Illness Perceptions and Recovery Style in schizophrenia

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OVERVIEW

The literature review focuses on the perceptions and beliefs that individuals with schizophrenia hold about their illness, and how these may relate to outcome. The literature regarding Illness Perception in general, and Recovery Style in particular, illustrates how Health Psychology-based models may be useful in terms of understanding illness behaviour. The review concludes that this may well be a fruitful area for the development of theory-driven interventions to improve individuals’ quality of life after a diagnosis of schizophrenia.

The empirical paper reports a cross-sectional study investigating whether Illness Perceptions and Recovery Style are related to impairment or quality of life in a sample with relatively chronic schizophrenia. The main findings were that a more Integrating Recovery Style was associated with better outcome in all domains and that Illness Perceptions of greater coherence of the illness experience, and less emotional distress were associated with both better quality of life and a more Integrating Recovery Style.

The critical review addresses the main topics of the clinical, practical and scientific implications of the findings of the empirical paper and attempts to link the findings to related areas of research such as models of trauma and attachment, in order understand the meaning of the findings in the context of this particular illness.
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Part I

Literature Review
ABSTRACT

Outcome after a diagnosis of schizophrenia is often very poor and the course of the disorder for any individual has been difficult to predict or explain.

Previous research has found that Recovery Style may be a useful indicator of outcome after a diagnosis of schizophrenia, with people who have an integrating Recovery Style showing a better outcome.

Research in the discipline of Health Psychology has found that the personal beliefs that people hold about their health problems are related to emotional and behavioural responses to those health problems. Such beliefs have been reliably associated with health outcomes in several chronic physical illnesses. These beliefs have been called Illness Perceptions. Recently, a tool to investigate Illness Perceptions in schizophrenia has been developed.

The literature regarding Illness Perceptions and Recovery Style are reviewed in order to identify potential areas of overlap where Health Psychology models may be useful in terms of designing interventions to help people with a diagnosis of schizophrenia to achieve a more integrating Recovery Style and a better outcome from their illness.
1 INTRODUCTION

This review is concerned with the literature regarding recovery from schizophrenia. Previously investigated potential indicators of outcome will be reviewed including psychological, emotional and behavioural variables. Recovery Style, as a promising potential indicator of outcome will be discussed. Health psychology models of Illness Perceptions will be considered as a way of gaining insight into the possible modification of Recovery Style. The review will conclude with suggestions for future research and possible clinical implications.

1.1 Schizophrenia

Schizophrenia remains the most widely diagnosed form of psychosis and the one with the poorest outcome. Schizophrenia is a diagnosis given following a continuous episode of psychosis lasting for longer than six months with no alternative diagnosis (DSM-IV, American Psychiatric Association, 1994). Schizophrenia affects approximately one per cent of the population in most countries, but can be much higher in socially deprived areas (up to four to five per cent in some deprived urban areas, World Health Report, 2001). The World Health Organization (WHO) estimates that about 45 million people world-wide have a diagnosis of schizophrenia (WHO, 2001).

For many, this disabling, chronic condition can render them unable to sustain basic social and functional skills and can make independent living almost impossible. A common dichotomy of convenience is that of positive symptoms and negative symptoms. Positive symptoms include delusions, hallucinations, disorders of belief, disorganization of thinking (largely noted in speech content) and occasionally catatonic states of immobility. Negative symptoms involve the absence or reduction
of normal behaviours: social withdrawal, absence of emotion and expression, reduced energy, motivation and activity, lack of attention to personal hygiene and other secondary activities related to socialization. Schizophrenia can also cause a chronic state of emotional distress which is often overlooked (Harrop & Trower, 2003).

The course and outcome of schizophrenia are extremely variable and seem to be influenced by a variety of factors including, where a person lives, their gender, socio-economic status, pre-morbid personality and multiple other biological and psychosocial factors (Birchwood & Jackson, 2001).

It is estimated that between 0.5 and 1.4 per cent of the Gross National Product of westernized countries is spent on mental health services. At any one time, approximately half of all National Health Service (NHS) beds in Britain are allocated to people with mental health problems (Harrop & Trower, 2003).

1.2 Outcome following a diagnosis of schizophrenia

Between 20 % and 25 % of people who receive a diagnosis of schizophrenia will have one psychotic episode with full remission. The number of people who have one discrete episode but never reach services is unknown.

Approximately 30 % of those who do reach services will show the poorest outcome, suffering increasing impairment with each of several episodes and no return to normality in-between (Shephard, Watt, Falloon, & Smeeton, 1989). Ciompi analysed the life-course of 228 people with ‘a psychosis’ and concluded that 27 % achieved complete remissions, 22 % ‘minor residuals’, 23 % ‘intermediate outcome’ and 28 % ‘severe outcome’ (Ciompi, 1980).
Several such studies have lead many to conclude approximately 50% of people with a diagnosis of schizophrenia suffer a severe, detrimental and long-term impact on their quality of life (see Birchwood & Jackson, 2001, for a review of long-term outcome studies). Most people in this situation need to be on permanent neuroleptic medication (with its own array of unpleasant side-effects), cannot work, cannot live independently, and need active long-term support from mental health services. Such people need to live in constantly staffed accommodation provided by the state and have very poor quality of life with high rates of co-morbid depression and suicide (Birchwood, Iqbal, Chadwick, & Trower, 2000). Medication provides some people with some relief from symptoms but does not generally increase quality of life to a significant degree, due to the complexity of the drug regimes and their unpleasant side effects. Medication tends to alleviate positive symptoms more than negative ones which continue to impact strongly on peoples’ independence and quality of life.

