DOCTORAL THESIS

Investigating Recovery in Psychosis: A Personal Construct Repertory Grid Study

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Thesis Contents

1. ABSTRACT

Research regarding the potential value of using a personal construct psychology (PCP) framework to explore recovery in psychosis has been minimal. Mental health policy guidelines (Shepherd et al., 2008) recommend that recovery in mental health is an important area that needs further research.

This study aims to further understanding of recovery in service users with psychosis, by examining personal constructs elicited from participants, in contrast to the researcher supplying constructs (Bell and McGorry, 1992). Further, it attempts to define the degree of recovery using the Recovery Assessment Scale (RAS, Corrigan et al., 1999). Thirty two adults from the NHS and voluntary sector participated in the study; each completed a repertory grid (Kelly, 1955).

The RAS enabled recovery to be defined by splitting the sample, and comparisons made between low to moderate and high recovery groups. The main findings of the study show that participants in the high recovery group showed less differentiation between their different selves; greater self-esteem; an experienced sense of control over their environment; a higher degree of quality and quantity of support; and a higher degree of hope and goal setting than participants in the low to moderate recovery group. In addition, content analysis (Landfield, 1971) of current self constructs showed that participants in high recovery construed themselves as being more self-sufficient, more active socially, and displayed higher tenderness compared to those in low to moderate recovery.

Findings show how repertory grid methods can be applied clinically in order to help with case assessment and formulation, and help facilitate individually tailored therapeutic interventions to enhance recovery. For example, self differentiation findings suggest that to help an individual move towards a higher degree of recovery involves firstly loosening, and then tightening up their construing system. Secondly, self-esteem measures enabled identification of personal goals to strive towards in terms of an individual's conception of their current and ideal self, and thus steps to take to progress toward recovery. Thirdly, the Pawn and Origin Scale (Westbrook and Viney, 1980) highlighted the degree of control over one's external and internal world, thus highlighting areas that could be worked on to progress toward higher recovery. Clinical interventions addressing implicative dilemmas were also identified as enabling a change in behaviour, and therefore movement toward recovery.

Limitations of the study are discussed, including using HICLAS (De Boeck, 1992) to measure self elaboration in recovery; and future research outlined, including exploring recovery in psychosis through a longitudinal study, and sampling across different mental health populations.

2. INTRODUCTION

This study investigates the potential value of using a personal construct psychology (PCP) framework to explore recovery in psychosis given research to date has been minimal. UK policy guidelines (e.g. National Institute of Mental Health, NIMHE, 2004; Shepherd et al., 2008) highlight the importance of personal recovery principles in mental health services and make recommendations for further research. Unlike previous research (Bell and McGorry, 1992) this study elicits personal constructs rather than using pre-determined constructs; thereby it is hoped this study will extend our understanding of recovery in psychosis, and contribute to future recovery orientated treatment.

This chapter will begin by defining psychosis and recovery, followed by a review of the recovery literature. Then the relationship between recovery and psychosis will be considered, and relevant research highlighted. PCP will then be introduced together with discussion regarding its contribution to the understanding of psychosis and recovery. This will include ideas relating to self-identity, and exploration of how the self and others are construed. The aims of the current study will then be discussed, and hypotheses to be tested are outlined.

2.1 Defining Psychosis and Recovery

2.1.1 Psychosis

Bentall (2003) defines psychosis as 'severe psychiatric disorders in which an individual to some extent can be said to be out of touch with reality'. In practice this means disorders where an individual suffers from delusions and/or hallucinations. According to DSM-IV (APA, 1994) a person who has experienced symptoms of psychosis will receive a diagnosis of schizophrenia if two or more of the following symptoms are present during a one month period: delusions, hallucinations, disorganised speech, grossly disorganised or catatonic behaviour, and negative symptoms (e.g. affective flattening, alogia or avolition).

2.1.2 Recovery

In the most widely used definition of recovery, Anthony (1993, p. 13) states recovery is: 'a deeply personal, unique process of changing one's attitudes, values, feelings, goals, skills and roles. It is a way of living a satisfying, hopeful, and contributing life even with the

limitations caused by illness. Recovery involves the development of new meaning and purpose in one's life as one grows beyond the catastrophic effects of mental illness.'

2.1.2.1 Clinical and Personal Recovery

Recovery is a socially constructed concept which has gained increasing prominence in the delivery of mental health services to people with severe mental illness over the past 30 years. Historically, the concept of recovery has moved away from a dominant medical model, where mental health professionals promoted 'clinical recovery', which emphasised reductionist illness deficit paradigms, and narrowly defined recovery as the absence of symptoms (Diamond, 2006; Whitwell, 1999). Now, emphasis is placed upon a holistic and personal, or narrative discourse of recovery that emerged from people with lived experience of recovery from mental illness. This has become known as 'personal recovery' (Slade, 2009).

The concept of 'personal recovery' places emphasis on a personal empowerment and a strengths model approach where individuals become 'active agents' in their recovery, which involves taking responsibility and control for the management of their mental illness and subsequent recovery, thereby promoting a more functional sense of self (Davidson and Strauss, 1992). In contrast, de-emphasis is now placed on 'clinical recovery' where the 'sick role' and 'life-long illness' dominate, which can lead to dependence and passivity (Deegan, 1988; Rapp, 2006; Ridgeway, 2001).

Personal recovery emerged from the survivor movement where first hand narrative accounts of recovery from mental distress were publicised in the 1980s (Deegan,1988; Leete, 1989; Unzicker, 1989). These highlighted the unique individual experience of recovery and emphasised an ongoing process of back and forth movement of slow yet steady improvement rather than a linear end-result or outcome (Deegan, 1988; Jenkins et al., 2005).

'Recovery does not refer to an end product or result. It does not mean that one is 'cured' nor does it mean that one is simply stabilised or maintained in the community. Recovery often involves a transformation of the self wherein one both accepts one's limitations and discovers a new word of possibility. This is the paradox of recovery i.e. that in accepting what we cannot do or be, we begin to discover who we can be and what we can do. Thus, recovery is a process. It is a way of life' (Deegan, 1996, p. 13), rather like a journey.

Accounts like this challenged the 'clinical recovery' view of psychiatric diagnoses such as schizophrenia as necessarily chronic and degenerative illnesses (Bentall, 2003; Boyle, 1990). Instead they provide increased recognition that recovery does not simply mean the absence of symptoms, cure, or return to normal self. They emphasise personal change in which the development of a new sense of self can lead to the establishment of a fulfilling life, whether or not symptoms are present (Andreson et al., 2003; Anthony, 1993; Deegan, 1988).

2.2. Recovery Research

It is recognised in the qualitative literature that there are many different ways in which people experience recovery from mental illness.

Research studies based on individuals' narrative accounts are reviewed and highlight a number of common themes which are important in the process of recovery, which include: hope; acceptance; redefining self; a sense of identity and movement beyond the illness, living outside of illness; self-esteem; empowerment; social support systems; spirituality; establishment of meaning and purpose in life, including a positive personal and social identity; and overcoming social stigma (Andresen et al., 2003; Brown and Kandirikirira, 2007; Corrigan and Phelan, 2004; Davidson, 2003; Davidson et al., 2005; Davidson and Strauss, 1992; Reeper and Perkins, 2003; Ridgeway, 2001; Smith, 2000; Young and Ensing, 1999). These factors have led to the development of the 'personal recovery framework' (Slade, 2009), which focuses attention on the person rather than the illness, and locates the person within their social context, rather than decontextualising the individual. It also recognises the wider impact that mental distress and using mental health services have on an individual's sense of self and ability to participate equally in society.

Qualitative research has identified key component processes and stages through which people recovering from mental illness pass.

2.2.1 The Processes of Recovery

Ajayi et al.'s (2009) retrospective interview study focuses on the experiences of 48 service users from across England recovering from mental illness. Findings from thematic analysis outline the important interaction between context and personal factors in an individual's recovery journey, which support similar findings by Brown and Kandirikirira (2007). The

context factors include meeting basic and material needs; tackling stigma and isolation; identifying positive and negative relationships; and receiving support. Personal factors include the importance of: identity and self awareness; taking responsibility through self management; and having a purpose and sense of belonging, which included cultural belonging and spirituality. Three recovery mediating factors between the context and personal variables emerged, and these included firstly the 'acceptance by others and self', and thus validation of one's sense of self from others as an important mediating factor in recovery. A second factor was 'locus of power and control', which identified illness as a source of loss of the self, whilst recovery enabled re-discovery of the self, and a way of empowerment, whereby an individual regained power and control of their illness becoming more active and independent, rather than passive and dependent on others . This led to the third mediating factor, which was grouped 'dependence, independence and interdependence'. This reinforced that people with mental illness are often dependent on others and on treatments, and the need to regain a sense of independence and interdependency, both essential factors in recovery.

Similarly, Ralph's (2005) study identified internal and external processes which were found to be important in recovery. Internal factors included insight, determination and self-managed care, including coping with difficulties. External factors included the importance of connection with others who expressed hope for the person; and empowerment including internal strength and interconnectedness with others.

Barriers to recovery have also been highlighted in the literature. For example, Spaniol et al.'s (1997) study identified four negative impacts following being diagnosed with a mental illness, which include: first a loss of sense of self, which is instead replaced by an identity of a mental patient; second, loss of power, which includes: agency, a sense of autonomy, personal choice and values; third, the loss of meaning, for example, through the loss of valued social roles; and lastly the loss of hope, which can lead to giving up and withdrawal. Further, Reeper and Perkins (2003), outline the negative impact of stigma and discrimination on mental health, which can lead to negative self-beliefs, unemployment, and loss of social networks. They outline the importance of regaining a sense of self and overcoming social stigma in society in the recovery process.

Whilst the qualitative studies outlined here add to the growing evidence base that is rooted in the importance of an individual's lived experience of recovery, generalisation from these studies is limited given small sample sizes and lack of control groups of people with similar experiences. This therefore calls into question the external validity of such studies.

2.2.2 Stages of Recovery

A number of qualitative studies have identified stages through which individuals experiencing recovery pass (Baxter and Diehl, 1998; Davidson and Strauss, 1992; Spaniol et al.'s, 2002; Young and Ensing's, 1999). Synthesis of these and other studies led to Andreson et al. (2003) proposing an empirically-validated five stage model of recovery from schizophrenia based on consumer accounts of recovery.

1. Moratorium – a time of withdrawal characterised by denial, confusion, hopelessness, and identity confusion.

2. Awareness – hope for a better life where recovery is possible. An internal event which may be initiated by a clinician, significant other or role model. It involves awareness of a sense of self other than that as a 'sick person' to emphasise a self that is capable of recovery.

3. Preparation – starting work on developing recovery skills. This involves identifying values, strengths and weaknesses within one's intact self and striving to learn about mental illness and services available. This includes becoming involved in social groups and connecting to others who are in recovery.

4. Rebuilding – actively working towards a positive identity, setting personally valued goals, taking responsibility for managing mental illness, and taking control of one's life despite setbacks and risks encountered.

5. Growth – the final stage of the recovery process where the person may not be symptom free but knows how to manage their illness and stay well. This involves personal resilience, self-confidence and optimism about the future. The person develops a positive sense of self, and there is a belief that the experience has made them a better person.

Synthesis of this with other accounts led to the National Institute for Mental Health (NIMHE, 2004) proposing 4 key domains involved in personal recovery: hope, a future orientated expectation of attainment of personally valued goals, relationships or spirituality; identity, characteristics which make us unique and connect us to the world; meaning, an understanding which makes personal sense of mental illness and an integration of meaning making into personal and social identity; and personal responsibility, a collection of values, cognitions, beliefs, emotions, and behaviours which lead to full engagement in life.

Whilst stage models are useful when identifying the stage of recovery an individual is experiencing, they have been criticised for lacking external validity since they try to fit human growth and development into fixed stages, which may not fit some individuals' experiences. For example, Andreson et al.'s (2003) model proposes individuals pass through linear stages, but human experience is perhaps better viewed as a non-linear process whereby individuals can transition, for example, travelling in and out, and between stages. In addition, this approach could easily become a model for what should happen in recovery, which may lead to a sense of failure experienced by those who do not fit this mould. Lastly, although it provides an idea of the processes and stages involved in recovery, this is open to debate as each individual's experience is subjective and unique and each person needs to find their own way forward in recovery (Slade, 2009).

2.3 Psychosis and Recovery

Kraepelin considered schizophrenia as a 'deficit state' where periods of improvement did not last longer than three years: 'among all cases leading to dementia (praecox) the proportion of periods of improvement resembling recovery only amounted to about 2.6 percent...after the initial improvement there is a gradual deterioration of the psychic state' (Kraepelin, 1919, p.3).

Historically schizophrenia was regarded in psychiatry as an inherently chronic and deteriorating condition. However, as outlined previously there has been a historical shift in the expectations for the course of schizophrenia. Empirical data challenges this chronic disease model and the assumption that schizophrenia has a life-long deteriorating course. For example, longitudinal and neurocognitive studies have shown that schizophrenia related disorders are not invariably deteriorating, chronic conditions (DeSisto et al., 1995;

Good, 1994; Harrison et al., 2001; Lieberman, 1999). National studies have also empirically demonstrated that the course of schizophrenia varies worldwide and that culture accounts for much of this variability (Jablensky et al., 1992; Warner, 1994).

Harding et al.'s (1987) Vermont 32-year follow up study demonstrated that significant numbers of people diagnosed with schizophrenia recover over time. Findings showed markedly higher rates of recovery than would be expected from an institutionalised group, with 81 per cent able to look after themselves, and 68 per cent having moderately close friendships. Just over half were in touch with mental health services, 25 per cent were fully recovered, and 41 per cent showed significant improvement. Similarly, the International Study of Schizophrenia (Harrison et al., 2001) large scale multicultural outcome study concluded that outcome was favourable for over half of the people followed up where 56 per cent were recovered or significantly improved.

Studies like these reject Kraepelin's view that a deteriorating course is the hallmark of schizophrenia and have found that heterogeneity of outcome, both in terms of symptoms and functioning is the signature feature along with the importance of the interaction between the individual and their social and economic world (Warner, 2007). This has led to increasing emphasis being placed on the subjective or personal experience of individuals with schizophrenia, rather than merely clinical outcomes, which has been outlined earlier in this review. This has led to a methodological drive in the health sciences towards evidence-based approaches that incorporate qualitative methods and narrative analysis which encourage the development of self-management approaches (Davidson, 2003; NIMHE, 2004), with growing acceptance by traditional psychiatry and mental health services as evidence for best practice.

2.4 Recovery and Mental Health Services

Public sector mental health professionals around the world have embraced the development of personal recovery principles in order to modernise mental health services. These ideas were initially more influential in other countries: the United States of America, Australia, and New Zealand. For example, in the USA the President's New Freedom Commission on Mental Health (2003) recommends each person with a serious mental illness has a personal recovery plan. In New Zealand the Blueprint for Mental Health Services (1998) and the Second Mental Health Plan (2005) place recovery principles at the

centre of all mental health services. More recently there has been growing recognition of the need for more recovery-orientated services in the United Kingdom (Allott et al., 2002; Reeper and Perkins, 2003; Turner-Crawson and Wallcraft, 2002). The National Service Framework for Mental Health (1999) and the NHS plan (2000) were summarised as 'The Journey to Recovery' (2001), which stated that 'Services of the future will talk as much about recovery as they do about symptoms and illness'(p.24). This led to a shift in policy which focused on combating social exclusion for those with serious mental illness. Furthermore, NIMHE (2004) established a fellowship in recovery to promote and disseminate recovery principles across England. This has included the Wellness Recovery Action Plan, a self-management tool, and the piloting of the Developing Recovery Enhancing Environments Measure (DREEM), a service evaluation tool (Cambelle-Orde et al., 2005).

2.5 Critique of the Recovery Research

The majority of current research relating to recovery focuses on personal narrative accounts. This approach has influenced policy and advocacy concerning mental illness and mental health services. However, the concept of recovery is criticised because it has multiple meanings and models, which lack a clear understanding and definition (Liberman and Kopelowicz, 2002; Noordsey et al., 2002). For example, there are many descriptions of what the recovery orientation encompasses, which highlight many different domains, but there appear to be no empirically derived conceptualisations (Resnick et al., 2005). This makes the recovery concept difficult to conceptualise at an implementation level and can render it meaningless (Ramon et al., 2007). Until a clear operational definition of the recovery orientation emerges, the recovery vision cannot advance (Noordsy et al., 2002). Empirical research needs to be conducted in order to address recovery further; such research could establish a universally accepted definition of recovery, which does not currently exist. The 2008 policy paper 'Making Recovery a Reality' (Shepherd et al., 2008) proposes a movement towards this vision, advocating that the concept of recovery needs to be developed further to help provide an operational definition of recovery, and policy framework for recovery orientated intervention and treatment services, which could lead to a radical transformation of mental health services in this country in the future. This study seeks to further develop understanding of recovery in psychosis drawing upon a PCP framework (outlined in section 2.6).

2.5.1 Measuring Recovery

There appear to be a paucity of validated measures of recovery and no consensus as to the 'gold standard' or most effective instrument (Campbell-Orde et al., 2005); this is not surprising given the multiple definitions and conceptualisations implicit in the term recovery. This can make the conceptualisation of recovery confusing. There is also confusion arising from the common use of recovery as (i) a process, outcome or both (Mueser et al., 2002, Liberman and Kopelowicz, 2005) – the newer usage of recovery is defined as a process, but then defined as an outcome; and (ii) as a continuum from more objective to more subjective based indicators of outcome (Liberman et al., 2001; Ridgway, 2001; Turner-Crawson and Wallcraft, 2002).

Recent movements towards measuring recovery have included the development of well validated scales based on narrative accounts of recovery: the Recovery Assessment Scale (RAS, Corrigan et al., 1999) and the Stage of Recovery Instrument (Andreson et al., 2006). The RAS is used in this study and is outlined further in the methods chapter.

2.6 Personal Construct Psychology

The main model and theory employed in this study is Kelly's (1955) Personal Construct Psychology (PCP). PCP is based on the philosophical position of 'Constructive Alternativism' in which Kelly stated that there were many different ways of construing the world. Kelly (1955) proposed people were 'human scientists' who attempt to understand, predict, and control events. The personal constructs a person uses impact how an individual interprets and predicts events as outlined in Kelly's (1955) 'Fundamental Postulate', which states 'a person's processes are psychologically channelled by the ways in which he or she anticipates events'. Personal constructs link together to form a 'personal construct system', which is unique to each person and acts as a template through which to view the world. Kelly emphasises the importance of 'anticipation', which led to the concept of 'validation' whereby if an individual anticipates events in a certain way and it takes place, his or her anticipation is validated and predictions verified. However, if his predictions do not take place, his or her anticipation is invalidated. Kelly outlined that individuals' personal construct systems can change and develop with experience, but too much invalidation may be disturbing and people tend to seek predictability and control.

PCP provides an ideal theoretical perspective to understand the role of recovery in psychosis. Specifically, the theory and methodology can be used to study changes in the way an individual construes different aspects of their self and other roles or identities during the recovery process. The main methodological tool used in this study to examine this is Kelly's (1955) repertory grid.

2.6.1 Repertory Grids

Kelly (1955) developed the repertory grid as a methodological tool to examine the way in which an individual makes predictions about the world. It forms a map of an individual's personal system of constructs and highlights the way in which one makes sense of self, others, and the world around them. Repertory grids consist of constructs, elements, and ratings of the elements on the constructs. Kelly's (1955) fundamental postulate underpins the repertory grid whereby 'the ways' are the constructs of a repertory grid, and 'the events' or things abstracted by the construct are the elements. Kelly defined a construct as 'a way in which two or more things are alike and thereby different from a third or more things'. Kelly regarded constructs as 'bipolar' as stated in his 'Dichotomy Corollary' where individuals never give affirmation to anything without simultaneously denying something else. Fransella, Bell and Bannister (2004) give an example, stating that by construing Mary to be an 'honest' person, we are also saying that she is not a 'crook' or whatever the opposite would be of the construct honest for Mary. Fransella et al. (2004) outline that it is often the opposite pole of a personal construct, called the implicit pole, which provides a clear meaning of the construct, whilst the emergent pole describes how two or more things are alike. Indeed, Kelly argues that people make sense of the world through simultaneously noting likenesses and differences. In repertory grid research, the researcher defines a set of elements which are chosen to fit the area under investigation and then elicits or supplies a set of constructs that distinguish among these elements, and then relates elements to constructs through participants rating constructs on elements via a rating scale.

2.7 PCP and Construction of Self and Other in Psychosis

The concept of one's sense of self-identity following mental illness is a core component emphasised in the recovery research and a key area under investigation in this study; specifically what happens to an individual's construction of self (and other people) during

recovery. Researchers have identified different aspects of identity as being either destructive or essential in the process of recovery. For example, Davidson and Strauss (1992) highlight the importance of living outside the mental illness and re-finding and re-defining one's sense of self that has potentially been eroded by institutionalisation or ill health.

George Kelly's (1955) PCP and Erik Erikson's (1968) theory of psychosocial development have informed self-identity research. Both emphasise the importance of social interaction in negotiating and defining a sense of identity (Viney, 1987). Erikson defined identity as a sense of self that develops over the course of a person's life and that both relates them to and sets them apart from their environment. Kelly (1955) uses the metaphor of 'core constructs' to conceptualise identity whereby an individual has a 'core system' that is fundamental to existence. Core constructs are those which govern an individual's maintenance process – that is, those by which one maintains his or her identity and existence. The concept of 'self' is part of this core construct system that is defined in the context of a personal construction of one's role. It is the product of a person's construing of the world, and we develop a theory of what 'self' means through observing other people and defining ourselves as similar in some ways and different in others (Butt, 2004).

Current identity research suggests that identity formation and maintenance is a more active process than Erikson envisaged, including continuous creation, challenge and re-creation (Cox and Lyddon, 1997). The conceptualisation of self and identity are not fixed but vary throughout life (Ricoeur, 1985), and thus identity is not a fixed construct, but consists of a configuration of 'possible selves' or self-constructs (Markus and Nurius, 1986).

It is important to recognise that there are many different theoretical orientations that have explored identity from different perspectives, for example, behavioural, psychological, sociological, constructivist, social constructionist, phenomonological, and anthropological. The literature on identity is vast and will not be reviewed here, but for a comprehensive review see Leary and Tangney (2003).

This review will focus on a PCP (Kelly, 1955) model of sense of self-identity during recovery; which draws upon a broader constructivist and social constructionist framework. Constructivists emphasise the individual personal meaning each of us make to demonstrate representations of self and the world (Neimeyer and Raskin, 2000), whereby human

knowledge and experience involve the proactive participation of the individual (Mahoney, 1988). Kelly (1955) emphasised epistemological constructivism in which he and von Glasersfeld (1995) assert that there is an external reality but this can only be experienced through an individual's construction of it. Within the constructivist framework, identity is not a single stable construct or collection of enduring personality traits, but an evolving process. Social constructionists place emphasis on the social rather than individual meaning, which are determined through cultural and historical meaning whereby knowledge about the world is constructed through social interaction (Gergen, 1985; Neimeyer and Raskin, 2000). Thus, within the social constructionist framework identity is determined through social and symbolic context, and the development of personal identity occurs within social relationships.

2.7.1 Construction of Self in Psychosis

Research on self and identity have been central to the study of schizophrenia. It has long been recognised that disturbances to the sense of self are important features of schizophrenia dating back to Bleuler (1911/1950), Federn (1952), Laing (1965), Pao (1979) and Sullivan (1924). Estroff (1989) defined self identity in schizophrenia as an 'I am illness – one that may overtake and redefine the identity of the person'. She identified two layers of self, the 'private person', one who is known to self, and a 'public person', who is known and identified by others. Estroff outlined that these layers need to overlap in order to comprehend interactions between self and others about self; and when they do not overlap, a person is likely to experience psychosis, due to what Rosenberg (1984) identified as an inability to comprehend oneself. More recently, Lysaker and Lysaker's (2002) narrative research reported that disruptions in 'internal dialogue' may create the self-experience associated with schizophrenia whereby internal dialogue enables us to create a coherent sense of self, and disruption to this could explain 'the barren forms of self-organisation seen in schizophrenia'.

2.7.2 Construction of Other in Psychosis

Harrop and Trower (2003) proposed a developmental approach to explore self-construction and the construction of other people in the development of psychosis. They proposed that psychosis may be due to the 'failure to construct a self'. They outlined 3 forms of self-construction failure which included: the 'insufficient self', where social knowledge and

theories about other people are insufficient for an individual to construct self-presentations; the 'insecure self', where individuals can make self-presentations but find that other people reject them; and the 'alienated or engulfed self', in which an individual has constructed self-presentations, but only receives affirmation from others when their self-presentations fit with the conditions of other people. Measures have been developed to test these types of self-construction failure. Dagnan, Trower and Gilbert (2002) used a constructivist approach to psychopathology where other people's reaction to the self is important to one's self construction. They developed a Self and Other Scale (SOS) to measure the 'insecure self' and 'engulfed self' in order to consider how an individual's relationships with other people may lead to problems with self-construction. This research can be contrasted more broadly with recovery research outlined previously. This showed the negative consequences to recovery of social stigma and discrimination by others in society, which impact negatively on self-identity, self-esteem and locus of control (Reeper and Perkins, 2003; Goffman, 1963). Furthermore, this research highlights the important role of invalidation from a PCP perspective, which appears to relate to the 3 forms of self-construction failure reviewed here.

