p<.001$), HADS anxiety ($r=-.60$, $n=54$, $p<.001$) and HADS depression scores ($r=-.61$, $n=54$, $p<.001$). These correlations are all consistent with the hypotheses that participants' scores on the HSFQ would correlate positively with clinicians' assessment of functioning, and negatively with measures of psychological distress and symptoms. Correlations between the HSFQ and these measures were all greater than the corresponding correlations between GAF scores and the same measures (GHQ-12 $r=-.31$, $n=54$, $p=.023$; HADS anxiety $r=-.35$, $n=54$, $p=.009$; HADS depression $r=-.18$, $n=54$, $p=$

.186), suggesting that the HSFQ might be a better measure of social functioning than the GAF.

There was a moderate negative correlation between the HSFQ and the PAI borderline score ($r = -.46, n=52, p < .001$) and also between the GAF and the PAI borderline score ($r = -.42, n=52, p = .002$). The HSFQ correlated negatively but to a lesser degree with the PAI antisocial scale ($r = -.30, n = 52, p = .029$), whereas there was a non-significant correlation between the GAF and the PAI antisocial scale ($r = -.23, n = 52, p = .096$). These findings support the hypothesis that HSFQ scores would correlate negatively with personality disorder scale scores, and again suggest that the HSFQ might be superior to the GAF. As hypothesized, there was a moderate negative correlation between the HSFQ and incidents of self harm and aggressive behaviours during the preceding three months ($r = -.29, n = 53, p = .038$). In this case, the corresponding correlation for the GAF was larger ($r = -.51, n=53, p < .001$).

5.5 Discussion

The HSFQ is the first measure of social functioning specifically designed for forensic inpatients. This fills a gap in the existing range of measures of social functioning, all of which were designed to assess social functioning in the community. The content of the HSFQ drew on these community measures, and was developed with the assistance of forensic patients to reflect their lived experiences in a secure psychiatric setting. It has acceptable levels of internal consistency and test-retest reliability. The hypothesized relationships between the HSFQ and clinicians' assessment of functioning, measures of psychological distress, personality disorder scale

scores, and self-harm and aggressive behaviours support the concurrent validity of the HSFQ. Furthermore, compared with the GAF, a clinician's rating of social functioning, the HSFQ performed better on almost all correlations, suggesting that it may be a superior measure of social functioning. However, there is only a moderate correlation between the HSFQ and the GAF, which may reflect the fact that they measure different things. Unlike the HSFQ, the GAF measures psychological, as well as social and occupational functioning (American Psychiatric Association, 2013; Goldman, Skodol & Lave, 1992), with the rating being based on whichever area of functioning is considered poorer. This may lead to anomalous results in some cases. For example, a GAF rating for psychological functioning is in the 11 – 20 range when an individual is considered to be at “some danger of hurting self or others”. This equates to social functioning described as an “inability to function in almost all areas (e.g. stays in bed all day, no job, home or friends)”. With forensic inpatients, a low GAF score may be given because of risk of harm, but their social functioning is rarely as poor as the rating suggests. Among participants in this study, incidents of self-harm and harm to others were relatively common, and, in these cases, the scoring guidelines for the GAF dictate that these behaviours outweigh all other aspects of the individual's GAF rating. The GAF is likely to have underestimated the level of social functioning of these individuals by conflating two different kinds of problem. A purer measure of social functioning would be useful for forensic inpatients, and perhaps also for other forensic and inpatient populations.

Another difference between the HSFQ and the GAF is that, as with other self-report measures of social functioning, the HSFQ includes items that

reflect both the respondent's appraisal of their functioning (e.g., "I have a clear routine") and items which reflect their satisfaction or distress associated with the activity (e.g., "There are patients that I enjoy spending time with"), whereas the GAF only measures observable behaviours. This difference may lead to a weak correlation between the measures.

The HSFQ is highly correlated with psychometric measures of psychological wellbeing and symptoms, but only moderately correlated with the frequency of self-harm and aggressive behaviours. This is an unexpected finding. One explanation is that relatively normal behaviours are pathologised in institutions; for instance, an expression of anger, which is a frequent occurrence, can be recorded as an official incident (Daffern & Howells, 2009; Uppal & McMurran, 2009). Consequently, the association between the HSFQ and frequency of self-harm and aggressive behaviours is weakened. This anomaly is not apparent with the GAF, possibly because of the weighting that the GAF gives to these behaviours. The fact that the GAF and HSFQ measure different aspects of social functioning suggests that they complement each other and should be used together to assess social functioning in inpatient settings.

5.5.1 Limitations

A major limitation of this study is that only 54 out of a total population of 105 patients with a primary diagnosis of personality disorder agreed to take part. The sample may not be representative of the total population of patients with a primary diagnosis of personality disorder in the hospital. The small sample size also meant it was not possible to conduct a factor analysis of the HSFQ. Participants were all men with a primary diagnosis of personality disorder. These results are not therefore generalisable to other inpatient

populations, such as women, or those with primary diagnoses of mental illness or learning disabilities.

Different timescales were used for self-reported social functioning on the HSFQ and incident reports. A timescale of one month was used in the TCQ because participants in the focus group reported that they would find it difficult to recall their level of functioning over a longer period. However, a longer timescale, of three months, was chosen for recording incident reports because such reports are relatively rare.

In order to develop the TCQ a focus group was used. While this is a relatively quick way of generating rich data on patients' views, an alternative approach, such as the Delphi method, could have been used to canvas the opinions of other stakeholders, such as staff members.

5.6 Conclusions

The HSFQ shows promise for use in a forensic inpatient personality disorder setting. It has the advantage of disentangling social functioning from self-harm and aggressive behaviours, and so may be a clearer measure than the GAF. Because the HSFQ and GAF measure different aspects of social functioning, they appear to complement each other and should be used together in studies of social functioning in inpatient settings. Further work to establish the validity of the HSFQ is required. If the HSFQ were found to be associated with treatment outcome and to predict progression to placements of lesser security, this would indicate its likely value as an interim measure of progress in treatment. While the results presented here cannot, at present, be generalised to other populations, the HSFQ may be useful in other inpatient settings, both

forensic and non-forensic. With some modification of its wording, it might also be useful in other forensic institutions such as prisons. Further research would be useful to explore its reliability and validity in these settings. Given the importance that both DSM-5 and ICD-11 attach to social functioning in determining the severity of personality disorder, further investigation of the HSFQ would be worthwhile.

6. Testing an attachment-based model of therapeutic change processes

This chapter is based on the following publication:

Willmot, P., & McMurrin, M. (2014). An attachment-based model of therapeutic change processes in the treatment of personality disorder among male forensic inpatients. *Legal and Criminological Psychology*. Advance online publication. doi: 10.1111/lcrp.12055.

Abstract

Purpose. This study investigates the relative importance, as perceived by patients, of therapy content and relationships with therapists, other staff and other patients at different stages of treatment.

Method. Fifty male forensic inpatients with a diagnosis of personality disorder completed a checklist about how they had changed during treatment and the factors that had contributed to that change, as well as measures of social and global functioning. Correlations between different change processes and levels of functioning were measured.

Results. The results support a limited reparenting attachment-based model of therapeutic change. Self-reported levels of change were highly correlated with measures of patient functioning, though significant levels of change did not occur until the latter stages of treatment.

Conclusions. The behaviour of therapists was particularly important throughout treatment, though participants in the final stage of therapy reported that the behaviour of other staff was as important as that of therapists, suggesting that,

by this stage of treatment they are able to extend their range of supportive and therapeutic relationships.

6.1 Introduction

The first empirical study in this thesis, in chapter 3, explored patients' perceptions of how they had changed in treatment and the processes that contributed to these changes. Participants described changes in a number of specific areas that clustered in three superordinate themes: *self*, which encompassed enhanced feelings of self-worth, greater understanding of the self, and improved self-regulation skills; *other people*, particularly being able to trust others better, improved empathy and perspective taking ability, and better interpersonal skills; and *future thinking*, including more positive beliefs about their future, improved ability to think about the future, and increased goal-directed behaviour. Participants also identified the processes by which these changes occurred. Their experiences of relationships in the personality disorder treatment service were often inconsistent with their expectations and schemas of self and others, and this appeared to create a cognitive dissonance in which they perceive a difference in how they are currently regarded and treated (i.e., positively) compared to how they were regarded and treated previously (i.e., negatively), particularly in prison, that was a significant factor in motivating them to engage in treatment. The behaviour of therapists was seen as important, with experiences of being accepted, trusted and valued leading to improved feelings of self-worth and optimism for the future. This is consistent with previous reviews and research showing that the therapist-client relationship is an important component of psychotherapies and that the strength of the

alliance is predictive of outcome (Farber & Lane, 2002; Martin, Garske, & Davis, 2000), including those for clients with a diagnosis of personality disorder (Smith, Barrett, Benjamin, & Barber, 2006; Spinhoven, Giesen-Bloo, van Dyck, Kooiman, & Arntz, 2007). Participants also saw other relationships as important, including interactions with nursing staff and other patients outside therapy sessions that made participants feel listened to and cared for, as well as helping them to recognise similarities between themselves and others. This is consistent with previous research suggesting that interpersonal relationships outside formal therapy can be important determinants of change (Gunderson et al., 2003; Links & Heslegrave, 2000). Participants mentioned the development of new skills, particularly self-regulation and relationship skills, as another factor that contributed to change. Participants also mentioned realisations that reflected improved mentalization, and life events occurring both within and outside the hospital, as triggers for change. These findings are consistent with previous research that identified significant life events and related cognitive changes of core beliefs and values to be associated with change in aspects of personality (Heatherton & Nichols, 1994; Sutin, Costa, & Wethington, 2010).

These findings are consistent with a conceptualisation of effective treatment as a process of enhancing attachment security. A number of authors have conceptualised personality disorder in terms of insecure patterns of attachment (Bateman & Fonagy, 2004; Meyer & Pilkonis, 2005; Sarkar & Adshead, 2006), and the process of therapy as enhancing attachment security (Florsheim & McArthur, 2009; Mikulincer & Shaver, 2007). Attachment-informed models of therapy have stressed the importance of the therapist-client relationship (Bateman & Fonagy, 2004; Levy, Clarkin, et al., 2006), and some

authors have reported an increase in secure patterns of attachment following psychotherapy (Levy, Meehan et al., 2006; Travis, Bliwise, Binder, & Horne-Moyer, 2001). Others have proposed that, just as the development of secure attachments in childhood enable the child to explore and develop relationships beyond their immediate family, to regulate their emotions and to mentalize, so the development of more secure adult attachment in therapy enables the development of emotional regulation and mentalization (Bateman & Fonagy, 2004; Florsheim & McArthur, 2009).

According to this model, in the early stages of treatment, the patient's experiences of being accepted, trusted and valued by their therapist leads to improved feelings of self-worth and optimism for the future, and to the formation and development of a more secure pattern of attachment between patient and therapist (i.e., the patient feels more positive about himself and the therapist, feels more comfortable with and accepted by the therapist and is more able to express vulnerability to the therapist). This process is similar to what Kellogg and Young (2006) refer to as *limited reparenting* in that the therapist aims to meet the patient's core emotional needs that were not met in childhood by parents or caregivers, while maintaining appropriate professional boundaries. Since it involves changing core beliefs and behaviour patterns that have been present since childhood, for adults with severe personality problems this process is likely to take a significant length of time. As the patient develops a more secure pattern of attachment with the therapist, he becomes increasingly able to explore outside the secure base of the therapeutic relationship and apply the skills and insights from therapy outside the therapeutic relationship, and to expand the range and quality of effective interpersonal relationships. Thus, in

the early stage of treatment the patient is largely dependent on his therapist for support and security, and relies heavily on the therapist for emotion regulation, managing relationships with others and mentalization. As treatment progresses the patient is increasingly able to apply the content of psychological therapies and carry out these functions for himself, to deal effectively with life events, and to obtain support and security from a widening range of other staff and patients.

The purpose of the present study is to test this model using a quantitative approach with patients at various stages of treatment. Based on the results from chapter 3, the Therapeutic Change Questionnaire (TCQ) was constructed. This questionnaire asks respondents to rate how much they have changed in a number of areas and what processes led to these changes. Patients completed the TCQ at different stages of therapy, along with validation measures, which assessed social and global functioning.

6.1.1 Construction of the Therapeutic Change Questionnaire

The Therapeutic Change Questionnaire (TCQ) was developed to test this model. It is a self-report checklist based on the responses provided by patients in chapter 3 about how they had changed during treatment, and the factors that led to that change. Their responses were subject to thematic analysis and the resulting themes used to construct the TCQ (table 6.1). The TCQ is in two parts. Part 1 consists of the 39 themes relating to aspects of change identified by thematic analysis in chapter 3. Part 2 consists of 64 items relating to the 28 themes relating to change processes identified by thematic analysis in chapter 3. Each of thirteen items relating to the behaviour of other people were worded so that the same behaviour was asked about in relation to therapists,

other staff and patients, making 39 items in total. Eight items were based on themes relating to improved mentalizing ability, four items on themes relating to life events and three items based on other themes. Participants in chapter 3 made few direct references to the content of therapy. Therefore, in order to measure the impact of the content of therapy on change, ten items were generated to measure the impact of the content of therapy, based on themes that reflected common goals of psychological therapy (e.g. the item “therapy helped me to manage my emotions” was based on the theme “I am better able to manage my emotions”).

In part 1 of the TCQ, participants are asked in what ways they have changed during their time in treatment. They are presented with 39 items and asked to rate each on a 4-point scale (0- I have not changed at all; 1- I have changed slightly; 2- I have changed quite a lot; 3- I have changed a lot). Part 1 of the TCQ has 6 change subscales:

- Self, - 21 items, range 0-63 (e.g., “I understand myself better”);
- Others - 13 items, range 0-39 (e.g., “I care more about other people’s feelings”);
- Future - 5 items, range 0-15 (e.g., “I am better at planning for my future”);
- Cognition - 7 items, range 0-21 (e.g., “I think more positively about myself”);
- Self-awareness - 12 items, range 0-36 (e.g., “I am better at understanding my emotions”);
- Skills - 20 items, range 0-60 (e.g., “I can relax more”).

Each item in part 1 relates to both one of the ‘self’, ‘others’ or ‘future’ subscales and one of the ‘cognitions’, ‘self-awareness’, ‘skills subscales’. For example the item “I understand myself better” relates to both the ‘self’ and ‘self-awareness’ subscales, while the item “I am better at planning for my future” relates to both the ‘future’ and ‘skills’ subscales. The items corresponding to each TCQ subscale are listed in Appendix F.

In Part 2 of the TCQ, participants are asked what they think has caused the changes they described in Part 1. They are presented with 64 items and asked to rate each on a 4-point scale (0- not at all important; 1- slightly important; 2- important; 3- very important). Part 2 of the TCQ has 7 subscales:

- Behaviour of therapists, 13 items, range 0-39 (e.g., “my therapist treated me as normal”);
- Behaviour of other staff, 13 items, range 0-39 (e.g., “staff supported me”);
- Behaviour of other patients, 13 items, range 0-39 (e.g., “other patients encouraged me”);
- Content of therapy, 10 items, range 0-30 (e.g., “therapy changed the way I think about myself”);
- Life events, 4 items, range 0-12 (e.g., “something really bad happened to me”);
- Mentalization, 8 items, range 0-24 (e.g., “I realised that my behaviour was the cause of my problems”);
- Environmental factors, 3 items, range 0-9 (e.g., “the hospital takes treatment seriously”).

Items in Part 2 each relate to a single subscale. For both parts of the TCQ, the response descriptors were printed at the top of the section.

Participants were asked to rate items on an ordinal scale in order to minimise the risk that they would not regard the intervals between item descriptors as equal.

6.1.2 Hypotheses

The validity of this model was tested in a number of ways. Based on the premise that positive therapeutic change is associated with better social and global functioning, it was hypothesised that the degree of change reported by participants would be positively correlated with self-report levels of social functioning on the Hospital Social Functioning Questionnaire (HSFQ; Willmot & McMurran, 2015), and clinician ratings of global functioning on the Global Assessment of Functioning (GAF; American Psychiatric Association, 1994). It was also hypothesised that the degree of self-reported change assessed by the TCQ would be higher for those in more advanced stages of therapy. The model would also predict that patients in the early stages of treatment would rate therapists' behaviour as more important than the behaviour of other staff or of patients, but that this difference would diminish in the later stages of treatment as they widen their range of supportive and therapeutic relationships. Therefore, it was hypothesised that TCQ scores for the importance of the therapist's behaviour would diminish in the later stages of treatment. Finally, the model would predict that, in the early stages of treatment, the patient is largely dependent on the therapist for self-regulation, mentalization and interpersonal interactions with others. However, as therapy proceeds and attachment becomes more secure, they become increasingly able to carry out these functions

independently. Therefore, they would report an increasing ability to apply what they have learnt in therapy as treatment progresses. It was hypothesised that the TCQ scores for the importance of the content of therapy scale would increase as patients advance from one stage of therapy to the next. These hypotheses are represented graphically in Figure 6.1.

Figure 6.1. Hypothesised differences in levels of TCQ scores at difference stages of therapy

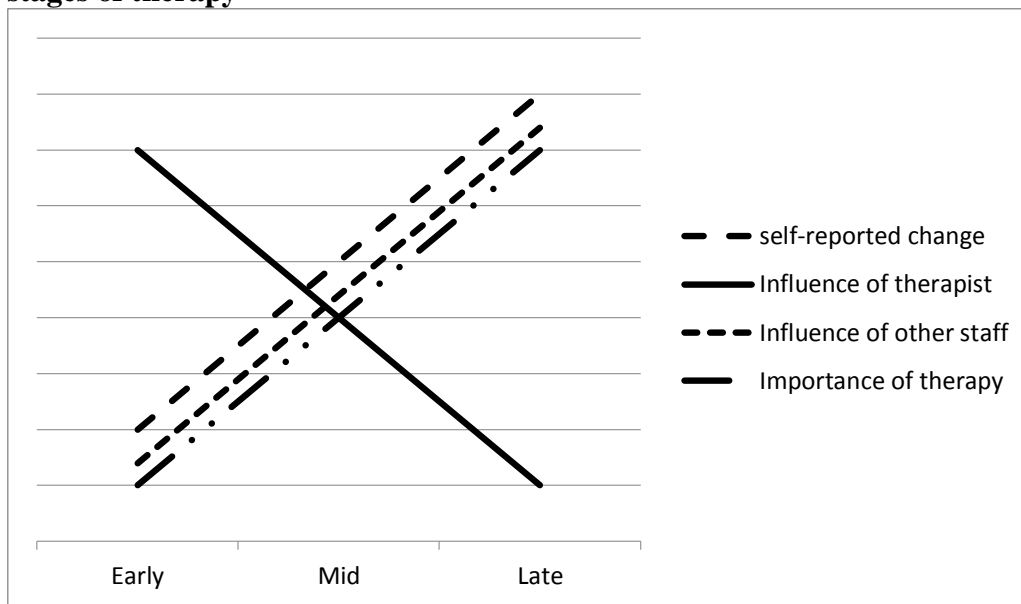


Table 6.1. The Therapeutic Change Questionnaire

Part 1.

Below is a list of ways in which you may have changed during your time in this service. For each item, please think what you were like when you were first admitted to this service and rate how much you have changed since then using the following scale:

- 0: I have not changed at all.
 1: I have changed slightly.
 2: I have changed quite a lot.
 3: I have changed a lot.

1. I am better at talking to people instead of brooding and ruminating.
2. I am better at setting achievable targets for myself.
3. I care more about other people's feelings.
4. I can think more flexibly, not in black and white.
5. I am less judgemental about other people.
6. I am better at planning for my future.
7. I have more control over how much I brood and ruminate on things.
8. I can relax more.