Currently there is no way of predicting the course of this disorder for any individual. Much research has been carried out to try and identify ‘indicators’ of a likely positive or negative outcome. If it were possible to predict who would do better and who would be most vulnerable after a diagnosis of schizophrenia, it might be possible to try to better understand the many factors which influence the course of this disorder. This would enable services to identify people at particularly high risk of a poor adjustment and offer them extra support. With further research it might be possible to understand what is needed to help anyone with a diagnosis of schizophrenia to maximize their potential for a positive outcome by identifying protective factors and helping people to attain them.
Research on possible indicators has included brain physiology, clinical presentation, reaction to medication, and environmental factors; as well as possible psychological variables such as insight (David, Buchanan, Reed, & Almeida, 1992), adherence to medication (Sainsbury Centre for Mental Health, 1998), attachment style (Adshead, 1998), engagement with services (Tait, Birchwood, & Trower, 2004), cognitive functioning (Hemsley, 1993), and theory of mind (Pickup & Frith, 2001). So far none of these constructs has shown a significant association with the outcome of a diagnosis of schizophrenia.

International studies have found reliable differences in outcome between locations, with people in more traditional cultures often having more positive outcomes than those in less traditional, more industrial countries (WHO, 2001). This suggests that the cultural environment plays an important role in the outcome of schizophrenia, allowing the speculation that psychological and social factors may contribute strongly to long term prognosis after a diagnosis of schizophrenia (Andresen, Oades, & Caputi, 2003). This is directly in keeping with health psychology models of illness (reviewed below – section 1.3) which attempt to identify the key cognitions that mediate between extrinsic factors that have been associated with health behaviours, such as demographic and social factors, and individual behaviours that may affect the course of an illness.

1.3 Health psychology models of chronic illness

Much work has been done on the role of behaviour (coping style) in influencing the course and outcome of physical illness, but it has been largely ignored in mental health research (Conner & Norman, 1997). Coping style encompasses how we react, behaviourally and emotionally, to any threat to our well-being (Lazarus & Folkman,
1984) and strongly influences health and illness behaviours (Leventhal, Nerenz, & Steele, 1984).

Lazarus and Folkman (1984) describe the experience of any threat to our well-being as a process involving a primary appraisal of the threat involved to the self (physically or psychologically) and a secondary appraisal of the resources the person has available to them to deal with that threat. When the threat outweighs the resources available, the person feels distressed. Distress is then dealt with by selecting either emotion focused coping strategies or problem focused coping strategies or both.

In chronic physical conditions such as asthma, diabetes or cancer, the coping behaviours and attitudes of the person suffering the illness have been shown to have a direct and consistent impact on both the emotional and physical outcome for that individual. Moreover, illness-specific patterns of coping behaviour have been found that are related to a better outcome for each of these conditions, which means that for each illness a certain pattern of coping responses is linked to a better chance of a positive outcome from that disease (Petrie & Weinman, 1997, for an overview).

The research reviewed below (section 1.4) has attempted to investigate the impact of such coping behaviours on the course and outcome of schizophrenia, using the models from health psychology as a theoretical framework.

1.3.1 Self Regulatory Model

The onset of any illness gives rise to a range of problems, which can vary greatly from person to person, even in those with the same condition. This is particularly true in the case of schizophrenia. In recent years health psychologists have shown that in order to make sense of and respond to these problems, people create their own
models or representations of their illness. The most influential framework adopted in this work is Leventhal’s *Self Regulatory Model* (SRM) (Leventhal et al., 1984). The SRM is a theoretical framework for describing and exploring people’s experiences of threats to their well-being – see Figure 1. The SRM suggests that people process threats to their well-being both cognitively and emotionally and that these processes occur in parallel. Actions are selected and performed to deal with perceived threats and feedback from those actions influences the appraisal of both the problem and possible coping strategies. From this dynamic process *illness representations* are formed, these are ideas about the nature of the threat and its possible management.

**Figure 1.** Self-regulatory model (SRM) (Leventhal, Nerenz, & Steele, 1984)

Leventhal and colleagues proposed that illness representations are based around several distinct components which, in turn, determine the experience of threat and the choice of coping strategies (Leventhal, Nerenz, & Steele, 1984). The SRM maintains that each person will hold representations about identity – ideas about the
label and symptoms involved in the illness, *cause* — ideas about the likely cause, *timeline* — perceptions of the duration of a condition, *consequences* — perceptions of illness severity and likely impact on levels of functioning, and *control or cure* — the extent to which an individual believes their condition is amenable to cure or control.

The precise individual content of these representations determine the level of threat perceived and also what action the person takes to deal with the perceived threat. For example, if one were to wake up with a headache but had been drinking alcohol the night before, and the headache resolved with an aspirin, the representations would be of low threat (i.e., cause—hangover, cure—aspirin, timeline—short, consequence—minimal). However, if one had a headache, no precedent of drinking alcohol and the headache persists for a week, the representations would be of a very different kind and would probably lead to seeking help from a specialist.

Overviews of research in this area have supported the consistency and validity of these five components of peoples’ illness representations (Skelton & Croyle, 1991). Support for these constructs has also come from cross-cultural research which has identified similar key beliefs when examining explanatory models of illness across different cultures (Kleinman, 1988). Although the components of illness representations are distinct in the sense that they can have specific effects on coping and outcome, they are not necessarily independent. There may be very direct links between one representation and another. If a person believes an illness to be caused by genetics they will be very unlikely to adhere to recommendations for changes in lifestyle for example. This would be an example of the *cause* representation affecting the *control* representation and consequently the person’s behaviour (or coping style).
Illness representations come into play as soon as a person experiences their initial symptoms and typically change with disease progression, emergent symptoms and treatment responses (e.g., if your hangover doesn’t resolve with aspirin and water and lasts for a week or gets worse you may start worrying that you have a more serious condition). Leventhal proposes that these representations reflect the person’s cognitive responses to symptoms and illness and that emotional responses are processed in parallel to illness representations (Leventhal et al., 1984 – see Figure 1).

In the fields of health and clinical psychology, much less research has been carried out investigating emotional coping processes than cognitive processes. Some work has been done looking at avoidant coping versus problem-focused coping behaviour (Lobban, Barrowclough, & Jones, 2004) and psychodynamic theories of denial and repression (Freud, 1911) could also be seen as relevant to the development of theories on emotional coping processes.