2.8 Self Validation and Invalidation

Bannister's research on schizophrenic thought disorder (1960, 1962, 1963, 1965) proposed that disruptions in sense of self could be understood as 'loosening' of a person's construct system. In comparison to non-psychiatric patients and other psychiatric patients, Bannister found those diagnosed with schizophrenic thought disorder were loose construers when making sense of other people, and proposed this was the result of 'serial invalidation'. This was based on the hypothesis that an individual made predictions about the world that were later consistently invalidated. This led to individual constructs being defined as 'loose' or vague, meaning they had a weak relationship with each other. An observable result of this was seen in an individual's behaviour, which was seen as random and purposeless. The looseness or tightness of an individual's construct system was measured via the repertory grid data by 'intensity', or average correlation between the constructs, and inconsistency in relationships between constructs. This study found lower intensity and consistency, meaning looser construing, in schizophrenic thought disorder. Loosening and weakening relationships between constructs means an individual avoids experiencing further invalidation. The consequence of this means an individual is then unable to experience

testable anticipations which may provide the contrast experience of validation. For example, Bannister (1963) proposed that if a person was repeatedly invalidated in their construing of an element, then their initial reaction may be to re-construe this element at the opposite pole of the construct. Bannister considered an individual who had the construct 'loving-hating'. Initially the individual may predict another person to be 'loving', but finds they do not meet this prediction. This may then lead to the individual construing the person at the opposite pole, which is 'hating'. However, if they then experience continuous invalidations of their predictions about the other person, they will repeatedly shuffle from one pole of the construct to the other. This results in loosening and weakening of the relationships between the construct 'loving-hating' and other constructs. For example, if an individual construes 'loving' as being associated with 'kind, sincere, affectionate and dependable' behaviour; the individual then stops anticipating this behaviour since these constructs are no longer linked closely together, and therefore invalidation is avoided. Overall, Bannister's findings showed that serial invalidation led to loosened construing, whereas serial validation led to an increase in the strength of correlations between constructs, or tightening.

Studies over the years have tested Bannister's serial invalidation hypothesis, leading to criticism of his findings. For example, Radley (1974) replicated Bannister's study and found that schizophrenics showed less variability in their construct intensity scores than normal subjects. Radley argued the serial invalidation hypothesis did not make it possible to differentiate between loose thinking in schizophrenic thought disorder, and the complex thinking of 'normal people'. He proposed loose construing could explain conceptual disorganisation, but it could also reflect 'cognitive complexity', whereby a person uses their constructs in a number of different ways, meaning constructs have a weak relationship with each other. Radley argued this was due to cognitively complex construers being able to integrate conflicting information about people better than cognitively simple people. He outlined that cognitively complex construers used superordinate constructs or hierarchically higher constructs. Van den Bergh, de Boeck and Claeys (1981) found similar findings supporting Radely's hypotheses and found no difference between thought disordered schizophrenics and non-thought disordered people.

The importance of the structure of the construct system and its role in invalidation has been explored further by Lorenzini, Sassaroli and Rocchi (1989), who compared a paranoid with

a schizophrenic population. Findings showed that paranoid individuals had a well developed hierarchical construct system, but each construct only had one emergent pole with no implicit or opposite pole. This meant that when experiencing invalidation, moving to the opposite pole did not enable the individual to 'reabsorb' the experience of invalidation, thus meaning they were unable to use their hierarchical construct system. Consequently they were unable to develop new predictions about the world and would keep their existing predictions even if there was alternative evidence which did not support their prediction. Comparison of paranoid individuals with schizophrenic individuals showed that the latter had little hierarchical organisation and little integration. This meant that predictions made were vague and interchangeable because people with schizophrenia had difficulty in making accurate predictions, especially with regard to their personal identity and attachment. This resulted in schizophrenic individuals tending to be socially isolated and keeping themselves away from others.

2.9 Self Elaboration in Psychosis

Identities differ significantly dependent on the degree to which they are elaborated. Elaboration is defined as the diverse ways in which an identity is experienced and enacted. An identity which is associated with a diverse set of personal characteristics, feelings and enactments is a highly elaborated one. It is proposed that an identity that is prominent or superordinate within a hierarchy is more elaborated than one that is low or subordinate in a hierarchy (Gara et al., 1987). Drawing on Robey et al.'s (1989) example, consider the two identities 'psychologist' and 'researcher'. The researcher identity may have characteristics such as 'logical, accurate, curious, critical' and the psychologist's identity 'logical, accurate, curious, critical, empathic and insightful'. From this example, we could conclude that the 'researcher' is a subset of 'psychologist' because all of the features of the researcher are embodied within the psychologist; however the psychologist has a higher number of characteristics. Therefore, the 'psychologist' identity is more elaborated than the 'researcher' identity given it has more characteristics connected to it. Thus, psychologist would be higher in the hierarchical identity structure than researcher.

Gara, Rosenberg and Cohen (1987) propose elaboration and contrast are involved in identity function and dysfunction. They hypothesise that individuals are at risk of developing schizophrenia or entering a schizophrenic episode if their superordinate identities are significantly challenged, and there is no elaborated contrast identity that can

be used as an alternative when encountering stressful life events, which leads to identity and enactment negation. Conversely, the risk of entering schizophrenic episodes is significantly reduced for individuals who have developed adequate contrast elaborated identities to deal with stressful life events. For example, consider a person with an elaborated 'professional identity', 'family identity', 'group membership' and 'hobby'. If this person's professional identity were threatened by the development of a serious physical illness, which meant they could no longer continue working, the individual still has the option of shifting to and emphasising their other elaborated identities (e.g. family identity) in place of the professional identity. Even if all the person's prominent identities were negated as a result of their illness, they would still not be at serious risk of entering a schizophrenic episode, unless their contrast identities (family, group and hobby identity) were completely unelaborated. Therefore in summary, if one identity is threatened individuals are hypothesised to shift to another superordinate identity, thus enabling them to maintain an elaborated sense of self, even on a temporary basis, whilst a crisis is resolved. However, if an individual only has one major identity, then disruption to this identity could threaten the individual's sense of reality and lead to schizophrenia. When enacting an unelaborated identity, the authors found that individuals' behaviour was seen as disorganised or inappropriate to others, which professionals may label as 'psychotic'. These findings are consistent with the idea that psychotic disorganisation leads to the enactment of unelaborated identities.

2.10 The Hierarchical Model of Self Organisation in Psychosis

An assumption in identity theory from a PCP perspective is that an individual's self includes a 'hierarchically organised set of identities', and one is at risk of developing schizophrenia when these identities are limited or diffusely organised as outlined previously in Gara et al.'s (1987) research. Rosenberg and Gara (1985) proposed the 'self' was an hierarchically organized set of 'multiple interrelated identities' or 'selves', which referred to the self in different contexts, each of which encompassed personal characteristics, feelings, values, images and intentions. 'Self-structure' was defined as hierarchical organised interrelationships among several selves, each containing separate and overlapping features i.e. the self perceived traits, feelings etc.

The hierarchical organisation of identities is represented by superordinate-subordinate relationships between identities. Identities that are superordinate and subsume subordinate

identities are called ‘prominent’ identities. An identity is used to select and filter specific situations or settings for its enactment. Rosenberg and Gara (1985) cite an example; consider if ‘traditional’ is an important feature of a person’s identity as a businessman, the individual may routinely and without thinking wear conservative suits and adopt a serious frame of mind and posture for work. Conversely, when new opportunities arise or when life circumstances change, new enactments are created from other identities and may dismiss features from the identity in question. For example, if this was an individual’s identity at work, an important feature of this individual’s identity at home may be to be ‘relaxed’, which relates to routinely wearing casual clothes and adopting a more laid back frame of mind and posture. Furthermore, if this individual changed their profession to being a gym instructor, instead of routinely wearing suits they may start to wear sports clothes and adopt a more active posture on gym equipment rather than an inactive posture involving being sat at a desk all day. Therefore, an individual’s ability to adapt to dynamic and changing life context is related to their capacity to invent new enactments for existing identities. Indeed Rosenberg and Gara propose that although the main structural foundations of self identity are laid down in early childhood and adolescence, individuals’ identity structure is subject to change throughout the life cycle. This is an important concept in thinking about an individual’s capacity to recover in psychosis through adapting and enacting different self identities.

In order to represent the multiplicity of self structurally, Rosenberg and Gara (1985) developed a ‘set-theoretical model’. This was a mathematical model which represented the hierarchical structures of self organisation using repertory grids. This model provides an alternative to using the correlation between constructs and the concept of intensity to define hierarchical structures within an individual, and specifically explores constructs concerning identity within an individual’s personal construct system. This mathematical model was later developed and formalized by de Boeck and Rosenberg (1988) and Rosenberg, van Mechelen and de Boeck (1996); and a computer algorithm used to compute the hierarchical structure of self organisation developed by DeBoeck (1986) known as Hierarchical Classes Analysis (HICLAS). The HICLAS model is used in this study to explore identity constructs within the repertory grid, and is outlined further in the methods chapter.

2.10.1 Understanding Self and Other in Psychosis

Gara, Rosenberg and Mueller (1989) used the set-theoretical model HICLAS to investigate the perception of self and others in schizophrenia and compared 8 schizophrenic participants with 11 mentally healthy participants. The study involved participants generating a list of 35 people known to them, the elements; and then being asked how each person made them feel, using up to 5 different descriptor words: the constructs. The participants then rated each person, including themselves, as to whether the descriptions applied to them or not. The study tested two hypotheses: firstly, people with schizophrenia have more poorly elaborated views of themselves than other people; and secondly, compared to the mentally healthy population, schizophrenics' social perception of other people would be 'more similar' i.e. would exhibit a more stereotypical view of other people. The findings supported both hypotheses. The schizophrenic group had a more poorly elaborated view of self compared to the mentally healthy population. This was demonstrated in the HICLAS hierarchical structure of schizophrenics by the element 'self' being significantly lower than in the controls' grids. Results also found schizophrenics were more likely to view other people as being similar to each other when compared to controls. However, findings did not explain whether this was a cause or consequence of schizophrenia and it was not clear whether findings were unique to schizophrenia or whether they could be applied to other illness pathologies.

Robey, Cohen and Gara's (1989) study provided further evidence to support the findings of an unelaborated self concept in schizophrenia. The study extended Gara et al.'s (1989) study by selecting patients with schizophrenia, a psychiatric comparison group, and non-psychiatric group; and assessment of the structure of various selves rather than a single self. The study tested the hypothesis that self-structures are poorly elaborated in schizophrenia, and also the degree of elaboration of selves in different contexts, for example, 'self as psychiatric patient', which was of interest given Gara et al.'s (1987) proposal that the elaboration of 'patient identity' had a functional value in schizophrenia by way of compensating for the deficiency of elaboration of their overall self-structures. The study involved each participant completing two grids, the first to elicit selves in different contexts, for example, self when with particular people (family, friends, co-workers). Participants were then asked to rate on a 7 point scale the importance of each of their different selves in their life. The second grid contained different people rather than

different selves, thus enabling a comparison between self and others. HICLAS analysis was then used to construct self-perception structures and other person perception structures for each participant. Findings showed that whether the focus was on self as a single unit or on the total self-perception structure, the degree of elaboration was significantly less in schizophrenic patients compared with non-schizophrenic depressed patients and non-psychiatric participants. However, this result was not found when the same structural measures were applied to perceptions of other people, where the schizophrenic group were able to generate elaborate views of other people. This finding is consistent with results of Gara et al's (1989) earlier study of person and self-perception in schizophrenic patients.

Whilst the above results explored self-structure in schizophrenia they also investigated self-structure in depression and found that 'myself as I usually am' was evaluated more negatively in comparison to the non-depressed group. However, in contrast to Linville's earlier work (1985, 1987) on depression, they do not suggest that the complexity of self-perception is related to depression or that greater cognitive self-complexity could act as a buffer from depression and other psychopathology when stress is encountered. A later study conducted by Gara et al. (1993) also supported Robey et al.'s (1989) findings that lower self-complexity was not a significant feature of depression. Whilst depressed participants were found to have more negative views of self than significant others and controls, along with less positive self-complexity, they had greater negative complexity as compared with controls. These studies provide good validity for the HICLAS methodology and provide further evidence that lower self-elaboration appears to be a feature of schizophrenia, rather than psychopathology in general.

2.11 Patient Identity and PCP

Identity theorists highlight the devastating social consequences of schizophrenia from psychological, sociological and psychiatric perspectives (Erikson, 1968; Goffman, 1961; Sarbin, 1969; Scheff, 1966, 1967, 1975; Szasz, 1961). For example, Scheff (1966) and Szasz (1961) propose that the incorporation of patient identity into an individual's self-identity is unconditionally disadvantageous. From a PCP perspective, Gara et al. (1987) propose that the more elaborated the 'self as psychiatric patient' the less functional the patient.

For example, Gara et al. (1987) propose that when prominent or super-ordinate identities are negated an individual can replace their identity with a simple new one. This new identity is ultimately replaced with a 'patient identity', which may be defined for an individual as feeling 'de-motivated, unable to work, withdrawn from other people, hopeless and victimized'. Paradoxically, the elaboration of 'patient identity', like with any other elaborated identity, should mean that the individual does not shift to an unelaborated identity, thus reducing the likelihood of positive symptoms. They also highlight that shifting to and adopting this patient identity increases the likelihood of the debilitating social and occupational consequences that are often reported in chronic schizophrenia, and other more functional identities are seen by the patient and by others as incompatible with the patient identity, and are immediately negated. This means they remain unelaborated, hence reducing the likelihood of the individual shifting to an alternative identity other than the 'patient identity'. Thus, a 'double bind' (Bateson, 1972) is created which makes it difficult for the individual to test out and explore alternative identities, which ultimately keeps them stuck in their 'patient identity'. This view is further supported by Erikson (1956) and Schafer (1984), who highlight that an individual undergoing a schizophrenic episode is vulnerable to a 'patient identity role', since any identity, however negative, serves to integrate experience more effectively than no identity (Erikson, 1956; Schafer, 1984). Gara et al. (1987) put forward that whilst antipsychotic medication can prevent relapse in schizophrenia, it also can have the consequence of further elaboration of a patient identity, creating a self-narrative for the person whose major identities have been invalidated. Gara et al. therefore propose that treatment of schizophrenia which moves away from the 'patient identity' should involve the active elaboration of new non-patient identities to transform invalidated or negated identities to better suit life circumstances.

2.12 Sense of Self and Conflict

Conflict is defined as the dislodgement of sense of self from one's being. For example, there will be times when we experience inconsistency or difference in thinking about our sense of self across different situations and contexts (Bell, 2004a). As outlined in the identity and PCP literature, each of us has different selves in different situations and we feel discomfort when dislodged in some way from our sense of self. Kelly (1955) proposed that these inconsistencies in our sense of self and construing are explained through the 'fragmentation corollary' whereby 'a person may successively employ a variety of

construction subsystems which are inferentially incompatible with each other'. The repertory grid methodology enables an analysis of the types of conflict that may be present in the way people view themselves and others. This is done via examining the relationship between elements and constructs, and Bell (2004a) developed a measure of conflict and inconsistencies seen within grids. This is a particularly useful measure when looking at the personal construct system of an individual, and research has shown that schizophrenia can be thought of as a fragmentation of sense of self where sense of self is lost or negated as outlined in the Gara et al. studies. Conflict within grids will be useful to explore in terms of self and other within the current study, in particular looking at sense of self in low and high recovery.

2.13 Self-esteem and PCP

Self-esteem has been highlighted as an important factor in the recovery and PCP literature for many psychopathologies. Self-esteem from a PCP framework is defined as the similarity in construing of the 'actual' and 'ideal self'. It has been extensively researched, for example by studies exploring changes in construing during therapy (Winter, 1992). Such studies propose that clients' self-esteem increases during therapy (e.g. Dreiblatt and Weatherley, 1965; Hollon and Zolik, 1962). In particular, self-esteem has been considered in psychotherapy outcome treatment research where large distances found between current self and ideal self within repertory grid studies have indicated low self-esteem (Watson and Winter, 2005). In contrast to this, some studies reviewing psychotic clients have show relative decreases in self-esteem during therapy (e.g. Fairweather et al., 1960; Fairweather and Simon, 1963; Kennard and Clemmey, 1976). However, Wylie (1961) proposes that this finding is dependent on a client's initial self-esteem status, which may have been initially high, and through therapy less favourable self-construal may have lowered a perhaps unrealistically elevated self-esteem, which would not be indicative of poor therapeutic outcome. Thinking about recovery in terms of positive therapeutic outcome, one would predict a similar pattern whereby a client's sense of recovery in psychosis would denote a greater sense of self-esteem, compared to when a client's sense of self is perceived within a psychotic illness state.

2.14 Locus of Control and PCP

Locus of Control is also an important factor within the recovery and PCP literature. Rotter's (1966) 'locus of control' construct proposed that events people experience in their life determine how people view themselves and indicates a person's interpretation of their responsibility for events. The internal or external locus of control construct (Rotter, 1966) proposed people fell into two categories. People with an 'internal locus of control' believe that their own actions and abilities govern control over the world i.e. they are in control of their life. People with an 'external locus of control' believe their environment, some higher power, or other people are responsible for controlling their decisions and their life i.e. outcome events are attributed to external circumstances. Similar to Kelly's 'fundamental postulate' the locus of control construct gives meaning to the interaction between self and experiences (Lefcourt, 1976). Studies have found that people with an external locus of control are more passive, generally achieve less and are more depressed than people with an internal locus of control (Prociuk et al., 1976).

From the perspective of PCP locus of control, albeit measured in a different manner, was found by Winter, Baker and Goggins (1992) to be an important predictor in psychiatric rehabilitation. Whilst rehabilitation is seen in a different light to the current definition of recovery outlined earlier, the following studies are useful to review in terms of thinking about the recovery process from a PCP framework. Winter et al. (1992) investigated the constructs of long-term patients at a psychiatric hospital who were part of a rehabilitation treatment program to prepare them for discharge into the community. The research involved individuals eliciting constructs for life inside and outside of hospital. Findings showed that individuals' constructs for the world outside of hospital were more superordinate and elaborated in those who felt able to leave hospital compared to those who did not feel ready to leave hospital. These constructs were also found to be relatively more highly organised in the former group in comparison to constructs concerning the world inside hospital. Furthermore, individuals with highly organised constructs regarding the world outside of hospital were rated by staff as having better adaptive skills, less social behavioural difficulties, and experienced greater control over their lives. The latter finding was determined through client interviews using a PCP measurement of locus of control developed by Westbrook and Viney (1980) called the 'Origin and Pawn Scale' which measures the extent to which people perceive themselves as determining their own

behaviour, or having this determined by forces beyond their control. Good inter-rater reliability has been found with this scale as well as providing stable scores reflecting life events that individuals are experiencing and their coping strategies. It has been found to be unrelated to scores on Rotter's (1966) internal-external locus of control scale, which is thought to indicate that the Origin and Pawn scales assess changing patterns of causal perception, rather than a personality trait (Winter, 1992). Indeed, the advantage of the Pawn and Origin Scale is that it enables individuals to define their own perception of their experiences rather than have this predetermined, as Rotter's scale does. For example, Rotter 'requires respondents to construe their experiences in predetermined ways and so to answer questions which were not necessarily meaningful to them' (Viney and Westbrook, 1981, p.48); and through doing this assumes that locus of control is unidimensional. The Pawn and Origin scale is used in this study and is outlined further in the Methods chapter.

Winter et al.'s (1992a) study was extended further by Winter, Goggins, Baker and Metcalfe (1996) and investigated construing of individuals who had been discharged from hospital back into the community and whether their construing was predictive of a successful outcome to the rehabilitation program. They were followed up 6, 18 and 30 months after their pre-rehabilitation assessments. Results showed that at 18 and 30 month follow up clients who had developed more elaborated constructions of life outside of hospital than life inside hospital showed more successful reintegration back into the community. Further results showed that clients perceived themselves to be more in control of their life at the 6 month follow up as demonstrated by the Origin scale analysis.

2.15 Social relationships and the experience of validation from significant others

Winter et al.'s (1992, 1996) studies also highlight the importance of the development of good interpersonal skills in the community, which were found to predict good rehabilitation outcome. Winter (1987) proposed that this was not something that could be mechanically trained on the ward, but experienced through opportunity to form real relationships in which there was reciprocal construing of the other's construction processes, rather than construction of self being construed pre-emptively in terms of mental illness.

It was also found that clients who stayed long term in hospital and who had few constructs for life outside of hospital (Winter et al., 1992) were also likely to experience more anxiety

in close relationships due to their difficulties in anticipating psychological events. For example, Brown, Birley and Wing's (1972) study found that clients were more likely to be readmitted to hospital following discharge if they lived with families who were characterised by a high level of expressed emotion. However, the expressed emotion literature has been criticised by Scott, Fagin and Winter (1993), who proposed that little attention had been given to the client's construing as a determinant of outcome and identified important features of both the clients' and their parents' construing that needed to be taken into account. For example, a significant indicator of relapse or re-admission into hospital was in families in which one parent invalidated the other's self-construing, and therefore confusing messages were likely to be interpreted by the client, who would then be likely to find it difficult to be validated by both or either parent, making them vulnerable to invalidation of their sense of self. This research highlights the importance of both validation from significant others, which provides affirmation of sense of self, and support systems; both emphasised to be particularly important in the recovery research outlined earlier.

2.16 Current Study Rationale

2.16.1 PCP and Recovery of Self in Psychosis

This study seeks to elicit service users' personal experiences of the processes involved in recovery from psychosis given that the majority of PCP research to date has focused mainly on the diagnosis of schizophrenia and deficits in sense of self.

The work of Bannister and Fransella on schizophrenia has been pivotal in the emergence of PCP in Britain, through Bannister's (1962, 1963) research indicating that the construing of clients with schizophrenic thought disorder is looser than that of other clients and 'normals', and the development of Bannister and Fransella's (1966) grid test of schizophrenic thought disorder. However, this research has mainly emphasised deficits in thinking and not enough attention has been paid to other aspects of schizophrenia, such as potential recovery processes and recovery orientated treatment approaches.

Furthermore, PCP research has shown that people diagnosed with schizophrenia engage in the same processes of construing as anyone else, as shown by Kahgee et al. (1982), who found individuals diagnosed with schizophrenia, either with or without the symptom of thought disorder perceive the self and others in a similar way to 'normal', mentally healthy

participants. This result was further echoed by Lorenzini et al.'s (1989) research. However, this is a threatening message, as discussed by Winter et al. (1992), and it is not therefore surprising that researchers have attempted to re-affirm Bannister's findings to reflect deficits rather than strategies of construing as demonstrated most recently by Cipolletta and Racerro (2003) and many other researchers (e.g. Dingemanset al., 1983; Frith and Lillie, 1972; Harrison and Phillips, 1979; Haynes and Phillips, 1973; Williams and Quirke, 1972). Furthermore, it is well known, as seen from the recovery research reviewed, that psychiatric services have endorsed a deficit model of mental illness in the past, although over time emphasis has moved toward a strengths focused approach and emphasis placed on treatment rather than diagnosis.

The elaboration of self has been recognised as an important feature for the treatment of schizophrenia in drawing upon alternative superordinate identities when encountering stressful life events, and re-building identity structure by movement away from a patient identity to elaboration of new non-patient identities as outlined above. However, there appears to be limited PCP research that has addressed this to date. For example, it would be useful to apply the HICLAS technique to explore the process of recovery in psychosis, specifically focusing on self-identity structures in terms of self in different contexts and views of others, in order that individuals can benefit from recovering and rebuilding their sense of self following illness.

Furthermore, the repertory grid methodology could help professionals monitor and evaluate individuals' recovery progress over time. This could be something that could be useful in current treatment approaches and could be advocated in NHS settings. It is hoped that utilising a PCP approach and methodology will be beneficial in extending our understanding of recovery in psychosis, and thereby help to improve treatment services.

Bell and McGorry (1992) appear to be the first to have used repertory grids to investigate recovery in psychosis. Their exploratory study aimed to consider how repertory grids could be used to measure changes in the perceptions of psychotics of their illness and self views through their recovery; and how this process could be best represented with a repertory grid.