-
9. I trust myself more.
 10. I am better at solving problems.
 11. I am better at explaining myself so that people understand me,
 12. I am better at understanding my emotions.
 13. I am better at managing my anger.
 14. I am more confident about discussing personal issues with other people.
 15. I am better at building good relationships with people.
 16. I am better at sorting out problems in relationships.
 17. I am better at understanding and respecting other people's points of view.
 18. I am more aware of the effect I have on other people.
 19. I am better at thinking about my future.
 20. I am better at explaining myself to other people.
 21. I am better at making decisions.
 22. I am better at compromising.
 23. I can trust people more.
 24. I understood myself better.
 25. I believe I can change and get better.
 26. I am more assertive.
 27. I am better at accepting advice and support from others.
 28. I am better at tolerating other people.
 29. I am better at accepting and making sense of bad things that happened to me as a child.
 30. I am better at telling myself when my thinking is wrong or unhelpful.
 31. I am better at controlling my urges and impulses.
 32. I think more positively about myself.
 33. I am more hopeful about my future.
 34. I am better at slowing down my racing thoughts.
 35. I am better at reflecting about what I'm doing.
 36. I see myself as an adult rather than a child.
 37. I care more what people think about me.
 38. I am better at managing my emotions.
 39. I am better at tolerating feeling vulnerable.
-

Part 2.

Below is a list of things which may have caused or triggered the changes in part 1. For each item, please think how important that factor was in causing these changes using the following scale:

For each item, please tick the box that best describes how you have felt over the last month.

0: Not at all important.

1: Slightly important.

2: Important.

3: Very important.

-
1. Staff accepted me without judging me negatively.
 2. My therapist treated me as normal.
 3. Therapy helped me to stop ruminating about my problems.
 4. Seeing the consequences of not engaging in treatment encouraged me to engage.
 5. Other patients helped me to think about the future.
-

-
6. I felt proud of achieving something outside therapy, which encouraged me to make changes in therapy.
 7. Medication helped to slow down my thoughts.
 8. Other patients really cared about me.
 9. Other patients understood me.
 10. My therapist stuck by me and didn't give up on me.
 11. Other patients gave me accurate feedback on my behaviour.
 12. Therapy taught me better ways of coping with problems.
 13. The hospital takes treatment seriously.
 14. Other patients did what they said they were going to do.
 15. My therapist helped me to think about the future.
 16. Staff were serious about helping me.
 17. Other patients stuck by me and didn't give up on me.
 18. My therapist gave me accurate feedback on my behaviour.
 19. Therapy helped me slow down my thinking.
 20. I realised that my behaviour was the cause of my problems.
 21. Relationships made me think about the future.
 22. My therapist was serious about helping me.
 23. Staff put their trust in me.
 24. Staff helped me to think about the future.
 25. Other patients helped me to solve problems.
 26. Staff did what they said they were going to do.
 27. Therapy changed the way I think about other people.
 28. My therapist helped me to solve problems.
 29. Moving to a different ward or hospital made it easier to make a fresh start.
 30. I realised that if other patients can change then so can I.
 31. My therapist really cared about me.
 32. I realised that other people are going through the same things as me.
 33. Something really positive happened to me.
 34. Therapy helped me understand other people better.
 35. My therapist did what he/ she said they were going to do.
 36. Other patients encouraged me.
 37. Staff understood me.
 38. Therapy changed the way I think about myself.
 39. Staff gave me accurate feedback on my behaviour.
 40. Other patients put their trust in me.
 41. Other patients supported me.
 42. Therapy helped me to understand my emotions.
 43. I realised that other people have similar thoughts and emotions to me.
 44. Staff stuck by me and didn't give up on me.
 45. Staff really cared about me.
 46. Staff supported me.
 47. Other patients' extreme behaviour encouraging empathy/ perspective taking.
 48. I realised other people have similar histories to me.
 49. My therapist accepted me without judging me negatively.
 50. My therapist supported me.
 51. Something really bad happened to me.
 52. Therapy helped me to think more flexibly.
 53. Other patients treated me as normal.
 54. Therapy helped me to manage my emotions.
-

-
55. My therapist understood me.
 56. Staff treated me as normal.
 57. I realised that I was responsible for my problems, not other people.
 58. My therapist put his/ her trust in me.
 59. Staff encouraged me.
 60. Other patients were serious about helping me.
 61. My therapist encouraged me.
 62. Other patients accepted me without judging me negatively.
 63. Staff helped me to solve problems.
 64. Therapy helped me to understand myself better.
-

6.2 Method

6.2.1 Design

A retrospective cross-sectional design was used to test these hypotheses. A sample size calculation was carried out using GPower 3.1.2 software. For Wilcoxon's tests of the TCQ scales, testing the hypotheses listed in the previous section, assuming a medium effect size (0.5) and an α error probability of .05, and a power of .80, a sample size of 57 was recommended.

6.2.2 Participants

Participants were male patients detained under mental health legislation in the personality disorder treatment services of a high secure psychiatric facility. Each had a primary diagnosis of personality disorder made using the International Personality Disorder Examination, DSM-IV version (IPDE; Loranger, 1999). Patients were excluded from the study if they lacked the mental capacity to give informed consent to participate or were unable to comprehend research procedures. From 104 eligible patients, 50 (48.08%) agreed to participate. Patients in the earlier stages of treatment appeared more likely to refuse to participate.

6.2.3 Treatment

Treatment within the personality disorder treatment service is primarily psychological. Patients progress through a four-stage treatment process

(Evershed, 2010a) based on the model of treatment for personality disorder treatment described by Livesley (2007). Stage 1 involves assessment and the establishment of therapeutic relationships and support. Stage 2 involves psychological therapies primarily aimed at improving the patient's self-management of emotions and impulses. For the participants in this study, stage 2 most commonly involved dialectical behaviour therapy (Linehan, 1993). Stage 3 involves psychological therapies primarily aimed at changing the dysfunctional core beliefs which patients use to make sense of themselves, others and the world and which are widely assumed to be core components of personality disorders (Livesley, 2007). For participants in this study, stage 3 most commonly involves either schema therapy (Young, Klosko, & Weishaar, 2003) or cognitive analytic therapy⁵ (Ryle, Leighton, & Pollock, 1997). Stage 4 involves the integration and application of skills, insight and changes from stages 2 and 3 to patterns of offending behaviour. For participants in this study, stage 4 generally involves the Violence Reduction Programme (Gordon & Wong, 2000) or the Sex Offender Group (Willmot, 2009). All therapies involve weekly individual sessions with a therapist, and most also involve weekly group therapy sessions. Patients progress through the four stages of treatment in sequence, although the rate at which they progress varies between patients. The overall length of time in therapy in the service is usually at least five years and can be considerably longer where patients have difficulty in engaging.

⁵ The stage 3 therapies differ from those described in chapter 3 since some participants in the present study were drawn from a different personality disorder treatment service in the same hospital that provides cognitive analytic therapy instead of schema therapy.

6.2.4 Measures

6.2.4.1 Patient information. Information on participants' age, date of admission, axis I diagnoses, personality disorder diagnoses and current treatment was collected from files.

6.2.4.2 Therapeutic Change Questionnaire (TCQ; Table 6.1). The TCQ is a self-report checklist based on the responses provided by patients in chapter 3 about how they had changed during treatment, and the factors that led to that change. Part 1 consists of the 39 themes relating to aspects of change identified by thematic analysis in chapter 3. Part 2 consists of 64 items relating to the 28 themes relating to change processes identified by thematic analysis in chapter 3. Each of thirteen items relating to the behaviour of other people were worded so that the same behaviour was asked about in relation to therapists, other staff and patients, making 39 items in total. Eight items were based on themes relating to improved mentalizing ability, four items on themes relating to life events and three items based on other themes.

6.2.4.3 Hospital Social Functioning Questionnaire (HSFQ; Willmot & McMurran, 2015). The HSFQ is a 19-item self-report measure of social functioning for forensic inpatients. Items are scored on a 4-point scale. Higher scores correspond to better functioning. The HSFQ has acceptable levels of internal consistency (Cronbach's $\alpha = .79$) and test-retest reliability ($r = .78$). HSFQ scores show significant negative correlations with measures of psychological distress, personality disorder severity, and problematic behaviours.

6.2.4.4 Global Assessment of Functioning (GAF; American Psychiatric Association, 1994). The GAF is a widely used, single-scale clinician rating of

psychological, social and occupational functioning. Functioning is rated on a single scale ranging from 1 to 100, with higher scores corresponding to better functioning. Jones, Thornicroft, Coffey and Dunn (1995) reported that the GAF showed satisfactory levels of reliability and validity in the assessment of long-term psychiatric patients, following minimal training of raters.

6.2.5 Procedure

This study was carried out in conjunction with the study in chapter 5, to allow psychometric data from that study (GAF, GHQ-12 and HSFQ) to be used in this study as well. Ethical approval for this study was obtained from the local NHS Research Ethics Committee (reference number 10/H040897). The processes of obtaining consent and data collection were coordinated so that, for each participant, obtaining patient consent and collecting data from the social functioning study were completed before the process of obtaining patient consent and data collection was started for this study. Data for the two studies was collected at different times because it was collected by different people; for the previous study, data were collected by each participant's psychologist, while in the present study, data were collected by the author, and because it was considered too much data to be collected all at once. For each participant, the interval between collecting data for the social functioning study and collecting data for this study was no more than three weeks.

Potential participants were approached individually by their psychologist, who informed them about the study and gave them a copy of the participant information sheet (Appendix G) and asked if they were willing to meet with the author to discuss taking part in the study. Potential participants who agreed to speak to the author were given the opportunity to ask questions

about the study and decide whether to participate. All potential participants who spoke to the author agreed to participate. A mutually agreed date and time were arranged for the interview. This was a minimum of 24 hours after meeting with the author. In the interview, the patient completed the TCQ with the author.

The psychological therapist for each participant completed the Stage of Treatment Rating (Appendix H) based upon the therapy in which that participant was currently engaged.

6.2.6 Data Analyses

First, the distribution of the data was analysed using graphs and the Shapiro-Wilk test. This showed that the distribution of total change scores from Part 1 of the TCQ was significantly different from normal ($W = .911$, $df = 50$, $p = .001$), as were the therapist ($W = .759$, $df = 50$, $p < .001$), staff, ($W = .877$, $df = 50$, $p < .001$) and therapy ($W = .806$, $df = 50$, $p < .001$) subscales of Part 2. Neither a logarithmic nor a square root transformation normalised the distribution of subscale scores, hence the split half method was used to examine the internal consistency of the measure, rather than using Cronbach's alpha, and non-parametric tests were used for subsequent analyses.

Split half reliability coefficients were calculated using the Spearman-Brown method. A reliability coefficient in the range 0.70 to 0.79 is considered fair, 0.80 to 0.89 is considered good, and 0.90 and above is considered excellent (Cicchetti, 1994). If Spearman-Brown r for any scale was below 0.70, then the scale would not be included in subsequent analyses.

The hypothesis that the degree of change, as measured by the total score of all items in Part 1 of the TCQ, would be positively correlated with measures of social and global functioning was tested using Pearson's r . The hypothesis

that the degree of change would be higher for those in more advanced stages of therapy was tested by comparing the total score of items in part 1 of the TCQ of participants at different stages of therapy using Kruskal-Wallis tests.

The hypothesis that patients in the early stages of treatment would rate therapists' behaviour as more important than the behaviour of other staff or of patients, but that this difference would diminish in the later stages of treatment, was tested by comparing total scores from the therapist, staff and patient subscales in Part 2 of the TCQ, using Wilcoxon's tests, for each stage of therapy.

The hypothesis that patients' ratings of the importance of the therapist's behaviour would diminish as patients progress through the stages of therapy was tested by comparing ratings of the importance of therapist behaviour from Part 2 of the TCQ of participants at different stages of therapy using Kruskal-Wallis tests.

Finally, it was hypothesised that the importance of the content of therapy would increase as patients move from one stage of therapy to the next. This was tested by comparing the importance of the content of therapy at different stages of therapy using Kruskal-Wallis tests.

6.3 Results

6.3.1 Sample Description

The average age of the 50 participants was 42.56 years ($SD= 9.68$ years). The mean number of DSM-IV personality disorder categories was 2.5 ($SD= 1.4$, range= 0-6). The number and proportion of participants with each DSM-IV personality disorder, assessed using the IPDE, was: 40 antisocial

(80%); 27 borderline (54%); 23 paranoid (46%); 20 avoidant (40%); 5 narcissistic (10%); 5 schizoid (10%); 2 obsessive-compulsive (4%); 2 dependent (4%); 2 schizotypal (4%); and 1 histrionic (2%). Twelve participants were diagnosed with comorbid axis I conditions (ten with schizophrenia, one with delusional disorder, one with schizoaffective disorder), though in all cases the condition was judged by their psychiatrist to be well controlled with medication. All participants were convicted of serious violent or sexual offences. Their average length of time in the hospital was 5.29 years ($SD= 2.95$ years). Mean scores for all the subscales of Parts 1 and 2 of the TCQ are presented in Table 6.2.

Table 6.2. Mean Scores and Internal Consistency Coefficients⁶ for TCQ Subscales, GAF and HSFQ

Subscale	Number of items	Mean (SD)	Internal consistency <i>r</i>
Part 1 – Change⁷			
Self	21	2.14 (.67)	.95
Others	13	2.07 (.61)	.94
Future	5	2.24 (.65)	.79
Insight	12	2.10 (.63)	.95
Cognitions	7	2.23 (.71)	.87
Skills	20	2.11 (.62)	.92
Total Change	39	2.13 (.62)	.97
Part 2 - Process			
Therapist behaviours	13	2.42 (.55)	.94
Staff behaviours	13	2.19 (.70)	.94
Patient behaviours	13	1.60 (.72)	.93
Therapy content	10	2.41 (.69)	.96
Events	4	2.10 (.78)	.72
Realisations	7	2.34 (.62)	.76
Total Process	67	2.20 (.54)	.96
GAF		49.62 (10.68)	
HSFQ		41.48 (7.55)	.78

6.3.2 Internal Consistency of the TCQ

Spearman-Brown *r* for the subscales of the TCQ is presented in Table 6.2. Spearman-Brown *r* for the ‘future’, ‘events’ and ‘mentalization’ subscales were fair, while for the ‘cognitions’ subscale it was good, and for all the other subscales it was in the ‘excellent’ range.

6.3.3 Correlations Between Self-Reported Change and Measures of Social and Global Functioning

There were large positive correlations between the degree of self-reported change on Part 1 of the TCQ and both social functioning, measured by

⁶ Internal consistency for the TCQ is calculated using Spearman-Brown split half correlation, *r*. Internal consistency for the HSFQ is calculated using Cronbach’s alpha.

⁷ Each item relates to both one of the ‘self’, ‘others’ or ‘future’ subscales and one of the ‘cognitions’, ‘self-awareness’, ‘skills subscales’.

the HSFQ ($r=.50$, $n=50$, $p<.001$), and global functioning, measured by the GAF ($r=.52$, $n=50$, $p<.001$). This supports the first hypothesis, in that self-reported change in therapy was positively associated with self-report and clinician-rated measures of functioning.

6.3.4 Degree of Self-Reported Change at Different Stages of Therapy

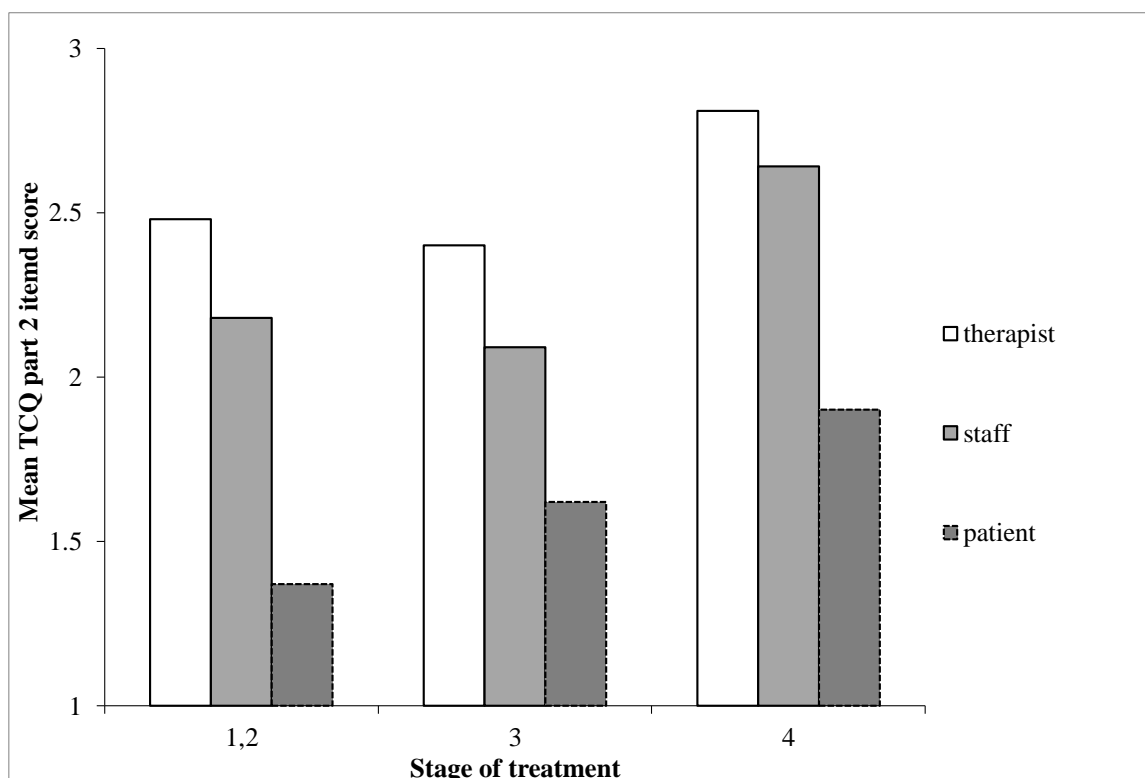
The numbers of patients in each stage of therapy were: stage 1 – 4; stage 2 – 13, stage 3 – 19; and stage 4 – 14. Since only four participants were in stage 1 of therapy, those in stages 1 and 2 were combined into one group ($N=17$) for analyses comparing patients at different stages of treatment. Comparison of total change scores on Part 1 of the TCQ between the three stages of treatment showed no significant differences between stages 1/2 and 3 ($H=.09$, $df=1$, $p=.76$), and significant differences between stages 1/2 and 4 ($H=11.00$, $df=1$, $p=.001$) and between stages 3 and 4 ($H=10.29$, $df=1$, $p=.001$). This supported the second hypothesis in that the degree of change was higher for those in more advanced stages of therapy.

6.3.5 The Relative Importance of the Behaviour of Therapists, Other Staff and Patients

The relative importance of the behaviours of therapists, other staff and patients at different stages of therapy is shown in Figure 6.1. Overall, the importance of all types of relationships was greater for patients in the later stages of therapy. For patients in stages 1 and 2 of therapy, the behaviour of therapists was seen as significantly more important to the change process than that of staff ($Z=-2.25$, $p=.025$) or patients ($Z=-3.10$, $p=.002$). The same pattern applied in stage 3 of therapy ($Z=-3.03$, $p=.002$, and $Z=-3.18$, $p=.001$ respectively). In stage 4, therapist behaviour was still rated as significantly

more important than patient behaviour ($Z=-3.18, p=.001$), but the difference between therapist behaviour and the behaviour of other staff was not significant ($Z=-1.37, p=.17$). The hypothesis that the influence of the behaviour of other people on therapeutic change would increase during therapy and become as important as the behaviour of the therapist was supported for other staff in the final stage of therapy, but was not supported for patients.

Figure 6.2. Perceived Influence of Different Groups on Patients at Different Stages of Treatment



6.3.6 The Importance of Therapist Behaviour

There was no significant difference between the perceived importance of therapist behaviour between stages 1/2 and 3 ($H=1.62, df=1, p=.20$), or between stages 1/2 and 4 ($H=1.93, df=1, p=.017$). The difference between stages 3 and 4 was, however, significant ($H=7.75, df=1, p=.005$), but in the opposite direction to the hypothesis (i.e. therapist behaviour was rated as more important by participants in the latter stage of therapy). The hypothesis that

patients' ratings of the importance of therapist behaviour would diminish as they move through the stages of therapy was therefore not supported.

6.3.7 The Importance of the Content of Therapy

There was no significant difference between the perceived importance of the content of therapy between stages 1/2 and 3 ($H=.71$, $df=1$, $p=.40$), and significant differences between stages 1/2 and 4 ($H=10.65$, $df=1$, $p=.001$) and between stages 3 and 4 ($H=6.98$, $df=1$, $p=.008$). This supported the hypothesis that patients in the later stages of therapy would rate the content of therapy as more important than those in the earlier stages of therapy.