1.3.2 Illness Perceptions – the operationalization of the SRM

The Self Regulatory Model (Figure 1) examines the process by which coping strategies are selected, appraised and adjusted to deal with health threats, taking into account both behavioural coping processes and emotional coping processes. From a person’s previous experience, the current experiences of their symptoms and the reactions of their symptoms to coping behaviours, cognitive representations or schemas are developed regarding health and illness. Illness Perceptions is the name given to an individual’s cognitive representation (schema) of their illness (Weinman & Petrie, 1997). Illness Perceptions are ‘common sense’ explanatory models and
encompass thoughts, feelings, beliefs and attitudes about health problems and health outcome which are based on an individual’s experience of symptoms and also on contact with different sources of information (Leventhal et al., 1984). Illness Perceptions have been reliably associated with coping styles – emotional and behavioural responses – in the face of physical health problems and their consequences. They have proven to be helpful in predicting behavioural and emotional responses to illness, particularly in understanding adherence to treatment and long-term quality of life in chronic illnesses such as diabetes, asthma and rheumatoid arthritis (Petrie & Weinman, 1997).

Typically, medical approaches to disease have seen illness as an end-point and therefore focused their research on factors in the aetiology of the disease or on factors which are seen as consequences of the disease process. In contrast, the Illness Perceptions approach begins with the person’s experience of their illness and emphasizes the person’s own model of their illness, which is understood to change over time. Just as people construct representations of the external world to explain and predict events, they develop similar cognitive models of bodily or emotional changes that reflect either transient symptoms or more long-term illnesses (Weinman & Petrie, 1997). The consistent focus on individuals’ own models and explanations has made this line of research very productive in the last 10 years.

For example, previous research has produced inconsistent findings on the relationship between causal attributions and health behaviour change (Petrie & Weinman, 1997). One possible explanation for these inconsistencies is that most work on attributions and illness has largely categorized causal attributions under four headings; self, others, chance or environment. These categories may have been more
reflective of the attributions and research concerns of the psychologists rather than of the individuals whom they questioned.

When Petrie and colleagues investigated the causal attributions of people who had recently suffered a myocardial infarct (MI) and factor analysed the results, they found that the most common attributions resulted in three interpretable factors. The first factor was labelled ‘lifestyle’ and had high loadings on items regarding diet, exercise, smoking habits and body-weight. The second factor was labelled ‘stress’ and loaded highly on items such as ‘overwork’, ‘general stress’ and ‘my type of work’. The third factor, labelled ‘hereditary’, loaded on items regarding hereditary illness and high blood pressure (Petrie, Weinman, Sharpe, & Buckley, 1996). Examining the relationship between attributions of cause and changes in health behaviour six months post-MI, showed that the belief that lifestyle was a primary cause of the MI was significantly related to overall improvements in diet and an increase in the frequency of strenuous exercise. Attributions related to hereditary or stress were unrelated to later changes in health behaviour.

Petrie et al. showed that Illness Perceptions, as operationalized by the development of the Illness Perceptions Questionnaire (IPQ) (Weinman, Petrie, Moss-Morris, & Horne, 1996) could be used to predict who would and would not attend rehabilitation classes after hospitalization for MI, speed of return to work and consequent levels of disability (Petrie et al., 1996). They went on to design an intervention that caused significant changes in peoples view of their MI and consequent positive changes in speed of return to work and presence of residual symptoms at 3 month follow up (Petrie, Cameron, Ellis, Buick, & Weinman, 2002). Weinman and Petrie also suggested that Illness Perceptions may not only explain the variety of coping responses to the same illness but also be more directly related to
such outcomes as adherence, emotional distress and illness-related disability (Weinman & Petrie, 1997).

The IPQ systematically investigates the five illness constructs (time, identity, cause, control and consequences) which it is thought are constant across cultures and illness-types (Petrie & Weinman, 1997). The IPQ has been successfully used to identify who would attend for rehabilitation after myocardial infarction (Petrie et al., 1996); which patients would make the best recovery from Chronic Fatigue syndrome (Moss-Morris & Chalder, 2003); and who would make the best adjustment to Multiple Sclerosis (Jopson & Moss-Morris, 2003) among other adaptations to chronic illness.

Recently, an IPQ for schizophrenia (IPQ-S) has been developed specifically to help understand peoples’ perceptions of this particular disorder. The IPQ-S has shown good internal reliability, construct validity and reliability over time (Lobban, Barrowclough, & Jones, in press).

1.4 Outcome measures used in schizophrenia

The measurement of outcome in any chronic illness is complex. In schizophrenia research, ‘outcome’ has most often been measured by looking at current levels of symptoms or levels of disability, and more recently by levels of patients’ satisfaction with life. Unfortunately for the purposes of comparison between studies, some have used different tools to measure the same construct (e.g., symptoms) and other studies have used different constructs to represent outcome (e.g., impairment). Studies also differ in whether these ratings are given by the person with the diagnosis of schizophrenia or one of their carers. As mentioned above, these outcome variables (symptoms and impairment) have not shown a stable relationship to any other
variable. It is possible however, that this could be at least in part due to the differing measures and conceptualizations of the constructs used in each study. This paper will now review some of the most commonly researched potential indicators of outcome from a diagnosis of schizophrenia.

1.4.1 Insight

Insight into psychosis has been conceptualized in various ways. In one conceptualization it is seen as being composed of three distinct overlapping dimensions, the recognition that one has a mental illness, compliance with treatment and an ability to relabel unusual mental events as pathological (David, 1990). Other assessments of insight have focused on the recognition of ‘having an illness’ and of symptoms as being a part of that illness. However insight is conceptualized, its relationship to outcome is varied. Some studies have found that increased insight correlates with better outcome (Ghaemi & Pope, 1994), others have found that ‘excessive insight’ correlated with poor outcome (McGlashan & Carpenter, 1981), and some have found no relationship whatsoever (Drayton, Birchwood, & Trower, 1998). Similarly, level of insight has not been shown to be reliably related to compliance with medication (David, Buchanan, Reed, & Almeida, 1992).