The authors chose a fixed format repertory grid where both elements and constructs were pre-determined. The constructs were obtained via 'triadic elicitation' (explained in the

methods chapter) and self-characterisation from 5 participants using the described elements. The elements chosen reflected a broad span of relevant self and other figures, for example, myself as I usually am, myself as I will be in 6 months, and myself as I would ideally like to be; thus providing a range in time and perspective. The element 'average person' was also introduced to provide a norm reference and two classes of illness: physical (e.g. a person with diabetes); and mental (e.g. a psychiatric patient). The physical illnesses were chosen to reflect hopelessness and control, and the mental illness elements to reflect professional or patient labelling. This methodology resulted in 14 construct pairs being chosen as best representing recovery in psychosis. 20 patients were then assessed in the recovery stage, and these along with a further 15 assessed prior to discharge. 28 of the 35 patients were followed up after discharge at approximately 17 weeks, and 29 patients were followed up at 1 year.

The results of the study showed some evidence of recovery in terms of the perceived distance between 'self now' and an 'average person', which were found to be closer than other self identities. The grids also showed a pattern of 'self now' moving further away from the 'mentally ill' figures in the third and fourth compared to second and first testing periods. Overall, the authors concluded that the study did not show significant change in the ways that psychotic patients viewed their illness during the recovery phase, and it was not clear why this was, whether it was due to the fixed nature of the grids across individuals and time or some other reason.

This study appears to have a number of limitations. Firstly only 12 patients were assessed at all 4 time intervals from an original pool of 20 following significant drop out, thus making the findings less representative. Secondly, it is not clear from the study how recovery had been defined at each of the 4 time intervals being examined, thus questioning what the data was showing. Lastly, a substantial limitation was that all constructs were pre-determined to be used in the study whereby the process of illness and recovery had already been defined based on a small sample of 5. The pre-determined nature of the constructs calls into question their personal relevance for defining the recovery process given participants were not asked to elicit their own personal constructs of illness and recovery from the elements provided.

2.17 Aims of the Current Study

Hitherto, research regarding the potential value of using a personal construct framework to explore the recovery process in service users with psychosis has been minimal. The current study aims to build upon Bell and McGorry's (1992) research in order to further our understanding of recovery in service users with psychosis, by examining elicited personal constructs, in contrast to utilising pre-determined constructs.

It is hoped this approach will increase our knowledge and understanding of recovery from a PCP framework; specifically exploring changes in the way an individual construes different aspects of themselves, and others during the recovery process; thereby, contributing to recovery orientated treatment.

Further, to enable a better understanding of recovery, the study seeks to more clearly define the degree of recovery (e.g. low and high recovery). It is hoped this will be developed through the preliminary statistical analysis, through exploration of the use of the recovery assessment scale questionnaire (RAS, Corrigan, Giffort, Rashid, Leary, Okeke, 1999), in combination with repertory grid variables. It is anticipated that there will be an association between the degree of recovery and other factors, for example: sense of self and the structure of an individual's construct system; self-esteem; locus of control; and support networks.

The following hypotheses seek to explore these potential associations:

2.18 Research Hypotheses

Hypotheses about Self

1. Participants with a more elaborated sense of self will show a higher degree of recovery compared to those who have a poorly elaborated sense of self.

2. Participants with greater differentiation between their different selves will show a higher degree of recovery compared to those who are less able to differentiate between their different selves.

3. Participants with low levels of conflict regarding their sense of self will show a higher degree of recovery compared to participants with high levels of conflict.

4. Participants with high self-esteem will experience a greater degree of recovery compared to those with low self-esteem, who will experience a lower degree of recovery.

5. Participants who feel less in control of external life events will show a lower degree of recovery compared to those who feel more in control of external life events, who will show a higher degree of recovery.

Hypotheses about Self and Others

6. Participants who have a well elaborated external support network will show a greater degree of recovery compared to those who have an unelaborated external support network.

7. Participants who experience validation of their sense of self from others will show a greater degree of recovery compared to those who experience invalidation of their sense of self from others.

8. Participants who view themselves as more similar to a 'psychiatric patient' will experience a lower degree of recovery compared to those who view themselves as being less similar to a 'psychiatric patient'.

9. Participants who view themselves as more similar to an 'average' person will experience a greater degree of recovery compared to those who view themselves as less similar to an 'average' person.

Hypotheses about Recovery

10. Participants will experience a greater degree of recovery if they are more hopeful for the future compared with those who are less hopeful, who will experience a lower degree of recovery.

11. Participants who set goals for their future are likely to experience a higher degree of recovery than service users who do not set goals for their future, who will experience a lower degree of recovery.

3. METHOD

3.1 Design

A cross sectional design was used given all observations of participants occurred at one time point, and based upon the assumption that the group could be subdivided into low and high recovery using the recovery assessment scale (RAS) score (Corrigan et al., 1999) as the grouping variable. There are currently no benchmark cut-off scores for the RAS in the literature. It is therefore anticipated that a cut-off for low and high recovery could be developed during the preliminary statistical analysis before drawing comparisons between the two groups.

3.2 Participants

Participants were a purposive sample of adults aged between 18 to 65 years old who had experienced psychosis. The main source of recruitment was from 3 National Health Service (NHS) trusts, consisting of participants from 3 Early Intervention Psychosis (EIP) teams and a psychiatric adult acute inpatient ward, recruited through their care co-ordinators. A smaller sample was recruited from a registered voluntary psychosis group in the community.

Inclusion criteria for the study included participants who had a DSM-IV diagnosis of psychosis, schizophrenia, schizoaffective disorder, delusional disorder or schizophreniform disorder, and who were able to give informed consent.

Inclusion criteria concerning length of time since last episode were not set, and therefore participants ranged from those who had experienced a recent period of psychosis to those for whom some time had elapsed since their last period of psychosis (e.g. months or years). Further, there were no set criteria for the number of episodes of psychosis, and thus participants ranged from those who had recently had or recovered from their first episode of psychosis to those who had experienced a number of episodes of psychosis. Exclusion criteria included: florid psychosis, a prior history of head injury, learning disability, or a primary diagnosis of drug and alcohol use. Minimum inclusion and exclusion criteria were set in order to assess a broad range of participants, and to enable a representative sample which represents the clinical complexity of the client group.

3.3 Power calculation

A power analysis was carried out to determine a sufficient sample size for both correlation analyses and group comparisons. Based on Cohen's d conventions of effect sizes (Cohen, 1992) a sample size of 46 would be sufficient to detect a moderate correlation of r=0.40 with a power of 80% (Cohen d of 0.80) and alpha error of 5% (one-tailed). For group comparisons a sample size of 52 would be sufficient to detect a mean difference of medium effect size with a power of 80% (Cohen d 0.80) and alpha error of 5% (one-tailed).

3.4 Measures

An important consideration for selecting the measures in the study outlined below included the time taken to complete each one. All questionnaires selected took between 5 to 20 minutes to complete. The main component of the study was the structured interview using the repertory grid, which took around 1 hour and 15 minutes. The whole interview process was approximately 2 hours in total.

3.4.1 Demographic information

The interviewer asked questions about the participants' background history at the start of the interview in order to establish rapport with each participant (Appendix 8). The following demographic information was collected for each participant in order to describe the sample: gender, age, ethnicity, marital status, number of children, time since first contact with mental health services, diagnosis, number of inpatient admissions, number of episodes of psychosis, current admission status, and medication.

3.4.2 Measurement of Psychosis

To measure current symptoms of psychosis and put the structured interviewed data into context the Psychotic Rating Scale (PSYRATS) (Haddock, McCarron, Tarrier and Faragher, 1999) was used (Appendix 9). This measure provides information on how well participants' were at the time of the interview by measurement of the degree of psychotic symptomatology.

Psychotic Symptom Rating Scale (Haddock et al., 1999)

The PSYRATS consists of two scales which measure the severity of auditory hallucinations and delusions on different dimensions. The auditory hallucinations subscale

(AH) consists of 11 items and measures the frequency, duration, severity and intensity of distress; in addition to specific symptom dimensions of controllability, loudness, location, degree of negative content and beliefs about the origin of voices and their disruption. The delusions subscale (DS) is a six-item scale measuring different dimensions of delusions including: preoccupation, distress, duration, conviction, intensity of distress and disruption caused by delusions. All items in both scales are rated on a five point ordinal scale. Haddock et al. (1999) reported both the AH and DS sub-scales have excellent inter-reliability ranging from 0.8 to 0.9; and found good evidence for the validity of the scale.

3.4.3 Measurement of Locus of Control

To measure control and test Hypothesis 5 an open-ended procedure employed by Westbrook and Viney (1980) was used called the Origin and Pawn Scale. The scale is designed to extract information from a brief narrative. The Origin and Pawn Scale measures the extent to which participants perceive themselves as 'origins', i.e. determining their own behaviour, or 'pawns', i.e. having this determined by forces beyond their control. In the scale, statements that are 'pawn' in nature are related to an external locus of control. Statements that are 'origin' in nature are related to an internal locus of control. Viney and Westbrook (1981) report that the advantage of this scale over Rotter's (1966) internal-external locus of control scale is that it enables participants to spontaneously define their own perception of their experience. It is thus more in keeping with personal construct psychology and the elicitation of personal construing than Rotter's (1966) scale, which predetermines individual's experience via forced answers on a questionnaire.

Origin and Pawn Scale (Westbrook and Viney, 1980)

The Origin and Pawn Scales were devised using content analysis of verbalisations, first developed by Gottschalk and Gleser (1969) and can be applied to any sample of speech that has been recorded, transcribed and then coded via a standardised procedure. Viney and Westbrook's (1981, p.48) instructions were used in this study, where participants were each asked the question:

'I'd like you to talk to me for a few minutes about your life at the moment - the good things and the bad – what it's like for you at the moment. Once you have started, I will be here listening to you but I'd rather not reply to any questions you have until the five minute period is over'

All responses to this question were then coded by the interviewer and an independent rater using content analysis scales employed by Westbrook and Viney (1980) to determine whether participants perceived themselves as Origins or Pawns. Scoring categories were based on Heider's (1958) analysis of the perception of action and used to score participants' perceptions of self as an origin or a pawn. Participants were perceived to consider themselves as an 'Origin' if they self-expressed: intention; exertion or trying; ability; and overcoming or influencing others or the environment. Participants were perceived to consider themselves as 'Pawn' if they self-indicated that they: did not intend an outcome; did not bring about an occurrence; expressed a lack of ability; described being controlled, forced or prevented and at the mercy of external forces, such as other people, environmental forces, and chance. A score of 1 is given to each clause in which the participant describes themselves as an Origin or Pawn. The Origin and Pawn scales are then summed independently:

Origin or Pawn Score = square root of the total raw score x CF + ½ CF

CF is a correction factor, the total number of words in the verbalisation divided into 100, which takes into account individual difference in the length of verbalisations.

Satisfactory inter-rater reliability was found in this study; Westbrook and Viney (1980) report satisfactory inter-rater reliability ranging from .91 to .94 for the Origin and .87 to .93 for the Pawn Scale. It has been reported to provide stable scores reflecting life events that individuals experience and their coping strategies, and has been used as an outcome measure in crisis intervention programmes (e.g. Westbrook and Viney, 1977; Winter, et al.,1992).

3.4.4 Measurement of Recovery

To measure the degree of recovery in participants the Recovery Assessment Scale (RAS) (Corrigan, Giffort, Rashid, Leary, Okeke, 1999) was administered (Appendix 11). This scale measures the process of recovery across five domains, and produces a single total recovery score based on a continuous scale. It is stated by the authors that the higher the score the higher the degree of recovery. However, there are currently no benchmark scores in the literature which define how recovered a participant is on this scale. Following preliminary statistical analysis of the data, it was hoped that a definition of how recovered

a participant is on this scale would be established through a cut-off score, which defines low and high recovery. This would enable group comparisons to be explored.

The Recovery Assessment Scale – RAS (Corrigan et al., 1999)

The RAS is a structured questionnaire initially developed from narrative analysis of 4 service users' recovery stories on the process of recovery (Giffort et al., 1995), which resulted in the development of a 39-item scale. This was later reviewed by a second group of 12 service users with severe mental illness, and subsequently tested with 35 participants. This resulted in scale revision and a 41-item length scale (Corrigan et al., 1999) which is used in this study. Corrigan et al. (1999) report the RAS has satisfactory test-retest reliability (r=0.88) and internal consistency (alpha=0.93). Analysis of concurrent validity of the RAS showed recovery was positively associated with self-esteem, empowerment, social support (as measured by the social support questionnaire developed by Sarason et al., 1987, outlined further in section 3.4.5) and quality of life measures; and negatively correlated with psychiatric symptoms and age.

The RAS contains 41 items on which participants rate themselves from 1-5 on a scale from 1- 'strongly disagree', to 5- 'strongly agree'. The RAS self-statements consist of 5 subscales which measure five factors related to psychological recovery derived from exploratory and confirmatory factor analysis (Corrigan et al., 2004) which include:

- 'Personal Confidence and Hope' - which comprises items about participants liking themselves, having hope for the future, and ability to handle stress
- 'Willingness to ask for Help' - which includes items related to seeking help from others
- 'Goal and Success Orientation' – which includes items related to having a desire to succeed and being able to meet goals
- 'Reliance on others' – which includes items related to the importance of others in participants' recovery
- 'Not dominated by symptoms' – which includes items that suggest psychiatric symptoms are no longer the centre or focus of participants' life.

Analysis of 2,000 RAS questionnaires has been completed and these five domains support factors found to be important for the process of recovery in the literature (e.g. Corrigan et al., 2004; Ralph, Kidder, Phillips, 2000). Further, a validation study completed by McNaught et al. (2007) also found support for the reliability and validity of the above five factors as a measure of recovery. Thus, the RAS appears to have solid psychometric and conceptual features that make it useful as a measure of recovery in mental health recovery research.

3.4.5 Measurement of Social Support

The degree of social support participants received was measured using the short version of the social support questionnaire outlined below and was used to test hypothesis 6:

Social Support Questionnaire - short form (SSQSR) (Sarason, Levine, Basham, and Sarason, 1987)

The SSQSR is a six item measure which was developed from Sarason et al.'s 1983 longer 27 item social support questionnaire (SSQ). The SSQSR is reported by Sarason et al. (1987) to have good internal reliability between 0.90 to 0.93 for number of supports and satisfaction ratings, and is highly correlated with the original SSQ. The original SSQ is reported by Sarason et al. (1983) to have good psychometric properties and good test-retest reliability.

The SSQSR used in this study (Appendix 10) assesses the perceived number of social supports and satisfaction with the social support available. It has six items, each of which has two parts. The first part of each item assesses the number of available others the participant feels they can turn to in times of need in a variety of different situations. The second part of each item measures the degree of satisfaction with the support available in the situation where participants rate how satisfied they are on a 6-point likert scale from 'very dissatisfied' to 'very satisfied'. The total number of individual names listed represents the size of the participant's support network, and the mean of the satisfaction ratings represents satisfaction with the support system.

3.4.6 Structured Interview

The focus of this study was the completion of a Repertory Grid (Kelly, 1955). Repertory Grids provide a methodological component of PCP that enable the researcher to explore an

individual's personal construct system (see section 2.6.1). A structured interview consisting of a repertory grid designed specifically for this study was used in order to investigate each of the main hypotheses.

3.4.6.1 Repertory Grid (Kelly, 1955)

A repertory grid matrix was developed by the interviewer based on the principles of repertory grid construction which contained 4 main components: the topic, elements, constructs, and ratings (Jankowicz, 2004). The topic was defined as the 'realm of discourse' chosen in order to elicit constructs which a person used to make sense of a particular experience (Jankowicz, 2004). In this study the topic was how participants viewed themselves and others in different life situations, e.g. how they viewed themselves when mentally ill compared to how they viewed themselves in recovery. In order to identify an individual's set of constructs on a given topic the participant was given a number of examples. These 'examples of, instances of, or occurrences within a given topic' were defined as the elements (Jankowicz, 2004). In this study the elements were predetermined by the researcher and contained a mixture of views of self, others' views of self, and views of other people in different contexts. These drew upon some of the elements used by Bell and McGorry's (1992) study exploring the perceptions of recovering psychotic patients (e.g. myself as I usually am, myself as I am now, myself as I will be in 6 months, myself as the staff see me, my ideal self, psychiatric patient, average person). The constructs in this study were determined by the participant (unlike Bell and McGorry's study where constructs were also pre-determined). Constructs were 'attributes that an individual used to make sense of their experience' and had two contrasting poles. Ratings from 1-6 were then applied to each element on each construct (Jankowicz, 2004).

3.4.6.2 Repertory Grid Matrix

Grid elements predetermined in this study included the following 12 elements which were recorded in a blank grid in the order listed below (Appendix 12) and presented to the participant on separate cards:

- Myself as I usually am
- Myself as I am now
- Myself if mentally ill
- Myself if recovered

- My ideal self
- Myself in 6 months
- Myself as the staff see me
- Myself as my family/significant other see me
- A typical psychiatric patient
- An average person
- Most supportive other
- Least supportive other

The 'triadic methodology' was then used to elicit constructs from individual participants (Kelly, 1955). To generate constructs the participant was presented with the first three elements listed above on cards and asked the question *"in what important way are two of these alike and thereby different from the third?"* This answer provided an emergent construct pole which was written down in the grid. The researcher then elicited the contrast implicit pole of the construct by asking *"in what way does the third element differ from the other two?"* which was written down in the grid opposite the emergent construct. If participants were unable to understand the instruction, they would be given an example as if the researcher was generating a construct. The first element was then taken away and the fourth element added (i.e. 'myself if recovered'), the above procedure repeated, and so on until 12 construct pairs were elicited. The final step was to ask each participant to rate the elements against each construct using a rating scale of 1 to 6. The emergent construct pole always has a rating of 6 and the contrast or implicit construct pole a rating of 1.

3.5 Computer Programmes used to Analyse the Repertory Grids

3.5.1 IDIOGRID (Grice, 2006)

Participants' repertory grids were analysed using the IDIOGRID analysis software. This involved carrying out single Slater analysis (Slater, 1977) for each of the participants' raw grid data. The following measures were then considered:

Distances between elements

IDIOGRID was used to calculate the distance between elements using standardised Euclidean Distances (Grice, 2006). These range from 0 to approximately 2, with larger

distances indicating dissimilarity in the construing of the elements concerned. Distances were considered for views of self, others' views of self, and views of other people in different contexts to test hypotheses 2, 4, 7, 8 and 9, for example:

- Hypothesis 2 was tested by calculating the average distance between all the different 'selves' in the grid, thus obtaining a measure of the differentiation between different selves.

- Hypothesis 4 was tested by calculating the distance between current self (i.e. myself as I am now) and ideal self to obtain a measure of self-esteem.

- Hypothesis 7 was tested by calculating the average distance between current self and self viewed by others (e.g. self as the staff see me, self as my family/significant other see me)

- Hypotheses 8 and 9 were tested by calculating the average distance between current self and views of others' (e.g. psychiatric patient, average person).

Principal component analysis plot

The IDIOGRID computer programme was also used to produce graphical representations of the repertory grid results and examples are presented in three case illustrations in the results chapter. Principal component analysis provides a two dimensional plot which represents a participant's construct system. This is illustrated via the relationship between elements and constructs and is shown via the loadings of each element and construct on the first two components (Watson and Winter, 2000). The constructs accounted for by component one and two are illustrated as vectors on the plot and the elements are shown as points. Elements that are plotted in the same quadrant are construed similarly, compared with those which are plotted in opposite quadrants which are least similar. Elements that are close to the origin of the plot are less significant to the participant, whilst elements that are furthest from the origin represent those which are construed most extremely (Grice, 2006; Watson and Winter, 2000).

Implicative dilemma analysis

Implicative dilemmas are identified within repertory grids by examining all correlation coefficients between each pair of constructs and identifying any construct pair that has a

different relationship direction than anticipated (Winter, 1992). Hinkle (1965) originally developed the concept of an implicative dilemma under the supervision of Kelly (1955), which has been further developed by other researchers (e.g. Feixas and Saul, 2004; Feixas, Saul and Sanchez Rodriguez, 2000; Rowe, 1971, Ryle, 1979; Tschudi, 1977; Winter 1982, 1992). It represents a wish for an individual to change from their current self to their ideal self along a specific construct, the discrepant construct, which implicates an undesired change along an associated congruent construct. The divergent construct refers to constructs that an individual rates their current self and ideal self at different poles of the construct, and a congruent construct is where the person rates the current self and ideal self elements similarly. For example, take Feixas and Cornejo's (2002) example, where an individual wishes to change from how they construe themselves now as 'timid' to their ideal self 'social'. However, an associated congruent construct is 'modest-arrogant', where self and ideal self concur both on 'modest'. This presents a dilemma or conflict whereby to become social may involve the abandonment of some of their own self-definitions, such as modesty, and a shift to their opposite pole arrogance, which would be undesirable for the individual's core structure. Therefore, when the client explores the possibility of allocating themselves to their desired pole (social) they may experience guilt as they find they are dislodged from their core identity structure e.g. modesty, and being timid is the easiest way to alleviate the guilt and return to their usual self. However, this poses barriers to change and if such a barrier is identified and explored with the client, one could explore whether it was possible to become social without having to be arrogant. This type of analysis therefore identifies potential barriers to change of which an individual may not be aware (Fernandes, 2007), which can then be explored as part of a treatment plan to overcome such barriers and enable change.

3.5.2 GRIDSTAT (Bell, 2004b)

This programme was used to calculate the conflict measure used to test Hypothesis 3. Conflict in a participant's construct system is measured by examining the relationship between elements and constructs. Bell (2004a) reports conflict is measured by calculating the distance between an element and two constructs. Bell describes these as having a 'balanced' relationship with each other if the distances between the three items follow the rules of forming a 'triangle'. This is where the longest distance does not exceed the sum of the smaller two distances. However, if this rule is broken, then a conflict situation is said to

have developed between the element and two constructs. Bell (2004a) defines this as the occurrence of a 'triangular inequality'. The Gridstat programme calculates all the element and construct distances and examines all of the potential conflict situations. In this study, the main conflict of interest for Hypothesis 3 concerned the element current self, and so the measure considered was the number of conflicting triadic comparisons for the element current self as a percentage of all the possible comparisons for this element.

3.5.3 HICLAS (De Boeck, van Damme and van Mechelen, 1992)

As outlined in the introduction (section 2.10) the HICLAS computer programme was developed based on Rosenberg and Gara's (1985) set-theoretical model used to represent the hierarchical structures within repertory grids. This mathematical model was then used by De Boeck (1986) to calculate a computer algorithm, known as HICLAS, to compute the hierarchical structure. This generates a model of the relationship between constructs and elements and is used in this study to explore self identity constructs within the repertory grid. The algorithm is based on an 'iterative process', which generates hierarchical data solutions dependent on which rank is selected. Rosenberg et al. (1996) outlined that a guideline to the choice of rank involves consideration of the trade-off between parsimony (low rank) and goodness-of-fit which decreases slightly in comparison with previous increases as the ranks increase. Thus, when using HICLAS it is important to consider which goodness-of-fit rank to use in the final model. Previous studies investigating self-elaboration in schizophrenia have used HICLAS structures at rank 3 (Gara et al., 1987). The decision was made to therefore use rank 3 for all HICLAS data analysis in this study.

The HICLAS programme was used to test Hypothesis 1 whereby the elaboration index for the element current self was calculated. This was calculated by counting the number of constructs connected to an element, with more connected constructs indicating a higher elaboration index. HICLAS was used to produce graphical representations of each participant's repertory grid. Examples of this output can be seen in the Results chapter.

3.6 Content analysis of repertory grid constructs (Landfield, 1971)

To explore recovery further, the content of participants' repertory grids was analysed using Landfield's (1971) content analysis. This involved extracting construct poles for the element 'current self' from participants' repertory grids. Only constructs on which the current self rated extremely (i.e. a score of either 1-2 or 5-6) were selected from

participants' grids, and the construct pole the participant placed themselves at noted down to be categorised according to Landfield's (1971) content categories listed below:

1. Social Interaction (Active or Inactive)
2. Forcefulness (High or Low)
3. Organization (High or Low)
4. Self-sufficiency (High or Low)
5. Status (High or Low)
6. Factual Description
7. Intellective (High or Low)
8. Self-reference
9. Imagination (High or Low)
10. Alternatives (a. Multiple description, b. Inferable, c. Alternatives, d. Open to alternatives, e. Closed to alternatives)
11. Sexual
12. Morality (High or Low)
13. External Appearance
14. Emotional Arousal
15. Egoism (Low or High)
16. Tenderness (High or Low)
17. Time Orientation (a. Past, b. Present or c. Future time)
18. Involvement (High or Low)
19. Extreme Qualifiers
20. Humour (High or Low)

Constructs were rated separately by both the researcher and an independent rater in order to assess the amount of agreement and as a check of inter-rater reliability.

3.7 Methodology

Following research ethical approval being obtained (see section 3.7.2.) the procedure described below was taken to conduct the study.