6.4 Discussion

The aim of this study was to test an attachment-based model of change in treatment for personality disorder in male forensic inpatients. The first hypothesis was that positive therapeutic change would be associated with better social and global functioning, indicated by a correlation between scores on Part 1 of the TCQ and measures of social functioning. Large and significant correlations were found between the degree of self-reported change in Part 1 of the TCQ and both self-reported social functioning measured by the HSFQ and clinician-rated global functioning measured by the GAF. This suggests that treatment impacts positively upon difficulties in interpersonal functioning, one of the core features of personality disorder, which some theorists attribute to maladaptive attachment styles (Frodi, Dernevik, Sepa, Philipson, & Bragesjö, 2001; Timmerman & Emmelkamp, 2006).

It was also hypothesised that patients in the early stages of treatment would rate therapists' behaviour as more important than the behaviour of other

staff or of patients, but that this difference would diminish in the latter stages of treatment as they widen their range of supportive and therapeutic relationships. The behaviour of therapists was indeed rated as more important than that of staff or patients during the early stages of therapy, and participants in the final stages of therapy rated the behaviour of other staff, but not other patients, to be as important as therapist behaviour. Figure 6.1 suggests that this change is due to the influence of other staff increasing as patients progress through therapy, rather than to the influence of therapists decreasing. This would be consistent with the conceptualisation of treatment as a process of limited reparenting in therapy, leading to the development of more secure attachment, which enables the exploration and development of wider interpersonal networks.

Although most of the therapies provided in this service involve a group therapy component, participants regarded the behaviour of other patients as relatively unimportant compared to the behaviour of therapists and other staff. This finding appears to be at odds with the literature on therapeutic communities (Lees, Manning, & Rawlings, 1999), where therapeutic change is understood to be brought about by the social milieu and group process, and which often do not include any individual therapy. This finding is, however, consistent with the limited reparenting attachment-based model, since the patient's relationships with his therapist and later with other staff are more likely than relationships with other patients to be consistent and reliable, providing emotion regulation and safety, and to be focused on the patient's needs. Pistole (1989) proposed these features as the necessary conditions for developing a therapeutic attachment relationship. Another possible reason for this finding is suggested by Tyrrell, Dozier, Teague, and Fallot (1999), who

measured the attachment styles of community-based service users and their case managers, and found that working alliance was strongest when service user and case manager had different attachment styles. They suggested that different attachment styles had a disconfirming effect on service users' usual interpersonal and emotional strategies. It is likely in this study, that therapists and other staff would have more secure patterns of attachment, while patients would have more insecure patterns of attachment that are more likely to be similar to one another. The influence of patients may be greater in a therapeutic community setting, where patients are more directly involved in each other's therapy. Whatever the explanation, this result suggests that different therapeutic change processes may operate in therapeutic communities and therapies involving an individual therapeutic relationship.

Finally, it was predicted that in the early stages of treatment, patients would be dependent on the therapist for self-regulation, mentalization and interpersonal interactions with others, but that as therapy proceeds and attachment becomes more secure, they would become increasingly able to carry out these functions independently and so the TCQ scores for the importance of the content of therapy scale would increase as patients advance from one stage of therapy to the next. This was found to be the case, and is consistent with patients becoming more able to explore their inner and outer worlds as their attachment patterns become more secure (Pistole, 1989).

These results indicate the central importance of the therapist-patient relationship, particularly before the final stage of therapy. A secure attachment between patient and therapist can be seen as enabling the development of a widening range of relationships and the development of self-regulation and

mentalization skills. However, throughout the treatment process the patient still requires a secure base and the relationship with the therapist remains important. A striking finding is that the development of therapeutic relationships with other staff and the application of therapy skills appear to take a number of years, and are not apparent until patients are in the final stage of therapy. However, given that participants in this study were all patients with diagnoses of personality disorder in a high secure hospital, it is perhaps not surprising that the process should take so long. Indeed, given the histories of chronic trauma, abuse, neglect and relationship difficulties that many of these patients have (Craissati, Webb, & Keen, 2008; Roberts, Yang, Zhang, & Coid, 2008), such a timescale appears realistic. It could be argued that the model of change simply reflects the goals of each stage of therapy, as outlined by Evershed (2010a) and Livesley (2007). However, while the development of therapeutic relationships is a specific goal of stage 1 of the treatment process, these results suggest that this process continues throughout treatment. Moreover, while the development of self-regulation skills is a specific target of stage 2, this also continues throughout the treatment process.

6.4.1 Limitations

The TCQ had not been previously validated, and because of the small sample size available, it was not piloted beforehand, so these results should be treated with some caution. This study did not include direct measures of attachment security, therapeutic alliance or skills acquisition. The retrospective nature of this study means that participants were looking back, in some cases over several years of therapy. This may have reduced their accuracy, though it may also have provided more opportunity to reflect on the significance of

events. The study compared groups of patient at different stages of therapy. However, this approach did not take account of the fact that patients at the same stage of therapy would have varied in the quality and quantity of therapy they had undertaken, as well as in their experience of other life events. It is therefore not possible to draw conclusions about the specific elements of therapy that have contributed to change. A weakness of the two part structure of the TCQ was that it did not allow for participants to make links between changes in part 1 and the processes in part 2.

Collecting data for the studies in chapters 5 and 6 at separate times may have led to some loss of data as patients were unwilling to be interviewed a second time. Fifty patients took part in this study, compared to 54 who took part in the previous study.

Also, only 50 patients out of a total population of 104 participated in this study, so this sample cannot be taken as being representative of the overall population. It is possible, for example, that those who participated were more satisfied with their experiences of therapy or had made more progress than those who declined to participate. The small sample size also meant that it was not possible to carry out a factor analysis of the TCQ.

The design of the TCQ may also have led participants to exaggerate the extent of change since, they may have found it difficult to admit to themselves or to the author if they believed they had not changed. A further weakness of this study was that it was validated with the HSFQ, a previously unvalidated measure which was validated at the same time and with the same population.

It is not possible to rule out the possibility that the smaller increase in the importance of therapist behaviour in the final stage of treatment, relative to

the increase in the importance of staff behaviour was due to a ceiling effect as therapist behaviour scores approached the maximum.

Elliott (2010) defines change processes as “including both the in-therapy processes that bring about change and the unfolding sequence of client change” (p. 123). The design of this study meant that only the external *in-treatment* factors were investigated, and it was not possible to identify individual responses to these external processes. It may be that, in a population with such complex needs, some individuals would have had very different perceptions from others about what leads to therapeutic change. In particular, with a limited reparenting attachment-based model of change, patients with predominantly anxious patterns of insecure attachment would be expected to respond differently to patients with predominantly avoidant patterns of attachment. However, it was not possible to investigate this. The study’s cross-sectional design means that observed difference between patients at different stages of therapy may be due to differences in the sample rather than to the effects of therapy. The cross sectional design of the study also made it impossible to study interactions between change processes, for example between therapist behaviours and therapy content.

Finally, this study involved patients who were engaged in a very long treatment process, typically lasting five years or more and consisting of several distinct forms of therapy. Its findings may not therefore be applicable to all therapies or to other groups of patients with a diagnosis of personality disorder.

6.5 Conclusions

The limited reparenting attachment-based model of the process of change in treatment for personality disorder is consistent with Livesley's (2007) stage model for treating personality disorder, in which the early stages of treatment involve a focus on safety and containment, and those delivering treatment primarily provide support, validation, empathy and emotion regulation. These tasks are similar to those features of the therapeutic relationship identified by Pistole (1989) thought to promote attachment. Only when the goals of safety and containment are achieved, according to Livesley, can the patient start to develop their own self-regulation skills before developing more adaptive ways of thinking, behaving and relating to others in the final stages of treatment.

Despite the limitations, these results provide evidence that, for male inpatients with a diagnosis of personality disorder, treatment can be understood as a process of enhancing attachment security. The behaviour of therapists towards their patients appears to be particularly important to this process throughout treatment. However, these results suggest that, once a more secure pattern of attachment has been formed, the behaviour of other staff could be as important as that of therapists in promoting therapeutic change. This pattern does not, however, apply to the behaviour of other patients. The fact that patients in this sample do not report significant change until the later stages of treatment may reflect the fact that developing a more secure attachment is likely to take some time in individuals with severe personality problems.

These findings have a number of implications for the treatment of inpatients with a diagnosis of personality disorder. They suggest that,

particularly in the early stages of treatment, therapy for these patients should be informed by attachment theory and its primary focus should be on developing a more secure pattern of attachment. They also suggest that, at a time when resources are limited, therapist resources are best targeted at patients in the early stages of treatment, and that once patients have made significant progress, the therapeutic influence of other staff increases. These findings also suggest that further identifying the behaviours that promote therapeutic attachment, and training therapists and other staff to adopt these behaviours, would promote therapeutic change in inpatient personality disorder services. The attachment literature and the findings from the study in chapter 3 suggest this is more likely to occur when a patient experiences being consistently accepted, trusted and valued by an individual who is also able to provide safety and emotion regulation.

Walters (2006) reported that self-report measures of change can reliably inform forensic risk assessments and can enhance judgements made using structured risk assessment tools. The TCQ can provide rich information about patients' perceptions of change and the process by which change occurs, and could be developed to improve judgements about dynamic risk factors such as insight, interpersonal relationships and emotional control. The TCQ in its current form contains 103 items. Further work is needed to streamline the TCQ using data reduction techniques to reduce the number of items. Following item reduction, further reliability and validity checks will need to be undertaken.

Further research should involve a longitudinal study to investigate how attachment security changes over time in treatment and affects treatment outcomes. It would also be useful to investigate the responses of patients with

different patterns of insecure attachment to treatment. This area of enquiry would improve our understanding of the process of change in treatment with this patient group and improve treatment effectiveness.

7. Using Pattern Matching to Validate an Attachment-Based Model of Therapeutic Change in the Treatment of Personality Disorder

Abstract

Purpose. The final study uses a pattern matching approach to test and refine the limited reparenting attachment model of change developed in previous studies.

Method. Ten patients completed a semi-structured interview about their interactions with their therapist. Their responses were analysed using a modified version of pattern matching to test each of ten hypothesis generated by the attachment-based model of therapeutic change in the treatment of personality disorder.

Results. The overall attachment model was strongly supported for those participants who had been in therapy for over two years. Nine out of ten individual hypotheses in the model were supported. Only the Mental Representation hypothesis was not supported.

Conclusions. The results support the limited reparenting attachment model of change and suggest that the patient's attachment relationship with his therapist is an important factor influencing therapeutic change with this population, particularly in the earlier stages of treatment.

7.1 Introduction

Participants in the first study, in chapter 3, described the behaviour of therapists as important in the process of change in therapy, with experiences of being accepted, trusted and valued leading to improved feelings of self-worth and optimism for the future. They also mentioned the content of therapy and

interactions with nursing staff and other patients as factors that helped them to change how they saw themselves and others.

These findings are consistent with a conceptualisation of effective treatment with this population as a process of enhancing attachment security. According to this model, factors such as the content of therapy, the therapeutic milieu and relationships with others all contribute to the change process. However, in the early stages of treatment, the patient's experience of being accepted, trusted and valued by his therapist appears to be the most important factor in the change process, leading to improved feelings of self-worth and optimism for the future, and to the formation and development of a more secure pattern of attachment between patient and therapist. This process is similar to what Kellogg and Young (2006) refer to as limited reparenting, in that the therapist aims to meet the patient's core emotional needs that were not met in childhood by parents or caregivers, while maintaining appropriate professional boundaries.

The study in chapter 6 tested this model using a quantitative approach. Self-reported levels of change were highly correlated with social and global functioning. Patients in the early stages of treatment rated therapists' behaviour as more important than the behaviour of other staff or of patients, but this difference diminished in the later stages of treatment when the behaviour of other staff was rated as being equally important. Patients' ratings of the importance of therapy increased as they progressed through therapy, consistent with the hypothesis that the relationship with the therapist is of crucial importance in the early stages of treatment, but that as therapy proceeds and attachment becomes more secure, the patient becomes increasingly able to

benefit from other aspects of treatment, including the content of therapy. These findings were therefore consistent with the attachment-based model of change.

The final study uses *pattern matching* to validate the limited-reparenting attachment-based model. This approach involves using a quantitative method to analyse qualitative data and was chosen for the final study because of the heterogeneous and relatively small size of the population, and the lack of adequate quantitative measures that made a purely quantitative approach problematic (Bitektine, 2008).

Research generally starts with an inductive (theory building) stage and proceeds to a deductive (theory testing) stage (Gilgun, 2005; Hyde, 2000). Qualitative research techniques have often been used inductively, but the resulting theories have remained untested (Hyde, 2000). However, a number of researchers have used qualitative methods deductively to test or modify existing theories (Gilgun, 2005; Hyde, 2000; Yin, 2014).

Rival explanations pattern matching is a deductive qualitative approach (Trochim, 1989; Yin, 2014). It involves stating a theory and one or more counter-theories (either an alternative theory or a series of null hypotheses: Trochim) before starting to collect qualitative data from interviews, focus groups or observation. Each theory is expressed as a series of separate hypotheses about the data. Data are then compared, on a case-by-case basis, to the hypotheses of each theory and the number of cases matching each alternative proposition can be compared statistically (Hyde, 2000; Wilson & Vlosky, 1997).

Trochim (1989) argued that pattern matching involves a different approach to data from other forms of research since it treats the data collected

in a study as a whole, rather than as independent. It is the pattern of outcomes across measures that is important, rather than the outcome of individual measures. This has important implications for the statistical approach to pattern matching. In most research, where multiple hypotheses are being tested in the same study, tests are carried out independently of each other, and researchers must take precautions to reduce the risk of type I errors, for example by applying a Bonferroni correction to adjust the significance level at which each hypothesis would be accepted. With pattern matching, the whole series of hypotheses that make up the model are being tested together and so no such correction is required. Trochim concluded that “more complex patterns, if matched, yield greater validity for the theory” (p. 357), and that “[w]hen we obtain a pattern match... even with non-significant *t*-values, we would most likely conclude that while the statistical power of the significance tests may be lower than desired, the program had a detectable *pattern* of effect” (p. 361, emphasis in original). Statistical techniques for assessing the degree of pattern matching have not yet been developed, so this study maintains a conservative stance by adopting an alpha level of .05 in testing each hypothesis.

The disadvantage of a strict adherence to Trochim’s (1989) approach is that it is “all or nothing”, giving the researcher only one chance to test a model and meaning that, if a single hypothesis fails to be supported, the whole theory should be rejected. Trochim himself acknowledged that “[a] pattern match is never likely to be exact in practice” (p. 365), though he did not suggest how this problem could be resolved. One solution would be to set a lower standard for accepting the model. In this study, the limited reparenting attachment-based model will be supported if 80% of hypotheses are supported.

A refinement to the pattern matching approach could further mitigate the risk of a false negative result. Yin (2014) describes one approach, termed *explanation building*, an iterative process combining deductive and inductive processes to refine and elaborate theoretical models. In the deductive stage, a theoretical model is tested against data from a case. In the inductive stage, those elements of the model that do not match the data are revised to match the observed data. The process is then repeated with other cases until *theoretical saturation* (Glaser & Strauss, 2009) occurs. This is the point at which additional data provide no further elaboration of the model being developed. This means that, rather than using all the available data at once to test the model as previous studies using pattern matching have done (Hyde, 2000; Thomas, Gourley, & Mele, 2005), the data can be split into two or more parts, and the model tested on part of the data and, if necessary, refined before being tested again.

This study incorporates explanation building into the rival explanations pattern matching procedure by testing the model after half the data had been collected, with the opportunity to refine the model before collecting and analysing the rest of the data.

7.1.1 Hypotheses for Pattern Matching

Hypotheses were constructed from the literature on attachment. Parish and Eagle (2003) list a number of defining characteristics of childhood attachment relationships identified in the literature. They surveyed adult clients in long-term psychoanalytic therapy about their relationships with their therapists and other close personal relationships, and found that most of the features of childhood attachment were also found in adult attachment relationships. They list eight such features:

- *Proximity Seeking.* The individual seeks proximity and contact with the attachment figure (Bowlby, 1969). Proximity to the attachment figure fosters a sense of security (Weiss, 1991). Hazan and Zeifman (1994) define proximity seeking as "approaching, staying near, making contact" (p. 153).
- *Secure Base.* The attachment figure is seen as a secure base from which the individual can explore the world and to which he/ she can return; this provides a sense of security (Bowlby, 1977; Weiss, 1991). In the context of therapy, Bowlby (1988) saw the therapist as being a secure base from which the client could engage in self-exploration.
- *Safe Haven.* The individual uses the attachment figure as a safe haven, or someone to turn to for comfort when the individual is distressed, ill, or afraid (Bowlby, 1969, 1977). Hazan and Zeifman (1994) define using someone as a safe haven as "turning to for comfort, support, reassurance" (p. 153).
- *Stronger/Wiser.* The attachment figure is seen as "stronger or wiser" by the individual (Bowlby, 1977).
- *Availability.* The attachment figure's sensitive responsiveness to the individual's emotional needs facilitates the development of an attachment bond (Bowlby, 1969). Eagle and Wolitzky (2010) argue that, within a therapy context, this is reflected by the client feeling understood and comforted by the therapist.
- *Strong Feelings.* The attachment figure is associated with especially strong feelings (Bowlby, 1977, 1969).

- *Particularity.* Attachment behaviour is directed towards one or a few specific individuals who cannot easily be replaced, usually in a clear order of preference (Bowlby, 1977).
- *Mental Representation.* Within adult attachments, the individual is able to evoke a mental representation or an internal sense of the attachment figure for comfort or guidance (West & Sheldon-Keller, 1994).

The only feature of childhood attachment that Parish and Eagle (2003) did not find in adult psychotherapy clients was *Separation Protest* (feeling distress when separated from the attachment figure and protesting the separation: Bowlby, 1969; Weiss, 1991). In order to keep the number of hypotheses to a minimum, this feature was not included in the model in this study.

The attachment-based model of change from chapter 6 suggests two further hypotheses:

- *Primacy of Therapist Attachment.* The patient regards the therapist-patient relationship as being of paramount importance.
- *Developing Autonomy.* As the patient becomes more secure in his attachments, other factors, including other people, skills and insights from therapy and environmental factors, become increasingly influential.

These ten hypotheses form the basis of the attachment model to be tested. The rival hypotheses making up the attachment model and the alternative model are listed in Table 7.1. Since the aim of the study is to test the

attachment model, the hypotheses making up the alternative model are simply the opposite of the hypotheses in the attachment model.

Table 7.1. Alternative Hypotheses of the Attachment and Alternative models

Attachment model	Alternative model
+ Proximity Seeking. The patient seeks proximity and contact with the therapist more than with other people.	- Proximity Seeking. The patient seeks proximity and contact with other people more than with the therapist, or seeks proximity or contact equally from a number of people.
+ Secure Base. The patient regards the therapist as a secure base from which he can engage in self-exploration. He is able to discuss and attempt new ways of thinking and behaving with the therapist to a greater extent than with other people.	- Secure Base. The patient is able to discuss and attempt new ways of thinking and behaving in the presence of other people as much as, or more than, with the therapist or describes being unable to do this with anyone.
+ Safe Haven. The patient uses the therapist as a safe haven, or someone to turn to for comfort, support or reassurance in times of distress. He reports feeling comforted, supported or reassured to a much greater extent in the presence of the therapist than with other people.	- Safe Haven. The patient describes turning to other people for comfort, support or reassurance in times of distress as much as, or more than, to the therapist or being unable to turn to anyone.
+ Stronger/Wiser. The patient regards his therapist as knowing more than him, able to help him and offer new skills and insights that he himself lacks. He describes the therapist as much more able to help him and offer new skills and insights than other people.	- Stronger/Wiser. The patient describes other people as being as able as, or more able than, the therapist to help them and offer new skills and insights or describes no-one being able to do this.
+ Availability. The patient feels understood or comforted by the therapist to a greater extent than by other people.	- Availability. The patient regards other people as being as able as, or more able than the therapist to understand and comfort him or describes no-one being able to do this.
+ Strong Feelings. The patient experiences intense emotions, especially during disruption and ending of relationships with the therapist.	- Strong Feelings. The patient experiences no intense emotions during the, disruption and ending of relationships with the therapist.