1.4.2 Adherence and Engagement

People with chronic schizophrenia are often difficult to engage in mental health services (Sainsbury Centre for Mental Health, 1998), with consistent evidence that up to 80% are non-adherent to treatment (Corrigan, Liberman, & Engel, 1990). Lack of adherence to recommended treatment is related to poor outcome and often attributed to lack of insight (e.g., Ghaemi & Pope, 1994), but the evidence for a
relationship between insight and adherence to treatment is inconclusive (Drayton et al., 1998; Tait, Birchwood, & Trower, 2003). Recent research suggests that having an insecure attachment history is associated with a greater probability of disengaging from mental health services (Tait, Birchwood, & Trower, 2004) and that a Sealing-over style of recovery and the use of denial as a coping strategy are also linked to poor adherence to medication and engagement with services (Drayton et al., 1998). However, as with many other researched variables there is no evidence of a direct and consistent link to outcome.

1.4.3 Attachment

Early research on attachment in non-human primates was primarily concerned with the effects of failed attachment relationships. Such experiences resulted in disturbances of social behaviours such as sexual behaviour, self-care (grooming) and ability to interact socially. These behaviours are also seen in the negative symptoms of schizophrenia. In humans, attachment failure has been repeatedly linked with problems in later life (Rutter, 1995) and it has been suggested that the majority of people with ‘psychiatric disorders’ will have histories of failed attachment experiences, although only a small proportion of those who have failed attachment experiences will go on to develop psychiatric disorders (Adshead, 1998). Several studies have found links between attachment history and behaviour during contact with mental health services (Adshead, 1998; Rutter, 1995; Fonagy et al., 1996).

Specific evidence regarding the importance of early relationships in schizophrenia has been offered by Parker, Fairley, Greenwood, Jurd, & Silove (1982), Drayton et al. (1998) and Tait et al. (2004), all of whom found that people with a diagnosis of schizophrenia and insecure attachment experiences were more
likely to use avoidant coping strategies (such as ‘denial’ or a Sealing-over Recovery Style) which were in turn linked to poorer outcomes, than people with a diagnosis of schizophrenia who had had secure attachment experiences. However, as with the other constructs discussed above, attachment alone does not predict outcome.

Attachment theory (Bowlby, 1973, 1980) argues that a secure attachment experience in infancy allows for the development of robust schemas about the self as not overly vulnerable and of the world as not overwhelmingly threatening. This connects directly with the theories of Lazarus & Folkman and Leventhal et al. discussed earlier, regarding the perception of threat to the self and the impact on coping behaviours. In summary, a person with a secure attachment history may feel less threatened by the experience of psychosis and more able to cope with the implications than someone with an insecure attachment history. This is upheld by the research reviewed so far.

2 RECOVERY STYLE

Recovery Style refers to the overall style of how people cope with their illness, that is, how they deal with their experiences of episodes of schizophrenia. It is conceptualized as a continuum with a Sealing-over style at one end and an Integrating style at the other. Sealing-over is a pattern of isolating and encapsulating psychotic experiences while Integration is a pattern of seeking to understand them and accept them as part of one’s life. Measurement of Recovery Style was first described by McGlashan and colleagues in 1975 (McGlashan, Levy, & Carpenter, 1975). McGlashan et al. measured Recovery Style in a group of “acutely schizophrenia patients hospitalized on a clinical research unit” (McGlashan et al.,
1975, p 1270) by gathering clinical data from individual and group therapeutic
settings and using a structured interview to assign each person to either an
Integrating or Sealing-over group at discharge.

In 1987 McGlashan published a tool to assess Recovery Style. The tool
consisted of a list of statements describing Integration and a list of statements
describing Sealing-over and then required the clinician to use their clinical
judgement to ascribe their patient a number from one to six which described
their "style of recovery from his most recent psychotic episode" (McGlashan,
1987, p 683).

In 1998 Drayton and colleagues developed the Recovery Style Questionnaire
(RSQ) (Drayton, Birchwood, & Trower, 1998). The RSQ is a 39-item measure which
asks the patient to respond to items such as 'my illness is alien to me' by choosing
'agree' or 'disagree'. The RSQ was found to be highly reliable and strongly
correlated with McGlashan’s clinician-rated measure.

A point of note is that the authors of the RSQ advocated a system of scoring
that encouraged a bimodal distribution. Respondents had to answer 'agree' or
'disagree' to each item. The items were scored with an Integrating answer receiving
one point and a Sealing-over answer receiving a score of zero. The 39 questions were
grouped into 13 scale concepts. A participant responding with two or three items
indicating integration from each concept was given a score of one for that concept.
The overall score was expressed as a percentage of that total (i.e., 10/13 would have
been 77 % Integrating). The percentages were then mapped onto a 6-point scale that
matched the McGlashan measure. However, the dichotomous nature of the construct
is perhaps unlikely given the continuous nature of most psychological constructs.
Recovery Style was originally conceived of as a static personality trait, related to early attachment experiences (McGlashan & Levy, 1977; McGlashan & Carpenter, 1981; McGlashan, 1987) but recent research suggests it may be a dynamic entity open to change over time (Jackson et al., 1998; Thompson, McGorry, & Harrigan, 2003; Tait et al., 2003). Recovery Style has recently been found to be predictive of outcome in schizophrenia at 3- and 6-month follow-up (Tait et al., 2003) and at 12 months post-diagnosis of first episode psychosis (Thompson et al., 2003).

This new dynamic conceptualization and the fact that an Integrating Recovery Style predicts better outcome than a Sealing-over Recovery Style (Thompson et al., 2003; Tait et al., 2003) has significant research and treatment implications. It suggests the possibility that Recovery Style may be open to change through psychological interventions which could help people to move towards the most adaptive style of recovery for each individual. This also suggests the possibility of matching people to interventions and tailoring interventions to individuals current Recovery Style in order to increase the acceptability of (and so adherence to) such interventions.

From the literature reviewed so far (sections 1.2–2), it is possible to hypothesize that an Integrating Recovery Style is likely to be associated with a secure attachment experience. Secure attachments allow people to explore the world and integrate their experiences while insecure attachments leave people feeling too vulnerable to integrate difficult experiences. In such cases Sealing-over of such experiences may be an adaptive strategy to minimize emotional distress.