3.7.1 Procedure

Participants who met the inclusion criteria for the study were approached for the study and recruited from EIP or adult inpatient services across three National Health Service trusts in South-East England, along with recruitment from a voluntary organisation.

Recruitment was undertaken by the researcher informing appropriate mental health professionals about the study through their team meetings, and these professionals then identified participants who met the inclusion criteria for the study. The mental health professional then gave the study information sheet (Appendix 1) to potential participants and gave them time to consider whether or not they would like to take part. If the potential participant showed an interest in the study and verbally agreed to their name being passed onto the researcher, the researcher contacted them to discuss the study further, and a meeting was arranged. At this meeting the information sheet about the study was discussed with the potential research participant, which included: the purpose of the study; the benefits and risks; confidentiality; what participation would involve; and that the choice to participate was voluntary. It was emphasised to participants that their decision to participate or not participate in the study would not affect their ongoing or future care, and that they could withdraw at any time from the study without their care being affected. The participant was then given time to consider whether they would like to take part, and following this if still interested, the consent form discussed (Appendix 2). Once signed informed consent had been obtained, the researcher arranged to meet with the participant to complete the questionnaires and repertory grid. All questionnaires and the structured interview were conducted in a private room with only the researcher present. At the end of the interview all participants were provided with a debrief sheet (Appendix 3).

3.7.2 Ethical Considerations

Approval

Ethical approval for this study was granted by the NHS North Essex Research Ethics Committee, reference 09/H0301/63. Research and Development approval was then gained from Hertfordshire Partnership NHS Foundation Trust, North Essex and South Essex Partnership NHS (see Appendix 5 and 6 for all relevant documentation). Approval was also granted by the University of Hertfordshire Ethics Committee for voluntary organisations, reference PSY/09/09/SC (Appendix 7). This research complies with the BPS code of conduct, ethical principles and guidelines (1993).

Confidentiality

All data was kept anonymous by providing each participant a unique research number and keeping the data in a secure place. Pseudonyms are used during the write up phase.

Managing distress

It was recognised that enquiries about participants' experience of mental health, self concept and recovery through the repertory grid structured interview, and some of the questionnaires could be potentially sensitive or upsetting for participants. Procedures were therefore planned to manage potential distress (Appendix 4).

3.8 Planned Analysis

All analysis was undertaken using the repertory grid packages outlined, and a statistical package, SPSS v17, for correlation analyses and group comparisons. The use of parametric or non-parametric tests when conducting analyses was dependent on whether the assumptions of a normal distribution of data were met or violated by exploring the distribution of the data, homogeneity of variance, and outliers.

As outlined in the aims of the study, it was hoped that low and high recovery could be defined through establishing a statistical cut-off score using the RAS, given no cut-off scores had been reported in the literature thus far. In order to determine whether this could be possible preliminary statistical analysis was conducted to ascertain whether it was viable that the group could be split into two groups. Correlation analysis using either Spearman's or Pearson's correlation coefficient was conducted to explore the data for relationship trends. This would determine whether any relationships existed between the RAS and variables related to the hypotheses. This was achieved via visual inspection of a histogram on the recovery scores of the whole group, and data checked for bimodality. If bimodality was found, a cut-off score would be generated from this. Alternatively, a cut-off score would be determined by visually inspecting histograms and box plots of the RAS. Assuming the data could be split into two, the correlations found would then be inspected via bar charts, histograms and scatter plots to see whether parametric (t-tests) or non-parametric (Mann-Whitney U) tests could be used to compare the two groups.

4. RESULTS

This chapter will start with group level analyses which will describe the sample in terms of basic demographic information; and correlation analysis to explore the group for relationship trends. Following this, the degree of recovery will be defined using the recovery assessment scale (RAS, Corrigan et al., 1999) and two groups determined: defined as low to moderate and high recovery. Subgroup level analysis will then explore each of the hypotheses outlined to be tested in the study, drawing upon Mann-Whitney U tests. Case illustrations will then provide examples of each subgroup, including relevant repertory grid results. The chapter will end with Landfield's (1971) content analysis of grid constructs.

4.1 Group Analyses

4.1.1 Demographic Information

The demographic data collected for all participants is summarised in Table 1. There were 32 participants who took part in the study, 19 males and 13 females. In terms of ethnicity there were 23 White British participants, 2 British Asian and 1 Black British; 3 White European; 1 South African; 1 Black African; and 1 Middle East participant. There were 16 single participants, 10 co-habiting, 4 married, and 2 divorced participants. The age range was from 18-65 (mean=30.8, SD=13.8). All met the inclusion criteria for the study, and comprised 18 participants diagnosed with psychosis and 14 diagnosed with schizophrenia. 22 participants were from NHS early intervention psychosis services (EIP), 8 from a mental health voluntary organisation, and 2 from an NHS adult inpatient ward, one was on an informal hospital admission, and one an inpatient under Section 3 of the Mental Health Act 1983. All participants were taking anti-psychotic medication at the time of the study.

The number of years using mental health services ranged from 1 to 32 years (mean 6.7, SD 9.4) and number of inpatient admissions ranged from 0-7 (mean 1.6, SD 1.7); both were similar between male and female participants. The number of episodes of psychosis ranged from 1 to 10 (mean 2.8, SD 2.8), and the longest length of stay in hospital ranged from 1 to 283 days (mean 52.3, SD 73.4).

Table 1: Mean and standard deviation scores (SD) for the demographic data

		Male N=19	**Female N=13**	**Total Sample N=32**
Age	Mean	29.9	32.1	30.8
	SD	14.4	13.3	13.8
	Range	18-65	20-63	18-65
Number of years using MH services	Mean	7.1	6	6.7
	SD	9.7	9.4	9.4
	Range	1-29	1-32	1-32
Number of episodes of psychosis	Mean	3.5	1.8	2.8
	SD	3.4	1.5	2.8
	Range	1-10	1-5	1-10
Number of inpatient admissions	Mean	1.8	1.4	1.6
	SD	1.8	1.7	1.7
	Range	0-7	0-5	0-7
Longest stay in hospital (days)	Mean	63.1	36.4	52.3
	SD	87.3	44.8	73.4
	Range	1-283	1-120	1-283

4.1.2 Questionnaire Measures

The group level descriptive statistics for the questionnaire measures are summarized in Table 2. Results show that the Recovery Assessment Scale (RAS) score ranged from 77-203 (mean 155.4, SD 26.3); and the Psychotic Symptom Rating Scale (PSYRATS) score ranged from 0-54 (mean 8.5, SD 2.9). The Social Support Questionnaire – short form (SSQSR) revealed the number of social supports ranged from 8-54 (mean 19.3, SD 9.5); and the satisfaction score with the number of supports ranged from 19-36 (mean 31.9, SD 4.2).

Table 2: Means and SD for the questionnaire measures

		Male N=19	Female N=13	Total Sample N=32
RAS raw score	Mean	148.9	164	155.4
	SD	28.6	19.9	26.3
	Range	77-189	127-203	77-203
PSYRATS	Mean	10.7	5.3	8.5
	SD	18.3	12.9	2.9
	Range	0-54	0-35	0-54
SSQSR number of social supports	Mean	16.8	22.9	19.3
	SD	6.8	11.9	9.5
	Range	9-33	8-54	8-54
SSQSR satisfaction of social support	Mean	31.6	32.3	31.9
	SD	4.4	3.8	4.2
	Range	19-36	25-36	19-36

4.1.3 Gender Comparison

Statistical analysis was conducted in order to investigate any gender differences in the data set. Visual inspection of histograms and box plots revealed that the assumptions for the use of parametric tests were not met. Given the sample was not normally distributed, the male and female results for the demographic data and questionnaire measures were compared using a non-parametric test, the Mann-Whitney U (MWU). The results of this analysis revealed no significant effects for gender at the 5% level on any of the demographic or questionnaire variables in Table 1 or Table 2.

4.1.4 Correlation Analysis

Visual inspection of histograms and scatter plots for the whole sample on demographic, questionnaire, and repertory grid measures revealed the assumptions of normality and linearity were not met, and therefore Spearman's non-parametric correlation coefficient was calculated to explore the data for relationship trends. This would determine whether any relationships existed between the Recovery Assessment Scale questionnaire (RAS) and other variables related to the hypotheses. Following this the group was split into two based

on determining a statistical cut-off score for the RAS. Table 3 summarises the correlation analyses conducted between the RAS and each of the variables in the data set.

Table 3: Correlation analysis of the RAS questionnaire with all other variables in the data set

Variables correlated with RAS score:	Spearman's rho Correlation Coefficient r_s (n=32)	Significance Level
Demographic variables:		
Age	0.07	p = 0.18 (2-tailed)
Number of years using MH Services	-0.19	p = 0.07 (2-tailed)
Number of episodes of psychosis	-0.34	p = 0.02 (2-tailed) *
Number of inpatient admissions	-0.18	p = 0.08 (2-tailed)
Longest stay in hospital (days)	-0.08	p = 0.17 (2-tailed)
Questionnaire variables:		
PSYRATS score	-0.27	p = 0.04 (2-tailed) *
SSQSR number of social supports	0.27	p = 0.07 (1-tailed)
SSQSR satisfaction of social support	0.31	p = 0.04 (1-tailed) *
Repertory grid variables:		
Self Esteem	-0.54	p <0.001 (1-tailed) ***
HICLAS Self Elaboration Index	-0.06	p = 0.09 (2-tailed)
Differentiation btwn. different selves	-0.56	p <0.001 (2-tailed) ***
Self Conflict	0.17	p = 0.18 (1-tailed)
Self Validation from others'	0.11	p = 0.27 (1-tailed)
Self vs. Psychiatric Patient	0.45	p = 0.01 (1-tailed) **
Self vs. Average Person	0.08	p = 0.33 (1-tailed)
PCP variables:		
Origin Score	0.40	p = 0.01 (1-tailed) **
Pawn Score	0.41	p = 0.01 (1-tailed) **

*Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level
***Correlation is significant at the 0.001 level

Table 3 shows that significant correlations exist between the degree of recovery as measured by the RAS questionnaire and: the number of episodes of psychosis; PSYRATS score; SSQSR satisfaction with social supports; self-esteem; differentiation between different selves; self vs. psychiatric patient; and origin and pawn scores. To interpret the output for each correlation relationship, the direction of the relationship; strength of the relationship according to Cohen's (1988) interpretations of strength of the correlation

coefficient; and how much variance the two variables share by calculating the coefficient of determination (i.e. r_s^2) were considered, which reveals the following:

- A negative correlation at $p<.05$ exists between the RAS and the total number of episodes of psychosis; therefore as the number of psychotic episodes decreases the degree of recovery/RAS score increases. There is a medium strength of relationship as reported by Cohen, 1988 (r_s = .30 to .49) that exists between the two variables. However, the number of episodes of psychosis only accounts for 11.6% of the variability in the RAS score as demonstrated by the coefficient of determination (i.e. r_s^2=0.116).

- A negative correlation at $p<.05$ exists between the RAS and the PSYRATS score; therefore as the latter decreases the degree of recovery/RAS score increases. There is a small strength of relationship between the two variables with the PSYRATS score only accounting for 7% of the variance in the RAS score.

- A positive correlation at $p<.05$ exists between the RAS and the quality or satisfaction of the supports available as measured by the SSQSR. Therefore as the satisfaction with an individual's support system increases, the degree of recovery increases. A medium strength of relationship exists between the two variables. However, the satisfaction score on the SSQSR only accounts for 9.6% of the variance in the RAS score.

- A strong negative correlation at $p<.001$ exists between the RAS and self-esteem. Self-esteem is measured via the repertory grid distance between current self and ideal self, with a smaller distance indicating higher self-esteem. This means that as the distance between current self and ideal self decreases (meaning higher self-esteem), the degree of recovery increases. A large strength of relationship exists between the two variables (r_s = >.50 to 1.0), and self-esteem accounts for 29% of the variance in the RAS score.

- A strong negative correlation at $p<.001$ exists between the RAS and differentiation between different selves. Differentiation between different selves is measured via the repertory grid and measures the average distance between the current self and all other selves in the grid, with a larger distance indicating greater differentiation between different selves. Therefore, as the differentiation between different selves decreases, the degree of recovery increases. A large strength of relationship exists between the

two variables, and the differentiation between different selves accounts for 31% of the variance in the RAS.

- A positive correlation at p<.01 exists between the RAS and self vs. psychiatric patient, which was measured by calculating the distance between current self and a typical psychiatric patient, with the greater distance indicating that an individual views him/herself as less similar to a psychiatric patient. Therefore as the distance between self and psychiatric patient increases, the degree of recovery increases. A large strength of relationship exists between the two variables, and the distance between self and psychiatric patient accounts for 20% of the variance in the RAS.

- A positive correlation at p<.01 exists between the RAS and experience of internal control as measured by the Origin Scale. Therefore, as an individual feels more in control of internal life events, the degree of recovery/RAS score increases. A medium strength of relationship exists between the two variables and internal locus of control accounts for 16% of the variance in the RAS score.

- A negative correlation at p<.01 exists between the RAS and experience of external control as measured by the Pawn Scale. A high pawn score indicates that an individual believes that their life is controlled by others/external life events. Therefore as the pawn score increases the RAS score/recovery decreases. A medium strength of relationship exists between the two variables and external locus of control accounts for 17% of the variance in the RAS score.

4.1.5 Inter-rater reliability checks for the Origin and Pawn Scale (Westbrook and Viney, 1980)

Inter-rater reliability checks were completed by the researcher and a second rater for Westbrook and Viney's (1980) scales for each participant. This showed satisfactory inter-rater reliability for both the Origin (.92) and Pawn (.90) Scale.

4.2 Defining the Degree of Recovery from the RAS

As noted in the Methods section, the RAS is a continuous scale; however no theoretical cut-off scores have been explored in the literature to date. It was hoped that such a score could be generated in this study. Given significant correlations were found between the RAS and other variables in the study as outlined in Table 3, it was decided that a statistical cut-off score could be determined in order to give meaning to the RAS and define the degree of recovery by splitting the group into two, thus defining low and high recovery.

The statistical cut-off score was established through firstly visual inspection of the raw scores on the RAS, which revealed bimodality did not exist within the data set, and thus the score could not be generated from this. Following this, the raw RAS scores were transformed into percentage scores to make the data more meaningful and easier to interpret. The scale ran from 0-100 percent rather than 41-205, which represented the theoretical range of the raw scores on the RAS.

The percentage RAS scores were then inspected via a histogram and box and whisker plot to show the distribution of the group data in order to generate a cut-off score.

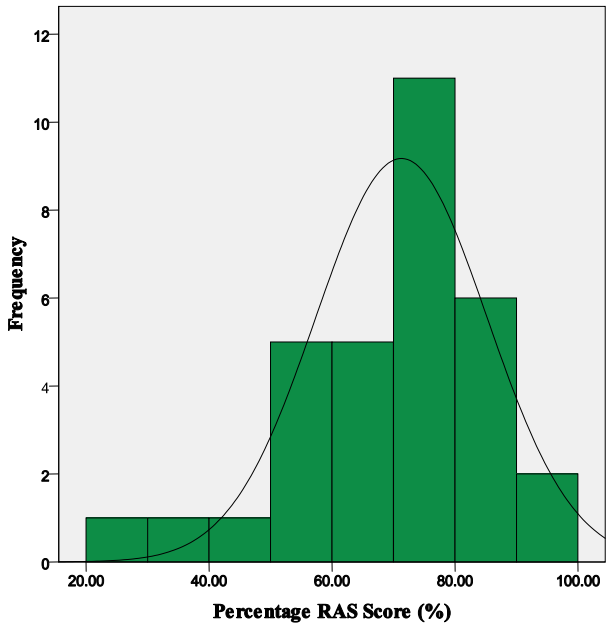

Figure 1: Histogram to show the distribution of the percentage RAS scores

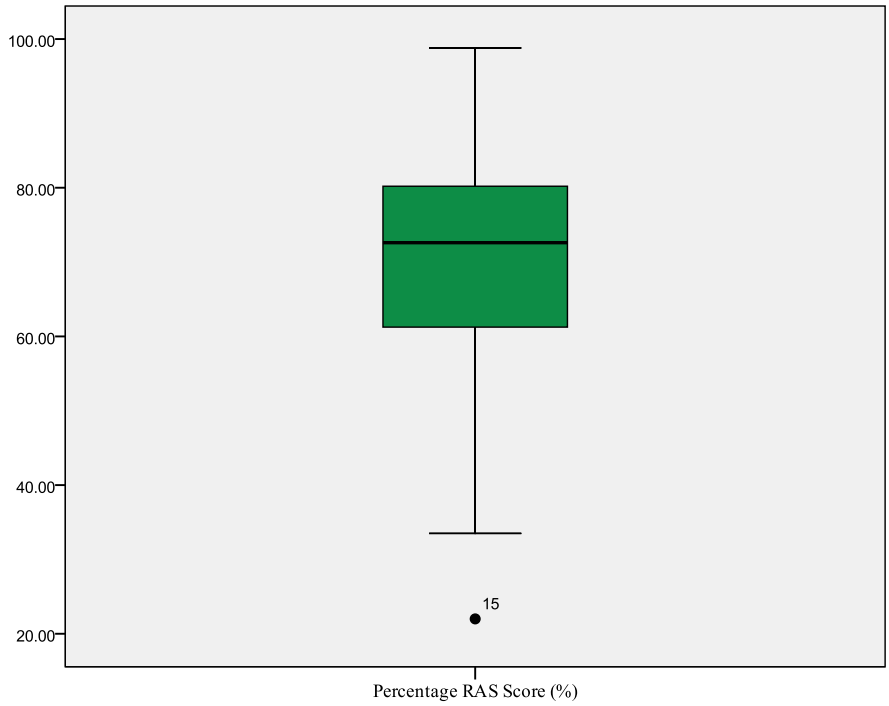

Figure 2: Box plot to show the distribution of the percentage RAS scores

Figure 1 shows that the group is relatively normally distributed around the mean; and Figure 2 illustrates the data is fairly symmetrical with only one outlier (participant 15). The RAS percentage scores depicted in these figures are summarised in Table 4.

Table 4: RAS percentage score descriptive statistics

Mean	69.7
SD	16.1
Range	22-98.8
Median	72.6
Lower quartile range	22-60.2
Upper quartile range	80.7-98.8

Table 4 shows the RAS percentage score ranges from 22-98.8% with a mean score of 69.7% (SD 16.1). The lowest RAS scores defined by the bottom quartile range from 22-60.2%, whilst the highest RAS scores defined by the top quartile range from 80.7- 98.8 %. Given the distribution of the group data it was decided to set the cut-off point at the median score, which enabled two groups of similar size to be established: low to moderate

recovery was defined as participants who scored below the median (range 0 – 72.5%); and high recovery defined as participants who scored above the median (range 72.6-100%).

4.3 Subgroup Level Analyses

4.3.1 Low to Moderate vs. High Recovery Group Comparisons

Having defined the degree of recovery using the median score and split the group into 17 participants in low to moderate recovery and 15 participants in high recovery, group comparisons were then explored to test each of the hypotheses outlined in section 2.18. The non-parametric Mann-Whitney U (U) was used to look at differences between the two groups given that the assumptions of a normal distribution and linearity for the majority of the grid variables were not met. Given the Mann-Whitney U has less statistical power than a parametric measure (e.g. an independent t-test), effect sizes (r) were generated, drawing on Cohen's (1988) conventions in order to assess the strength of the group differences observed.

Hypothesis 1: *Participants with a more elaborated sense of self will show a higher degree of recovery compared to those who have a poorly elaborated sense of self.*

In order to test Hypothesis 1, the recovery groups were compared on their HICLAS elaboration indices for the element 'current self' by counting the number of construct classes connected to 'current self'. Higher numbers connected indicate greater elaboration. The mean elaboration index score for the low to moderate recovery group was similar (mean 2.5, SD 1.2) to the high recovery group (mean 2.4, S.D. 0.6). The elaboration index in the recovery groups was compared using a Mann-Whitney U (MWU) test. Surprisingly, this revealed no significant difference at the 5% level in elaboration of sense of self between low to moderate and high recovery (U= 117, z=.420, p=.36 (2-tailed exact), r=.007).

Hypothesis 2: *Participants with greater differentiation between their different selves will show a higher degree of recovery compared to those who are less able to differentiate between their different selves.*

To test Hypothesis 2, the recovery groups were compared on the average IDIOGRID distance between 'current self' and 'all other selves' in the repertory grid. The mean distance between current self and all other self measures was higher in the low to moderate

(mean 0.85, SD 0.07) recovery than high recovery group (mean 0.72, SD 0.09). The MWU test revealed a significant difference at the <1% level in the ability to differentiate between different selves in the opposite direction to that predicted in the hypothesis (U= 32.5, z=3.59, p=<.001 (2-tailed exact), r=.64). This was a surprising result and indicated that participants in the low to moderate recovery group were more able to differentiate between their different selves than those in high recovery. Furthermore, the effect size, r, according to Cohen's (1988) statistical conventions is large, thus concluding a strong significant difference between the two groups.

Hypothesis 3: *Participants with low levels of conflict regarding their sense of self will show a higher degree of recovery compared to participants with high levels of conflict.*

Recovery groups were compared by calculating the conflict measure for the element 'current self' using GRIDSTAT. The mean percentage conflict regarding current self was marginally higher in the high recovery (mean 9.92%, SD 4.9) than low to moderate recovery group (mean 9.0, SD 4.4). The MWU test revealed no significant difference at the 5% level in the level of conflict regarding sense of self between the two groups (U= 103.5, z=.91, p=.37 (2-tailed exact), r=.16).

Hypothesis 4: *Participants with high self-esteem will experience a greater degree of recovery compared to those with low self-esteem, who will experience a lower degree of recovery.*

Recovery groups were compared by calculating the IDIOGRID distance measure between current self and ideal self within the repertory grid; a lower distance indicates high self-esteem. The mean distance measure between current self and ideal self was lower for the high recovery group (mean 0.52, SD 0 .26) than for the low-moderate recovery group (mean 0.96, SD 0.37). The MWU test revealed a significant difference at the <0.1% level in self-esteem (U= 40.5, z=3.29, p=.0005 (1-tailed exact), r=.58). The effect size is large, thus indicating a strong significant difference between the two groups whereby participants in the high recovery group have higher self-esteem than those in low to moderate recovery.

Hypothesis 5: *Participants who feel less in control of external life events will show a lower degree of recovery compared to those who feel more in control of external life events who will show a higher degree of recovery.*

The recovery groups were compared by calculating the pawn and origin scores (for further explanation of how this was measured, refer to the methods chapter). The mean pawn score was greater in the low to moderate recovery group (mean 2.3, SD 0.87) than high recovery group (mean 1.7, SD 0.65) whilst the mean origin score was marginally greater in the high recovery (mean 2.68, S.D 0.90) than low to moderate recovery group (mean 2.3, SD 0.70). Considering both of these scores in turn, the MWU test revealed a significant difference at the 5% level for the pawn score (U= 73.5, z=2.04, p= .02 (1-tailed exact), r= .36). The effect size is moderate, thus indicating a difference between the two groups, whereby participants in low to moderate recovery felt less in control of external life events compared to those in the high recovery group. In contrast, the MWU test revealed a trend at the 10% level for the origin score (U=93, z=1.30, p=.10 (1-tailed exact), r= .23). However, the effect size is small, thus suggesting only partial support for experienced control of internal life events.

Hypothesis 6: *Participants who have a well elaborated external support network will show a greater degree of recovery compared to those who have an unelaborated external support network.*

To test Hypothesis 6, the recovery groups were compared by calculating the SSQSR score on the number of supports and satisfaction level with the support system. The number of supports (mean 22.5, SD 11.8) and satisfaction with the support available (mean 33.3, SD 2.8) were greater in the high recovery than low to moderate recovery group. Considering both of these scores in turn, the MWU test revealed a trend at the 10% level for the number of supports available (U= 88.5, z=1.48, p=.07 (1-tailed exact), r=.30). The effect size is moderate, thus indicating a relationship between the two groups, whereby participants in high recovery have a greater number of social supports available to them than those in low to moderate recovery. The MWU test also revealed a significant difference at the 5% level (U= 84.5, z=1.64, p=.05 (1-tailed exact), r=.30) for the satisfaction level with the support system. The effect size is again moderate, thus indicating a significant difference between the two groups, whereby participants in high recovery are more satisfied with their support network than those in low to moderate recovery.

Hypothesis 7: *Participants who experience validation of their sense of self from others will show a greater degree of recovery compared to those who experience invalidation of their sense of self from others.*

To test Hypothesis 7, the recovery groups were compared by calculating the average IDIOGRID distance between current self and self as viewed by others. A small distance indicates greater validation of self from others, thus a greater degree of recovery. The mean distance between current self and self as viewed by others was lower in the high recovery (mean 0.47, SD 0.20) than low to moderate recovery group (mean 0.53, SD 0.16). The MWU test revealed a trend at the 10% level regarding validation of sense of self from others between the recovery groups (U= 97.0, z=1.15, p=.13 (1-tailed exact), r=.204). However, the effect size is small; therefore although participants who experience validation of their sense of self from others do show a greater degree of recovery, this result only provides partial support for the hypothesis.