<p>+ Particularity. Attachment behaviour is directed towards one or a few specific individuals, who cannot easily be replaced, usually in a clear order of preference.</p>	<p>- Particularity. The patient is able to seek support from a range of other people when the therapist is unavailable or does not seek support from anyone.</p>
<p>+ Mental Representation. The patient thinks about what the therapist would advise them to do or evokes a sense of the therapist when they are in difficulties to a greater extent than for other people.</p>	<p>- Mental Representation. The patient thinks about what others would advise or evokes a sense of them rather than the therapist, or does not use these strategies at all when in difficulties.</p>
<p>+ Primacy of Therapist Attachment. The patient regards his relationship with his therapist as being the most important factor affecting change throughout treatment.</p>	<p>- Primacy of Therapist Attachment. The patient regards factors other than his relationship with his therapist as being the most important factor affecting change.</p>
<p>+ Developing Autonomy. The patient attributes increasing importance to other factors, including other people, the skills and insights he has learnt in therapy or environmental factors, during the later stages of treatment.</p>	<p>+ Developing Autonomy. The patient does not attribute increasing importance to other factors, including other people, the skills and insights he has learnt in therapy, or environmental factors, during the later stages of treatment.</p>

7.2 Method

7.2.1 Design

A semi-structured interview was used to explore patients' experiences of interactions with their therapist. A binomial test was used in this study. In the binomial test, there are two possible outcomes for each hypothesis rated – *supported*, where the model hypothesis is supported, and *not supported*, where the alternative hypothesis is supported. The binomial test determines whether the proportion of judgements supporting the attachment model (supported) compared with those supporting the alternative model (not supported) is

significantly different from .5, which would be the expected proportion if the attachment and alternative models were equally supported.

A sample size calculation was carried out using STPLAN software version 4.5. Assuming a power of .8, a sample size of 23 would allow a significant difference from a proportion of .5 (i.e., equal support for both the model and the alternative) to be detected, if the observed rate for the attachment hypothesis was .75. Since two judges would judge each hypothesis for each patient, this would entail a minimum of 12 patients. Eighteen patients were judged as meeting the study's criteria. It was decided to collect data from the first eight patients before testing and, if necessary, refining the model. If no refinements were needed, data would be collected from a further four patients, as per the sample size calculation, and the final analysis would be based on the data from these 12 cases. However, if refinements to any of the hypotheses were necessary, data would be collected from as many as possible of the remaining potential participants. The final analysis of the unrefined hypotheses would be based on all cases, while the final analysis of any refined hypotheses would be based solely on those cases interviewed after the hypotheses had been refined.

7.2.2 Participants

Participants were male patients in the personality disorder treatment service of a high secure psychiatric hospital treating offenders detained under mental health legislation. Because the study was investigating change processes in treatment, patients were selected who had, in the opinion of their clinical team, made progress within treatment within the service. Each participant had a primary diagnosis of personality disorder made using the International

Personality Disorder Examination, DSM-IV version (IPDE; Loranger, 1999).

Patients were excluded from the study if they lacked the mental capacity to give informed consent to participate or were unable to comprehend research procedures. Patients with whom the author had worked as a therapist were also excluded, as were patients who had been interviewed in the study in chapter 3, from which the attachment-based model was developed. Of 18 eligible patients 10 (55.56%) agreed to participate.

7.2.3 Measures

7.2.3.1 Semi-structured interview. Participants were interviewed using a semi-structured interview (Appendix J), in which they were asked to describe their experience of treatment, and key relationships during treatment. The interview was constructed to elicit information relating to the hypotheses under investigation.

7.2.4 Procedure

Ethical approval was obtained from the local NHS Research Ethics Committee (reference number 14/EM/1062). Potential participants were approached by their psychologist, who informed them about the study and gave them a copy of the participant information sheet (Appendix K). To minimise the risk of potential participants feeling obliged to participate, they were asked to complete a form to indicate whether they wished to meet with the author to discuss the study further. They then sealed their response in an envelope and gave it to their psychologist, who passed it to the author. The psychologist was not made aware of the patient's response. Ten patients completed the form and agreed to meet the author, one completed the form and declined to meet. The other seven did not complete the form. No further action was taken with these patients.

Potential participants who agreed to speak to the author were given the opportunity to ask questions about the study and decide whether to participate. All potential participants who spoke to the author agreed to participate. A mutually agreed date and time were arranged for the interview. This was a minimum of 24 hours after meeting with the author.

Interviews were conducted face-to-face on the participant's ward. Before starting the interview, the author discussed the participant information sheet and consent form with the participant, and the participant was offered the chance to ask further questions before signing the consent form. Interviews lasted between 30 and 60 minutes and were each audio recorded and later transcribed verbatim into a Microsoft Word document.

7.2.5 Data Analysis

Interview transcripts were first coded by the author, a clinical psychologist with experience of working with offenders with a diagnosis of personality disorder. As in chapter 3, codes are defined as “tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study” (Miles & Huberman, 1994, p. 56). In this case, the codes were one or other of a pair of rival hypotheses. Coding involved highlighting each passage in the interview transcript that was relevant to each pair of rival hypotheses. The coded transcripts from the first three interviews were reviewed by a second researcher— also a clinical psychologist with experience of working with offenders with a diagnosis of personality disorder— after which the two coders discussed any discrepancies in coding and decided on an agreed set of codes.

The reliability of the coding process was supported by the development of a codebook (Appendix L) to formalise the coding process (DeCuir-Gunby, Marshall, & McCulloch, 2011). A codebook consists of code names (in this case, there was a code name for each hypothesis), and a definition of each code incorporating inclusion and exclusion criteria. DeCuir-Gunby et al. describe the development of codebooks as an iterative process involving refining definitions as more data are analysed. During this study, minor alterations to the codebook were agreed in response to unforeseen participant responses, though none of these changes affected the results of any previous cases.

The coded data from each case were independently reviewed by two other researchers (“judges”), both experienced mental health professionals. For each case, the judges studied the coded data from the interview transcript and rated them against the ten hypotheses in the attachment model as “supported”, “not supported” or “insufficient evidence to judge”. In the case of the developing autonomy hypothesis, which proposes that patients will attribute greater importance to factors other than the therapist in the later stages of therapy, data from any participants who had been in treatment for less than three years was not included when testing this hypothesis. The two judges made a judgement on each of the ten pairs of rival hypotheses, making a total of 20 judgements on each case (excluding those where there was insufficient evidence to judge).

When the first eight cases had been analysed, the ten hypotheses making up the attachment model were each tested using a binomial test. In the binomial test, there were two possible outcomes for each code rated – “supported”, where the attachment model hypothesis was supported, and “not supported”, where the

alternative hypothesis was supported. Once the two judges had assessed each pair of rival hypotheses for eight participants, this provided up to sixteen judgements on each pair of rival hypotheses (excluding those cases where there was insufficient information to make a judgement). The binomial test determined whether the proportion of judgements supporting the attachment model (supported) compared with those supporting the alternative model (not supported) was significantly different from .5, which would be the expected proportion if the attachment and alternative models were equally supported.

Any of the attachment hypotheses that were not supported at this stage could then be refined, on the basis of data collected from the first eight cases, and the refined hypotheses tested against the remaining cases. When all cases had been analysed, the hypotheses were again tested using binomial tests. For hypotheses that were not revised, the binomial test would be based on judgements for all cases. For hypotheses that were revised after the first eight cases, the final binomial test would be based only on data collected since the hypothesis had been revised. In the event, although no hypotheses were altered after the midway review, it was agreed that the interview schedule failed to capture data that was relevant to the mental representations hypothesis, and so the interview schedule was amended accordingly.

In order to assess inter-rater reliability, the two judges' judgements of each hypothesis across all participants were compared and inter-rater reliability was calculated using Cohen's kappa.

Given that, as Trochim (1989) acknowledged, a perfect match for the model was unlikely, a less rigorous criterion of 80% (8/10) of attachment

hypotheses confirmed was chosen in order for the attachment model to be accepted.

7.3 Results

7.3.1 Sample Description

Table 7.2 summarises the time since admission, length of therapeutic relationship with current therapist and current therapy engaged in by the ten participants. It also records for how many of the hypotheses in the attachment model, at least one of the judges found evidence to support that hypothesis for that participant. The Developing Autonomy hypothesis was not examined for case D because he had been in treatment for less than three years.

Table 7.2. Treatment Histories of Participants

Participant ID	Years since admission	Years with current therapist	Current therapy	Number of attachment hypotheses supported
A	6.67	4.14	Offence-related therapy	9/10
B	10.63	2.86	Offence-related therapy	10/10
C	2.81	2.11	DBT	9/10
D	1.27	0.78	DBT	1/9
E	4.50	3.15	DBT	6/10
F	4.84	4.27	Schema therapy	7/10
G	6.83	4.29	Offence-related therapy	7/10
H	5.65	2.65	Schema therapy	8/10
J	7.03	4.53	Offence-related therapy	7/10
K	5.89	5.83	Schema therapy	10/10

The average length of therapeutic relationship at the time of the study was 3.46 years, and several participants had been working with the same therapist for over 4 years. In most cases, patients had kept the same therapist when moving from one type of therapy to another. Participants were at different

stages of the treatment pathway, in which patients typically complete DBT, schema therapy and offence-related therapies in that order (Evershed, 2011a).

Nine out of ten participants reported evidence of at least six of the ten criteria for an attachment relationship with their therapist. These nine patients had been working with their therapist for at least two years. The one participant who did not report significant evidence of attachment had only been in the hospital for a year and a half, and had only been working with his current therapist for approximately nine months.

7.3.2 Inter-Rater Reliability

Cohen's kappa was calculated to determine the level of agreement between the two judges. Cohen (1960) proposed that a kappa less than 0 corresponded to less than chance agreement; between .01 and .20 corresponded to slight agreement; between .21 and .40 corresponded to fair agreement; between .41 and .60 corresponded to moderate agreement; between .61 and .80 corresponded to substantial agreement; and between .81 and .99 corresponded to almost perfect agreement. In this case, there was a moderate degree of agreement between the two judges ($\kappa = .487$). This seemed very low, given that the judges agreed on 57 out of 59 judgements (96.61%) after missing data were excluded. This paradox has previously been identified by Feinstein and Cicchetti (1990) as occurring when the responses by judges are asymmetrically distributed, as was the case in this instance where, in 56 out of 57 cases where the judges agreed, both agreed that the hypothesis was supported. Cicchetti and Feinstein (1990) provided a formula for calculating p_{pos} and p_{neg} as two separate indices of proportionate agreement in judges' positive and negative judgements.

Using these formulae, p_{pos} was calculated as .98 and p_{neg} as .50. While p_{neg} remains moderate, it only refers to three judgements.

7.3.3 Attachment Model

Illustrative examples of participants' quotes that supported each of the ten hypotheses are listed in Table 7.3. The letter in parentheses after each quote refers to the participant who made the quote.

Table 7.3. Illustrative Quotes for Attachment Hypotheses

Hypothesis	Illustrative quote
Proximity Seeking	<p>"I would rather the majority of my time was spent in them sessions because that's where the real change comes with me." [C]</p> <p>"She knows if I'm having a bad day, she can kind of make it so I'm not having a bad day." [E]</p>
Secure Base	<p>"It's like being an infant again because you're learning new stuff, stuff what you don't even recognise when you were at school or things like that." [F]</p> <p>"I can tell her things I wouldn't tell my f***ing mother." [K]</p>
Safe Haven	<p>"She's easily approachable, she doesn't judge me or whatever." [G]</p> <p>"She's always got time to help." [J]</p>
Stronger/ Wiser	<p>"I will say that she has helped me through some traumatic times, you know, and if it wasn't for her I would have given up by now." [A]</p> <p>"We've worked together for so long that she knows me probably a little bit better than I know myself." [E]</p>
Availability	<p>"They don't make light of what you tell them. They take it in, they listen to you, they take it in and they're not snidey or trying to be above you, you know what I mean. I feel as though they're genuinely concerned." [B]</p> <p>"I feel totally different and relaxed when I'm around [my psychologist]." [A]</p>
Strong Feelings	<p>"When she's off sick [I feel] neglected, in the dark, forgot about." [B]</p> <p>"Just does my head in if she's not there." [K]</p>
Particularity	<p>"If I had a problem I used to wait until [my psychologist] would come on the ward, or when it was my one-to-one and then I'd discuss it with him and then he would talk to</p>

	staff.” [H]
	“I can go and talk with my named nurses but I can’t really. I can sort of talk to them but I can’t really go deep, not as deep as I can with [my psychologist].” [K]
Mental Representation	“I know what she’d tell me to do.” [B]
	“When I think of self-harming I talk myself out of it now... I think at the end of the day what would your mam think and what would [your psychologist] say and stuff like that.” [K]
Primacy of Therapist Attachment	“Of all the relationships I’ve had in my life, even family ones, the one with [my psychologist] has been the most important.” [C]
	“[My psychologist] was the first person I’ve learnt to be able to trust.” [J]
Developing Autonomy	“I’ve become more self-sufficient, but that’s... if I didn’t have a good psychologist then I wouldn’t be able to put that.” [C]
	“[My psychologist] was the start of it and then it sort of spread through.” [J]

The results are summarised in Table 7.4. Nine out of ten hypotheses in the attachment model were supported by the data, the only exception being the mental representations hypothesis. Using the less stringent criterion of 80% of attachment hypotheses being supported, the attachment model was supported by these data.

Table 7.4. Results of Hypothesis Testing

Hypothesis	Total number of positive judgements/ total number of judgements	Probability
Stronger/Wiser	14/14	<.001
Availability	17/17	<.001
Secure Base	16/16	<.001
Safe Haven	15/15	<.001
Proximity Seeking	13/15	.004
Strong Feelings	15/16	<.001
Particularity	18/19	<.001
Mental Representation	5/11	.73
Primacy of Therapist Attachment	11/13	.011
Developing Autonomy	6/6	.015

7.4 Discussion

Seven out of eight of Parish and Eagle's (2003) attachment hypotheses were strongly supported by these results. The exception was the Mental Representation hypothesis. West and Sheldon-Keller (1994) proposed that securely attached adults should be able to evoke a mental representation or an internal sense of the attachment figure for comfort or guidance. Evidence for such mental representations was reported by Knox, Goldberg, Woodhouse, and Hill (1999) in a study of psychotherapy clients in the community. However, that study was specifically investigating mental representations and involved the interviewer telling participants that "[t]hey may hear their therapists' voice or words, may see an image of their therapists, or may sense the presence of their therapists" (p. 246). Participants who did not identify having had any such experiences were excluded from the study. There is also evidence that, among therapists and trainee therapists in psychotherapy, self-reported positive therapeutic outcomes are significantly associated with the use of mental representations of the therapist when the therapist is not present (Geller, Cooley & Hartley, 1981; Geller & Farber, 1993).

This study used open questions to avoid leading participants into giving answers that supported the attachment model and so participants would have been less primed to recall such processes than in the study by Knox et al (1999). Processes relating to mental representations may be particularly difficult to identify; the other attachment hypotheses relate to overt behaviours (Proximity Seeking, Safe Haven, Particularity and Developing Autonomy), perceptions of others (Secure Base, Stronger/ Wiser, Primacy of Therapist Attachment) or strong emotions (Secure Base, Safe haven, Availability, Strong Feelings,

Primacy of Therapist Attachment). The Mental Representation hypothesis relates to internal cognitive processes which, as Bowlby (1969) argued, are less open to introspective analysis. It is also possible that participants used strategies that neither they nor the researchers recognised as using mental representations of their therapist. For example, a patient may use self-soothing techniques to generate kinaesthetic sensations that mirror the feelings of calm they experience in the therapist's presence, but they may not be aware of the parallels and may well not construct this as using a mental representation of the therapist. In summary, while previous studies have found evidence of clients using mental representations of therapists, these studies have either involved clients who had been primed with information about mental representations (Knox et al., 1999), or who were themselves therapists and who might therefore be expected to know about attachment theory and the importance of mental representations (Geller et al., 1981; Geller & Farber, 1993). Given that mental representations of therapists appear to be difficult for clients to accurately introspect, and that participants in this study were not primed with information about mental representations, the failure of this hypothesis to be supported could have been expected.

There was also support for the Primacy of Therapist Attachment and Developing Autonomy hypotheses. The judges were able to make relatively few judgements about the Developing Autonomy hypothesis because patients answered the probe questions in different ways which made judgements difficult; some patients compared the relative importance of different aspects of treatment currently with how they had felt on admission, while others compared

their current views with how they thought when they first noticed themselves changing.

All nine of the patients who had been working with their therapist for over two years showed evidence of having formed an attachment relationship with that therapist. The one participant who showed little evidence of attachment had only been working with his current therapist for approximately nine months. This is probably not surprising, since a secure attachment pattern would be unlikely to develop over a period of a few months in an adult with a diagnosis of personality disorder and in the early stages of treatment.

This study has demonstrated the potential strengths of this modified form of pattern matching. Using an explanation building framework to alternate between inductive and deductive phases, and allowing a lower threshold for accepting the model have mitigated some of the risk associated with the “all or nothing” approach to pattern matching proposed by Trochim (1989). This approach shows promise, for example, in testing theories when only small samples are available, such as in forensic settings. It may also have some value in ideographic approaches, such as in checking the content validity of case formulations.

7.4.1 Limitations

Although the number of participants in this study was small, they showed a high degree of consistency in their responses that would be unlikely to change with a larger sample. All the participants were treated in the same service, and it is possible that the responses are not generalisable to other services. This sample was not a representative cross section of patients in the service; participants had made significant progress, had good insight and

positive relationships with their therapists, whereas patient without these qualities may have been less likely to agree to participate. The interview topic guide prompted participants' answers around the hypotheses and so may have restricted their answers. However, without prompts relevant info may have been missed. In addition, both coders were aware of the aims and hypotheses of the study and may have been biased in their codings as a result.

7.5 Conclusions

This study provides further support for the attachment-based model of change with this patient group. Most of the participants showed evidence for most of the predicted aspects of attachment relationships, and the relationship with the therapist was seen by participants as being a key factor affecting change. Participants in this study had mostly been working with the same therapist for a long time. The average length of therapeutic relationship at the time of the study was 3.46 years, and a number of participants had been working with the same therapist for over 4 years. The importance of attachment relationships and the fact that most of the patients judged to have been successful in treatment had worked with the same therapist for several years suggests that keeping the same therapist for as long as possible rather than, for example, changing therapists at the start of each new therapy, is the most effective approach with this patient group.

There was support for the two hypotheses generated from the attachment-based model of change from chapter 6. Participants in this study generally regarded their relationship with their therapist as being of paramount importance to the process of change, supporting the Primacy of Therapist

Attachment hypothesis. Participants also reported becoming more self-sufficient and more able to seek support from staff other than the therapist in the later stages of therapy, supporting the Developing Autonomy hypothesis.

Describing the development of attachment in childhood, Bowlby (1988) wrote of “a secure base from which a child or adolescent can make sorties into the outside world” (p. 12). In other words, he envisaged the process of exploration as one of physically exploring the real world. Describing the therapeutic implications of attachment theory later in the same book, Bowlby described a key task of psychotherapy as “to provide the patient with a secure base from which he can explore the various unhappy and painful aspects of his life, past and present” (p.156). In other words, he saw this process as one of psychological, rather than physical, exploration. Other attachment-based models of therapy have also described the process of exploration from a secure base in therapy as one of internal, rather than external exploration (Bateman & Fonagy, 2004; Florsheim & McArthur, 2009). In contrast, the process of exploration/ generalisation shown by patients in the later stages of treatment in this study appears to reflect exploration of both their internal world and their external interpersonal environment. From a clinical perspective, this seems an important generalisation from developing insight to changing behaviour. The fact that such generalisation has not previously been reported may reflect the fact that patients in these studies who were in the later stage of treatment had been in treatment for a number of years.

8. Discussion

Abstract

The results of this thesis indicate a three-stage process of change in male forensic inpatients with a diagnosis of personality disorder. In the *orienting/ cognitive dissonance phase*, patients notice a consistent improvement in interactions with others relative to their previous experiences. In the *reparenting phase*, their attachment relationship with their therapist is the most important factor affecting change. In the *exploration/ generalisation phase* patients are able develop supportive and therapeutic relationships with other staff members. This model has a number of practical implications for working therapeutically with this patient group.