Figure 2 (next page) presents a visual summary of the research findings reviewed so far.
Figure 2. Potential outcome indicators

- **Insight**
  - ↑ outcome
  - ↓ outcome
  - × outcome
  - Ghaemi, & Pope, 1994
  - McGlashan, & Carpenter, 1981
  - Drayton et al., 1984

- **Adherence**
  - ↑ outcome
  - × outcome
  - Ghaemi, & Pope, 1994
  - Drayton et al., 1984; Talt et al., 2003

- **Adherence**
  - ↓ attachment
  - ↑ sealing over
  - Talt et al., 2004
  - Drayton et al., 1984

- **Attachment**
  - ↑ risk of MHP
  - ↑ sealing over
  - ↑ depression
  - ↓ outcome
  - Rutter, 1995; Adshed, 1998
  - Parker et al., 1982
  - Drayton et al., 1984
  - Talt et al., 2004

**Key**
- __associated with__
- __sealing over = Recovery Style__
- ↑ __increase__
- MHP = mental health problems
- ↓ __decrease__
- × __no relationship__
2.1 Key papers utilizing Recovery Style

It is possible that the psychological variables previously mentioned and investigated are better seen as parts of an individual’s response to their illness, together making up a persons ‘coping repertoire’ (Lazarus, 1993). It could then be argued that Recovery Style would be more likely than previously investigated constructs to predict outcome following a diagnosis of schizophrenia, because it explores an individual’s overall style of responding to their illness (their coping style) rather than just one part of their repertoire of coping behaviours.

2.1.1

In 1975 McGlashan and colleagues at the National Institute of Mental Health (NIMH) clinical research unit published a paper which defined the concepts of Integrating and Sealing-over as clinically distinct Recovery Styles from schizophrenia. They developed this distinction from working with and studying “the recovered patient’s attitude toward his psychotic experiences” (McGlashan, Levy, & Carpenter, 1975, p 1269). This was done by closely studying 33 “acutely schizophrenic patients from the point of flagrant psychosis through various stages of symptom remissions and social recovery” (McGlashan et al., 1975, p 1269).

Participants were between the ages of 18 and 60 and were in-patients in a clinical centre. Only people with an Axis I diagnosis of schizophrenia were accepted into the study. Anyone with an organic illness was excluded. Maximum hospital stay was four months, average three months, with follow up care arranged elsewhere if needed. All participants were assessed by three independent clinicians during their stay and followed up twelve months after discharge. The clinicians categorized the participants as Sealers or Integrators based on considerable clinical contact and the
use of a semi-structured interview tool. They achieved between 63% and 85% concordance on their categorization, which was highly significant when analysed using kappa statistics.

McGlashan et al. described important differences between Integrators and Sealers in the following areas: impact of the psychosis, responsibility for psychotic experiences, meaning of psychotic experiences, positive and negative aspects of psychosis, psychotic productions as information, curiosity, omnipotence and reality. They described Integrators as people who were curious about their symptoms, regarded them as part of their life’s pattern and gained information from them, as opposed to Sealers who had rather fixed, usually negative views of their illness and tend not to strive to understand their psychotic symptoms nor to place their psychotic experiences in perspective with their lives before and after psychosis (McGlashan et al., 1975).

The authors suggested that overall an integrative Recovery Style is characterized by the person’s awareness of the continuity of the self before, during and after the psychotic experience. This allows the person to share in the responsibility for their experiences in the past and therefore, allows for some control over their experiences in the future. The authors described a Sealing-over style as characterized by a seeking to encapsulate the psychotic experience. Sealers were seen as needing to separate the self then and the self now. This would lessen any possible responsibility and so also lessen any possible control over that person’s past, current or future situations. No outcome variables were reported so they made no comment on the relationship between Recovery Style and outcome in this paper.
2.1.2

In 1981 McGlashan and Carpenter published a study using participants from the same setting (National Institute of Mental Health – NIMH) which did look at the relationship between Recovery Style and outcome. In this study the authors looked at pathology at intake and then at participants positive and negative attitudes towards their illness, the future, and the value of insight at a 12-month follow up. At this point they also explored participants’ views of the source of major responsibility for their illness (self, family or events) as well as indicators of a Sealing-over or Integrating Recovery Style. They utilized several measures of outcome including “quantity and quality of useful work frequency and quality of social relations, duration of non-hospitalization, absence of symptoms, ability to meet basic needs, fullness of life and two measures of global functioning” (McGlashan & Carpenter, 1981, p 798). By following people in the early stages of the disorder over 12 months, they found that the absence of a negative attitude at follow up correlated with a better outcome at follow-up more often that a positive attitude was correlated with a positive outcome and that Recovery Style was not reliably associated with outcome at all.

However, as the measures of attitude and outcome were only taken at the 12-month follow up, the outcome data were cross sectional rather than longitudinal and therefore may have represented attitudes based on experiences the participants had had rather than the ones they expected to have in the future.

This study suggested that the concept of Recovery Style is separate from insight and attitudes toward illness and the future, at least as they were measured here. The authors suggested that Recovery Style may be a more subconscious phenomenon than attitude, as they measured it. It should be noted that they did not
use a standardized measure of Recovery Style; rather they used McGlashan’s semi-structured interview and clinical judgement given by three clinicians.

2.1.3

In 1987 McGlashan published a paper regarding a study of 231 people with diagnosis of various long-term mental health problems (schizophrenia, schizoaffective disorder, unipolar affective disorders, schizotypal and borderline personality disorders) interviewed an average of 15 years after discharge (McGlashan, 1987). The sample was made up of people in a long-term residential treatment facility. This study found a strong association between a more Integrating Recovery Style and a better outcome for the whole sample ($r = .49$, $p < .0001$). A more moderate, but statistically significant association between the same two constructs, was found for people with a diagnosis of schizophrenia ($r = .28$, $p < .022$).