Hypothesis 8: *Participants who view themselves as more similar to a 'psychiatric patient' will experience a lower degree of recovery compared to those who view themselves as being less similar to a 'psychiatric patient'.*

To test Hypothesis 8, the recovery groups were compared by calculating the IDIOGRID distance between 'current self' and 'psychiatric patient'. A large distance would indicate less perceived similarity of the self to a psychiatric patient. The mean distance between current self and psychiatric patient was greater in the high recovery group (mean 1.32, SD 0.26) than the low to moderate recovery group (mean 0.91, SD 0.40). The MWU test revealed a significant difference at the <1% level (U= 46, z=3.08, p=.001 (1-tailed exact), r=.54). The effect size is large, thus indicating a strong significant difference between the two groups whereby participants in low to moderate recovery view themselves as more similar to a psychiatric patient than those in high recovery.

Hypothesis 9: *Participants who view themselves as more similar to an 'average' person will experience a greater degree of recovery compared to those who view themselves as less similar to an 'average' person.*

To test Hypothesis 9, the recovery groups were compared by calculating the IDIOGRID distance between 'current self' and 'average person'. A small distance would indicate that

the self is seen as similar to an average person. The mean distance between current self and average person was marginally lower in the high recovery (mean 0.86, SD 0.15) than low to moderate recovery group (mean 0.89, SD 0.34). The MWU test revealed no significant difference at the 5% level (U= 121.5, z=.227, p=.412 (1-tailed exact), r=.04), thus indicating no significant difference between the two groups.

Hypothesis 10: *Participants will experience a greater degree of recovery if they are more hopeful for the future compared with those who are less hopeful, who will experience a lower degree of recovery.*

To test Hypothesis 10, the recovery groups were compared on their rating score on the RAS for hope (question number 24). The mean rating score for hope was greater in the high recovery (mean 4.6, SD 0.51) than low to moderate recovery group (mean 3.4, SD 1.2). The MWU test revealed a significant difference at below the 1% level (U = 49.5, z= 3.12, p= .001 (1-tailed exact), r= .55. The large effect size indicates a strong significant difference between the two groups, whereby participants in the high recovery group view themselves as more hopeful for the future compared to participants in low to moderate recovery.

Hypothesis 11: *Participants who set goals for their future are likely to experience a higher degree of recovery than service users who do not set goals for their future, who will experience a lower degree of recovery.*

To test Hypothesis 11, the recovery groups were compared on the rating score on the RAS for goals (question number 3). The mean score for goals was greater in the high recovery (mean 4.5, SD 0.64) than low to moderate recovery group (mean 3.8, SD 1.03). The MWU test revealed a significant difference at the 1% level (U = 67.5, z= 2.47, p= .01 (1-tailed exact), r= .44. and the effect size was moderate, thus indicating a significant difference between the two groups whereby participants in the high recovery group view themselves as more goal orientated compared to participants in the low to moderate recovery group.

4.4 Case Illustrations of Low to Moderate and High Recovery

The following case examples are used to illustrate participants who fell within the low to moderate and high recovery groups from a mixture of early intervention and inpatient services. Pseudonyms are used in all case examples presented. Table 5 summarises the grid scores which are examined within each case study presented. The table consists of variances accounted for by components, element distances (which range from a minimum distance of 0 to maximum distance of 2), sum of squares accounted for by current self, self conflict score, and elaboration indices.

Table 5: Case illustration repertory grid measures

Repertory Grid Measures	Jane	Jason	Paul
Percentage Variance Component 1	61.5	55.8	82.4
Percentage Variance Component 2	17.9	21.1	11.2
Distance Current Self - Ideal Self (Self Esteem)	1.3	1.3	0.4
Distance Current Self - All other selves (Differentiation between different selves)	0.9	1.0	0.7
Distance Current Self – Self viewed by others	0.6	0.8	0.3
Distance Current Self - Psychiatric Patient	0.4	0.5	1.5
Distance Current Self - Recovered Self	1.1	1.2	0.4
Current Self percentage total of sum of squares	2.4	8.2	9.2
Mentally Ill Self percentage total of sum of squares	18.4	18.7	16.0
Recovered Self percentage total of sum of squares	11.4	6.6	14.3
Current Self Conflict Score	5.2	5.4	9.6
Elaboration Indices (HICLAS)	4	4	3

4.4.1 Case example 1 – a participant in the low to moderate recovery group

Jane's profile fitted within the low to moderate recovery group. Jane was a 29 year old female who had a diagnosis of schizophrenia. She had been known to mental health services for 3 years, had 2 inpatient admissions, experienced 2 episodes of psychosis, and was under the care of an early intervention psychosis service.

Questionnaire data

Jane scored 55 per cent on the RAS, and 0 on the PSYRATS, which indicated no current psychotic symptoms.

Repertory Grid

The 12 constructs elicited from Jane via triadic elicitation during the repertory grid interview are shown in her grid below. Jane provided a rating for the different elements on every construct, with the construct poles being at the ends of a six point scale. The emergent pole is on the left side of the construct and has a rating score between 6-4, while the implicit pole, which is the right one of the pair, has a score between 3-1. Jane's raw scores are given in table 6.

Table 6: Jane's repertory grid

	Constructs		Elements											
	Emergent Pole	Implicit Pole	1 Myself as I usually am	2 My current self	3 Myself if mentally ill	4 Myself if recovered	5 My ideal self	6 Myself in 6 months	7 Myself as the staff/professionals see me	8 Myself as my family/significant other see me	9 A typical 'psychiatric' patient	10 An 'average' person	11 Most supportive other	12 Least supportive other
1	Relaxed	Tense	3	3	2	5	6	4	3	3	3	4	3	5
2	Awareness of symptoms of illness	Unaware of symptoms of illness	5	4	2	5	6	4	4	3	3	5	6	2
3	Happy	Depressed	4	3	2	5	5	4	4	3	3	4	3	4
4	Stable mood	Brighter mood	3	5	5	2	3	5	4	3	4	3	5	3
5	Active in recovery	Passive in recovery	4	4	2	5	5	3	4	3	4	4	4	5
6	More optomistic view of me	Unaware of changes in me	3	3	2	4	5	3	5	5	3	3	5	3
7	Unawarness re self&odd beh.	Awareness re self&focused beh.	2	4	5	3	2	3	5	4	3	5	3	4
8	Ritualistic behaviour	Normal, routine beh.	1	4	5	1	1	4	4	4	4	1	5	2
9	Caring & Understanding	Unsupportive	4	3	2	5	6	3	3	3	3	4	4	3
10	Helpful	Unhelpful	4	3	2	5	6	3	2	3	3	4	5	2
11	Sympathetic towards others	Cold	5	3	2	5	5	3	2	3	3	3	5	2
12	Humorous	Serious	5	3	2	5	5	3	2	3	3	4	3	4

Principal Component analysis plot

The relationships between the elements and the constructs were plotted graphically using the Idiogrid computer programme and are represented in Figure 3.

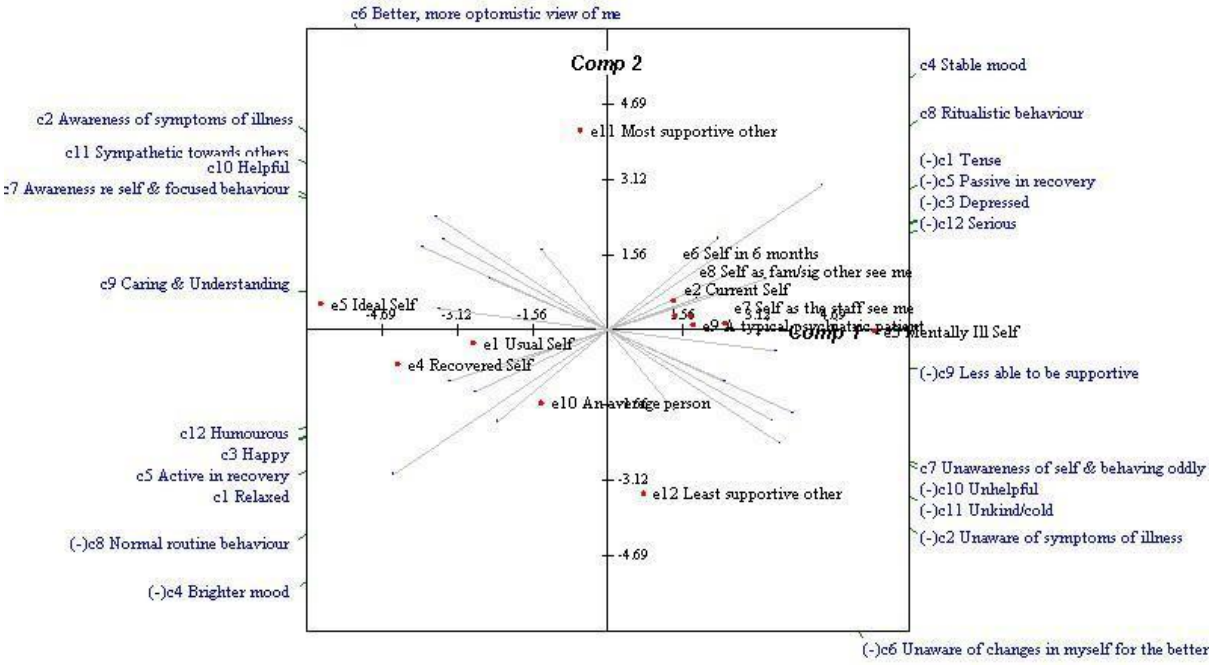

Figure 3: Plot of the elements in construct space for Jane's grid

The graph was created through analysis of the repertory grid via Principal Components Analysis (PCA). The horizontal axis represents the first principal component (PC1) and the vertical axis represents the second principal component (PC2). The elements and constructs are plotted on the graph according to their loadings on PC1 and PC2, which accounted for 61.5% and 17.9% of the variance respectively as shown in Table 5. The relatively large percentage of variance accounted for by Jane's first component and the relatively small percentage of variance accounted for by her second component is suggestive of a relatively tightly structured construct system. This indicates that Jane's construct system is relatively cognitively simple; this finding is further supported by the low current self conflict score in Table 5. Jane's plot demonstrates how she construes various aspects of herself and other related elements. Differentiation between each of the

different selves is demonstrated from the distances between each of the self elements, which appear to be well differentiated as shown in Table 5. This is contrary to Hypothesis 2, i.e. participants in high recovery will be more able to differentiate between their different selves compared to service users in low recovery.

The loadings of constructs on the first principal component (PC1, i.e. her major dimension of construing) indicate that she contrasts people who demonstrate 'ritualistic' and 'odd behaviour' with those who are 'aware of their symptoms' and are 'helpful'; and the second principal component (PC2) contrasts people who demonstrate 'ritualistic behaviour' and 'awareness of symptoms' with those who are 'relaxed', and 'humorous'. Jane's constructs which have the highest loadings on PC1 are 'ritualistic behaviour - normal routine behaviour' and 'focused behaviour and awareness regarding self -behaving oddly and unawareness of self'. These are considered to be Jane's superordinate constructs.

Self elements

Jane's 'current self' is the closest element to the plot origin as presented in Figure 3, indicating that it is the least salient element to her and least elaborated. In contrast, Jane's construal of her 'ideal self' and 'recovered self' appear to be most salient to her and are her furthest self-related elements from the origin of the plot. This is suggestive of a low degree of recovery, where Jane is not sure of her current self, which appears to be less elaborated and less integrated compared to her other self elements. Further, the sum of squares score for Jane's current self element, shown in Table 5, is small. This demonstrates that Jane's current self is not very meaningful to her, but rather her mentally ill self is more meaningful as demonstrated by the considerably higher sum of squares score for this element.

Jane views her current self similarly to the way her family and staff see her, which appear to be similar to the way she views a psychiatric patient, as can be seen from the close clustering of these elements. The distance between her current self and a psychiatric patient is small, as seen from Table 5. This suggests she views herself as similar to a psychiatric patient, which falls in line with Hypothesis 8 that participants who view themselves as similar to a psychiatric patient will experience a lower degree of recovery compared to those who view themselves as being less similar. She views her current self as displaying 'ritualistic behaviour', along with 'tense', 'passive', 'depressed' and 'serious' qualities; as

opposed to displays of 'normal routine behaviour', and 'relaxed', 'active in recovery', 'happy' and 'humorous' qualities, which are more akin to how she views her recovered self.

Jane distinguishes clearly between her 'recovered self' and 'mentally ill self', which are in opposite quadrants to each other. She places her 'current self' in the same quadrant as 'mentally ill self', although it is some distance from how she views herself when mentally ill, thus indicating some movement towards recovery. 'Recovered self' is in the same quadrant and close to 'usual self', indicating that Jane would like to move towards getting better and be further along in terms of her recovery (moving back to how she views her usual self) given her 'current self' is in the opposite quadrant to both these elements. Further, 'current self' is close to 'self in 6 months', indicating that Jane does not see much change or movement towards her 'recovered self' occurring during this time; again a further indicator of a low degree of recovery.

Table 5 and Figure 3 indicate that Jane's 'ideal self' is a considerable distance from her 'current self', indicating low self esteem. This falls in line with hypothesis 4, which states that participants with low self-esteem will experience a lower degree of recovery compared to those with high self esteem. Jane views her 'ideal self' as being 'aware of the symptoms of her illness' and 'awareness regarding herself', along with an ability to be 'sympathetic towards others' and 'helpful' as opposed to being 'unaware of the symptoms of her illness' and 'unawareness regarding herself', 'behaving oddly' and being 'unhelpful' and 'cold', which she views as being akin to qualities present in her 'least supportive other'.

Hierarchical-classes analysis (HICLAS) of Jane's repertory grid

The HICLAS software programme was used to investigate the hierarchical relationship between the constructs and the elements (For a more detailed explanation of how this was measured, refer to the methods chapter). A HICLAS solution at rank 3 for Jane's repertory grid is shown in Figure 4. The boxes above the black arrows represent construct classes and boxes below the arrows the elements. The lines between the boxes show how elements and constructs are linked to each other. The elaboration index for the element 'current self' was calculated by counting the number of construct classes connected to this element, with more connected construct classes indicating a higher elaboration index. The elaboration index for Jane is 4, which can be seen from tracing the dotted lines from the box containing 'current self' up to the top of the hierarchy. The construct classes connected to 'current self' have been highlighted in grey. This tells us Jane has a well elaborated self concept, which does not fall in line with

Hypothesis 1, and is surprising given it was predicted that participants with a high degree of recovery would have a more elaborated sense of self.

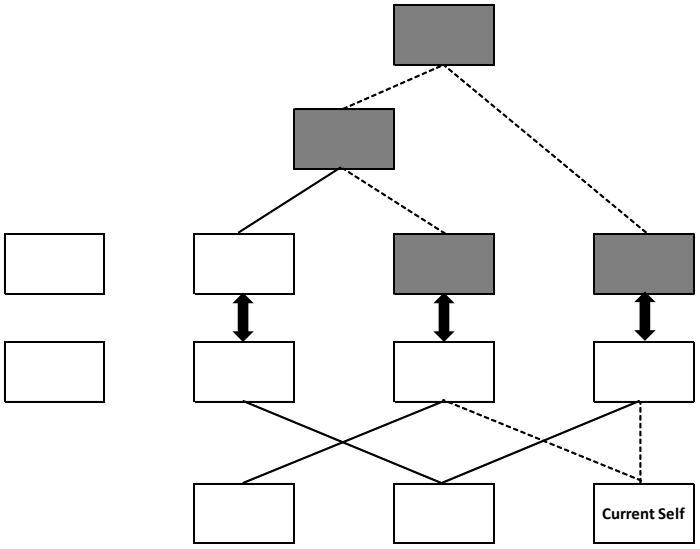

Figure 4 HICLAS graphical representation of the relationship between elements and constructs for Jane's repertory grid.

Implicative Dilemmas

Implicative dilemma analysis of Jane's repertory grid revealed she had no implicative dilemmas (for detailed explanation of how this was measured, refer to the methods section).

Content categorisation of grid constructs (Landfield, 1971)

Table 7 shows the construct pole(s) that Jane applies to her current self. This has been coded according to Landfield's system and was found to fit into 1 out of 26 content sub-categories (Landfield, 1971). For a more detailed explanation of how this was measured, refer to the methods section.

Table 7: Content analysis of Jane's repertory grid applied to the construct pole 'current self' (Landfield, 1971)

Category	Construct poles applied to Jane's current self
High Organization	stable mood

Applying Landfield's (1971) content analysis to Jane's grid illustrates only one construct pole was relevant to the content analysis, which was self-construing relating to high organisation.

All constructs were also coded by a second rater; the percentage agreement of raters' codings for this grid was 100%.

4.4.2 Case Example 2 – a participant in the low to moderate recovery group

Jason's profile fitted within the low to moderate recovery group. Jason was a 56 year old male who had a diagnosis of schizophrenia. He had been known to mental health services for 28 years, had 7 inpatient admissions, experienced approximately 10 episodes of psychosis, and was on an informal inpatient admission on an adult inpatient psychiatric ward.

Questionnaire data

Jason scored 34 per cent on the RAS, and 52 on the PSYRATS, which was in the clinical range and indicated psychotic symptoms.

Repertory Grid

The 12 constructs elicited from Jason during the repertory grid interview are shown below. See Appendix 13 for Jason's repertory grid.

- Low and dissatisfied with life – Lively and content with life
- Not able to deal with problems by myself – Able to deal with problems by myself
- Seeing friends, responsible – Hiding self, irresponsible
- Active and sociable – Inactive and isolated
- Independent, doing more for myself – Dependent on others
- Greater understanding regarding voices – Less understanding regarding voices
- Problems with mental health – Don't understand mental health
- Respectful and trusting – Disrespectful, unable to trust
- Supportive – Unsupported
- Support needed – Support not needed

Principal Component analysis plot

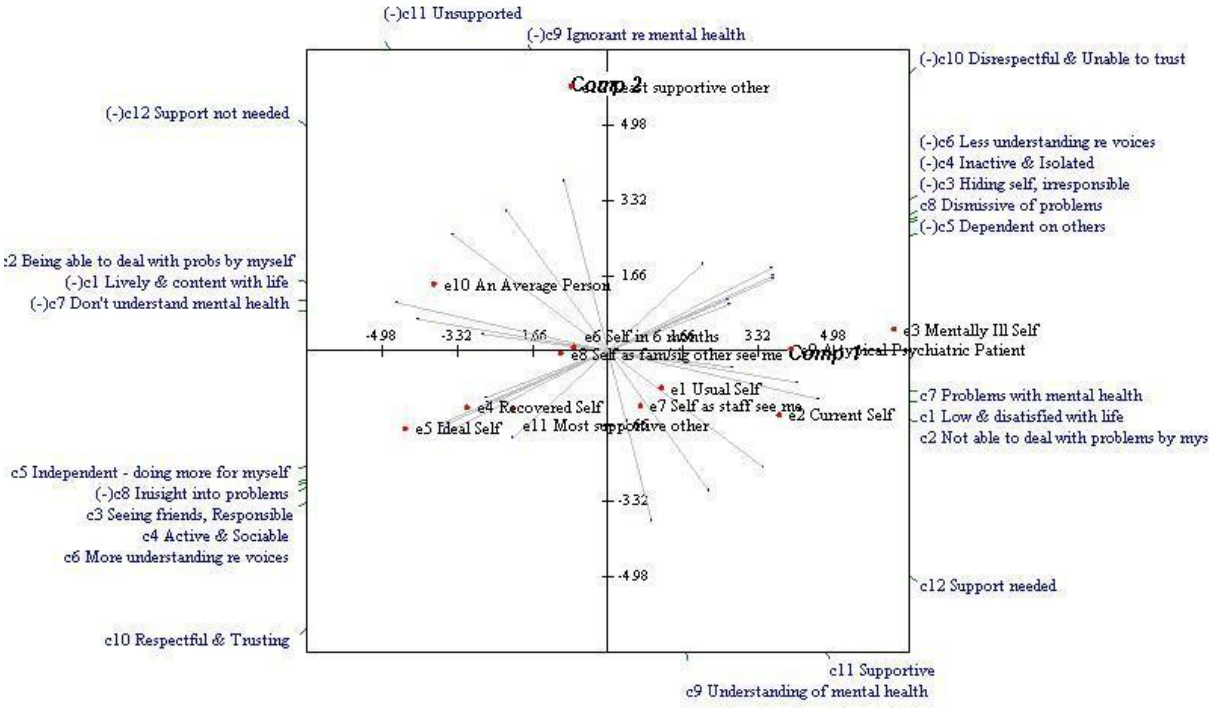

Figure 5: Plot of the elements in construct space for Jason's grid

In Jason's grid PC1 accounted for 55% of the variance, and PC2 21% of the variance as shown in Table 5. The smaller percentage of variance accounted for by Jason's first component is suggestive of a somewhat more loosely structured construing system compared to the previous example. This indicates that Jason's construct system is relatively less cognitively simple than Jane's as is demonstrated from his slightly higher current self conflict score in Table 5. Differentiation between each of the different selves appears to be high. Indeed Jason's self elements are more differentiated than the previous case example as seen in Table 5. This indicates less integration between the different selves, in contrast to the prediction in Hypothesis 2. Further, this example indicates that Jason is experiencing a lower degree of recovery than Jane. This is supported with evidence that Jason has a significantly lower RAS score (34 percent) than Jane (55 percent), and is at a more acute stage of mental illness given he was an inpatient, compared to Jane, who was in the community being supported by an early intervention psychosis service.

The loadings of constructs on PC1 indicate that he contrasts people who are low and dissatisfied with life and not able to deal with problems with those who are active, sociable and responsible; and PC2 contrasts people who are dismissive of mental health problems with those who are understanding of mental health and supportive.

Jason's constructs which have the highest loadings on PC1 are 'not able to deal with problems by myself – able to deal with problems by myself' and 'low and dissatisfied with life – lively and content with life'. These are considered to be Jason's superordinate constructs.

Self elements

Jason's construal of his 'mentally ill self' was most salient to him and is his furthest self-related element from the origin of the plot, presented in Figure 5. It is in the same quadrant as a typical psychiatric patient. This indicates that Jason is highly invested in his 'mentally ill self', which is his most elaborated self related element, compared to his current self, which is significantly less salient to him as is demonstrated by the lower sum of squares score in Table 5. Jason's 'self in 6 months' is the least salient to him and closest to the origin of the plot. This suggests Jason is not currently considering his life in the future and what may lie ahead; indeed his current self and recovered self are at opposing poles to each other, indicating some distance to travel in terms of recovery. Figure 5 shows Jason's current self and ideal self are at polar opposites to each other, indicating low self-esteem, which is also demonstrated from the large distance score in Table 5. Further, there is a relatively small distance between Jason's current self and a typical psychiatric patient and mentally ill self. This suggests that Jason currently views himself as mentally ill and considers himself to be similar to a typical psychiatric patient as seen from the small distance measure between his current self and a psychiatric patient in Table 5. All these factors indicate Jason is experiencing a low degree of recovery, somewhat lower than Jane in case example one.

Jason construes his current self as experiencing 'problems with mental health', being 'understanding of mental health', feeling 'low and dissatisfied with life', feeling 'not able to deal with problems by myself', being 'irresponsible, hiding oneself', being 'inactive and isolated', 'dismissive of problems', having 'less understanding regarding his voices' and being 'dependent on others'. As discussed above Jason's construal of his current self is

similar to his mentally ill self, thus demonstrating he currently views himself as being mentally ill. In contrast, he views his ideal self, which is clustered close to his recovered self and most supportive other, as being 'independent – doing more for myself', experiencing 'insight into problems', being 'responsible', being 'active and sociable', and 'having more understanding regarding voices'.

HICLAS representation of Jason's repertory grid

The elaboration index for Jason is 4, as shown by the construct classes connected to 'current self' which are highlighted in grey (the boxes which are blacked out are not included within this count). This tells us Jason has a well elaborated self concept, which does not fall in line with Hypothesis 1 that participants with a low degree of recovery would have a poorly elaborated sense of self compared to those with a high degree of recovery.