The Hospital Social Functioning Questionnaire (HSFQ) is the first measure of social functioning specifically designed for forensic inpatients. It has good internal consistency, test-retest reliability, and convergent validity with measures of psychological wellbeing. The HSFQ and Global Assessment of Functioning measure different aspects of social functioning and appear to complement each other. With increasing attention being paid to social functioning in the diagnosis of personality disorder, there is a need to develop measures such as the HSFQ that can be used in inpatient settings.

The modified pattern matching approach used in this thesis is effective, addresses key methodological weaknesses from previous pattern matching studies, and has a number of applications in research involving small, heterogeneous samples.

8.1 Theoretical Advances

At the beginning of this thesis I posed the question, what are the important change processes in the treatment of personality disorder in a forensic inpatient setting? Throughout this thesis, a model of change processes has been developed. Before presenting this model, it is important to stress that this model has been developed specifically with male forensic inpatients with a diagnosis of personality disorder. This is a group of whom the majority have histories of chronic trauma, abuse, neglect and relationship difficulties (Roberts, Yang, Zhang, & Coid, 2008; Spitzer, Chevalier, Gillner, Freyberger, & Barnow, 2006), as a result of which, they have developed insecure patterns of attachment and dysfunctional patterns of relating to others (Bateman & Fonagy, 2004; Meyer & Pilkonis, 2005; Sarkar & Adshead, 2006). These dysfunctional patterns tend to be repeated in different settings, including prison and healthcare settings, reinforcing negative and dysfunctional beliefs about the self, others and the future (Coid, 2002; Nijman, á Campo, Ravelli, & Merckelbach, 2014).

A consistent finding from the studies in Chapters 3, 6 and 7 has been the importance that patients who make progress in treatment attach to interpersonal relationships, mainly with their therapists, but also with other staff. The results from these three studies suggest a model of change for forensic inpatients with a diagnosis of personality disorder that consists of three phases. It should be noted that these three phases of change are not the same and do not correspond to the different stages of treatment described in chapter 6.

8.1.1 Orienting/ Cognitive Dissonance Phase

Since patients in this population often have patterns of repeated dysfunctional relationships with others, including in prison and healthcare settings, an

important first stage in the change process is for them to recognise different, less dysfunctional patterns on admission to a specialist personality disorder treatment service. A key finding from the study in Chapter 3 is that participants describe a process of orienting/ cognitive dissonance, in which they perceive a difference in how they are currently regarded and treated compared to how they were regarded and treated previously, particularly in prison. Important themes that contribute to this cognitive dissonance and sense of difference include persistence, availability of support and a commitment to treatment by staff members.

Given that the next phase of the change process involves attachment to a single therapist, an interesting feature of this orienting phase is that patients refer to a number of staff, and even to the treatment culture of the service, as contributing to the process of orienting/ cognitive dissonance. It may be that a consistent pattern of disconfirming evidence from a wide range of staff is necessary to trigger cognitive dissonance in patients with long histories of dysfunctional relationships.

8.1.2 Reparenting Phase

The results of Chapters 6 and 7 strongly suggest that patients regard their relationship with their therapist as being the single most important factor affecting change. Patients describe features of their relationship with their therapist that mirror relationships and attachment processes between children and caregivers. In Chapter 6, as patients move through the stages of treatment, they rate the content of therapy as increasingly important. This is consistent with the hypothesis that, in the early stages of treatment, patients are largely dependent on the therapist for self-regulation, mentalization and interpersonal

interactions with others, but that as therapy proceeds and attachment becomes more secure, they become increasingly able to carry out these functions independently. This appears to mirror the process by which these processes are internalised in securely attached children (Bateman & Fonagy, 2004; Bowlby, 1969; Sarkar & Adshead, 2006). Meanwhile, the results of the study in Chapter 7 suggest that effective therapist-patient relationships have many of the characteristics of caregiver-child relationships that Parish and Eagle (2003) predicted would be found in a secure therapeutic relationship. These results are consistent with a limited reparenting model of change, in which the process of treatment involves the therapist, within appropriate professional boundaries, meeting the patient's core emotional needs that were not met in childhood by parents or caregivers (Kellogg & Young, 2006).

Although this thesis has not directly investigated how long the reparenting process takes, the results from Chapter 6 suggest that it is only in the final stage of treatment, by which time patients have typically been in treatment for a number of years, that they regard relationships with staff other than their therapist to be as important as their relationship with their therapist. Moreover, all the participants in the study in Chapter 7 who described features of secure attachment to their therapist had been working with that therapist for at least two years. This suggests that reparenting is a long-term process. Given the high incidence of trauma and insecure attachment in this population, this is to be expected.

8.1.3 Exploration/ Generalisation Phase

The results of the study in Chapter 6 suggest that, while the therapeutic influence of people other than the therapist is limited in the early stages of

treatment, the influence of other staff increases for patients in the final stages of treatment.

Describing the development of attachment in childhood, Bowlby (1988) wrote of “a secure base from which a child or adolescent can make sorties into the outside world” (p. 12). In other words, he envisaged the process of exploration as one of physically exploring the real world. Describing the therapeutic implications of attachment theory later in the same book, Bowlby described a key task of psychotherapy as “to provide the patient with a secure base from which he can explore the various unhappy and painful aspects of his life, past and present” (p. 156). In other words, he saw this process as one of psychological, rather than physical, exploration. Other attachment-based models of therapy have also described the process of exploration from a secure base in therapy as one of internal, rather than external exploration (Bateman & Fonagy, 2004; Florsheim & McArthur, 2009). In contrast, the process of exploration/ generalisation shown by patients in the later stages of treatment in Chapter 6 appears to reflect exploration of the external interpersonal environment. From a clinical perspective, this seems an important generalisation from developing insight to changing behaviour. The fact that such generalisation has not previously been reported may reflect the fact that patients in these studies who were in the later stages of treatment had been in treatment for a number of years.

8.2 Advances in Assessment

A secondary outcome of this thesis was the development of a new self-report measure of social functioning specifically for individuals with a diagnosis of

personality disorder in an inpatient setting. Social functioning, as measured by the Hospital Social Functioning Questionnaire was found to be correlated with self-reported and clinician-rated progress in treatment, as well as with clinician-rated global functioning. Given the paucity of outcome measures specifically for forensic inpatients, this is a potentially useful measure, particularly since impaired social functioning is a more stable feature of personality disorder than symptoms (Gunderson et al., 2011; Zanarini, Frankenburg, Reich, & Fitzmaurice, 2010), meaning that measures of progress based simply on symptoms would be likely to overestimate the degree of improvement. As well as being suitable for psychiatric inpatients, the Hospital Social Functioning Questionnaire could also, with minor rewording, be used in prisons.

8.3 Methodological Advances

The final study in this thesis used a novel combination of rival explanations pattern matching (Trochim, 1989) and explanation building (Yin, 2014) to validate the attachment-based model of change. This approach provides the opportunity to revise the model or the data collection strategy—in this case the interview protocol—part way through the study, before testing the revised model. This mitigates a weakness of previous pattern matching studies which have not been able to test their revised models because they used all their data at once to test their model (Hyde, 2000; Thomas, Gourley, & Mele, 2005). The revised approach improves on previous explanation building studies by incorporating statistical methods (Barrington, 1967; Derthick, 1972). Another novel approach addressed Trochim's observation that a pattern match is rarely exact by setting a lower threshold for the number of hypotheses in the

attachment model that needed to be supported for the attachment model to be accepted, in this case 80%.

This approach to pattern matching appears to provide a useful method for refining and validating complex theoretical models in situations where only small numbers participants are available or in highly heterogeneous populations.

8.4 Limitations and Strengths

A problem with the design of this thesis was that, in studying how patients believed they had changed, and the processes that had caused that change, the design of the studies, particularly in chapter 3 and 6, could have done more to study which particular processes were associated with change in specific areas. An interpretative phenomenological analysis (IPA; Smith, 1996) approach in chapter 3 would have allowed for a more detailed study of how participants made sense of the changes they had experienced, while the TCQ in chapter 6 could also have been designed so as to ask about what processes were linked to specific changes.

A limitation of the research in this study was the small population being studied. This meant that the TCQ used in chapter 6 was not validated, and it was not possible to conduct a factor analysis on either of the new measures piloted in chapters 5 and 6.

A limitation of the three-phase model of change is that it is incommensurable with the stages of treatment described earlier in chapter 6. That is to say, there is no correspondence between the different phases of the change process and the different stages of treatment. Also, the model of change

also does not account for the fact that, although the influence of staff other than therapists as therapy progresses, so does the influence of therapists and patients. It has not been possible to rule out the possibility of other factors, such as patients being socialised into roles they are expected to adopt or of getting to know other people in their environment better, the longer they have been in the hospital.

The generalizability of this research may be limited. For the studies in chapter 3 and 7, participants were selected who had, in the opinion of their clinical teams, made progress in treatment. They were not therefore representative of the whole population. This inclusion criterion also means that it is not possible to draw conclusions about change processes, or factors blocking progress, in other patients. Another limitation was the fact that only 54 out of 105 potential participants (51.4%) took part in the study in chapter 5, and only 50 out of 104 potential participants (48.1%) took part in the study in chapter 5, so neither sample can be taken as being representative of the overall population. It is possible, for example, that those who participated were more satisfied with their experiences of therapy or had made more progress than those who declined to participate.

An important limitation of the qualitative studies in chapter 3 and chapter 7 was the fact that the author worked in the service where the research was conducted, and was known to most participants. While this may have enabled me to gather more and better quality data than would have been possible with a researcher from outside the service, there was also a risk that participants would feel some pressure to respond in a socially desirable or compliant way. The risk of data being distorted because of this could have been

mitigated if the responses of participants had been triangulated with data from other sources of data such as third party observers (therapists or other staff, or patient records (Stiles, 1993), although this would have risked deterring some patients from participating, or from being candid about their experiences. Another limitation of both qualitative studies was the fact that participants' responses may have been constrained, in chapter 3 by the author's list of areas of dysfunction associated with a diagnosis of personality disorder, and in chapter 7, by the use of an interview protocol.

Nonetheless, this research was conducted on a sample of forensic patients whose change processes have not previously been investigated. There were no strong reasons to believe that information given by them was systematically biased to cast them in positive light since there were no gains to be had from creating a good impression.

While this thesis was not directly addressing issues of risk assessment or risk management, in a high secure forensic setting such as the hospital in which this research took place the issue of risk of harm to self, and particularly risk of harm to others are often paramount. This study could therefore be criticised for not addressing these issues directly. However, it could be argued that this research promotes effective risk management in three ways.

Firstly, service users have different perspectives and priorities from mental health professionals and from wider society (Strupp & Hadley, 1977), and these differences are arguably even greater with forensic patients who are compulsorily detained in hospital. Given the paucity of research into the experiences of forensic patients (Coffey, 2006), and the fact that they often engage poorly in treatment (McMurrin, Huband, & Overton, 2010; Wormith &

Olver, 2002), research that provides information about what works to engage and to promote change among these patients is useful and will ultimately result in better engagement and better risk management.

Secondly, forensic patients with a diagnosis of personality disorder tend to present their highest level of risk to self and others in the early stages of treatment when they are likely to be in the orienting phase described above (Livesley, 2007). Identifying the behavioural, environmental and cultural factors that promote the processes of orienting and cognitive dissonance should help to promote a safer therapeutic environment for patients in the early stages of treatment.

Thirdly, boundary issues are common and complex in working with people with a diagnosis of personality disorder, particularly in forensic setting (Evershed, 2011b; Guthiel, 1989). In an emotionally intense and long-term therapeutic relationship such as those described by patients in Chapter 7, there is not only a risk of boundary crossings, but also a risk that such emotionally intense and long-term relationships will be misperceived by colleagues as boundary violations. An attachment-based model of such therapeutic relationships offers a helpful framework for helping therapists and their colleagues to make informed judgements about therapeutic boundaries in these complex and dynamic relationships.

8.5 Implications for Clinical Practice

These findings have a number of implications for the treatment of male forensic inpatients with a diagnosis of personality disorder. Firstly, they suggest that therapy for these patients should be informed by attachment theory, and

that an important focus of therapy should be on the developing a more secure pattern of attachment. Secondly, they suggest an overarching framework, applicable to a range of therapy models and involving different interventions during each of its three stages. Thirdly, it suggests that, as patients move from one therapy to the next, they should, where possible, keep working with the same therapist. Finally, at a time when resources are limited, these results suggest that therapist resources are best targeted at patients in the early stages of treatment, and that, once patients are in the latter stages of treatment and have a more secure relationship with their therapist, the role of other staff becomes more important.

The Hospital Social Functioning Questionnaire appears to be a promising measure of social functioning for inpatients with a diagnosis of personality disorder. Given the importance of social functioning to both the DSM-5 alternative model for personality disorders (American Psychiatric Association, 2013), and the proposed ICD-11 classification system for personality disorders (Tyrer et al., 2011), the measurement of social functioning in patients detained under the Mental Health Act with a diagnosis of personality disorder is likely to become more important.

In addition, the approach to pattern matching described in Chapter 7 may have useful clinical applications, for example in providing a framework for judging on the presence or relevance of different elements of a case formulation, and thereby assessing its content validity.

8.6 Areas for Future Research

This thesis has developed and partially validated an attachment-based model of change for male patients with a diagnosis of personality disorder in a high secure setting. In developing a model of attachment-based therapy for people with a diagnosis of personality disorder, this thesis has achieved the first stages in the process of developing and evaluating complex interventions outlined by the Medical Research Council (2008). Specifically, it has, in attachment theory, a coherent theoretical basis, and has developed a model of change processes and outcomes. The next stage would be to identify the elements of an attachment-based intervention that could be replicated in future interventions, specifically, what are the interventions that promote or impede change during each phase of change, and do these vary according to the attachment style of the patient?

The findings from Chapter 6 relating to the exploration/ generalisation phase of treatment are a departure from previous attachment-based models of psychological therapy, and attempts should be made to replicate them, possibly using a pattern matching approach similar to that used in Chapter 7. It would also be useful to attempt to replicate these findings with other populations such as prisoners, or women with a diagnosis of personality disorder.

The focus throughout this thesis has been on studying patients who, in the opinions of the clinicians working with them, have made progress in treatment. Most of the studies have excluded patients who appear not to have made progress. Yet they too can be an important source of information about the process of change. Specifically, it would be useful to study whether these

patients fit the three phase model of change described above and, if they do, at which phase they “get stuck” and the reasons they fail to make progress.

Further work to establish the validity of the Hospital Social Functioning Questionnaire is required. If the measure were found to be associated with treatment outcome and to predict progression to placements of lesser security, this would indicate its likely value as an interim measure of progress in treatment. The applicability and usefulness of the HSFQ could be improved if a clinician rating version were developed that could be used to validate this self-report measure.

8.7 Conclusions

It was observed in the introduction that a number of psychological therapies have now been shown to be effective in the treatment of people with a diagnosis of personality disorder, and that each therapy has its own theoretical model of the factors that cause and maintain the disorder and of the processes leading to clinical change. For examples, the primary change process in cognitive therapy is proposed to be the modification of dysfunctional beliefs (Wenzel, Chapman, Newman, Beck, & Brown, 2006). In schema therapy, it is enabling the client to meet his or her core unmet emotional needs in more functional ways (Kellogg & Young, 2006). Mentalization-based treatment is understood to work primarily through improving the client’s mentalizing ability (Fonagy & Bateman, 2006), while dialectical behaviour therapy is understood to work through reducing dysfunctional behaviours linked to dysregulated emotions (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006), and the proposed mechanism of change in transference-focused psychotherapy is the

integration of incongruent mental representations of self and others (Levy et al., 2006). It may seem paradoxical that all these treatment approaches can be effective despite their different theoretical models. However, all these models propose that disruption to attachment, caused by early experiences of trauma or adversity in relationships with caregivers, is an important aetiological factor for personality disorder. Each model involves change to an aspect of personality that is linked to attachment, be it mental representations of self and others, mentalizing ability or emotion regulation, and each of these apparently disparate treatment models can be seen as addressing insecure patterns of attachment in a different way.

While it cannot be concluded at present that the broad range of symptoms and traits that fall under the heading of *personality disorder* can be attributed to insecure attachment, this thesis suggests that among the male forensic inpatients who participated in this research, insecure attachment is an important factor, and the process of treatment can be described as a process of developing attachment security. The importance of insecure attachment among forensic inpatients with a diagnosis of personality disorder is consistent with the high frequency of childhood abuse and trauma among forensic inpatients and those with diagnoses of antisocial or borderline personality disorder, the most widespread diagnoses in this population (Bandelow et al., 2005; Lobbestael, Arntz, & Sieswerda, 2005; Spitzer et al., 2006; Timmerman, & Emmelkamp, 2001).

The results of this thesis support a model of change processes in the treatment of male forensic inpatients with a diagnosis of personality disorder that is based on enabling them to develop more secure patterns of attachment.

Two features of this model appear novel. The first is the process of orienting and cognitive dissonance at the beginning of the process, which may be particularly necessary with this population if their negative beliefs about themselves and others have been previously reinforced in other institutions (Nijman et al., 2014). Future research should focus on identifying the features of the environment and staff behaviours that contribute to this process, and developing interventions that enhance cognitive dissonance in the early stages of treatment. The second novel feature of this model is that patients in the exploration/ generalisation phase reported not just engaging in internal exploration of what Bowlby (1988) describes as “the various unhappy and painful aspects of ...life, past and present” (p. 156), they also report exploring the external interpersonal environment by developing a broader range of relatively secure attachment relationships. For patients aiming to move on to conditions of lower security and to eventually live independently in the community, this is an important final stage in the treatment process. Future research should focus on understanding this generalisation process, and the features of patients, therapists, other staff and the environment that contribute to it, and on developing interventions to enhance and strengthen the generalisation process.

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Appendix A: Interview Schedule for Chapter 3

Introduction

Read through Patient Information Sheet and consent form.

I am interested in how therapy works and how patients with a diagnosis of personality disorder get better. I have some questions that I would like to ask you. This will probably take about 40 minutes today. If you want to stop or take a break at any time please tell me. I will be taping the interview so that I can be as accurate as possible in getting what you have to say. After this interview I will type out what is on the tape and the tape will be kept in a locked cabinet until the end of the study when it will be destroyed.

Once I have interviewed everyone I will draw up a list of all the things everyone thought was important to helping them change and I will then come back to ask you go through that list and tell me how important you think each of the items is in helping you to change.

Remember, there are no right or wrong answers in this study; I am concerned with hearing about your experiences, good and bad.

Do you have any questions before we start?

Content of change

I am going to ask you about how you think your personality has changed as a result of psychological therapy. By personality I mean things like your relationships with other people, the way you deal with your emotions and urges and how you think about yourself and others (*give prompt card*)

- Do you think your personality has changed in any way since you started therapy?
- If so, what has changed about your personality?
- If I asked people who know you well how they thought you had changed I since you've been here, what do you think they would say?

Process of change

For each change the participant described

What happened in therapy that led to the change you have described? (Probes: was it triggered by something that happened to you or by something that somebody else said or did?)

Can you describe a particular time when X happened that was important in making the change you talked about?

Why do you think that episode was important? (prompt: did it lead to thinking or feeling or behaving differently?)

Was there anything else that happened that led to the change you described (prompts, as appropriate, what about events that happened in therapy? What about events that happened outside therapy? What about things you decided to change by yourself?)

Can you describe a particular time when X happened that was important in making the change you talked about?

Why do you think that episode was important? (prompt: did it lead to thinking or feeling or behaving differently?)

Why do you think that episode was important? (prompt: did it lead to thinking or feeling or behaving differently?)

Debrief

- How did you find that?
- Was there anything in the interview that you found surprising?
- Was there anything you found distressing?

When I have finished interviewing and before I finish my report I would like to meet with you again to discuss my findings and to check whether they match your experiences.

Thank you for your help.

For this study, personality includes:

- **Your relationships with other people,**
- **The way you deal with your emotions**
- **The way you deal with urges and
impulses**
- **How you think about yourself and
others**

Appendix B: Participant Information Sheet for Chapter 3.