Again Recovery Style was measured using a semi-structured interview, from which clinicians made a global rating rather than asking questions directly of the participants. Functional outcome was assessed by a two hour telephone interview with the participant or a significant other. This method seems rather open to confusion as for some, outcome would be the view of the person with the illness while for others the outcome would be the view of their significant other. No details were given as to what the telephone interview covered or who was accepted as a significant other.

Despite these limitations an Integrating Recovery Style still showed a positive association with a positive outcome and this held for individual dimensions
of outcome as well as for overall functioning. However, due to the cross-sectional
nature of the design no causal relationship could be suggested from these data alone.
McGlashan et al. suggested that, from comparison with the other diagnostic groups
in this study, it seems that people with a diagnosis of schizophrenia tend towards a
Sealing-over Recovery Style. Could this be one of the reasons for the generally poor
outcome shown by people with this disorder?

2.1.4

In 1998, Drayton, Birchwood and Trower developed a 39-item, self-report
questionnaire to measure Recovery Style in people with psychosis, the Recovery
Style Questionnaire (RSQ) (Drayton et al., 1998). They based the questionnaire on
McGlashan et al’s interview measure (McGlashan et al., 1975, 1981). Participants
were recruited from an urban community psychiatric service. Fifty-six participants
completed both the RSQ and the McGlashan interview. The RSQ was found to be
reliable (internal reliability measured by Cronbach’s alpha was .73) and highly
correlated with the interview based measure \( r = .92, p < .001 \). Test/re-test validity
was also good (Spearman’s \( r = .81, p < .002 \)) at a one month interval. The results
showed a bi-modal distribution which was in keeping with the interview measure.
Drayton and colleagues then used the RSQ to investigate the relationship between
coping style, attachment and depression in people with a diagnosis of schizophrenia.
They hypothesized that people who adopt a Sealing-over Recovery Style, compared
to those who adopt an Integrating Recovery Style, would be more vulnerable to
depression and would report more impaired early parental relationships.
Thirty-six people with a diagnosis of schizophrenia took part. Depression was
assessed using the Calgary Depression Scale (Addington, Addington, & Schissel,
1990), a scale developed specifically for use with people with a diagnosis of schizophrenia and early attachment experiences were measured using the Parental Bonding Instrument (Parker, Tupling, & Brown, 1979). The study found a significant difference in depression between the Integrating and Sealing-over groups (F(1,34) = 16.4, p < .0003). All participants assessed as being moderately or severely depressed were in the Sealing-over group and no member of the Integrating group was found to be experiencing more than mild depression.

People in the Sealing-over group were also found to perceive their parents as less caring than people in the Integrating group. Interestingly, in this study no association was found between insight and Recovery Style. The authors suggested that early relationships predispose us towards certain ways of interpreting events. Secure attachments in early life leave us with more resources to cope with adversity than insecure attachments. They reason that people who did not have secure attachments are likely to experience a psychotic episode as much more threatening than someone who has a secure attachment and defend themselves using denial or a Sealing-over Recovery Style. They suggested that a person's interpretation of a psychotic episode would be more predictive of outcome than the relative severity of the episode itself.

2.1.5

The first longitudinal study measuring Recovery Style was published in 1998 by Jackson et al. (Jackson, McGorry, Edwards, Hulbert, Henry, Francey, Maude, Cocks, Power, Harrigan, & Dudgeon, 1998). The study was an investigation into a new kind of cognitively-orientated therapy for early psychosis (COPE). One of the tenets of this therapy was that there is a critical period of about 2–5 years post-onset during
which treatment “may exert maximal impact in reducing the severity of the illness and its outcomes” (Jackson et al., 1998, p 93). Eighty participants were assessed pre and post a 12-month treatment period. Participants were aged between 16 and 30 and were suffering from their first episode of psychosis. Recovery Style was measured using the McGlashan interview which involves a rating made by the researcher rather than ratings being assigned to the participants’ responses. Outcome was assessed using two symptom measures, one quality of life measure, and the Beck Depression Inventory.

Participants were split into three groups, those who accepted COPE treatment (treatment group), those who refused COPE intervention but accepted treatment as usual (refusal group) and a third group (control group) who received no further treatment after leaving the acute unit. At entry there were no significant differences between the three groups on any of the measures used. At the end of the 12 months persons who received the COPE treatment scored significantly lower on the Integration/Sealing-over assessment than the other two groups, indicating a move towards a more Integrating Recovery Style for those who had received treatment. The same group also scored significantly higher on the quality of life measure than the other two groups (indicating better quality of life). There was no difference between groups before or after on the pathology measures. This suggests that the intervention helped participants move towards an Integrating Recovery Style and also improved their quality of life.

The authors suggested that it may be useful to consider the fit between the explanatory model held by the person with the diagnosis of psychosis, and the explanatory model held by their key-worker, in order to optimize engagement with
services. This would allow interventions to be tailored to suit individuals’ Recovery Style or explanatory model.

2.1.6

In 2003, Thompson and colleagues published a report of a longitudinal study of Recovery Style (Thompson et al., 2003). Participants were 196 first-episode psychosis patients from the Early Psychosis Intervention Centre aged between 16 and 30. They were interviewed immediately after their first acute psychotic episode resolved, and then again 12 months later. Recovery Style was assessed using the original McGlashan interview (where the interviewer makes a decision about the participant’s Recovery Style rather than asking them about it directly).

The study found that first-episode psychosis patients differed significantly on the three-outcome measures at 12 months post-stabilization, according to their Recovery Style at stabilization. People who Sealed-over had significantly worse scores on the Quality of Life scale (p < .001) and on both measures of psychopathology (p = .003 and < .001) than people who adopted an Integrating Recovery Style. The study also found that being female or not living with one’s parents were associated with a better outcome (separately). A crucial finding of this study was that 55.6 % of participants maintained their Recovery Style over the 12 months between assessments but the remainder of the participants changed their style. This is very important in terms of the conceptualization of Recovery Style itself. Until this study, Recovery Style had been conceptualized as a stable character trait, probably determined by early attachment experiences (McGlashan, 1975; Drayton et al., 1998). This new conceptualization of Recovery Style as a state (and therefore dynamic) rather than a trait characteristic (and therefore static) has
important implications for the treatment of this disorder. If Recovery Style is a
dynamic construct then it could be amenable to change through psychological
interventions. If people could be supported by clinicians to achieve a more
Integrating Recovery Style, then more people would have a chance of a better
outcome from schizophrenia than has previously been the case.