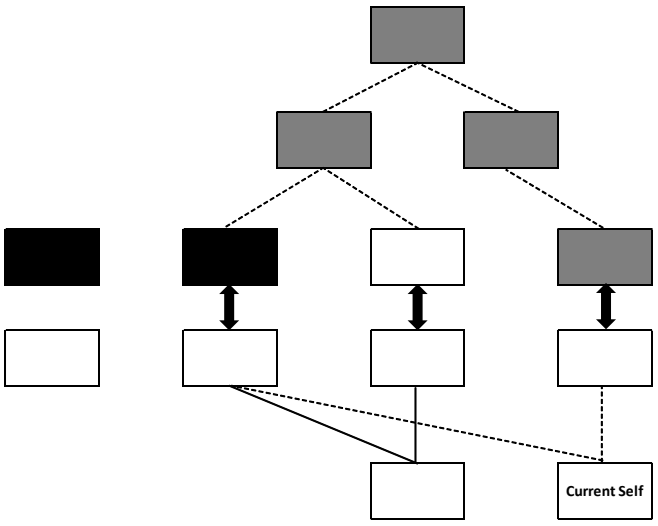

Figure 6 HICLAS graphical representation of the relationship between elements and constructs for Jason's repertory grid.

Implicative Dilemmas

Unlike the previous case example, which did not have any implicative dilemmas, Jason has a number of implicative dilemmas which could hinder his recovery. Table 8 shows the implicative dilemma correlation coefficients calculated in IDIOGRID for Jason's grid (for further explanation of how this is measured, refer to methods chapter). For example, Jason would prefer to have mental health problems, as is seen from his construal of his recovered and ideal self; but the dilemma for Jason is that he contrasts people with mental health problems with those who don't understand mental health (the opposite pole to mental health problems).

In Kellian terms this is threatening and presents a difficult choice for Jason to make i.e. 'I have mental health problems' or 'I don't understand mental health problems'. Furthermore, being able to deal with problems by himself, be independent, responsible, lively and content with life, sociable, and active are also associated with not understanding mental health, therefore making it less likely that he would move towards his recovered and ideal self. The implication for Jason of these dilemmas would be that he would need to find a way of still understanding people with mental health problems, whilst experiencing mental health problems himself. These dilemmas have significant clinical implications, and would need to be carefully considered when working with Jason. For example, they could be addressed in his treatment plan, in order to facilitate his recovery.

Table 8: Implicative dilemma correlation coefficient analysis for Jason's grid

Implicative Dilemmas	Pearson's Correlation Coefficient (r)
Problems with mental health - don't understand mental health	r = 0.75
Lively and content with life - don't understand mental health	r = 0.70
Being able to deal with problems by myself - don't understand mental health	r = 0.67
Seeing friends, being responsible - don't understand mental health	r = 0.71
Active and sociable - don't understand mental health	r = 0.78
Independent, doing more for myself - don't understand mental health	r = 0.48

Content categorisation of grid constructs (Landfield, 1971)

Table 9 shows the construct poles that Jason applies to his current self. They have been coded according to Landfield's system and were found to fit into 6 out of 26 content sub- categories (Landfield, 1971).

Table 9: Content analysis of Jason's repertory grid applied to the construct pole 'current self' (Landfield, 1971)

Category	Construct poles applied to Jason's current self
Low Self-sufficiency	not able to deal with problems by myself dependent on others dismissive of problems support needed
Low Social interaction	inactive and isolated hiding self
Active Social interaction	supportive
High Intellective	understanding of mental health
Emotional arousal	low and dissatisfied with life
Factual description	problems with mental health

Applying Landfield's (1971) content analysis to Jason's grid illustrates that the predominant content of Jason's self-construing are construct poles relating to low self-sufficiency, which represent 40% of construct poles applied to himself , followed by low social interaction, which represents 20% of these construct poles. These constructs were also coded by a second rater; the percentage agreement of raters' codings for this grid was 80%.

4.4.3 Case example 3 – a participant in the high recovery group

Paul's profile fitted within the high recovery group. Paul was a 29 year old male who had a diagnosis of schizophrenia. He had been known to mental health services for 3 years, had 1 inpatient admission, experienced 1 episode of psychosis, and was under the care of an early intervention psychosis service.

Questionnaire data

Paul scored 75 per cent on the RAS, and 0 on the PSYRATS, which indicated no current psychotic symptoms.

Repertory Grid

The 12 constructs elicited from Paul during the repertory grid interview are shown below. See Appendix 14 for his grid.

- Balanced mentally – Stressed out and anxious
- Healthy and stable – Confused and unstable
- Independent – Dependent
- In a successful job – Working towards a job
- Getting better – Fully better, financially stable
- Unconditional support – Conditional support
- Ill – Healthy
- Paranoia and strange thoughts – Stable mood and thoughts
- Clear consciousness – Fluctuating cloudy consciousness
- Lacking compassion – Compassionate

- Personal relationship – Impersonal relationship
- Knowing myself – Don't know me

Principal Component analysis plot

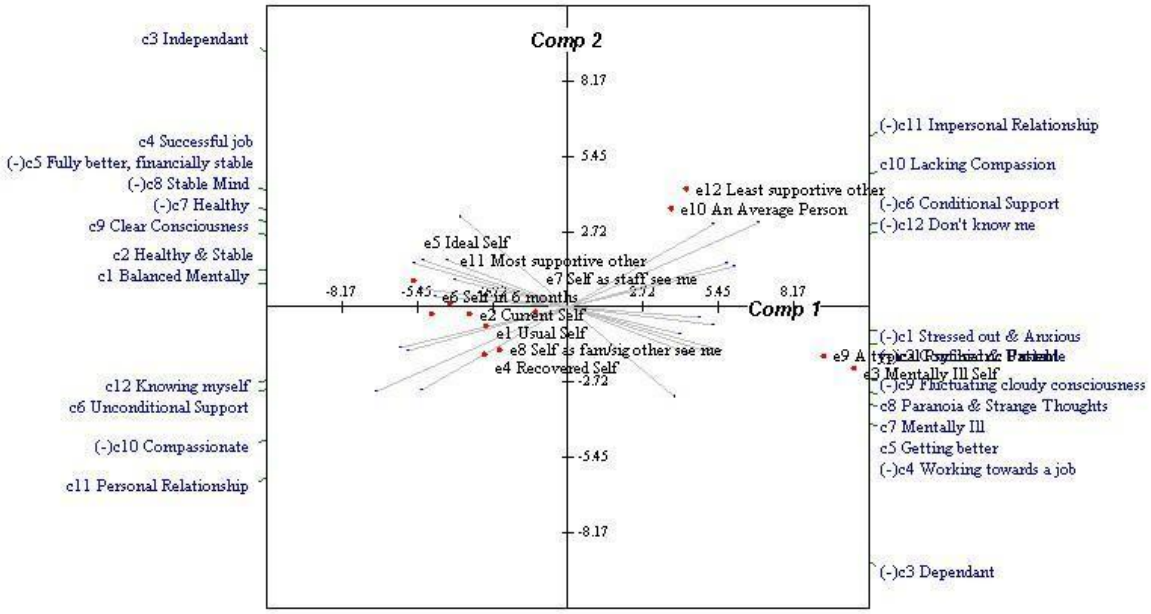

Figure 7: Plot of the elements in construct space for Paul's grid

In Paul's grid PC1 accounted for 82 % of the variance, and PC2 11% of the variance as shown in Table 5. The high percentage of variance accounted for by Paul's first component is suggestive of a very tightly structured construct system. The degree of tightness is considerably higher than the previous two case examples. This indicates that Paul's construct system is relatively cognitively simple. However, his current self conflict score in Table 5 is considerably higher than the previous case illustrations. Visual inspection of Paul's grid indicates a small degree of differentiation between each of the different selves, as demonstrated by the close clustering of each of the self elements. The low degree of differentiation between the different selves suggests that Paul's sense of self is well integrated compared to the previous two case examples where the degree of differentiation was higher as is seen from distance measures in Table 5. This is contrary to Hypothesis 2.

An integrated sense of self is further supported by the close clustering of current self, usual self, and self as my family or significant other see me. This demonstrates that Paul's view of himself is similar to how others view him.

The loadings of constructs on PC1 indicate that he contrasts people who are ill, paranoid, and lack compassion with those who know themselves and provide unconditional support; and PC2 contrasts people who are independent with those who are getting better and experience personable relationships.

Paul's constructs which have the highest loadings on PC1 are 'knowing myself – don't know me' and 'compassionate – lacking compassion'. These are Paul's superordinate constructs.

Self elements

Paul's construal of his 'mentally ill self' was most salient to him as is seen in Table 5 from his mentally ill self sum of squares, and is his furthest self-related element from the origin of the plot, presented in Figure 7. In contrast, Paul's sense of himself as the staff view him ('self as staff see me') is the least salient to him and closest to the origin of the plot. Paul's mentally ill self is in the same quadrant as a typical psychiatric patient, and thus Paul construes his mentally ill self as being similar to a typical psychiatric patient. However, in contrast to the previous case example (Jason), Paul's current self is in the opposite quadrant, and at a large distance from his mentally ill self, and a typical psychiatric patient as shown in Table 5. Therefore, although 'mentally ill self' is Paul's most elaborated self element, Paul does not consider himself currently to be mentally ill and considers his current self as being dissimilar to a psychiatric patient. Indeed, the plot demonstrates that current self and recovered self are within the same quadrant, which indicates Paul considers himself to be in recovery. Further, the smaller distance between the current and recovered self as shown in Table 5 illustrates that Paul shows a higher degree of recovery relative to the previous two case illustrations. However, looking at Table 5 Paul's current self sum of squares indicate that his current self is significantly less meaningful than his mentally ill self. This finding could present a potential dilemma to Paul's recovery as these scores suggest that he needs to invest less in his mentally ill self and more in his current self in order to make further movement towards recovery. Despite this finding, no implicative dilemmas were uncovered from the IDIOGRID analysis.

Figure 7 and Table 5 show that there is a small distance between current self and ideal self, significantly smaller than Jane and Jason, which indicates high self esteem, and falls in line with Hypothesis 4 that participants with higher self-esteem would experience a greater degree of recovery.

Paul considers his current self to be 'balanced mentally', 'healthy and stable', 'experiencing clear consciousness', and 'knowing myself'; constructs he associates with his recovered self, as opposed to 'stressed out and anxious', 'unstable and confused', 'fluctuating cloudy consciousness' and 'not knowing oneself'; constructs associated with his mentally ill self and a typical psychiatric patient. There is a large distance between his current self and a typical psychiatric patient as shown in Table 5, which falls in line with Hypothesis 8 that participants who view themselves as less similar to a 'psychiatric patient' will experience a greater degree of recovery.

Paul considers others to see him similarly to how he sees himself, as indicated by the small distance between his current self and the self as viewed by others in Table 5. This falls in line with Hypothesis 7 that participants who experience validation of their sense of self from others will show a greater degree of recovery. Paul construed his most supportive other was someone who was 'compassionate', provided 'unconditional support' and showed a 'personal relationship'; as opposed to someone who 'lacked compassion', provided 'conditional support' and was 'impersonal'; qualities Paul construed within his least supportive other. Paul also construed goals for himself to work towards as is seen by constructs 'working towards a job' and obtaining 'a successful job', constructs which for Paul indicated he was 'fully better' and 'financially stable', which represented his ideal self. These represent important constructs that can be considered when working with Paul to facilitate his recovery.

HICLAS representation of Paul's repertory grid

The elaboration index for Paul is 3, as shown by the construct classes connected to 'current self' which are highlighted in grey (the boxes which are blacked out are not included within this count). This tells us Paul has an elaborated sense of self, although no more so than Jane and Jason, despite the latter two case illustrations representing low to moderate recovery, whilst Paul's case illustration represents high recovery. This is inconsistent with Hypothesis 1.

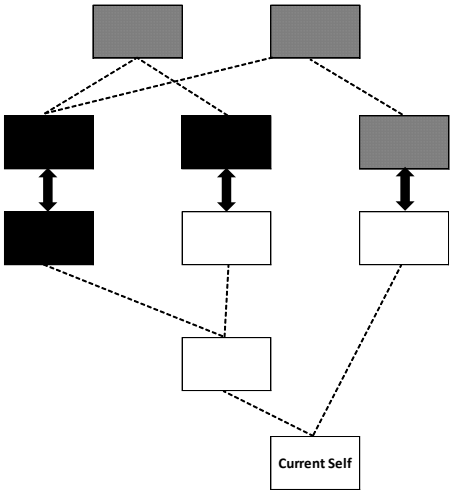

Figure 8 HICLAS graphical representation of the relationship between elements and constructs for Paul's repertory grid.

Implicative Dilemmas

Implicative dilemma analysis of Paul's repertory grid revealed he had no implicative dilemmas.

Content categorisation of grid constructs (Landfield, 1971)

Table 10 shows the construct poles that Paul applies to his current self. They have been coded according to Landfield's system and were found to fit into 5 out of 26 content sub- categories (Landfield, 1971).

Table 10: Content analysis of Paul's repertory grid applied to the construct pole 'current self' (Landfield, 1971)

Category	Construct poles applied to Paul's current self
High Organization	balanced mentally healthy and stable clear consciousness stable mind
Tenderness	unconditional support compassionate
High Self-sufficiency	knowing myself
High Social interaction	personable relationship
Time orientation	getting fully better & financially stable

The predominant content of Paul's self-construing are construct poles relating to high organization, which represent 44% of construct poles applied to himself, followed by tenderness, which represent 22%. Paul's self-construing also includes high self -sufficiency and high self interaction, in contrast to Jason's, which included low self-sufficiency and low self-interaction. The first and second rater agreed on all content analysis codes (Landfield, 1917) applied to Paul's grid, giving a percentage agreement of 100%.

4.5 Group content categorisation of grid constructs (Landfield, 1971)

Table 11 shows the frequency and percentages of Landfield's (1971) categories in the whole group that related specifically to participants' grid constructs applied to the element 'current self'. These were found to fit into 21 out of 26 content sub- categories (Landfield, 1971).The most commonly occurring of these were active social interaction (16%), high self-sufficiency (11%), factual description (11%), high tenderness (9%), and high organisation (9%).

Table 11: Content categories for participants' grid constructs (Landfield, 1971)

Category	Frequency	Percentage
Active Social Interaction	40	16%
High Self-sufficiency	29	11%
Factual Description	28	11%
High Tenderness	24	9%
High Organisation	23	9%
Low Forcefulness	14	5%
High Morality	13	5%
Future Time Orientation	12	5%
Emotional Arousal	9	4%
Low Self-sufficiency	9	4%
Inactive Social Interaction	8	3%
High Forcefulness	7	3%
Self-reference	6	2%
High Status	5	2%
Closed to Alternatives	4	2%
Low Organisation	4	2%
High Involvement	4	2%
Multiple Description Alternatives	3	1%
Low Tenderness	3	1%
Extreme Qualifiers	3	1%
High Intellective	2	1%
Low Involvement	2	1%
Low Imagination	2	1%
Low Status	1	0%
Past Time orientation	1	0%

4.5.1 Inter-rater reliability check Landfield (1971) content categorisation

All participants' grids underwent an inter-rater reliability check where the researcher and a second rater assigned Landfield's content codes to all the constructs applied to the element 'current self'. The inter-rater agreement was 67%; where there was disagreement on the content code assigned, an agreed code was reached between the researcher and second rater.

4.6 Low to moderate vs. High Recovery content categorisation of grid constructs

Table 12a and 12b show the frequency and percentages of Landfield's (1971) categories for participants' grid constructs applied to the element 'current self' in the low to moderate and high recovery groups. These were found to fit into 19 out of 26 content sub-categories in low to moderate recovery and 16 out of 26 of the content sub-categories in high recovery (Landfield, 1971).The most frequent of these were high organisation (13%), active social interaction (9%), factual description (7%) and low self-sufficiency (7%) for low to moderate recovery; and active social interaction (20%), high self-sufficiency (15%), factual description (14%), and high tenderness (12%) for high recovery.

Table 12a: Content categories for low to moderate recovery participants' grid constructs (Landfield, 1971)

Category	Frequency	Percentage
High Organisation	14	13%
Active Social Interaction	10	9%
Factual Description	8	7%
Low Self-sufficiency	8	7%
High Self-sufficiency	7	6%
Low Forcefulness	7	6%
Emotional Arousal	7	6%
Inactive Social Interaction	7	6%
High Tenderness	6	6%
High Morality	5	5%
Self-reference	4	4%
Closed to Alternatives	4	4%
Future Time Orientation	3	3%
High Forcefulness	3	3%
Low Organisation	3	3%
Low Tenderness	3	3%
Multiple Description Alternatives	2	2%
High Intellective	2	2%
Low Imagination	2	2%
High Involvement	1	1%
Extreme Qualifiers	1	1%
Low Involvement	1	1%
Past Time orientation	1	1%
High Status	0	0%
Low Status	0	0%

Table 12b: Content categories for high recovery participants' grid grid constructs (Landfield, 1971)

Category	Frequency	Percentage
Active Social Interaction	30	20%
High Self-sufficiency	22	15%
Factual Description	20	14%
High Tenderness	18	12%
High Organisation	9	6%
Future Time Orientation	9	6%
High Morality	8	5%
Low Forcefulness	7	5%
High Status	5	3%
High Forcefulness	4	3%
High Involvement	3	2%
Emotional Arousal	2	1%
Self-reference	2	1%
Extreme Qualifiers	2	1%
Low Self-sufficiency	1	1%
Inactive Social Interaction	1	1%
Low Organisation	1	1%
Multiple Description Alternatives	1	1%
Low Involvement	1	1%
Low Status	1	1%
Closed to Alternatives	0	0%
Low Tenderness	0	0%
High Intellective	0	0%
Low Imagination	0	0%
Past Time orientation	0	0%

The percentages for the most frequent Landfield categories (see above) were compared between the low to moderate and high recovery groups using the Chi^2 – test of independence. Because of multiple testing and the danger of an inflated alpha error, statistical significance was set at a more stringent level of 1%. Results indicated significant differences in relation to 'Active Social Interaction' with high recovery participants construing themselves as being more active socially (20%) in comparison to the low to moderate recovery participants (9%), $\chi^2(1)=40$; $p<.001$. Significant differences were also found in relation to 'High Self-Sufficiency', 'Factual Description' and 'High Tenderness' with high recovery participants construing themselves as being more self-sufficient (15%), factually descriptive (14%), and displaying higher tenderness (12%) in comparison to the low to moderate recovery participants (self-sufficiency $\chi^2(1)=29$; $p<.001$; factual description $\chi^2(1)=28$; $p<.001$; and high tenderness $\chi^2(1)=24$;$p<.001$). Further, results indicate significant differences in relation to 'High Organisation' with low to moderate recovery participants viewing themselves as more highly organised (13%) in comparison to the high recovery participants (6%), $\chi^2(1)=23$;$p<.001$.

5. DISCUSSION

In this chapter the main findings of the study and the hypotheses are discussed with respect to the literature reviewed. The clinical implications of the study are then discussed, together with limitations of the study, and suggestions for future research.

5.1. Summary and discussion of the main findings

This research aims to expand our current limited understanding of recovery in psychosis using a PCP methodology.

Further, it attempts to define the degree of recovery using the Recovery Assessment Scale (RAS, Corrigan et al., 1999). The main findings of the research study are that the degree of recovery is impacted by the following factors: differentiation between different selves; self-esteem; experienced sense of control over one's environment; quality of support available; construed similarity between the self and a 'psychiatric patient'; hope; and goals. The research findings in relation to each of these measures will be discussed in turn.

5.1.1 Differentiation between different selves

The results of the study indicate that the degree of differentiation between the different selves was statistically different between the two groups, whereby participants in low to moderate recovery were more able to differentiate between their different selves compared to those in high recovery. This finding is contrary to Hypothesis 2, but is significant and accounts for 31% of the variance in the RAS score.

With reference to the PCP literature, this finding can be interpreted by considering recovery in terms of loose and tight construing. For example, Kelly (1955) proposed that to change or revise one's constructs involved loosening present constructs, thereby enabling one to experiment with new situations. Kelly stated that although these constructs may not fit the new situation, they could be used as approximations, and from this new conceptualisations could be formed which could generate new constructs. The recovery literature reviewed supports this ideology, finding a new sense of self through enabling new meanings to be constructed, thus opening up new possibilities in order to move forward in life (Anthony, 1993; Davidson, 2003).

Recovery could therefore be conceptualised from a PCP perspective as loosening and tightening of an individual's constructs, whereby in low to moderate recovery constructs

are loose as an individual is experimenting with new situations in order to progress towards a higher degree of recovery. This may explain why differentiation between the different selves is greater in the low to moderate recovery group. In contrast, differentiation between the different selves is less in the high recovery group because an individual has already reconstructed their constructs, and through this process then tightened up again. Furthermore, as an individual progresses towards higher degrees of recovery their sense of self is more integrated as one is more sure of their sense of self, compared to lower degrees of recovery where one's sense of self may be more fragmented, given an individual is still experimenting to find a sense of self which is meaningful to them and fits a given situation.

This finding has significant therapeutic implications whereby in order to progress towards recovery an individual firstly loosens, and then tightens up their construing process. However, it is not known whether this finding is specific to the schizophrenic and psychotic population or to mental health in general.

5.1.2 Elaboration of the self

The results from the study indicate that elaboration of the self is similar between the two recovery groups, contrary to the hypothesis. Therefore, there was a null finding for Hypothesis 1 as the degree of self elaboration was not statistically greater the higher the degree of recovery. As previously outlined, this hypothesis was based upon research that proposed an individual's self includes a hierarchically organised set of identities (Rosenberg and Gara, 1985) and one is at risk of developing schizophrenia when these identities are limited or diffusely organised (Gara et al., 1987). Gara et al.'s 1989 research found that self-structures were poorly elaborated in schizophrenia compared to mentally healthy populations. Thus, the expectation of this study was that as an individual moved toward a higher degree of recovery, their self-structure would become more elaborated through adapting to and enacting different self-identities (Rosenberg and Gara, 1985).

This null finding may be explained due to a lack of power, due to the small sample size, or the methodology used to measure elaboration in this study. For example, elaboration of the self was measured via the set theoretical computer programme known as HICLAS (DeBoeck, 1986,1992) used in PCP studies to measure self elaboration (e.g. Gara et al., 1989, Sewell et al., 1996). However, recent research by Sermpezis and Winter (2010) has discussed the limitations of using HICLAS analysis to measure elaboration and found that

the results of the degree of elaboration in trauma are different dependent on which pole (emergent or implicit) of the constructs is clustered. These findings have significant implications for both the current study and previous PCP studies which have used HICLAS to measure elaboration. For example, this study's findings suggest that HICLAS on its own is not a feasible method to measure self elaboration and recovery; research is therefore needed to investigate this finding further. The weaknesses of HICLAS are discussed further in the limitations section.

5.1.3 Conflict in the self

The results from the study indicate that, contrary to Hypothesis 3, there was no significant difference in self conflict between the high and low to moderate recovery groups. It is interesting to note, however, that in the high recovery case example, Paul had a higher degree of self conflict than Jane and Jason. Winter (1983) proposed that higher self conflict indicates greater cognitive complexity in construing. This finding is a potential area which could be explored further through future research. Furthermore, the case examples illustrate that Jason had greater symptom severity, and a greater number of implicative dilemmas than Paul and Jane. This suggests that people in low to moderate recovery may display a greater number of implicative dilemmas than those in high recovery. In view of this finding, the data was explored for implicative dilemmas, which found people in low to moderate recovery did display a higher number of implicative dilemmas. These findings are supported by Feixas et al.'s (2009) research, which found implicative dilemmas were greater in people who had greater symptom severity; and revealed differences between clinical and non-clinical samples, whereby the former had more implicative dilemmas (52 percent) than the latter (34 percent). One could therefore argue that as symptom severity reduces and people move from a clinical to non-clinical range within recovery, the number of implicative dilemmas reduces. This is another area for future research, and has important implications for treatment programmes in mental health, whereby identification of implicative dilemmas can enhance case formulation, and steer the direction for resolving problems and progressing toward recovery. This finding is supported by Feixas and Saul (2005) and Fernandes (2007), who demonstrated the benefits of identification of implicative dilemmas in case formulation and the design of therapy.

5.1.4 Self-Esteem

The results of the study indicate that self-esteem is statistically different between the two groups, whereby participants in high recovery had greater self-esteem than those in low to moderate recovery, and thus Hypothesis 4 was accepted. This is a significant finding and accounted for 29% of the variance in the RAS score. These results confirmed the conclusions made by previous researchers that high self-esteem is an important factor in recovery (Andreson et al., 2003; Winter, 1992). However, unlike previous literature to date on self-esteem and recovery, this study measured self-esteem and recovery in a novel way by applying PCP methodology, and measuring the distance between the current and ideal self, with a lower distance interpreted as high self-esteem. This study's findings therefore add to the literature base on self-esteem and recovery from a PCP perspective.

Furthermore, these findings show that as people move to a higher degree of recovery they move closer to their ideal self, implying that the ideal self is a self identity that one is aiming to move toward as he/she progresses towards recovery. This has important therapeutic implications, where one could identify goals to strive towards in terms of an individual's conception of their current self and ideal self, and thus steps to take to move toward as they progress in their recovery. A potential limitation of this finding however is that a very high level of self-esteem may be as unadaptive as a low level of self-esteem. This therefore needs to be taken into account when interpreting the results, and is an area to further explore in future research.