Participant Information Sheet

Title of Project: Investigating mechanisms of change in therapy for personality disorder.

Names of Researchers: Phil Willmot & Mary Jinks

This information sheet describes research being conducted in the Personality Disorder Services of Rampton Hospital between September 2010 and September 2011. The study will be in two parts. In the first part I will ask you about how you think your personality has changed as a result of psychological therapy since coming to the service and what has contributed to that change. The interview will last about 50 minutes. Once I have interviewed all the patients in my sample I will make a list of all the different answers from those interviews. This list will go into a checklist which I will ask you to complete. This will probably be several weeks after the first interview and will take about 30 minutes to complete. The checklist will ask which parts of your personality you think have changed as a result of therapy, how important you feel those are and what has contributed to those changes. I will be asking all the patients who take part in the earlier interview to complete the checklist, but I will also be asking a larger group of patients to complete the checklist too.

Please take time to read the following information carefully. We are providing you with this information so that you understand why we are conducting this study and why we are asking you to participate in this research.

What is the purpose of this study?

We know there are a number of therapies that work for people with personality disorder (for example, DBT and Schema Therapy). However, we are less clear about exactly how these things therapies help people to change. This study is looking at what happens when people with personality disorder get better and at how those changes happen. If you agree to take part in the study I would like to ask you about how you think you have changed since being here and about what has made those changes happen.

This study should help us to understand better what helps patients to change, which can help us to improve the way we run the service and deliver treatments.

Why have I been chosen?

You have been selected because, in the opinion of your clinical team, you have made progress as a result of psychological therapy within this service because we believe you may be able to help us to understand what has helped you to make progress in therapy.

Who is conducting this research?

The researchers in this study are Phil Willmot, Consultant Psychologist and Mary Jinks, Research Assistant. The research is being conducted as part of a PhD qualification. The project is supported by the Peaks Academic Research Unit and has been approved by the Nottingham 2 NHS Local Research Ethics Committee.

What are the potential benefits of taking part?

The study is not designed to have any personal benefit for you. However, you may find it interesting and helpful to discuss how you have changed and what has helped you to change. It may help you to understand how therapy has affected you. It may also help us to understand better how patients are affected by therapy and help us to improve the way we deliver treatment and manage the service to help patients get better.

Do I have to take part?

No you do not. If you decide not to take part, the decision will not affect your care in any way. You may withdraw at any point during the study. You may also withdraw your consent after the end of the study up until the results are analysed. If you decide to withdraw after the interview, ask a member of staff to phone me or leave a message on my ansaphone, extension 7310.

If you agree to take part you would be interviewed by one of the researchers at a time that is convenient to you. The first interview would be tape recorded and will probably take about 50 minutes. The second meeting would take place several weeks later and would involve you completing a checklist with one of the researchers. The checklist would take approximately 30 minutes to complete and will not be recorded.

If you agree to take part we will also ask you about your age, length of time in the service and what psychological therapies you have completed, and we would ask for information on your diagnosis from your clinical notes. This is so that we have some background information about the people who take part in the study and would not be used to identify you personally.

What are the potential disadvantages of taking part?

Although we will be as careful as possible, talking about how therapy has affected you may be distressing for you. If this happens you can stop the interview and we will help you seek the support of staff.

How confidential will the interview be?

If you agree to take part we will inform your Responsible Clinician but will not tell them anything else. All the information which is collected about you during the course of this research will be kept strictly confidential, unless hospital policy about safety and subversion of security is threatened. After the interview, we will type out the interview and then destroy the tape. To protect your anonymity, we will be careful with any quotes by you that we use, and any mention of your name or other personal information which could identify you will be altered.

What will happen to the results of this project?

A final report will be produced for the Personality Disorder Service's management team. This will explain the results of the study and may make recommendations about how to improve what we do. A summary of this report will be placed in patient areas. Results will also be published through professional journals and presented at conferences. No individuals' responses will be identifiable.

How can I make a complaint if I am not happy with this research?

If you have a concern about any aspects of this study, you should speak with the researcher who will do his best to answer your questions. You can contact Phil Willmot through the psychology department. If you remain unhappy and

wish to complain formally, you can do this through the NHS complaints procedure via the local Service Liaison Department on 01777 247396.

What if I need any further information?

Please feel free to ask a member of your clinical team to contact Phil Willmot, so that any questions or concerns that you may have can be addressed.

What happens next?

If you do not wish to take part you do not need to do anything. If you are interested in taking part, please complete the attached form and return it to Phil Willmot. He will then arrange to see you further to discuss the research. Remember that you can withdraw from the study at any point.

Thank you

Appendix C. Themes and codes from Thematic Analysis in Chapter 3

1. Themes related to aspects of change

1.1 Themes relating to ‘self’

I am better at talking to people instead of brooding and ruminating

since I come here I can have one to ones. In gaol you get paranoid you’ve got no one, you just go to your room and stew on it, but here you can pull one of the nursing staff, and then once you talked about it at the end of it you’re not as paranoid, you can see a bit of sense in it (12/2/18)

I can think more flexibly, not in black and white

I didn’t see things as clear; everything was black and white then (2/9/17)

I suppose I only knew one way of dealing with things; DBT has taught me a better way of dealing with things. DBT taught me how to look at options (7/5/26)

I have more control over how much I brood and ruminate on things

I probably haven’t been sulky for 10 weeks or so now, well not really deep sulky, you know, I tend to open myself up and think about my schemas, why am I quiet, why can’t I sort this out? (1/5/49)

I’ve only started DBT, and that’s helped me to put problems in a box, because I used to ruminate if something happened, I used to think about constantly (12/1/11)

I can relax more

I’ve never been able to relax before; they’ve told me how to relax and not be uptight all the time, because I’ve been violent all my life and relaxation was something that never came into my life (6/2/42)

I am better at managing my anger

(anger management) helped me to process my thoughts when I get angry and keep on top of them, rather than letting my anger and emotions get the best of me and kicking off again (9/4/46)

I am better at solving problems

You go through that and you think of different ways of looking at problems instead of keep brooding on it, and it works (1/6/2)

I am better at making decisions

I’m more able to make up my mind (2/1/10)

I am more assertive

I am more confident. I can stand up for myself more too. I am more assertive too (4/2/21)

I am better at controlling my urges and impulses

being able to stop and think...It's about breathing exercises and listening to relaxing music and slowing yourself down until you're ready to start thinking, because you go blank when you do your breathing exercises and listening to music, so then you let the thoughts come back one by one (2/6/39)

I am better at slowing down my racing thoughts

My head used to run at 100 mph and now I know coping strategies and took new medication it's slowed down my thinking processes so I don't think of more than one thing at a time, I'm able to just think of one thing and one thing only (2/1/24)

I am better at managing my emotions

DBT; that helped me to understand my emotions and regulate them (8/1/13)

I am better at tolerating feeling vulnerable

accepting my vulnerabilities and accepting that you know what sometimes I'm going to feel vulnerable and fragile and that's normal (9/6/13)

I am more confident about discussing personal issues with other people

When I first came here I was wouldn't talk to a lot of people, whereas these days I tend to talk to a lot of people. I'm not frightened to but in, like before with a group of people I'd be in the background whereas now I can go in the middle or start talking to them and I'm not frightened (10/1/11)

I see myself as an adult rather than a child

I think I was still a young kid when I was in my 40's. I still had the mind of a kid. That has changed a lot,.. I became more grown up. (10/6/22)

I think more positively about myself

I never ever felt comfy in my own skin. There's things that happened in the past that I thought were my fault, and I hated myself for it, but now I know that they wasn't my fault. I just look at myself differently now. (12/6/24)

I trust myself more

Well, I used to beat myself up a lot, and one day I just decided to trust myself. I thought if I can't trust myself I can't trust anyone else, so I just started trusting myself; I knew it was the right thing to do (2/3/47)

I am better at understanding my emotions

DBT; that helped me to understand my emotions and regulate them (8/1/13)

I understood myself better

Insight. Understanding that a lot of my problems stem from me, whereas years ago I'd think that a lot of problems stemmed from other people (8/2/22)

I am better at accepting and making sense of bad things that happened to me as a child

I think that one important thing for me is to gain knowledge of my past, instead of growing up being a nobody and rejected and believing that it was my fault for what happened to me many, many years ago when it's not my fault, it was

other people's fault, not mine. I was here to be comforted and loved, gone through these abuses, and nothing was there, but I got to try and change my thinking from there to now to make sure it doesn't happen again. (1/4/40)

I am better at telling myself when my thinking is wrong or unhelpful
telling myself it's alright by talking, not being quiet and sulky, laughing him along a bit (1/6/32)

I am better at reflecting about what I'm doing
I mean I might feel something now and then tomorrow think about how I felt but might not think right, but if you write it down you can then go to someone and say that was how I was feeling, they can read it out and give you feedback on that (8/7/41)

1.2 Themes relating to 'others'

I am better at building good relationships with people
Working with people while I'm here is great for me, because it allows me to get to know me and get to have good relations with people that are helping me (7/1/43)

my interaction with people again. When I was drinking, for a good couple of years I was my own, not making really any sense but thinking I did, but I never. (11/6/27)

I am better at sorting out problems in relationships
I go out to try and keep relationships rather than break them down all the time (8/1/16)

I am better at explaining myself to other people
I think I'm learning to express myself with probably more sense of security, as in I don't mind opening up and I'm quickly able to assess a situation to see if it's appropriate to open up and start saying things, so that's definitely improved. (3/1/43)

explaining myself much better so people understand me better. (9/11/5)

I am better at compromising
I'm more able to ... compromise (2/1/10)

I am better at accepting advice and support from others
Advice and support and things like that. I never appreciated it as before I never really wanted their advice, support or encouragement you know, I didn't want that. But now I am more comfortable. Now I can approach anybody and it doesn't matter who it is, I can approach them and speak to them (5/4/32)

I am better at tolerating other people
I think my tolerance level in terms of dealing with people in the sense of how they affect me emotionally is a lot higher (8/1/11)

I am less judgemental about other people

I give people a lot more respect. Before I painted everybody with the same brush. (11/1/24)

I can trust people more

I assume people are there to help me, whereas before I didn't see people as there to help me, I saw them as there to drag me down. I always used to think If they talk to me they're after something, but now I realise that people can talk to me and they're not after something, they're interested in me (6/7/34)

I care more what people think about me

and wanting to let people to know that I am not this one eyed monster that sits in the corner, that doesn't interact or socialise with anybody. (5/7/12)

I care more about other people's feelings

I'm more empathic, I've more empathy and compassion for others, which I never really had before. Like people have described me before as quite a cold and callous person in the past, but that has changed. I have had to change that as that was the way I used to deal with things in that it gave me permission to be aggressive and violent, as I didn't care about anyone else or have any consideration about them as a person. It was easier for me so to be violent towards them. as I just didn't consider people to be worthy of consideration and sympathy. (9/3/7)

before I was quite a violent person-quite violent and aggressive person, I didn't really care about inflicting violence on other people or about being aggressive. I didn't really see it as a problem to be honest, but obviously I knew it was wrong-obviously but that didn't concern me in the slightest. (9/1/45)

I am better at understanding and respecting other people's points of view

I thought my view counted more than anyone else's, I didn't want to know anybody else, I just like dismissed them... Just talking to staff all the time, having conversations with staff and realising it's quite easy to do that; it's just about practice. And I learn about listening to somebody and taking on board what they say, because it help you, other people's opinions as well, be for your own good. (2/5/37)

I am more aware of the effect I have on other people

a massive change is my urges to commit suicide. I asked myself, what's the point. Thinking about other people like my children and the rest of my family, and the people around me who it would affect, whereas before I wouldn't care what they thought. (11/1/33)

I am better at explaining myself so that people understand me

explaining myself much better so people understand me better. (9/11/5)

1.3 Themes relating to 'future'

I am better at planning for my future

I just watch people now and I just want to have my own life. I've not had a life, I hear people talking about their kids and going away on holidays, and I want some of that. (12/6/17)

I am better at setting achievable targets for myself

it feels good to have a target, even if it's next Sunday I'll have achieved this and I achieve it, that's a hell of a lot more than I was doing, and it gives you confidence in yourself. (8/10/11)

I believe I can change and get better

there is a possibility that I have got a future outside and I can get out and I can do what I've always wanted to do (8/9/45)

I am more hopeful about my future

When I came here I thought I wouldn't see the outside world again. I thought I'd be here for the rest of my life till I die. But now I can see a bit of a future, where I can get to a (medium secure unit) and start again. (6/3/21)

I am better at thinking about my future

Before I didn't really care about my future, about how things were for me; I lived day to day and I didn't set any targets, have any goals, whereas now I do look at my future and I look at setting a goal for where I'm going to be this time next year and having a target for that and my ultimate goal is to be able to get out and run my own tattooist shop (8/2/10)

2. Themes related to change processes**2.1 Other people's behaviour****People stuck by me and didn't give up on me**

there was support from nurses and that helped and (psychologist) as well that was very helpful. He stuck by me through thick and thin, when I was down in the gutter and things were not going right for me. They were always there to give me a hand (5/5/45)

People treated me as normal

psychologists and ward staff and friends... They just talk to me normal. If I've got a problem I can go and talk to them and they'll listen to me and help me find a way of solving it. (6/8/6)

People helped me to think about the future

It's been a gradual change. Just talking to staff, them saying wouldn't you like to be outside and go for a meal and go for a walk in the park, things like that; that's things that I've missed. (6/3/28)

People gave me accurate feedback on my behaviour

I think a good working relationship is important in places like this, because not only are you building a good relationship with people you work closely with, but also helping the person understand themselves by focusing on what they've done wrong but also focusing on their positives, which sometimes, like myself, I don't realise (7/3/16)

People were serious about helping me

When people are trying to bully you (staff) go out of their way to make you feel comfortable, talk to the other party, tell him how he's making me feel, make us have a two to one (meeting) (2/2/13)

People really cared about me

Staff being interested in how I feel, showing an interest in me, believing in me. (2/1/47)

People did what they said they were going to do

Before I came here I wouldn't trust anybody because I'd been lied to that many times I just felt they were just going to keep me forever and were just warehousing me. But when I came here, things started moving. I feel more trust here. (10/7/19)

People put their trust in me

Well because they've allowed me to do things, to have scissors out when other people's been around and it makes it go better ... That's a big trust in me, trusting me how to make sure it don't come down... So it gave me a good boost that. (10/4/40)

People encouraged me

But you do get the named nurse sessions and every time my named nurse is on I will get one once a week. They have been wonderful, I think they have helped my confidence (4/7/33)

People understood me

So when people talk to me and see that sort of behaviour they can then say to me "look I think this is what's happening", I then know that they understand, that gives me the confidence to be able to talk to them about what it is I'm feeling because I understand that they understand that. (8/9/17)

People supported me

I had the support from people, my family like my sons phoning the ward and saying 'I can't wait to see you again', things like that have helped (5/8/3)

People accepted me without judging me negatively

(Named nurse) can seem to see through my crimes and he can see through the person that I was to the person that he's always suspected I am, which is I'm not too bad a bloke, that will make a go of it, that tries. He can see the changes. (11/6/48)

2.2 Improved mentalizing ability

Seeing the consequences of not engaging in treatment encouraged me to engage

I saw people-and what motivated me was that I'd say to them 'how long have you been here?' and they say like 25 years and I'd be like 'shit' and then I ask them what courses have you done and they'd say 'I haven't done any yet'. And so I refused to let that happen to me. (9/6/39)

Other patients' extreme behaviour encouraging empathy/ perspective taking better

Well I see bad behaviour going on in here and then you hear their past, and they've been messed about with and it's shocking in a way; you can understand in some cases why they are the way they are and they behave. (10/8/10)

I realised that my behaviour was the cause of my problems

I wasn't getting anywhere, everyone was ignoring me. I thought why are you ignoring me, I'm not sat here to be ignored, even though I was quiet and had my headphones on. Then I thought, you've always got your headphones on; people might think you don't want to talk to them, and that pushes them away, so I don't wear my headphones and when people come in I'll have a chat to them. (1/6/10)

I realised that if other patients can change then so can I

(other patients) just saying about their life outside, that they lived the same kind of life as what I did and they were putting it behind them and they were looking forward to a different life outside and getting jobs and things; I've not had a job in years and I thought well, if they're thinking that they can get out there must be some hope for me, because I'd like to get out, get some kind of work (6/4/16)

I realised that other people are going through the same things as me

I really just put it back on fellow patients, listening to them and coming to realise that I wasn't... I'm not on my own through all this. (11/4/39)

I realised that other people have similar thoughts and emotions to me

confided in not just nurse but fellow patients as well... just realising that I'm not the only one that experiences these problems or... someone would say to me... we'd be chatting and they'd say "I felt like this today", and I thought "bloody hell, did you! So did I! ". (11/3/24)

I realised other people have similar histories to me

I used to think that I'm the only one that these things have happened to, and when I was listening to other people's stories and they were the same as mine, I thought well I'm not on my own (6/4/47)

I realised that I was responsible for my problems, not other people

because I understood that it weren't other people, it was me, whereas before what I would do was I would blame other people, I wouldn't look at the fact, well hold up this is how I feel, this isn't what they're doing to me, this is how I'm feeling. (8/3/33)

2.3 Life events

Moving to a different ward or hospital made it easier to make a fresh start

I thought like that a new hospital, a new place, new people, who don't even know me, then this will be a good time to change. (4/1/26)

I felt proud of achieving something outside therapy, which encouraged me to make changes in therapy

in woodwork I made a big totem pole for a family theme park; it's got all animals' faces and stuff on it; it took about a year to do, and it's up in the park now. People from all over the hospital they'd be coming to the woodwork area to have a look at it. I seemed to get a lot of respect from people, I didn't feel worthless, I felt like I'm good at something, there's more to my life than hitting and walloping people (11/5/22)

Something really positive happened to me

I went to Lincoln (on a rehabilitation trip... I enjoyed it when I was out there; I was mixing with normal people, we went in a restaurant, I had fish and chips. We were the only ones in there but there were people when we went outside there were people walking around doing shopping and that, and I thought well, this is the life that I should be living, so that made a big difference, I thought I can get this for a day, but I thought if I get myself together and get out I could have this for the rest of my life (6/3/30)

Something really bad happened to me

M were threatening me and I threatened him and I went for him, and they separated us and I thought well if there hadn't have been staff there what I could have done to him, I could have seriously hurt him and that would have been more guilt and I might have gone to prison for him, and I just thought then I've got to change, I've got to stop losing my temper, being violent (6/1/33)

my Dad passing away last year, it made me look at life in a different angle (5/2/15)

2.4 Environmental factors

Medication helped to slow down my thoughts

I took new medication it's slowed down my thinking processes so I don't think of more than one thing at a time, (2/1/24)

The hospital takes treatment seriously

Whereas prisons are just about confinement and containment-that's all that prisons are about. I don't care what people say like that prisons do treatments-they don't that's just merely window dressing. Whereas here, it is all about treatment and getting better (9/4/32)

a lot of the staff know that anyway and they're proud that they work the way they do on here, which is good, they like being caring. It's not as if they're being forced into it; they just prefer to have that approach; it's what they're here for. (3/7/18)

Relationships made me think about the future

Well when my nephew was born that was quite a big thing for me... I was getting photos regular, phone calls and visits, so I'm seeing him growing up and like he is only about 15 months old but he grows up so quick but I'm missing out on that. My family want me to be there and I'm not (9/12/48)

Appendix D. Sample coded transcript from Chapter 3

I	so if you compare yourself now with what you were like 4 ½ years ago, how do you think your personality's changed?	I am more confident
P	I'm more confident, I'm more able to make up my mind, compromise, I've just got wiser	I am more able to make up my mind
I	and if I asked people who know you, what would they say was different about you?	I am more able to compromise
P	My attitude: I don't think I'm a big man any more, I don't go around throwing my weight around, I don't make excuses for myself...	I don't try to intimidate others I take responsibility for my behaviour
I	You also wrote to me to say... realise how much of an idiot you've been, things you liked about DBT was about challenging your emotions, being able to cope better by distracting, relaxation exercises, making things slow down; tell me about that...	
P	My head used to run at 100 mph and now I know coping strategies and took new medication it's slowed down my thinking processes so I don't think of more than one thing at a time, I'm able to just think of one thing and one thing only. Things used to speed up and slow down all the time it doesn't do that no more.	I am able to use coping strategies to slow down my racing thoughts Medication helped to slow down my racing thoughts
I	You said you've got insight and can take on other people's views... Lets start with seeing thing differently. How do you see things differently now?	I am more able to trust staff
P	Well I don't think staff are against us any more. I see the future brighter, I take each day...	
I	So, thinking staff were against you, was that a slow and steady change or sudden?	
P	Slow and steady.	
I	When did that start	
P	Probably about a year ago.	
I	And what led to that change?	Staff showed an interest in me

P	Staff being interested in how I feel, showing an interest in me, believing in me. When you get to trust a member of staff there's a bond there, it makes you realise they're not against you.	I realised that staff weren't against me
I	And was that one or two staff in particular who did that?	
P	Yeah,	
I	Can you remember particular things they said or did that stand out?	Staff stood up for me Staff didn't let me down Staff don't judge me
P	Sticking up for me... doing what they say they're going to do... standing in my corner, so when I slip up they're not judging me, they're just telling me what my faults are so I can correct them, they don't judge me for anything.	
I	Can you give me an example?	Staff helped me to resolve problems with peers
P	When people are trying to bully you they go out of their way to make you feel comfortable, talk to the other party, tell him how he's making me feel, make us have a two to one.	
I	How did you feel before that change, when you felt that staff were against you?	
P	I couldn't trust them. I felt they were all against me and just wanted to jeopardise my progress, I just felt they wanted me to go on Derwent every time.	
I	How do you feel now?	
P	I'm starting to trust them. I think it's worth working with them now.	
I	and were there other things happening in other parts of your life that also made a difference?	Family supported me Family helped me to think about my future
P	Family	
I	What did your family do?	
P	Showed their support, showed me there's things out there for me, now I've got a future out there.	
I	OK, so that's about seeing the future's bright.	