2.1.7

Tait et al. (2003) conducted a similar study with a very different sample group. Fifty
participants were drawn from a mixed group of inpatients and people receiving
treatment at home for an acute psychotic episode. Participants had a history of either
multiple episodes or a single episode; and a (wide) range of 2 days to 36 years since
initial onset, although 70 % were within 5 years of initial onset. Participants were
assessed within three weeks of the start of treatment and followed up after three
month and six months post-onset. Forty-two participants provided full data sets.
Measures included Recovery Style, psychosis symptoms, insight and engagement
with services. Recovery Style was measured using the RSQ (Drayton et al., 1998).

The authors found that a Sealing-over Recovery Style at three months post-
onset predicted low service engagement at six months post-onset. This was
independent of insight or symptoms. These results indicate that, at least in this
sample, insight is independent of Recovery Style and do not support the suggestion
that Sealing-over is synonymous with lack of insight, as some authors have
contended. The study also found that Recovery Style scores changed across time
towards Sealing-over, however, this change was marginal.
The authors suggested that it might be important to intervene early on in the course of a psychotic disorder to try and avoid people developing an entrenched Sealing-over Recovery Style.

2.1.8

A second paper from the same study (Tait et al., 2004) reported that Sealing-over was associated with low personality resilience and poor attachment history. They found that Sealing-over tends to be associated with poorer social functioning, poorer quality of life and higher levels of depression. These findings are in keeping with McGlashan’s work (1981, 1987) and the study by Drayton et al. (1998). The fact that these studies utilized participants with markedly different illness histories also adds validity to the findings.

In summary, Recovery Style has been associated with attachment (Drayton et al., 1998; Tait et al., 2004), engagement (Tait et al., 2003, 2004), depression (Drayton et al., 1998; Jackson et al., 1998), gender (Thompson et al., 2003), explanatory models (Thompson et al. 2003), living with ones parents (Thompson et al. 2003), and outcome (McGlashan et al., 1981; Drayton et al., 1998; Jackson et al., 1998; Tait et al., 2003, 2004; Thompson et al., 2003). Figure 3 summarizes visually these results. The question remains as to how to integrate these areas of research and theory in such a way as to operationalize the findings from this body of work.
2.2 The Illness Perceptions Questionnaire for schizophrenia

In 2001, researchers developed an Illness Perceptions Questionnaire specifically for use with people with a diagnosis of schizophrenia (IPQ-S) (Lobban, Barrowclough, & Jones, in press) and a version for use with relatives of people with a diagnosis of schizophrenia (IPQ-Sr) (Lobban, Barrowclough, & Jones, in press). The IPQ-S comprises the five sub-scales mentioned previously. These are measures of the perceptions of identity – ideas about the label and symptoms involved in the illness, cause – ideas about the likely cause, timeline – perceptions of the duration of a condition, consequences – perceptions of illness severity and likely impact on levels of functioning, and control or cure – the extent to which an individual believes their condition is amenable to cure or control of their illness.

The IPQ-S also adds the dimensions of personal control, treatment control, personal blame, illness coherence, and emotional representation. These additional...
dimensions were added by Lobban and colleagues after conducting several focus
groups. The groups were composed of people with a diagnosis of schizophrenia, their
carers, and health professionals who were directly involved in the care of people with
such a diagnosis.

For the development of the IPQ-S, 142 people with a diagnosis of a psychotic
disorder, at least two years post initial-onset, completed a modified version of the
IPQ and also completed additional measures to assess symptom severity, emotional
state and attitudes toward medication. The psychometric properties of the IPQ-S
were analysed and the results showed the subscales to be internally reliable (alpha’s
for sub-scales range = .68 – .87) and reliable over time (test/retest reliability range =
.57 – .95). The authors concluded that the IPQ-S is a reliable and valid measure of the
cognitive representations held by people with a diagnosis of schizophrenia.

2.2.1 Key research papers using the IPQ-S

In 2004, Lobban and colleagues carried out a study on the impact of beliefs on
coping and outcome. Cross-sectional and longitudinal data were reported for 124
people with a diagnosis of a psychotic disorder. Participants were assessed on
measures of symptom severity, beliefs about mental health problems, coping and
appraisal of outcomes – at two time points, six months apart. In the cross-sectional
data the IPQ-consequences subscale had the strongest (negative) correlation with the
quality of life measure used (r = -.61, p < .01), indicating that perceptions of greater
negative consequences of illness were associated with lower quality of life (as
suggested by Drayton et al, 1998). This finding was given strength by its replication
in more than one study and in the longitudinal analysis in this study, where beliefs
about greater negative consequences were the strongest and most consistent predictor
of a poorer outcome even when controlling for symptom severity (r = -.61, p = < .01). Using a multiple regression analysis, the authors were able to account for 58% of the variance in outcome in the cross-sectional study by variation in symptoms, IPQ-consequences, IPQ-personal control, and threat appraisal. In the longitudinal study the authors were able to account for 57% of the variance in outcome by variations in symptoms, IPQ-consequences, and negative coping measures.

3 SUMMATION

3.1 Current understanding

A possible explanation of the findings reviewed above is that Recovery Style is an over-arching construct which is associated with different styles of psychological adjustment (coping styles) to severe and chronic illness that in turn may underlie variations in outcome.