5.1.5 Self-Control

Whilst in the literature base the most widely used way of measuring self control is through Rotter's (1966) locus of control measure, which defines people who have an external and internal locus of control, this study sought to measure self-control from a PCP perspective, and used Westbrook and Viney's (1980) Pawn and Origin Scale. The results of the study showed that participants in high recovery had a greater degree of experienced control over their external environment than those in low to moderate recovery, as demonstrated from the higher pawn score, and thus experimental hypothesis 5 was accepted. The data also showed a trend for a difference between experienced control over one's internal sense of self, where participants in high recovery had more internal control than those in low to moderate recovery. These results confirmed the conclusions made by previous recovery and PCP researchers (Ajayi et al., 2009; Davidson et al., 2005; Winter et al., 1992) that a

sense of control over one's internal world and external environment is important in an individual's recovery. A particular strength of the measure is that it enabled participants to define their own perceptions of their experiences in the present moment, rather than have this predetermined as in Rotter's (1966) locus of control scale, which is not necessarily personally meaningful. Further, the results demonstrate that the Pawn and Origin Scale (Westbrook and Viney, 1980) is a good measure of self-control in recovery.

5.1.6 Self vs. a 'psychiatric patient' and Self vs. an 'average person'

Similar to Bell and McGorry's (1992) research study on recovering psychotic patients, this study makes comparisons between the way in which the current self and a psychiatric patient, and average person are construed. Findings show that participants in low to moderate recovery viewed themselves as more similar to a psychiatric patient than those in high recovery, and thus hypothesis 8 is accepted. These results support and confirm Bell and McGorry's (1992) and Gara et al.'s (1987) findings that participants who moved further away from a 'psychiatric patient' identity showed greater recovery, and better treatment outcomes. Conversely, findings show that there was no significant difference between the current self and an average person, and thus Hypothesis 9 rejected; unlike Bell and McGorry's (1992) study, which proposed closer distances between self now and an average person indicated movement toward recovery. It could be argued, however, that the term 'average person' is difficult to define, and its ambiguity therefore makes it somewhat meaningless. These study findings therefore suggest that the distance between the current self and an 'average person' is not a good measure of recovery.

5.1.7 Support

The results of the study show an underlying trend that participants who experienced validation of their sense of self from others showed greater recovery than those who experienced less validation, thus providing partial support for Hypothesis 7. Furthermore, participants who had a more elaborated external network showed a greater degree of recovery than those who had an unelaborated external support network as measured by the SSQSR (Sarason et al., 1987), which found a statistically greater quantity and quality of support available in the high recovery group, compared to the low to moderate recovery group. Thus, Hypothesis 6 is accepted.

These results confirmed the conclusions made by previous researchers that highlight the importance of validation from significant others, which provides affirmation of sense of self, and the importance of support systems to aid an individual's recovery (Ajayi et al., 2009; Brown and Kandirikirira, 2007; Scott et al., 1993; Winter et al., 1992).

5.1.8 Hope and Goals

The results of the study show that participants who were more hopeful for the future showed greater recovery than those who were less hopeful; thus hypothesis 10 is accepted. Furthermore, participants who set goals for their future showed greater recovery than those who were less goal orientated, and thus hypothesis 11 is accepted. Both future hope and goals were measured by the RAS questionnaire and confirm and support previous research (Andreson et al. 2003; Brown and Kandirikirira, 2007; Davidson et al., 2005; Young and Ensing, 1999) that highlights the importance of both of these factors in an individual's progression towards recovery.

5.1.9 Landfield's (1971) Content Analysis

A qualitative analysis of the current self constructs facilitated greater understanding of the construct systems of people who have psychosis in recovery. For example, findings show that participants in high recovery construe themselves as being significantly more self-sufficient, more active socially, and display higher tenderness compared to those in low to moderate recovery. These findings suggest that to make progression in recovery involves becoming more self-sufficient, which adds support to the self control findings whereby participants in high recovery had a greater degree of experienced control over their external environment than those in low to moderate recovery. Further, displaying greater socially active qualities and higher tenderness are also factors which enable progression toward recovery. The latter factor supports the findings that people in high recovery have a better quality of support available to them to access as shown by the SSQSR (Sarason et al., 1987) and self validation findings, whereby those in high recovery felt a greater sense of self validation than those in low to moderate recovery. Furthermore, the findings showed that 'high organisation' was the most frequent construct category applied to participants in low to moderate recovery, which was statistically significant. This suggests organisation is an important part of the initial process of recovery whereby participants need to re-structure and better organise their constructs to progress in recovery. Further

research could complete a more in depth qualitative analysis of the self constructs to explore these group differences in more detail.

5.2 Clinical Implications

The findings of this research study show support for using PCP methods to investigate and measure recovery. A strength of the study is to elicit constructs from participants, rather than the researcher supplying constructs, which had previously been done in Bell and McGorry's (1992) study, thus furthering our understanding of recovery in psychosis.

The study demonstrates a number of important clinical implications; in particular, the value of using repertory grids in the assessment of the degree of recovery in psychosis. This is a significant implication for clinical work which aids both case assessment and formulation, enabling tailored therapeutic interventions to help an individual progress toward higher degrees of recovery. For example, the finding that one's sense of differentiation between the different selves is greater in low to moderate recovery than high recovery suggests that to help an individual move toward a higher degree of recovery involves firstly loosening, and then tightening up their construing system. Secondly, self-esteem distance measures enables identification of personal goals to strive towards in terms of an individual's conception of their current and ideal self, and thus steps to take to progress toward recovery. Thirdly, the Pawn and Origin Scale highlighted the degree of control over one's external and internal world, and thus again highlights potential areas that could be worked on to progress toward higher recovery.

Further, a significant implication for clinical work is the identification of implicative dilemmas in repertory grids. For example, implicative dilemmas were identified in the case illustrations as potential barriers to change, and thus of movement toward recovery. Clinical interventions addressing such dilemmas could reframe potential barriers, thus enabling a change in behaviour, as outlined by Feixas and Saul (2005), and therefore movement toward higher recovery. This was identified in Jason's repertory grid in section 4.4.2 whereby he had to make the difficult choice between either 'I have mental health problems' or 'I don't understand mental health problems'. This presented an implicative dilemma for him as desired qualities he associated with his recovered and ideal self, such as being able to 'deal with problems by himself', 'be independent', 'responsible', 'lively and content with life', 'sociable' and 'active' (desired pole of the dilemma), were

constructs that he also associated with people who did not understand mental health, which represented an undesired change (congruent pole of the dilemma). This therefore presented a barrier to change for Jason and made it less likely that he would move toward his recovered and ideal self. The implication of this finding was that he would need to find a way of still understanding people with mental health, whilst experiencing mental health problems himself.

Dilemmas therefore need to be carefully considered and their resolution implemented into client treatment plans to facilitate their recovery. For example, dilemmas can be identified using the repertory grid method used in this study followed by implicative dilemma grid analysis using the IDIOGRID (Grice, 2006) software. In treatment plans, dilemmas could be explained to clients as a way of reframing the problem and considering alternative perspectives (Feixas and Saul, 2005). For example, such dilemmas can be identified and discussed with clients and the undesired implications of change explored to make sense of why not changing is a logical position. This would enhance understanding in the client by enabling the dilemma to be explored in depth, and through elaboration techniques help the client understand themselves better, and generate possible alternatives. Exploration of alternatives can be elaborated through imagination or role play, and following this, through fixed role methods (Kelly, 1955), whereby the client tries out a role suggested by the therapist that incorporates characteristics that represent the congruent and desired poles of the dilemma (Feixas and Saul, 2005). For example, in Jason's case this could be experimenting with being independent and sociable, whilst also experiencing and understanding mental health problems. This enables new meaning making through reformulation of constructs and through experimentation, movement forward in facilitating recovery, rather than posing a barrier to change.

Finally, a practical strength of the repertory grid methodology is the principal component analysis plot, which enabled a useful visual illustration of an individual's recovery. These grid illustrations, and corresponding grid measures, could be used as a reference tool by both clinicians and clients to visually track recovery over time in therapy, and identifying areas that the client has made progress toward, and areas that need further work in their recovery.

5.3 Limitations

5.3.1 Sample Recruitment

One of the main limitations of this study is the small sample size. This is due in part to the time limit to complete the study, and difficulties in recruiting participants with psychotic experiences. This means that the study did not reach the level of statistical power required, and therefore findings cannot be generalised. A further limitation is whether the study's findings regarding recovery are specific to the psychotic/schizophrenic population or if they apply to mental health problems in general.

Improvements to the study would therefore be firstly, to recruit a larger sample size, thus enabling more powerful parametric tests to be conducted, rather than the non-parametric tests used in this study. Secondly, to recruit comparator groups in order that conclusions may be made as to whether the findings are specific to the psychotic/schizophrenic population only. For example, participants could be recruited from a number of different mental health populations, including a control group from the mentally healthy population. This would then enable comparisons between groups to be made and possible generalisations to be proposed.

5.3.2 Defining the degree of recovery using the RAS

This study generated a median cut-off score from the RAS and thereby defined groups into low to moderate and high recovery. However, it could be argued that splitting the sample in this way is highly skewed toward a higher degree of recovery given the high median score generated on the RAS, which may reduce the external validity of the current findings. It is worth considering what contributed to this high score in order to improve future research. For example, it could be due to sample bias, whereby participants may have been more likely to take part because of the topic area, 'recovery', signifying personal relevance to them, which could have skewed the sample toward higher recovery. Whilst attempts were made to obtain participants with lower degrees of recovery (for example, from inpatient wards) in order to equally represent low and high recovery, the researcher was unsuccessful in recruiting adequate numbers of these participants to the study. Thus, future research could recruit more participants in the low recovery group in order to obtain a more representative sample.

Other limitations of the RAS include the self-report nature of the questionnaire, which could call into question the RAS reliability, dependent on how accurately and honestly participants filled in the questionnaire. For example, it is possible that some participants may have wanted to please the researcher, and thus social desirability could have impacted participants' responses and elevated their scores.

Overall, given the small sample size, and parameters used to define recovery, the definition of recovery used in this study cannot be generalised to the larger population. In order to improve the study and better define low and high recovery a correlation and multiple regression analysis of the RAS could be explored with a larger, more representative sample (i.e. equal recruitment of participants in low and high recovery), thus establishing a statistical cut-off score from the RAS which could be generalised to the schizophrenia and psychotic population. This would enable clinical ranges for the RAS questionnaire to be established, which would enable a more accurate quantitative measure and definition of recovery. A further limitation of the scale is that it only provides one perspective on recovery; it may therefore be useful to obtain a self-report measure of an individual's recovery, in addition to an independent rater who completes the RAS based on how they view the individual. This rater could be a member of staff who knows the individual well, and or a significant other/family member.

Despite the limitations identified with the RAS, this study's findings have contributed to our understanding of recovery and psychosis.

5.3.3 Repertory Grid Analyses

Elaboration of the self was measured using the computer programme known as HICLAS (DeBoeck, 1986,1992), which has historically been used in PCP studies to measure self elaboration (e.g. Gara et al., 1989, Sewell et al., 1996). However, the study's findings suggest that using HICLAS on its own is not a feasible methodology to measure self elaboration in recovery. Recent research by Sermpezis and Winter (2010) discusses a number of limitations of using HICLAS to measure self elaboration, which are relevant to this study. For example, one of the main weaknesses of HICLAS discussed by Sermpezis and Winter (2010) is that it converts the repertory grid ratings (e.g. 1-6) into binary digits (e.g. 0-1), thus losing the quality of the raw information. For example, in this study an individual who rated their current self as a 6 or a 4 would be categorised the same in terms

of the binary digit assigned (i.e. binary digit 1), thus losing potentially valuable information as the HICLAS analysis does not distinguish between midpoint and extreme ratings. HICLAS analysis is also dependent upon which pole of the constructs is clustered i.e. the implicit pole (0-1 clustering) or emergent pole (1-0 clustering), and the authors found different degrees of elaboration within trauma dependent upon which pole was clustered. In particular, their research found trauma was a result of over-elaboration, thus questioning Sewell et al.'s 1996 finding proposing trauma was the result of under-elaboration. The limitations of HICLAS therefore need to be borne in mind when interpreting results, and this is an area to explore further in future research.

A further limitation of the study was although inter-rater reliability checks were made on the Landfield analysis and pawn and origin scales, due to time constraints, credibility checks were not made on interpretations of participants' repertory grids. An improvement to the study would therefore be to complete some qualitative interviews to check that the researcher's constructions of the interviewees' construing on the basis of the repertory grid analysis graphical plots made sense to the participants.

5.4 Future Research

The results of the study provide a snapshot of recovery in psychosis at one time point; to improve the findings further the study could be repeated from a longitudinal perspective. This would enable the process of recovery in psychosis to be explored in more depth, in particular investigating individual changes in low to moderate and high recovery via a number of follow up interviews. This would enable recovery to be explored at different time points, coupled with reviewing individual grids and what they mean with participants. Furthermore, the study could run alongside a healthy control group, which would enable direct comparisons to be made between a healthy and psychotic population. Further research could also incorporate different mental health populations to investigate whether the study's findings are specific to the schizophrenic and psychotic population or apply to mental health problems in general.

Although elaboration of the self was not found to be significantly different between low to moderate and high recovery, this could be investigated further with a larger sample size, and incorporating Sermpezis and Winter's (2010) suggestions on how to improve the measurement of self-elaboration. For example, future research could analyse the degree of

elaboration in recovery using both construct poles and assess whether this makes a significant difference. In addition, the authors propose a new tool which offers the potential to improve on some of the limitations of HICLAS, called TUCKER-HICLAS (which was supplied for personal use by Eva Ceulemans, K.U. Leuven, Belgium, to the first author, Sermpezis (2010) and is not currently available for public use). This uses ratings in the analysis that are more aligned to the original grid data, thus providing a more accurate representation of an individual's constructs, thus enhancing the explanatory capacity. TUCKER-HICLAS is a promising future development, and these new techniques could be applied to the current study to investigate elaboration of the self further and assess the potential of this new tool to measure the degree of elaboration in recovery.

Furthermore, the computer package used to measure self elaboration needs to be more technologically user friendly than HICLAS, and easily comparable to other repertory grid analysis programmes such as GRIDSTAT and IDIOGRID. Whilst comparisons have been made between elaboration measures between HICLAS and GRIDSTAT (Sermpezis and Winter, 2010), no research has yet explored comparisons between elaboration measures between HICLAS and IDIOGRID, which is another potential area which could be further investigated. Finally, future research is needed to investigate whether there are any other alternative personal construct methodologies that better capture and measure the degree of self elaboration and recovery.

The findings of the research study have also generated further research areas such as the construal of recovery from carers' perspectives, for example a significant other or family member, and construal of recovery from professionals' perspectives. This could then be compared with individual participants' perspectives to see if results were similar.

5.5 Conclusions

In conclusion, this study has furthered our understanding of recovery in psychosis using a personal construct psychology methodology, given this was identified as a gap in the research literature. The RAS enabled recovery to be defined and comparisons made between low to moderate and high recovery groups. The main findings of the study show that participants in the high recovery group showed less differentiation between their different selves; greater self-esteem; an experienced sense of control over their

environment; a higher degree of quality and quantity of support; and a higher degree of hope and goal setting than participants in the low to moderate recovery group.

This study shows support for using PCP methods to investigate recovery in psychosis. A strength of this research study is that it shows how repertory grid methods can be applied to clinical interventions in order to help with case assessment and formulation, and enable individually tailored therapeutic interventions to enhance recovery. For example, the finding that differentiation between the different selves is less in high recovery suggests that in order to progress towards higher recovery an individual firstly loosens and then tightens up their construing process. Thus, a therapist could help an individual go through this construing process in order to enhance their recovery. Implicative dilemmas were also identified in the case illustrations as potential barriers to change, and thus movement toward recovery. However, identification of implicative dilemmas can help therapists with case formulations and therapeutic interventions. Clinical interventions addressing such dilemmas could therefore reframe potential barriers, thus enabling a change in behaviour and therefore movement toward recovery. Overall, these findings have significant implications for clinical work which can help facilitate recovery, and present important avenues for further research, including investigating such changes in more depth through a longitudinal study, and sampling across different mental health populations.

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7. APPENDICES

Appendix 1: Example of Information sheet for participants

Hertfordshire Partnership NHS
NHS Foundation Trust

RESEARCH INFORMATION SHEET FOR PARTICIPANTS

Investigating Experiences of Recovery in Psychosis

Introduction
You are being invited to take part in a research study in Hertfordshire Partnership NHS Foundation Trust exploring peoples' experiences of recovery in psychosis. Before you decide whether you would like to give consent to take part, please take the time to read the following information which I have written to help you understand why the research is being carried out and what it will involve. Feel free to talk to others about the study if you wish.

Who am I?
My name is Sarah Chadwick and I will be carrying out the research. I am a trainee clinical psychologist and the research forms part of the requirements for my clinical psychology training at the University of Hertfordshire. The study is supervised by Tim Sharp, Consultant Clinical Psychologist in the Hertfordshire Partnership NHS Foundation Trust, and Prof. David Winter who is a Chartered Clinical Psychologist at the University of Hertfordshire. This study has been given favourable ethical approval by the NHS National Research Ethics Service Essex 1 Research Ethics Committee, which is part of the North Essex Partnership NHS Foundation Trust Ref: 09/H0301/63. This study has also gained local research and ethical approval from the Hertfordshire Partnership NHS Foundation Trust.

What is the study about?
The research is interested in finding out about people's experiences of recovery in psychosis. This study aims to gain a better understanding of recovery in people with psychosis through exploring how they make sense of experiences, themselves and others around them. It is hoped that this research will further our understanding of recovery in psychosis and help to develop a recovery model that can help define recovery better, thereby improving recovery treatment oriented services.

Why have I been chosen?
You are being approached to take part in this study because you may have experienced symptoms of psychosis in the past or are currently experiencing symptoms of psychosis. A total of 52 participants will be approached to take part in the study. Recruitment of participants will stop once 52 participants have taken part in the study. Therefore, it is possible you may not get the opportunity to take part in the study if 52 participants have already volunteered to taken part. However, if this number is not achieved after 5 months of approaching people to participate, recruitment will also stop in April 2010.

Do I have to take part?
Participation in this study is completely voluntary. It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you give consent to take part you still have the right to withdraw from the study at any time. If you decide to withdraw from the study having taken part, all information collected as part of the study will be withdrawn and will

not be used in the study results. A decision not to take part or withdraw from the study at any time will not affect the standard of care you receive.

What is involved?
If you agree to take part the mental health professional who informed you about this study will with your consent check your case notes to check you have meet the criteria for taking part in the study, which is having experiences of psychosis either currently or in the past. Then with your permission, if you meet this criteria, will pass on your name and contact details to myself, Sarah Chadwick. I will then arrange to meet with you and go through this information sheet again, answering any questions you have, and if you wish to continue with the study ask you to sign a consent form to take part. I will then complete four questionnaires and an interview with you. The questionnaires will take around thirty minutes to complete and the interview will last approximately one hour. The whole process will not take longer than two hours and can be conducted over two sessions if this is more suitable. The questionnaires will ask you some background information about yourself, including your perception of yourself and others, and who in your life provides social support. You will also be asked about the symptoms of psychosis that you may have experienced.
In the interview you will be asked to think about yourself in different situations and also to think about your relationship to other people. By thinking about yourself and other people the interviewer will help you to complete a matrix grid called a 'repertory grid'. This repertory grid will be used to gain an understanding of how your recovery experiences may have impacted the way in which you view yourself and other people by asking you about ways in which your experiences are similar and different from each other.

Will taking part be confidential?
All information about your participation in this study will be kept confidential and any information that leaves the community mental health team or hospital with your name on it will be removed and you will be given a participant number, so that you cannot be recognised from it. Your information will be stored in a safe locked location which will only be accessible by the researchers. However, if during participation in the study you disclose any criminal activity or you disclose information which suggests you are at risk to either yourself or others, confidentiality will be broken and your care-coordinator and GP informed. You will be asked to consent to these professionals being contacted if a disclosure is made. Thus, full anonymity cannot be guaranteed.

What are the benefits of taking part?
Clinical research has shown that talking about and reflecting on life experiences such as mental health and recovery can be helpful. You may experience therapeutic benefits of having the opportunity to consider how your life experiences have affected your sense of self and others.

What are the potential difficulties that taking part may cause?
It is possible that because the questionnaires and interview will ask you to think about yourself and your mental health that this may be distressing. If you do become distressed at any time appropriate support will be offered to you either from myself, Sarah Chadwick or your care-coordinator. For this reason you will be asked to consent to your care-coordinator being contacted if you do become distressed during the interview and if they are unavailable you will be asked to consent to your GP being contacted.

What if there is a problem?
If you have a concern about any aspect of the study, you should speak to me, Sarah Chadwick, and I will do my best to answer your questions (tel: 07962248292). If you remain unhappy and wish to complain formally, you can do this through the NHS

Complaints Procedure. The contact is the Patient Advice and Liaison Service and their number is 0845 46 47.

What will happen to the results of the study?
Once the study is complete, the results will be written up. If you would like a summary copy of the findings please let me know and I will send these to you. It is hoped that the study results will be published in a psychological journal. However, no participants will be identifiable in written or published material as all information will be made anonymous through use of pseudonyms. If anonymous quotes are used as part of the results I will ask your permission to use these in the study write up and published journal.

Thank you for your time and consideration in taking part. All travel expenses for taking part in this research will be reimbursed.

Contact Details of the researcher for further information
Sarah Chadwick, Trainee Clinical Psychologist, University of Hertfordshire
Email address: S.L.Chadwick@herts.ac.uk Telephone number: 07962248292 Postal Address: Doctor of Clinical Psychology Training Course, University of Hertfordshire, Hatfield, Herts, AL10 9AB

Appendix 2: Consent Form

RESEARCH CONSENT FORM

Title of Project: Investigating Experiences of Recovery in Psychosis: A Personal Construct Model. REC Reference number: 09/H0301/63

Name of Researcher: Sarah Chadwick

Please initial box

1) I confirm that I have read and understand the information sheet dated 18th December, 2009 (Version 4) for the above study. I have had the opportunity to consider the information and have had satisfactory answers to any questions that I have asked. ☐

2) I understand that my participation is voluntary and I am free to withdraw at any time, without giving any reason, and without my healthcare or legal rights being affected. ☐

3) I understand that relevant sections of my case notes will be checked by the mental health professional who informed me about the study to check I meet the criteria of having experienced psychosis in order to take part in the research. I give permission for the mental health professional who informed me about the study Name:_____ to check my case notes. ☐

4) I agree to my care-coordinator Name:_____ or GP: _____ to be contacted if I become distressed in this study. ☐

5) I agree to the aboved named care-coordinator and GP being contacted if I make a disclosure of criminal activity or risk of harm to myself or others. ☐

6) I agree to anonymous quotes being used in the results section of the study write-up and for these to be published in a psychological journal. ☐

7) I agree to take part in the above study. ☐

…….	……..	……
Name of participant	Date	Signature
.....	……..	……
Name of researcher	Date	Signature

When completed, one copy for participant, one for researcher site file, one (original) to be kept in case notes.

Appendix 3: Debrief Information Sheet

DEBRIEFING INFORMATION SHEET

Thank you very much for making this study possible.

This study aimed to explore your experience of mental health and recovery. Through completing the repertory grid with you I was interested in how you made sense of yourself and others around you in relation to your life experience.

To date there is little research completed using repertory grids to investigate the personal constructs of people with a diagnosis of psychosis in recovery.

It is hoped that the outcome of this research will be useful to further our understanding of recovery and psychosis and improve the recovery orientated treatment services for adults with a diagnosis of psychosis.

SOURCES OF COMFORT AND HELP

Talking about your experiences may have left you feeling low or upset, this is quite normal and often passes after a few days. However, if these feelings persist there are local sources of support and comfort which may already be familiar to you.

1. The most immediate sources of comfort and help are likely to be *your own family and friends*

2. If you continue to feel distressed by talking about your experiences – contact your ***GP to discuss,*** *and they* may be able to refer you to more specialised local support services, or ***contact your care-coordinator***.

The following national organisations offer support:

National Hearing Voices Network

Telephone helpline: 0161 834 3033 (Mon-Fri 10am-4pm)
Email:info@hearing-voices.org

The National Hearing Voices Network is a voluntary organisation which supports people who hear voices and offers a confidential telephone helpline.

MIND
Telephone helpline: 0845 766 0163 (Monday to Friday, 9am to 5pm)
info@mind.org.uk
MIND provides information on a range of topics including types of mental distress, where to get help, drug and alternative treatments and advocacy. MIND also provides details of help and support for people in their own area.

The Samaritans

Telephone: 08457 909090 (24 hours a day helpline)
www.samaritans.org The Samaritans is a helpline which is open 24 hours a day for anyone in need. It is staffed by trained volunteers who will listen sympathetically.