	What did they do?	
P	Wanting to see my nieces.	
I	Is that something you couldn't do before?	
P	I didn't know they existed till a year ago.	
I	So you found out about them, so you've been in touch with your sister?	
P	I got in touch with my sister again.	
I	and then you found out about your nieces.	
P	Yeah.	
I	Is there anyone else in your family that you've got closer to?	
P	My Mum.	
I	Do you think they've changed, that they're more supportive, or is that about you changing?	
P	I'm able to deal with them better.	
I	And you can see a future now with you family, so has anything changed in your relationship with your family that you now see a relationship with them	
P	Well we've built bridges... I mean what was in the past stays in the past, and just start afresh.	I don't worry so much about the future
I	So that sounds like an important thing that's helped you to think you've got a future, is there anything else that's different that helps you to think that you've got a future now?	
P	Able to deal with it better... I don't fret about going out there and fucking up.	I am able to trust myself
I	Did that used to bother you?	
P	Yeah.	
I	Do you think that held you back, that fear of fucking up?	
P	Yeah, I've started trusting myself.	

Appendix E: Summary of Review Process for Systematic Reviews of Reliability of Social Functioning Measures

a) Self-Report Measures

Measure	OQ-45	PSNAS	SF-36	SDS	SAS-M	SAS-SR	SFQ	WSAS
Studies found in search	AMED: 7 CINAHL: 22 Medline: 34 PsycInfo: 53 Web of Science: 22	0	AMED: 3 CINAHL: 17 Medline: 40 PsycInfo: 15 Web of Science: 12	Medline: 10 PsycInfo: 9 Web of Science: 8	0	AMED: 2 CINAHL: 7 Medline: 11 PsycInfo: 14 Web of Science: 13	Medline: 2 PsycInfo: 2	Medline: 7 PsycInfo: 9 Web of Science: 6
Studies for review of title and abstract	128	0	87	27	0	57	4	22
Studies excluded	Duplicates: 79 Not English: 4 Not peer reviewed: 4 Not mental health: 36		Duplicates: 40 Not English: 4 Not peer reviewed: 4 Not mental health: 16 No reliability data: 20	Duplicates: 12 Not mental health: 14		Duplicates: 24 Not English: 6 Not peer reviewed: 3 No reliability data: 22	Duplicates: 2 Different measure: 1 No reliability data: 1	Duplicates: 9 No reliability data: 6 Not mental health: 3
Studies for review of full text	5	0	3	1	0	2	0	4
Studies excluded	-		-	-		-		-
Studies included in review	5	0	3	1	0	2	0	4

b) Clinician Rating Scales

Measure	APFA	LIFE	RAPFA	SAS-I	SFS
Studies found in search	Medline: 2 PsycInfo: 2	Medline: 4 PsycInfo: 5 Web of Science: 1	Medline: 1 Web of Science: 1	Web of Science: 1	Medline: 12 PsycInfo: 9 Web of Science: 3
Studies for review of title and abstract	4	10	2	1	24
Studies excluded	Duplicates: 1 Different measure: 2	Duplicates: 5 Different measure: 3	Duplicates n: 1		Duplicates: 9 Different measure: 15
Studies for review of full text	1	2	1	1	-
Studies excluded	-	-	-	-	-
Studies included in review	1	2	1	1	-

c) Single-Item Rating Scales

Measure	GAF	GAS	SOFAS
Studies found in search	AMED: 40 CINAHL: 37 Medline: 46 PsycInfo: 51 Web of Science: 48	AMED: 19 CINAHL: 17 Medline: 25 PsycInfo: 24 Web of Science: 24	
Studies for review of title and abstract	222	109	22
Studies excluded	Duplicates: 120 Not English: 6 Not peer reviewed: 4 No reliability data: 84 Participants under 18: 2	Duplicates: 56 Not English: 3 Different measure: 34 No reliability data: 14	Duplicates: 10 Not English: 2 No reliability data: 7 Not peer reviewed: 1
Studies for review of full text	6	2	2
Studies excluded	No reliability data: 1	-	-
Studies included in review	5	2	2

Appendix F: Summary of Review Process for Systematic Reviews of Validity of Social Functioning Measures

a) Self-Report Measures

Measure	OQ-45	PSNAS	SF-36	SAS-M	SAS-SR	SDS	SFQ	WSAS
Studies found in search	AMED: 9 CINAHL: 26 Medline: 39 PsycInfo: 43 Web of Science: 40	0	AMED: 7 CINAHL: 25 Medline: 52 PsycInfo: 23 Web of Science: 13	0	AMED: 7 CINAHL: 12 Medline: 24 PsycInfo: 28 Web of Science: 21	CINAHL: 2 Medline: 12 PsycInfo: 10 Web of Science: 12	Medline: 2 PsycInfo: 2	Medline: 7 PsycInfo: 8 Web of Science: 6
Studies for review of title and abstract	157	0	120	0	92	36	4	21
Studies excluded	Duplicates: 85 Not English: 4 Not peer reviewed: 4 Not mental health: 59		Duplicates: 64 Not English: 5 Not peer reviewed: 6 Not mental health: 20 No validity data: 22		Duplicates: 51 Not English: 7 Not peer reviewed: 3 No validity data: 29	Duplicates: 13 Not mental health: 23	Duplicates: 2 Different measure: 1 No validity data: 1	Duplicates: 9 No validity data: 5 Not mental health: 3
Studies for review of full text	5	0	3	0	2	0	0	4
Studies excluded	-		-		-	-		-
Studies included in review	5	0	3	0	2	0	0	4

b) Clinician Rating Scales

Measure	APFA	LIFE	RAPFA	SAS-I	SFS
Studies found in search	Medline: 1 PsycInfo: 1	Medline: 5 PsycInfo: 5 Web of Science: 2	Medline: 1 Web of Science: 1	0	Medline: 13 PsycInfo: 10 Web of Science: 17
Studies for review of title and abstract	2	12	2	0	40
Studies excluded	Duplicates: 1 Different measure: 1	Duplicates: 5 Different measure: 3 No validity data 3	Duplicates n: 1		Duplicates: 14 Different measure: 36
Studies for review of full text	0	1	1	0	0
Studies excluded	-	-	-	-	-
Studies included in review	0	1	1	0	0

c) Single-Item Rating Scales

Measure	GAF	GAS	SOFAS
Studies found in search	AMED: 48 CINAHL: 51 Medline: 73 PsycInfo: 68 Web of Science: 59	AMED: 19 CINAHL: 17 Medline: 25 PsycInfo: 24 Web of Science: 24	AMED: 6 CINAHL: 7 Medline: 12 PsycInfo: 13 Web of Science: 5
Studies for review of title and abstract	299	109	43
Studies excluded	Duplicates: 163 Not English: 9 Not peer reviewed: 5 No validity data: 114 Participants under 18: 2	Duplicates: 56 Not English: 3 Different measure: 34 No validity data: 14	Duplicates: 20 Not English: 3 No validity data: 16 Not peer reviewed: 2
Studies for review of full text	6	2	2
Studies excluded	No validity data: 1	-	-
Studies included in review	5	2	2

Appendix G: Patient Information Sheet for Chapter 5

Title of Project: Developing a measure of social functioning in a secure psychiatric setting

Names of Researcher: Phil Willmot

This information sheet describes research being conducted in the Personality Disorder Services of Rampton Hospital between September 2011 and May 2012.

What is the purpose of this study?

The aim of the project is to develop a measure of social functioning. Social functioning includes things like:

- Being able to engage in work, education or training
- Being able to carry out household tasks like cooking, cleaning and budgeting
- Maintaining healthy relationships with partner, family, friends and colleagues
- Keeping up regular leisure activities and interests
- Looking after your appearance and personal hygiene.

People with mental health problems often have problems with social functioning. However, these problems have often been overlooked by clinicians because they are not core symptoms of mental disorder. However, they are an important sign of how well the patient is doing, and they are also important to patients and their quality of life.

There are lots of measures of social functioning about already but most have been designed for use with service users in the community and so don't apply so well to life in somewhere like this. This study is trying out a measure of social functioning for patients in this hospital.

If I take part, what will I be asked to do?

If you agree to take part in this project you will be asked to complete three short questionnaires about your social functioning and mental health. This should take no longer than 10 minutes and can be done with your psychologist or therapist. A small number of patients, picked at random, will also be asked to complete one of the questionnaires again a week later so that we can measure how much scores change over a short period. This should take no more than 5 minutes and can also be done with your psychologist or therapist.

Also, if you agree to take part, we will also take two further measures of your social functioning. These will not involve you directly, but they will still need your consent. Firstly, I will ask your psychologist or therapist to make a judgment of your social functioning, and secondly I will make a note of your personality disorder and other diagnoses and level of psychopathy from your files. These measures will then help me to compare patients' scores on the social functioning questionnaire with other measures of social functioning, personality disorder and to measure how effective the new measure is.

Please take time to read the following information carefully. I am providing you with this information so that you understand why I am conducting this study and why I am asking you to participate in this research.

We know there are a number of therapies that work for people with personality disorder (for example, DBT and Schema Therapy). However, we are less clear about exactly how these things therapies help people to change. This study is looking at what happens when people with personality disorder get better and at how those changes happen. If you agree to take part in the study I would like to ask you about how you think you have changed since being here and about what has made those changes happen.

This study should help us to understand better what helps patients to change, which can help us to improve the way we run the service and deliver treatments.

Why have I been chosen?

You have been selected at random, from all the patients in the Personality Disorder Service and the Peaks DSPD Service at Rampton Hospital.

Who is conducting this research?

The researcher in this study is Phil Willmot, Consultant Psychologist in the Personality Disorder Service. The research is being conducted as part of a PhD qualification. The project is supported by the Peaks Academic Research Unit and has been approved by the Nottingham 2 NHS Local Research Ethics Committee.

What are the potential benefits of taking part?

The study is not designed to have any personal benefit for you. However, we hope that it will help us to better record and attend to patients' social functioning and quality of life.

Do I have to take part?

No you do not. If you decide not to take part, the decision will not affect your care in any way. You may withdraw at any point during the study. You may also withdraw your consent after completing the questionnaires up until the results are analysed. If you decide to withdraw after the interview, ask a member of staff to phone me or leave a message on my ansaphone, extension 7310.

What are the potential disadvantages of taking part?

The questionnaires will ask questions about day to day difficulties and mental problems which you may find slightly distressing. If this happens please speak to your psychologist or therapist who will be with you.

How confidential will my information be?

Once you have completed your questionnaires you will be asked to seal them in an envelope which you psychologist or therapist will return to me. Your psychologist's rating of your social functioning will only be seen by them and me, and only I will have sight of the clinical information I collect from your files. All the information which is collected about you during the course of this research will be kept strictly confidential, unless hospital policy about safety and subversion of security is threatened. Any data that is stored on computer will be anonymous and will not include patients' names.

What will happen to the results of this project?

A final report will be produced for the services' management teams. This will explain the results of the study and may make recommendations about how to improve what we do. A summary of this report will be placed in patient areas. Results will also be published through professional journals and presented at conferences. No individuals' responses will be identifiable.

How can I make a complaint if I am not happy with this research?

If you have a concern about any aspects of this study, you should speak with the researcher who will do his best to answer your questions. You can contact Phil Willmot through the psychology department. If you remain unhappy and wish to complain formally, you can do this through the NHS complaints procedure via the local Service Liaison Department on 01777 247396.

What if I need any further information?

Please feel free to ask a member of your clinical team to contact Phil Willmot, so that any questions or concerns that you may have can be addressed.

What happens next?

If you do not wish to take part you do not need to do anything. If you are interested in taking part, your psychologist or therapist will arrange a time for you to complete the research questionnaires. Remember that you can withdraw from the study at any point.

Thank you

Appendix H: Therapeutic Change Questionnaire Items and Subscales

Part 1.

Item	Subscales	
1. I am better at talking to people instead of brooding and ruminating.	Self	Skills
2. I am better at setting achievable targets for myself.	Future	Skills
3. I care more about other people's feelings.	Others	Self-awareness
4. I can think more flexibly, not in black and white.	Self	Skills
5. I am less judgemental about other people.	Others	Cognitions
6. I am better at planning for my future.	Future	Skills
7. I have more control over how much I brood and ruminate on things.	Self	Skills
8. I can relax more.	Self	Skills
9. I trust myself more.	Self	Self-awareness
10. I am better at solving problems.	Self	Skills
11. I am better at explaining myself so that people understand me.	Others	Self-awareness
12. I am better at understanding my emotions.	Self	Self-awareness
13. I am better at managing my anger.	Self	Skills
14. I am more confident about discussing personal issues with other people.	Self	Cognitions
15. I am better at building good relationships with people.	Others	Skills
16. I am better at sorting out problems in relationships.	Others	Skills
17. I am better at understanding and respecting other people's points of view.	Others	Self-awareness
18. I am more aware of the effect I have on other people.	Others	Self-awareness
19. I am better at thinking about my future.	Future	Self-awareness
20. I am better at explaining myself to other people.	Others	Skills
21. I am better at making decisions.	Self	Skills
22. I am better at compromising.	Others	Skills
23. I can trust people more.	Others	Cognitions
24. I understood myself better.	Self	Self-awareness
25. I believe I can change and get better.	Future	Cognitions
26. I am more assertive.	Self	Skills
27. I am better at accepting advice and support from others.	Others	Skills
28. I am better at tolerating other people.	Others	Skills
29. I am better at accepting and making sense of bad things that happened to me as a child.	Self	Self-awareness
30. I am better at telling myself when my thinking is wrong or unhelpful.	Self	Self-awareness
31. I am better at controlling my urges and impulses.	Self	Skills
32. I think more positively about myself.	Self	Cognitions
33. I am more hopeful about my future.	Future	Cognitions
34. I am better at slowing down my racing thoughts.	Self	Skills

35. I am better at reflecting about what I'm doing.	Self	Self-awareness
36. I see myself as an adult rather than a child.	Self	Cognitions
37. I care more what people think about me.	Others	Self-awareness
38. I am better at managing my emotions.	Self	Skills
39. I am better at tolerating feeling vulnerable.	Self	Skills

Part 2.

Item	Subscale
1. Staff accepted me without judging me negatively.	Staff
2. My therapist treated me as normal.	Therapist
3. Therapy helped me to stop ruminating about my problems.	Therapy
4. Seeing the consequences of not engaging in treatment encouraged me to engage.	Mentalization
5. Other patients helped me to think about the future.	Patients
6. I felt proud of achieving something outside therapy, which encouraged me to make changes in therapy.	Life events
7. Medication helped to slow down my thoughts.	Other
8. Other patients really cared about me.	Patients
9. Other patients understood me.	Patients
10. My therapist stuck by me and didn't give up on me.	Therapist
11. Other patients gave me accurate feedback on my behaviour.	Patients
12. Therapy taught me better ways of coping with problems.	Therapy
13. The hospital takes treatment seriously.	Other
14. Other patients did what they said they were going to do.	Patients
15. My therapist helped me to think about the future.	Therapist
16. Staff were serious about helping me.	Staff
17. Other patients stuck by me and didn't give up on me.	Patients
18. My therapist gave me accurate feedback on my behaviour.	Therapist
19. Therapy helped me slow down my thinking.	Therapy
20. I realised that my behaviour was the cause of my problems.	Mentalization
21. Relationships made me think about the future.	Other
22. My therapist was serious about helping me.	Therapist
23. Staff put their trust in me.	Staff
24. Staff helped me to think about the future.	Staff
25. Other patients helped me to solve problems.	Patients
26. Staff did what they said they were going to do.	Staff
27. Therapy changed the way I think about other people.	Therapy
28. My therapist helped me to solve problems.	Therapist
29. Moving to a different ward or hospital made it easier to make a fresh start.	Life events
30. I realised that if other patients can change then so can I.	Mentalization
31. My therapist really cared about me.	Therapist
32. I realised that other people are going through the same things as me.	Mentalization
33. Something really positive happened to me.	Life events
34. Therapy helped me understand other people better.	Therapy
35. My therapist did what he/ she said they were going to do.	Therapist
36. Other patients encouraged me.	Patients
37. Staff understood me.	Staff
38. Therapy changed the way I think about myself.	Therapy

39. Staff gave me accurate feedback on my behaviour.	Staff
40. Other patients put their trust in me.	Patients
41. Other patients supported me.	Patients
42. Therapy helped me to understand my emotions.	Therapy
43. I realised that other people have similar thoughts and emotions to me.	Mentalization
44. Staff stuck by me and didn't give up on me.	Staff
45. Staff really cared about me.	Staff
46. Staff supported me.	Staff
47. Other patients' extreme behaviour encouraging empathy/ perspective taking.	Mentalization
48. I realised other people have similar histories to me.	Mentalization
49. My therapist accepted me without judging me negatively.	Therapist
50. My therapist supported me.	Therapist
51. Something really bad happened to me.	Life events
52. Therapy helped me to think more flexibly.	Therapy
53. Other patients treated me as normal.	Patients
54. Therapy helped me to manage my emotions.	Therapy
55. My therapist understood me.	Therapist
56. Staff treated me as normal.	Staff
57. I realised that I was responsible for my problems, not other people.	Mentalization
58. My therapist put his/ her trust in me.	Therapist
59. Staff encouraged me.	Staff
60. Other patients were serious about helping me.	Patients
61. My therapist encouraged me.	Therapist
62. Other patients accepted me without judging me negatively.	Patients
63. Staff helped me to solve problems.	Staff
64. Therapy helped me to understand myself better.	Therapy

Appendix J: Participant Information Sheet for Chapter 6

Title of Project: Investigating mechanisms of change in the treatment of personality disorder.

Name of Researcher: Phil Willmot

This information sheet describes research being conducted in the Personality Disorder Services of Rampton Hospital between April and December 2012. I would like to ask you to complete a checklist. The checklist will ask about how you think you have changed as a result of treatment in this service and about what has caused those changes.

Please take time to read the following information carefully. I am providing you with this information so that you understand why I am conducting this study and why I am asking you to participate in this research.

What is the purpose of this study?

We know that the therapies used in this service for people with personality disorder work. However, we are less clear about exactly how these therapies help people to change. This study is looking at what happens when people with personality disorder get better and at how those changes happen. If you agree to take part in the study you will be asked to complete a checklist with me about how you think you have changed since being here and about what has made those changes happen.

This study should help us to understand better what helps patients to change, which can help us to improve the way we run the service and deliver treatments.

Why have I been chosen?

You have been selected because you are engaged in treatment for personality disorder and we believe you may be able to help us to understand what has helped you to make progress in therapy.

Who is conducting this research?

The researcher in this study is Phil Willmot, Consultant Psychologist. The research is being conducted as part of a PhD qualification. The project is supported by the Peaks Academic Research Unit and has been approved by the Nottingham 2 NHS Local Research Ethics Committee.

What are the potential benefits of taking part?

The study is not designed to have any personal benefit for you. However, you may find it interesting and helpful to discuss how you have changed and what has helped you to change. It may help you to understand how therapy has affected you. It may also help us to understand better how patients are affected by therapy and help us to improve the way we deliver treatment and manage the service to help patients get better.

Do I have to take part?

No you do not. If you decide not to take part, the decision will not affect your care in any way. You may withdraw at any point during the study. You may also withdraw

your consent after the end of the study up until the results are analysed. If you decide to withdraw after the interview, ask a member of staff to phone me or leave a message on my ansaphone, extension 7310.

If you agree to take part you will be asked to complete a checklist with a researcher. The checklist would take approximately 20 minutes to complete.

If you agree to take part I will also ask you about your age, length of time in the service and what psychological therapies you have completed, and we would ask your psychologist about how far they think you have progressed in therapy. This is so that we have some background information about the people who take part in the study and would not be used to identify you personally.

What are the potential disadvantages of taking part?

Although we will be as careful as possible, thinking about how therapy has affected you may be distressing for you. If this happens you can stop the interview and we will help you seek the support of staff.

How confidential will the interview be?

If you agree to take part we will inform your Responsible Clinician but will not tell them anything else. All the information which is collected about you during the course of this research will be kept strictly confidential, unless hospital policy about safety and subversion of security is threatened. Any report of this research will not make any mention of your name or other personal information which could identify you.

What will happen to the results of this project?

A final report will be produced for the service's management team. This will explain the results of the study and may make recommendations about how to improve what we do. A summary of this report will be placed in patient areas. Results will also be published through professional journals and presented at conferences. No individuals' responses will be identifiable.

How can I make a complaint if I am not happy with this research?

If you have a concern about any aspects of this study, you should speak with the researcher who will do his best to answer your questions. You can contact Phil Willmot through the psychology department. If you remain unhappy and wish to complain formally, you can do this through the NHS complaints procedure via the local Service Liaison Department on 01777 247396.

What if I need any further information?

Please feel free to ask a member of your clinical team to contact Phil Willmot, so that any questions or concerns that you may have can be addressed.

What happens next?

If you do not wish to take part you do not need to do anything. If you are interested in taking part, let your psychologist know and I will arrange to meet you to tell you more about the study. You can ask any questions about the study before you agree to take part. I will then meet with you again to complete the checklist at a time that is convenient to you. Remember that you can withdraw from the study at any point.

Appendix K: Stage of Treatment Rating

Participant number:

Please rate the stage of change of this patient based on the main focus of his therapy at present.

	Please tick one box
Stage 1: The patient is engaged in initial assessment and formulation, and the establishment of therapeutic relationships and support. He is not engaged in formal psychological therapy at this stage.	
Stage 2: The patient is engaged in psychological therapy primarily aimed at improving his self management of emotions and impulses.	
Stage 3: The patient is engaged in psychological therapy primarily aimed at changing the dysfunctional core beliefs which he use to make sense of the self, others and the world.	
Stage 4: The patient is engaged in offence-focused work involving the integration and application of skills, insight and changes from stages 2 and 3 to patterns of offending behaviour.	

Appendix L: Semi-Structured Interview for Chapter 7

Read through Patient Information Sheet and consent form.

I am interested in how treatment works and how people with a diagnosis of personality disorder get better. I have some questions that I would like to ask you. This will probably take about 50 minutes today. If you want to stop or take a break at any time please tell me. I will be recording the interview so that I can be as accurate as possible in getting what you have to say. After this interview I will type out what is recorded and the recording will be deleted.

Remember, there are no right or wrong answers in this study.

Do you have any questions before we start?

1. If you compare yourself now to how you were when you first arrived in this service, how do you think you have changed?

If I asked people who know you well how they thought you had changed since you've been here, what do you think they would say?

2. What were the most important factors behind the changes you have described?

3. I am particularly interested in what the people around you did that helped you to change, and what that meant to you.

- Over the time you've been here, who would you say were the people who have had the greatest impact on the changes you have made?
- ***If no individuals were mentioned in answer to question 2.*** Were there any people who were important to the changes that you described?
- Thinking about the things and people you've mentioned, which have been the most important in helping you to change?

4. How would you describe that person?

- How were they different from the other people around you?
- What did that person do that was so significant?
- How was that different from other people around you?
- Can you give me an example of something that person did that was different from how other people have been?

5. Were there things you could do or talk about with that person that you couldn't do or talk about with other people?

- Can you give me an example?

6. How did you feel when you were with that person? How was that different from how you felt with other people?

- ***If there was a difference:*** What was it about that person that made you feel like that?
- During the time you were working with that person, what did you think and feel about your sessions with him/ her before a session? Was that any different from how you felt with your sessions with other members of staff?
- How did you feel during them? Was that any different from how you felt with your sessions with other members of staff?
- How did you feel afterwards? Was that any different from how you felt with your sessions with other members of staff?

7. Did you ever feel you wanted to end the relationship? Can you tell me what happened?

- How did you feel when that happened? Did it feel different from when you fell out with other people?
- Were there times when you felt really hurt or angry with them, even briefly?
- How did it feel when you thought you might have to work with a different therapist?
- How did you feel when you finished working with that person? Was that any different from how you felt when you finished working with other people?
- How did you feel when that person was away, for example on holiday, or sick? Did it feel different from how you felt when other people were away?

8. In times of trouble, if you could choose, who would be the first person you would seek help or support from? Who else?

- Why that person?
- Can you give me an example?

9. In times of trouble, if there wasn't anybody available to go to, what would you do?

- What sort of things would you be saying to yourself?
- Can you give me an example?
- Is that new for you to say those kind of things to yourself? If so, where has that come from?
- Do you imagine other people saying those things to you? Who?

10. *Only for service users who have been in treatment for 3 years or more*

- What were the most important factors when you first began to change?
- What have been the most important factors over the last year?

Appendix M: Participant Information Sheet for Chapter 7

Title of Project: Validating an attachment-based model of change in personality disorder.

Name of Researcher: Phil Willmot

This information sheet describes research that I am conducting conducted in the Personality Disorder Service between August 2014 and March 2015. I would like to ask you to take part in an interview about your experiences of treatment in this service, and in particular about what the people around you did that helped you to change, and what that meant to you. This is to help us make the treatment we provide as good as possible.

Please take time to read the following information carefully. I am providing you with this information so that you understand why I am conducting this study and why I am asking you to participate in this research.

What is the purpose of this study?

We know that the therapies used in this service work. However, we know less about exactly how these therapies help people to change. Research that we have already done has shown that patients' relationships seem to be an important factor, and this study will be looking in more detail at what it is about these relationships that is so important. If you agree to take part in the study, I will arrange to interview you about your experiences if treatment in this service, and about what other people did that helped you to change.

Why have I been chosen?

You have been asked to take part because, in the view of your clinical team, you have made progress as a result of treatment in this service, and we believe you may be able to help us to understand what has helped you.

Who is conducting this research?

The interviews will be carried out by Phil Willmot, psychologist. I will record the interview so that I can type it out afterwards. I will then destroy the recording. I will then take out any personal information that could identify you before the interview is analysed by the other researchers in the team. The other researchers are Dr Sue Evershed, Lead Psychologist, Personality Disorder Service, Dr Neil Gordon and Professor Mary McMurran, Institute of Mental Health. The research is being conducted as part of my PhD qualification. The project is supported by the Personality Disorder Service and has been approved by the Nottingham 2 NHS Local Research Ethics Committee.

What are the potential benefits of taking part?

The study is not designed to have any personal benefit for you. However, you may find it interesting and helpful to discuss how you have changed and what has helped you to change. It may help you to understand how therapy has affected you. It may also help us to understand better how patients are affected by therapy and help us to improve the way we deliver treatment and manage the service to help patients get better.

Do I have to take part?

No you do not. If you decide not to take part, the decision will not affect your care in any way. You may withdraw at any point during the study. You may also withdraw

your consent after the end of the study up until the results are analysed. If you decide to withdraw after the interview, ask a member of staff to phone me or leave a message on my ansaphone, extension 7310.

If you agree to take part I will arrange to meet with you on your ward at a time to suit you to complete an interview. The interview will take approximately 50 minutes to complete.

If you agree to take part I will also collect information from your files about your age, length of time in the service, diagnoses and what psychological therapies you have completed. This is so that we have some background information about the people who take part in the study and will not be used to identify you personally.

What are the potential disadvantages of taking part?

Although I will be as careful as possible, thinking about how therapy has affected you may be distressing for you. If this happens you can stop the interview and I will help you seek the support of staff.

How confidential will the interview be?

I will inform your Responsible Clinician that you have agreed to take part, but will not tell them anything else. All the information that is collected about you during the course of this research will be kept strictly confidential, unless hospital policy about safety and subversion of security is threatened. Any report of this research will not make any mention of your name or other personal information which could identify you.

What will happen to the results of this project?

A final report will be produced for the service's management team. This will explain the results of the study and may make recommendations about how to improve what we do. A summary of this report will be placed in patient areas. Results will also be published through professional journals and presented at conferences. No individuals' responses will be identifiable.

How can I make a complaint if I am not happy with this research?

If you have a concern about any aspects of this study, you should speak to me and I will do my best to answer your questions. You can contact me through the psychology department. If you are still unhappy and wish to complain formally, you can do this through the NHS complaints procedure via the local Service Liaison Department on 01777 247396.

What if I need any further information?

Please feel free to ask a member of your clinical team to contact me, so that I can deal with any questions or concerns that you may have.

What happens next?

Simply fill in the attached form. If you are sure you do not wish to take part, put a cross in the first box to say you do not want to take part, then seal the form in the envelope and give it back to your psychologist who will return the form to me. You do not need to give anyone a reason for not wanting to take part. If you would like to take part, or you would like to find out more about the study before you make your mind up, put a cross in the second box to say you would like to discuss the study further with me, then seal the form in the envelope and give it back to your psychologist who will return it to me. Your psychologist will not be told whether you have asked to find out more about the study.

If you ask to find out more about the study you, once I receive your form I will arrange to meet you to tell you more about the study. You can ask any questions about the study before you agree to take part. I will then meet with you again to complete the interview at a time that is convenient to you. Remember that you can withdraw from the study at any point.

Thank you

Appendix N: Codebook for Chapter 7

General

Only include quotes that explicitly contain coded information. Be careful about quotes where code is only implied

e.g. *“it’s very comforting to be talking to X”* explicitly refers to codes that relate to the availability hypothesis, whereas, *“when it comes to talking about personal stuff, what I discuss with X I don’t discuss with anybody else”* implies availability but doesn’t explicitly mention it.

Read through Patient Information Sheet and consent form.

I am interested in how treatment works and how people with a diagnosis of personality disorder get better. I have some questions that I would like to ask you. This will probably take about 50 minutes today. If you want to stop or take a break at any time please tell me. I will be recording the interview so that I can be as accurate as possible in getting what you have to say. After this interview I will type out what is recorded and the recording will be deleted.

Remember, there are no right or wrong answers in this study.

Do you have any questions before we start?

1. If you compare yourself now to how you were when you first arrived in this service, how do you think you have changed?
If I asked people who know you well how they thought you had changed since you’ve been here, what do you think they would say?

2. What were the most important factors behind the changes you have described?

I am particularly interested in what the people around you did that helped you to change, and what that meant to you.
(If no individuals were mentioned in answer to question 2). Were there any people who were important to the changes that you described?
Who would you say were the people who have had the greatest impact on the changes you have made?

Question	Attachment model	Definition	Alternative model	Definition
How would you describe that person? How were they different from the other	<i>Stronger/Wiser</i> : The participant regards their therapist as knowing more	+ Stronger/ Wiser The participant expresses admiration for the therapist	The participant will describe other people as being as able as, or more able than,	- Stronger/ Wiser a. The participant does not express admiration for

<p>people around you?</p> <p>What did that person do that was so significant? How was that different from other people around you?</p>	<p>than themselves, able to help them and offer new skills and insights that they themselves lack. He describes the therapist as much more able to help them and offer new skills and insights than other people.</p>	<p>or describes the therapist using words from the following list, or synonyms: 'understanding me better than I do', 'reaching me new skills', helping me to understand myself', 'knows a lot (e.g. about life, their area of expertise, personality disorder or helping people).</p>	<p>the therapist to help them and offer new skills and insights or no-one being able to do this.</p>	<p>the therapist and does not describe the therapist using words from the following list, or synonyms: 'understanding me better than I do', 'reaching me new skills', helping me to understand myself', 'knows a lot (e.g. about life, their area of expertise, personality disorder or helping people)</p>
	<p><i>Availability:</i> The participant will describe feeling understood or comforted by the therapists to a greater extent than by other people.</p>	<p>+ Availability The therapist is described using words from the following list, or synonyms: 'understanding', 'caring', 'sensitive', 'available when I need him/ her', 'helpful', 'supportive', encouraging, or therapist behaviour is described that demonstrates these qualities.</p>	<p>The participant will describe other people as being as able as, or more able than the therapist to understand and comfort them or no-one being able to do this.</p>	<p>- Availability The therapist is not described using any words from the following list, or synonyms: 'understanding', 'caring', 'sensitive', 'available when I need him/ her', 'helpful', 'supportive', encouraging.</p>
<p>Were there things you could do or talk about with that person that you couldn't do or talk about with other</p>	<p><i>Secure Base:</i> The participant regards the therapist as a secure base from which he can engage in self-</p>	<p>+ Secure Base a. The participant reports being able to think and behave in new or</p>	<p>The participant will describe being able to discuss and attempt new ways of thinking and behaving in the</p>	<p>- Secure Base a. The participant reports not being able to think or behave in new and different</p>

people? If so, what?	exploration. He will report being able to discuss and attempt new ways of thinking and behaving to a greater extent with the therapist than with other people.	different ways or with increased confidence in the presence of the therapist. b. The participant describes being able to explore new ideas with the therapist. Either a. or b. required to support the attachment hypothesis.	presence of other people as much as, or more than, with the therapist or being unable to do this with anyone.	ways in the presence of the therapist. b. The participant describe not being able to explore new ideas with the therapist. Both a. and b. required to support the alternative hypothesis.
How did you feel when you were with that person? How was that different from how you felt with other people? If there was a difference: What was it about that person that made you feel like that?	<i>Safe Haven:</i> The participant uses the therapist as a safe haven, or someone to turn to for comfort, support or reassurance in times of distress. He reports feeling comforted, supported or reassured to a much greater extent in the presence of the therapist than with other people.	+ Safe Haven a. The participant reports feelings of trust, safety or calm in the presence of the therapist, describes the therapist as 'non-judgemental', 'caring', 'accepting', not giving up on the participant', or treating him as 'normal' (or synonyms), or describes caring or non-judgemental behaviour by the therapist. b. The participant reports feeling safer with the therapist than with other	The participant will describe turning to other people for comfort, support or reassurance in times of distress as much as, or more than, to the therapist or being unable to turn to anyone.	- Safe Haven a. The participant does not report feelings of trust, safety or calm in the presence of the therapist, and does not describe the therapist as 'non-judgemental', 'caring', 'accepting', 'not giving up on the participant', or treating him as 'normal' (or synonyms). b. The participant does not report feeling safer with the therapist than with other people.

		people. a. and b. required to support the attachment hypothesis.		Either a. or b. required to support the alternative hypothesis.
During the time you were working with that person, what did you think and feel about your sessions with him/ her before a session? How did you feel during them? How did you feel afterwards? Was that any different from how you felt with your sessions with other members of staff?	<i>Proximity Seeking:</i> The participant reports seeking proximity and contact with the therapist more than with other people.	+ Proximity Seeking a. The participant describes seeking, wanting or needing contact with the therapist. b. The participant describes experiencing positive emotions (e.g. happiness, security, calm) when he is with the therapist. a. and b. required to support the attachment hypothesis.	The participant reports seeking proximity and contact with other people more than with the therapist, or not seeking proximity or contact with anyone.	- Proximity Seeking a. The participant does not describe seeking, wanting or needing contact with the therapist when he is distressed. b. The participant does not describe experiencing positive emotions (e.g. happiness, security, calm) when he is with the therapist. Either a. or b. required to support the alternative hypothesis.
How did you feel when that person was away, for example on holiday, or sick? Did it feel different from how you felt when other people were away?	<i>Strong Feelings:</i> The participant will report intense emotions, especially during disruption and ending of relationships with the therapist.	+ Strong Feelings Participant describes feeling distressed, abandoned, depressed, lonely, angry, sad or anxious (or synonyms) at critical stages	Participants will report no intense emotions during the, disruption and ending of relationships with the therapist.	- Strong Feelings a. Participant does not describe feeling distressed, abandoned, depressed, lonely, angry, sad or anxious (or synonyms) at critical

<p>Did you ever fall out with that person? How did you feel when that happened? Did it feel different from when you fell out with other people?</p> <p>How did you feel when you finished working with that person? Was that any different from how you felt when you finished working with other people?</p>		<p>in relationship with therapist.</p>		<p>stages in relationship with therapist.</p>
<p>In times of trouble, if there were a number of people you could go to, e.g. therapist, named nurse, other nursing staff, who would you seek support from?</p>	<p><i>Particularity:</i> Attachment behaviour is directed towards one or a few specific individuals, who cannot easily be replaced, usually in a clear order of preference.</p>	<p>+ Particularity</p> <p>The participant expresses a specific preference for seeking support from the therapist and would only seek support from others if the therapist was not available.</p>	<p>The participant will report being able to seek support from a range of other people when the therapist is unavailable or not seeking support from anyone.</p>	<p>- Particularity</p> <p>The participant would seek support from two or more people, who may or may not include the therapist.</p>
<p>In times of trouble, if that person was not available, what would you do? What about at other times when he/ she was not around? Was this different from other people?</p>	<p><i>Mental Representation:</i> The participant will report thinking about what the therapist would advise them to do or evoking a sense of the therapist when they are in difficulties to a greater extent than for other</p>	<p>+ Mental Representation</p> <p>When he finds himself in a difficult or distressing situation, or when the therapist is not around, the participant describes thinking about the therapist or what the therapist would</p>	<p>The participant will report thinking about what others would advise or evoking a sense of them rather than the therapist, or will not use these strategies at all when in difficulties.</p>	<p>- Mental Representation</p> <p>When he finds himself in a difficult or distressing situation, the participant does not describe thinking about what the therapist would say or do in this situation.</p>

	people.	say or do in this situation.		
<p>Only for service users who have been in treatment for 3 years or more</p> <p>What were the most important factors when you first began to change?</p> <p>What have been the most important factors over the last year?</p>	<p><i>Primacy of Attachment</i></p> <p>The participant regards his therapist as being the most important factor affecting change throughout treatment.</p>	<p>+ Primacy of Attachment</p> <p>The participant describes the therapist or the relationship with the therapist as the single most important factor affecting change.</p>	<p>The participant regards factors other than his therapist as being the most important factor affecting change.</p>	<p>- Primacy of Attachment</p> <p>The participant does not describe the therapist or the relationship with the therapist as the single most important factor affecting change.</p>
	<p><i>Developing Autonomy</i></p> <p>The participant attributes increasing importance to other factors, including other people, the skills and insights he has learnt in therapy or environmental factors, during the later stages of treatment.</p>	<p>+ Developing Autonomy</p> <p>The participant will describe other factors, including other people, the skills and insights they have learnt from therapy or environmental factors as more important in the later stages of treatment than they were in the early stages of treatment.</p>	<p>The participant does not attribute increasing importance to other factors, including other people, the skills and insights he has learnt in therapy or environmental factors, during the later stages of treatment.</p>	<p>- Developing Autonomy</p> <p>The participant will not describe other factors, including other people, the skills and insights they have learnt from therapy or environmental factors as more important in the later stages of treatment than they were in the early stages of treatment.</p>