Appendix 4: Procedures for managing participant distress
Managing distress

It was recognised in this study that enquiries about participants' experience of mental health, self concept and recovery through the repertory grid structured interview, and some of the questionnaires could be potentially sensitive or upsetting for participants. Procedures were therefore planned to manage potential distress:

- Participants were informed in writing via the information sheet, and verbally prior to starting the interview that they could stop at any time during the study process to take breaks, or re-schedule should they feel unable to continue. They were reminded they had the right to withdraw from the study at any time without giving a reason and without their ongoing or future care being affected.

- Participants were required at the time that informed consent was taken to consent to the mental health professional that referred them to the study (or their GP in the case of voluntary organisation participants) being contacted if they became distressed during the interview, which is noted on the participant information sheet. Participants were again reminded at the start of the study that in the event that they became distressed the interview could be suspended and the researcher would be available to discuss their distress and offer them support. For example, the researcher would draw upon their person centred clinical skills to be empathic, listen and contain the participant's distress. If the participant settled following this support and reported they were able to continue, the session would continue. However, the session could be shortened and finished at a later date if the participant still appeared to be distressed if the interview resumed. If the participant did not respond to support from the researcher or appeared overwhelmed the interview would be stopped and at this stage the mental health professional who referred them to the study would be contacted immediately for further input to support the participant with their distress.

- Post interview, participants were given a debrief sheet, providing information about sources of support and help should participants feel distressed in the days following the interview (see Appendix 3)

Appendix 5: Ethical approval from the Research Ethics Committee (Essex 1)

NHS
National Research Ethics Service
Essex 1 Research Ethics Committee
Level 9
Terminus House
The High
Harlow
Essex
CM20 1XA

Telephone: 01279 413136
Facsimile: 01279 419246

12 October 2009

Ms Sarah Chadwick
Trainee Clinical Psychologist
Cambridgeshire and Peterborough
NHS Mental Health Trust
Doctorate in Clinical Psych
University of Hertfordshire
Hatfield, Herts
AL10 9AB

Dear Ms Chadwick

Study Title:	**Investigating Recovery in Psychosis: A Personal Construct Model**
REC reference number:	**09/H0301/63**
Protocol number:	**1**

Thank you for your letter of 05 October 2009, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is

available in the Integrated Research Application System or at http://www.rdforum.nhs.uk. *Where the only involvement of the NHS organisation is as a Participant Identification Centre, management permission for research is not required but the R&D office should be notified of the study. Guidance should be sought from the R&D office where necessary.*

Sponsors are not required to notify the Committee of approvals from host organisations.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
REC application		14 August 2009
Protocol	1	14 August 2009
Investigator CV		14 August 2009
Letter from Sponsor		18 August 2009
Questionnaire: Psychotic Symptom Rating Scales (PSYRATS)		
Questionnaire: Recovery Assessment Scale (RAS)		
Questionnaire: Social Support Questionnaire - short form		
Demographic Information Questionnaire		
Scales and measuring people's perception of themselves as origins and pawns		
Participant Information Sheet	2	05 October 2009
Participant Consent Form	2	05 October 2009
Introductory letter to participants	1	05 October 2009
Response to Request for Further Information		05 October 2009

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

09/H0301/63	Please quote this number on all correspondence

Yours sincerely

Dr Alan Lamont
Chair

Email: liz.wrighton@eoe.nhs.uk

Enclosures: "After ethical review – guidance for researchers"

Copy to:

Prof John Senior
University of Hertfordshire
College Lane
Hatfield
Hertfordshire
AL10 9AB

Ms N Godinho
Cambridgeshire & Peterborough Mental
Health NHS Foundation Trust
Fulborn Hospital
Fulborn
Cambridge

Appendix 6: Ethical approval from research and development committees (Hertfordshire, North Essex and South Essex)

Hertfordshire Partnership NHS
NHS Foundation Trust

Sarah Chadwick
Trainee Clinical Psychologist
School of Psychology
University of Herts
College Lane
Hatfield
Herts
AL10 9AB

R&D Department
Department of Psychiatry
QEII Hospital
Howlands
Welwyn Garden City
AL7 4HQ

Tel. 01707 369058
Fax. 01707 365169
e-mail t.gale@herts.ac.uk

24th November 2009

Dear Sarah

Research Study: Investigating recovery in psychosis: a personal construct model

Thank-you for sending me the final documentation relating to the above the study which will be carried out by yourself as part of your Clinical Psychology Doctorate under the supervision of David Winter and Tim Sharp. This study has now been reviewed by the R&D Office and I am pleased to confirm approval on behalf of Hertfordshire Partnership NHS Foundation Trust.

Approval is given on the understanding that you will notify the R&D Office of any amendments to the study design, that you will carry out the study as specified in the final version of the protocol, and that you will comply fully with the HPFT R&D Policy. I attach a copy of this document for your records.

Finally I would be grateful if you would ensure that your study does not recruit any participants within EIP who have already consented to particpate in the Whole Life Recovery study. This will be a very small number of individuals, and details should be on care notes.

I hope the study progresses well and Iwould be grateful if you would send me a project summary on completion.

Yours sincerely

Tim M Gale
Manager, Research and Development Department
Visiting Professor, Dept Psychology, UoH

Enc.

Cc Tim Sharp

Essex County Council

North Essex Partnership NHS
NHS Foundation Trust

Medical Director
Trust Headquarters
Stapleford House
103 Stapleford Close
Chelmsford
Essex CM2 0QX
Telephone: 01245 546418
Fax: 01245 546401
www.nepft.nhs.uk

Sarah Chadwick
Trainee Clinical Psychologist
University of Hertfordshire
School of Psychology
Hatfield
Herts AL10 9AB

21st January 2010

Dear Miss Chadwick

Re: Study – Investigating Recovery in Psychosis: A Personal Construct Model

Thank you for submitting your application to conduct the above study within North Essex Partnership NHS Foundation Trust.

I am pleased to inform you that on behalf of the Trust I approve of the above study carried out within the Trust as described in the submitted project papers and approved by the Research Ethics Committee.

I will ask that you be issued a letter of Access for Research. Once you have this letter could I please ask you to confirm in writing the start and planned end date of this study?

You may be aware that we recently have appointed Steve Davies, Clinical Psychologist, as Research Lead for the Trust and through him you may be asked in future to report on progress and compliance with R&D governance policies.

I wish you all the best and am looking forward to hearing about your results.

Yours sincerely

Malte Flechtner MD MRCPsych
Medical Director

Letter of confirmation from South Essex Partnership University NHS Foundation Partnership Trust was not available.

If confirmation of R&D approval is required please contact:

Sarah Thurlow

Research & Development Manager

Tel: 01268 366139

Appendix 7: University of Hertfordshire Ethical Approval

Revised (September 2006)

SCHOOL OF PSYCHOLOGY ETHICS COMMITTEE APPROVAL

Student Investigator: Sarah Chadwick

Title of project: Investigating Recovery in Psychosis: A Personal Construct Model

Supervisor: Sarah Chadwick

Registration Protocol Number: PSY/09/09/SC

The approval for the above research project was granted on 21 September 2009 by the Psychology Ethics Committee under delegated authority from the Ethics Committee of the University of Hertfordshire.

Signed: **Date: 21 September 2009**

Dr. Nick Troop
Chair
Psychology Ethics Committee

STATEMENT OF THE SUPERVISOR:

From my discussions with the above student, as far as I can ascertain, s/he has followed the ethics protocol approved for this project.

Signed (supervisor): .....

Date: .....

Appendix 8: Demographic questionnaire

Demographic Information Questionnaire

1. Gender _____
2. Age _____
3. How would you describe your ethnicity? _____
4. Marital Status _____
5. Number of children _____
6. How many years have you used mental health services? _____
7. How many inpatient admissions have you had? _____
8. What has been your longest stay in hospital?_____
9. How many episodes of psychosis have you had?_____
10. What is your current admission status?_____
11. What is your current diagnosis?_____
12. What current medication are you taking? (Note whether anti-psychotic, anti-depressant etc.)_____

Appendix 9: The Psychotic Symptom Rating Scales (PSYRATS; Haddock et al., 1999)

Part A: Auditory Hallucinations

1. Frequency

Voices not present or present less than once a week	0
Voices occur for at least once a week	1
Voices occur at least once a day	2
Voices occur at least once an hour	3
Voices occur continuously or almost continuously i.e. stop for only a few seconds or minutes	4

2. Duration

Voices not present	0
Voices last for a few seconds, fleeting voices	1
Voices last for several minutes	2
Voices last for at least one hour	3
Voices last for hours at a time	4

3. Location

No voices present	0
Voices sound like they are inside head only	1
Voices outside the head, but close to ears or head. Voices inside the head may also be present	2
Voices sound like they are inside or close to ears and outside head away from ears	3
Voices sound like they are from outside the head only	4

4. Loudness

Voices not present	0
Quieter than own voice, whispers	1
About same loudness as own voice	2
Louder than own voice	3
Extremely loud, shouting	4

5. Beliefs about origin of voices

Voices not present	0
Believes voices to be solely internally generated and related to self	1
Holds less than 50% conviction that voices originate from external causes	2
Holds greater than 50% conviction that voices originate from external causes	3
Believes that voices are solely due to external causes (100%) conviction	4

6. Amount of negative content of voices

No unpleasant content	0
Occasional unpleasant content (less than 10%)	1
Minority of voice content is unpleasant or negative (less than 50%)	2
Majority of voice content is unpleasant or negative (greater than 50%)	3
All of voice content is unpleasant or negative	4

7. Degree of negative content

Not unpleasant or negative	0
Some degree of negative content, but not personal comments relating to self or family e.g. swear words or comments not directed to self e.g. 'the milkmans ugly'	1
Personal verbal abuse, comments on behaviour e.g. 'shouldnt do that or say that'	2
Personal verbal abuse relating to self-concept e.g. 'you're lazy, ugly, mad, perverted'	3
Personal threats to self e.g. threats to harm self or family, extreme instructions or commands to harm self or others	4

8. Amount of distress

Voices not distressing at all	0
Voices occasionally distressing, majority not distressing (less than 10%)	1
Minority of voices distressing (less than 50%)	2
Majority of voices distressing, minority not distressing (greater than 50%)	3
Voices always distressing	4

9. Intensity of distress

Voices not distressing at all	0
Voices slightly distressing	1
Voices are distressing to a moderate degree	2
Voices are very distressing, although subject could feel worse	3
Voices are extremely distressing, feel the worst he / she could possibly feel	4

10. Disruption to life caused by voices

No disruption to life, able to maintain social and family relationships (if present)	0

Voices causes minimal amount of disruption to life e.g. interferes with concentration although able to maintain daytime activity and social and family relationships and be able to maintain independent living without support	1
Voices cause moderate amount of disruption to life causing some disturbance to daytime activity and / or family or social activities. The subject is not in hospital although they may live in supported accommodation or receive additional help with daily living skills	2
Voices cause severe disruption to life so that hospitalisation is usually necessary. The subject is able to maintain some daily activities, self-care and relationships while in hospital. The patient may also be in supported accommodation but experiencing severe disruption of life in terms of activities, daily living skills and / or relationships	3
Voices cause complete disruption of daily life requiring hospitalisation. The patient is unable to maintain any daily activities and social relationships. Self-care is also severely disrupted	4

11. Controllability of voices

Subject believes they can have control over the voices and can always bring on or dismiss them at will	0
Subject believes they can have some control over the voices on the majority of occasions	1
Subject believes they can have some control over their voices approximately half of the time	2
Subject believes they can have some control over their voices but only occasionally. The majority of the time the subject experiences voices which are uncontrollable	3
Subject has no control over when the voices occur and cannot dismiss or bring them on at all	4

Part B: Delusions

1. Amount of preoccupation with delusions

No delusions, or delusions which the subject thinks about less than once a week	0
Subject thinks about beliefs at least once a week	1
Subject thinks about beliefs at least once a day	2
Subject thinks about beliefs at least once an hour	3
Subject thinks about delusions continuously or almost continuously	4

2. Duration of preoccupation with delusions

No delusions	0
Thoughts about beliefs last for a few seconds, fleeting thoughts	1
Thoughts about delusions last for several minutes	2
Thoughts about delusions last for at least one hour	3
Thoughts about delusions usually last for hours at a time	4

3. Conviction

No conviction at all	0
Very little conviction in reality of beliefs (less than 10%)	1
Some doubts relating to conviction in beliefs, between 10 – 49%	2
Conviction in beliefs is very strong, between 50 – 99%	3
Conviction is 100%	4

4. Amount of distress

Beliefs never cause distress	0
Beliefs cause distress on the minority of occasions	1
Beliefs cause distress on less than 50% of occasions	2
Beliefs cause distress on the majority of occasions when they occur between 50 – 99% of time	3
Beliefs always cause distress when they occur	4

5. Intensity of distress

No distress	0
Beliefs cause slight distress	1
Beliefs cause moderate distress	2
Beliefs cause marked distress	3
Beliefs cause extreme distress, could not be worse	4

6. Disruption to life caused by beliefs

No disruption to life, able to maintain independent living with no problems in daily living skills. Able to maintain social and family relationships (if present)	0
Beliefs cause minimal amount of disruption to life e.g. interferes with concentration although able to maintain daytime activity and social and family relationships and able to maintain independent living without support	1

Beliefs cause moderate amount of disruption to life causing some disturbance to daytime activity and / or family or social activities. The subject is not in hospital although may live in supported accommodation or receive additional help with daily living skills	2
Beliefs cause severe disruption to life so that hospitalisation is usually necessary. The patient is able to maintain some daily activities, self-care and relationships while in hospital. The patient may also be in supported accommodation but experiencing severe disruption of life in terms of activities, daily living skills and / or relationships	3
Beliefs cause complete disruption of daily life requiring hospitalisation. The patient is unable to maintain any daily activities and social relationships. Self-care is also severely disrupted	4

Sarason, I.G., Sarason, B.R., Shearin, E.N., & Pierce, G.R. (1987)
A brief measure of social support: Practical and theoretical implications,
Journal of Social and Personal Relationships, 4, 497-510.

Social Support Questionnaire (Short Form)

SSQSR

INSTRUCTIONS:

The following questions ask about people in your environment who provide you with help or support. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the manner described. Give the persons' initials, their relationship to you (see example). Do not list more than one person next to each of the numbers beneath the question.

For the second part, circle how satisfied you are with the overall support you have.

If you have had no support for a question, check the words "No one," but still rate your level of satisfaction. Do not list more than nine persons per question.

Please answer all the questions as best you can. All your responses will be kept confidential.

EXAMPLE:

Who do you know whom you can trust with information that could get you in trouble?

No one 1) T.N. (brother) 4) T.N. (father) 7)
2) L.M. (friend) 5) L.M. (employer) 8)
3) R.S. (friend) 6) 9)

How satisfied?

6 - very satisfied	5 - fairly satisfied	4 - a little satisfied	3 - a little dissatisfied	2 - fairly dissatisfied	1 - very dissatisfied

[briefssq] 5-16-94

1. Whom can you really count on to be dependable when you need help?

No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

2. How satisfied?

6 - very satisfied	5 - fairly satisfied	4 - a little satisfied	3 - a little dissatisfied	2 - fairly dissatisfied	1 - very dissatisfied

3. Whom can you really count on to help you feel more relaxed when you are under pressure or tense?

No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

4. How satisfied?

6 - very satisfied	5 - fairly satisfied	4 - a little satisfied	3 - a little dissatisfied	2 - fairly dissatisfied	1 - very dissatisfied

5. Who accepts you totally, including both your worst and your best points?

No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

6. How satisfied?

6 - very satisfied	5 - fairly satisfied	4 - a little satisfied	3 - a little dissatisfied	2 - fairly dissatisfied	1 - very dissatisfied

7. Whom can you really count on to care about you, regardless of what is happening to you?

No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

8. How satisfied?

6 - very satisfied	5 - fairly satisfied	4 - a little satisfied	3 - a little dissatisfied	2 - fairly dissatisfied	1 - very dissatisfied

9. Whom can you really count on to help you feel better when you are feeling generally down-in-the dumps?

No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

10. How satisfied?

6 - very satisfied	5 - fairly satisfied	4 - a little satisfied	3 - a little dissatisfied	2 - fairly dissatisfied	1 - very dissatisfied

11. Whom can you count on to console you when you are very upset?

No one 1) 4) 7)
2) 5) 8)
3) 6) 9)

12. How satisfied?

6 - very satisfied	5 - fairly satisfied	4 - a little satisfied	3 - a little dissatisfied	2 - fairly dissatisfied	1 - very dissatisfied

TO SCORE SSQSR:

1. Count the total number of people for each of the odd-numbered items. Add the totals together (Max. = 54). Divide by 6 for per item SSQ Number Score, or SSQN.
2. Add the total Satisfaction scores for the 6 even-numbered items (Max. = 36). Divide by 6 for per item SSQ Satisfaction score or SSQS.
3. You can also compute a Family score and a Non-Family score by using the method in #1 for all people described as family members, or not described as family members respectively.

Appendix 11: The Recovery Assessment Scale (RAS; Corrigan et al., 1999)

RECOVERY ASSESSMENT SCALE

I am going to read a list of statements that describe how people sometimes feel about themselves and their lives. Please listen carefully to each one and indicate the response that best describes the extent to which you agree or disagree with the statement. For each of these statements, please indicate whether you strongly disagree (1), disagree (2), not sure (3), agree (4), or strongly agree (5) with these statements.

+ **[Hand respondent scale card #32]**

	Strongly Disagree	**Disagree**	**Not Sure**	**Agree**	**Strongly Agree**	**NANS**	**NASK**
1. I have a desire to succeed.	1	2	3	4	5	8	9
2. I have my own plan for how to stay or become well.	1	2	3	4	5	8	9
3. I have goals in life that I want to reach.	1	2	3	4	5	8	9
4. I believe I can meet my current personal goals.	1	2	3	4	5	8	9
5. I have a purpose in life.	1	2	3	4	5	8	9
6. Even when I don't care about myself, other people do.	1	2	3	4	5	8	9
7. I understand how to control the symptoms of my mental illness.	1	2	3	4	5	8	9
8. I can handle it if I get sick again.	1	2	3	4	5	8	9
9. I can identify what triggers the symptoms of my mental illness.	1	2	3	4	5	8	9
10. I can help myself become better.	1	2	3	4	5	8	9

[INTERVIEWER: Scale continues on next page.]

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	NANS	NASK
11. Fear doesn't stop me from living the way I want to.	1	2	3	4	5	8	9
12. I know that there are mental health services that do help me.	1	2	3	4	5	8	9
13. There are things that I can do that help me deal with unwanted symptoms.	1	2	3	4	5	8	9
14. I can handle what happens in my life.	1	2	3	4	5	8	9
15. I like myself.	1	2	3	4	5	8	9
16. If people really knew me, they would like me.	1	2	3	4	5	8	9
17. I am a better person than before my experience with mental illness.	1	2	3	4	5	8	9
18. Although my symptoms may get worse, I know I can handle it.	1	2	3	4	5	8	9
19. If I keep trying, I will continue to get better.	1	2	3	4	5	8	9
20. I have an idea of who I want to become.	1	2	3	4	5	8	9
21. Things happen for a reason.	1	2	3	4	5	8	9
22. Something good will eventually happen.	1	2	3	4	5	8	9

[INTERVIEWER: Scale continues on next page.]

	Strongly Disagree	**Disagree**	**Not Sure**	**Agree**	**Strongly Agree**	**NANS**	**NASK**
23. I am the person most responsible for my own improvement.	1	2	3	4	5	8	9
24. I'm hopeful about my future.	1	2	3	4	5	8	9
25. I continue to have new interests.	1	2	3	4	5	8	9
26. It is important to have fun.	1	2	3	4	5	8	9
27. Coping with my mental illness is no longer the main focus of my life.	1	2	3	4	5	8	9
28. My symptoms interfere less and less with my life.	1	2	3	4	5	8	9
29. My symptoms seem to be a problem for shorter periods of time each time they occur.	1	2	3	4	5	8	9
30. I know when to ask for help.	1	2	3	4	5	8	9
31. I am willing to ask for help.	1	2	3	4	5	8	9
32. I ask for help, when I need it.	1	2	3	4	5	8	9
33. Being able to work is important to me.	1	2	3	4	5	8	9
34. I know what helps me get better.	1	2	3	4	5	8	9

[INTERVIEWER: Scale continues on next page.]

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	NANS	NASK
35. I can learn from my mistakes.	1	2	3	4	5	8	9
36. I can handle stress.	1	2	3	4	5	8	9
37. I have people I can count on.	1	2	3	4	5	8	9
38. I can identify the early warning signs of becoming sick.	1	2	3	4	5	8	9
39. Even when I don't believe in myself, other people do.	1	2	3	4	5	8	9
40. It is important to have a variety of friends.	1	2	3	4	5	8	9
41. It is important to have healthy habits.	1	2	3	4	5	8	9

Appendix 12: Repertory Grid

Participant Number:

Date:

	Myself as I usually am	Myself as I am now	Myself if mentally ill	Myself if recovered	My ideal self	Myself in 6 months	Myself as the staff see me	Myself as my family/significant other see me	A typical psychiatric patient	An average person	Most supportive other	least supportive other	Construct (2) 1 2 3 4 5 Construct (1) 6
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

Appendix 13: Jason's Repertory Grid

The 12 constructs elicited from Jason during the repertory grid interview are shown in his grid below.

	Constructs		Elements											
	Emergent Pole	Implicit Pole	1	2	3	4	5	6	7	8	9	10	11	12
			Myself as I usually am	My current self	Myself if mentally ill	Myself if recovered	My ideal self	Myself in 6 months	Myself as the staff/professionals see me	Myself as my family/significant other see me	A typical 'psychiatric' patient	An 'average' person	Most supportive other	Least supportive other
1	Low & dissatisfied with life	Lively & content with life	2	5	6	1	2	3	4	2	4	2	3	2
2	Not able to deal with problems by myself	Able to deal with problems by myself	4	5	6	2	1	2	4	3	5	2	4	2
3	Seeing friends, responsible	Hiding self, irresponsible	3	2	1	5	4	3	3	5	2	4	5	2
4	Active & sociable	Inactive & isolated	3	2	1	4	5	3	3	4	2	4	5	2
5	Independent, doing more for myself	Dependent on others	3	2	1	3	4	3	3	3	2	4	4	2
6	Greater understanding re voices	Less understanding re voices	1	2	1	4	5	3	4	3	2	5	3	1
7	Problems with mental health	Don't understand mental health	5	6	6	4	4	5	5	5	6	4	3	4
8	Dismissive of problems	Insight into problems	5	5	6	4	3	5	4	5	6	4	3	5
9	Understanding of mental health	Ignorant re mental health	6	6	5	6	6	6	5	3	4	2	4	2
10	Respectful & trusting	Disrespectful, unable to trust	4	4	2	4	5	4	3	3	2	4	4	2
11	Supportive	Unsupported	4	5	5	4	4	3	5	5	6	3	4	1
12	Support needed	Support not needed	6	6	6	4	3	4	5	5	6	3	5	2

Appendix 14: Paul's Repertory Grid

The 12 constructs elicited from Paul during the repertory grid interview are shown in his grid below.

	Constructs		Elements											
			1	2	3	4	5	6	7	8	9	10	11	12
	Emergent Pole	Implicit Pole	Myself as I usually am	My current self	Myself if mentally ill	Myself if recovered	My ideal self	Myself in 6 months	Myself as the staff/professionals see me	Myself as my family/significant other see me	A typical 'psychiatric' patient	An 'average' person	Most supportive other	Least supportive other
1	Balanced mentally	Stressed out & anxious	6	6	1	6	6	6	5	5	3	4	5	4
2	Healthy & stable	Confused & unstable	6	6	1	6	6	6	5	5	2	4	5	4
3	Independent	Dependent	4	4	1	4	6	4	4	4	1	5	6	5
4	In a successful job	Working towards a job	4	4	1	4	6	5	3	3	1	4	5	3
5	Getting better	Fully better, financially stable	2	2	6	1	1	1	2	2	6	3	2	2
6	Unconditional support	Conditional support	6	6	1	6	6	6	4	6	3	3	6	2
7	Ill	Healthy	2	1	6	3	1	1	2	2	6	3	1	3
8	Paranoia & strange thoughts	Stable mood & thoughts	2	1	6	3	1	1	2	2	6	3	1	3
9	Clear consciousness	Fluctuating, cloudy consciousness	5	5	2	4	6	6	5	5	2	4	5	4
10	Lacking compassion	Compassionate	1	1	5	1	1	1	2	1	6	6	1	6
11	Personal relationship	Impersonal relationship	1	5	3	6	6	6	5	6	2	2	6	1
12	Knowing myself	Don't know me	5	5	1	6	6	6	5	5	2	2	6	2