If Leventhal’s Self-Regulatory Model (SRM) is used as a framework for understanding peoples’ reactions to their experiences as a combination of both practical and emotion-focussed coping strategies, it becomes possible to begin to disentangle the complex findings of the research so far. For example, impaired insight may reflect, in part, an emotion-focussed coping mechanism for dealing with the distress of having a psychotic experience (McGlashan & Levy, 1977). Lack of adherence to medication or lack of engagement with both of which are related to poorer outcome but do not predict it services (Myers & Midence, 1997), may also have emotion-focussed coping value that clinicians are not aware of. This would make sense of the fact that an insecure attachment is related to lower levels of
engagement and adherence to medication, but is not predictive of worse outcome
because such behaviours may be adaptive in reducing emotional distress for someone
with a history of insecure attachment. Such individual differences in ways of coping
could explain, in part, the high levels of variability in outcome from schizophrenia.

The research reviewed so far suggests that Recovery Style in schizophrenia may be a
global measure of attitude towards illness that may impact on coping style and
behaviour and may be open to change. Recovery Style may be helpfully understood
as a mediating variable between a person’s Illness Perceptions and their choice of
coping strategies. Should this be the case, it would have important practical and
theoretical implications for this disorder. Based on the evidence from studies of
physical health, researchers suggest that people’s perceptions of their illness directly
influence their coping style (Weinman & Petrie, 1997). If Recovery Style is a
measure of coping style, then Illness Perceptions should show a relationship to
Recovery Style which should in turn, show a relationship to outcome.

In summary, if Recovery Style is a conceptualization of someone’s overall
attitude towards their experiences – which then shapes how they deal with those
experiences – then perhaps research should focus on what cognitions underlie the
attitude itself. Figure 4 shows a visual representation of the hypothesized relationship
between these constructs.
3.2 Future research

Previous research, reviewed above, has shown that Illness Perceptions can be modified in such a way as to have a positive impact on people’s illness outcomes. Research is beginning to show that such interventions are both effective and economically viable. An important question is then: which Illness Perceptions are helpful, and which are not so helpful, for people with a diagnosis of schizophrenia? In order to increase our understanding of this area it would seem important to carry out theory driven research examining the differences in Illness Perceptions between people with a diagnosis of schizophrenia showing a tendency towards a Sealing-over Recovery Style and people with a diagnosis of schizophrenia showing a tendency towards an Integrating Recovery Style.

3.3 Practical implications

Where it possible to identify consistent differences in Illness Perceptions between groups of people with the two Recovery Styles, it may be possible to use CBT
(cognitive behavioural therapy) style interventions to help people shift towards a more adaptive, Integrating Recovery Style, as has been successfully done with people who have had a myocardial infarct – as discussed in section 1.3.2.

3.4 Stages of change in Recovery Style

If Recovery Style is a continuum and open to change over time as it seems to be, there may be a process of stages of change from Sealing-over to Integrating (or vice versa). The ‘Stages of Change’ model (Trans-Theoretical Model – Prochaska & Velicer, 1997) has been found to be useful in helping people to make behaviour changes.

Support for the idea of stages of recovery was found by a review of published experiential accounts of living with a diagnosis of schizophrenia (Andresen, Oades, & Caputi, 2003) which identified five stages of the ‘recovery process’ from a diagnosis of schizophrenia. The stages identified in the literature reviewed by Andresen and colleagues – moratorium, awareness, preparation, rebuilding, growth – map on to the stages in the Trans-Theoretical Model – precontemplation, contemplation, planning, action, maintenance. This too has important practical implications as it offers the possibility of matching psychological interventions to the stage of Recovery Style of the individual, as has previously been done with some success in work with people with substance addictions (Prochaska, Velicer, Fava, Rossi, & Tsoh, 1998a).

Overall, it would seem that the body of research described in this review confirms the trend in current psychological treatment of schizophrenia towards considering the disorder from the point of view of those people who live with it on a daily basis, rather than that of medical experts, as the best way forward.
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Part II

Empirical paper
ABSTRACT

Background

Several studies have shown that the beliefs and perceptions individuals have about chronic mental health problems are important in predicting outcome. This study aimed to assess the importance of both Recovery Style and Illness Perceptions in predicting current level of impairment and quality of life in people with schizophrenia.

Methods

Forty-eight people with a diagnosis of schizophrenia were assessed on measures of quality of life, beliefs about their mental health problems, Recovery Style, functional impairment, engagement with services, and current level of symptoms.

Results

Using regression analysis and controlling for severity of symptoms, a more integrating Recovery Style was found to be positively associated with better quality of life an negatively associated with impairment. Beliefs about greater negative consequences were also found to be significantly associated with quality of life but not with Recovery Style.

Conclusions

These results suggest that Recovery Style and Illness Perceptions are relevant to Quality of life and impairment. Clinical implications are discussed in terms of screening for those at highest risk of poor adjustment after such a diagnosis, and for the development of theory-driven interventions.
CONTEXT

Understanding the factors that influence outcome in people with chronic mental health needs is important because of the personal, social and economic costs associated with debilitating illnesses such as schizophrenia. Outcome from schizophrenia is extremely varied and until recently, seemed almost completely unpredictable. While both medication and psychological treatments have some effectiveness in alleviating symptoms and reducing relapse, they do this incompletely for many and produce few benefits for a substantial majority (Wykes, Tarrier, & Lewis, 1999). Whatever the developments in treatment, it seems likely that the chronic and disabling effects of severe psychotic illness will remain for a substantial minority.

Historically, medical models have lead to a focus on pathology related variables, such as symptom severity, as both the outcome measure in clinical trials and in epidemiological studies. Ciompi (1980) analysed the life-course of 228 people with ‘a psychosis’ and concluded that 27 % achieved complete remissions, 22 % ‘minor residuals’, 23 % ‘intermediate outcome’ and 28 % ‘severe outcome’. More recently, measures such as level of impairment and quality of life have become more commonly used, reflecting a shift away from the medical model to one emphasizing social and psychological care (Drake, Haddock, Hopkins, & Lewis, 1999). Common estimates from several studies lead many to the conclusion that approximately 50 % of people with a diagnosis of schizophrenia suffer a severe, detrimental and long-term impact on their quality of life (see Birchwood, & Jackson, 2001, for a review of long-term outcome studies). The last ten years have seen increasing research investigating variables which may possibly be predictive of outcome, and theoretical attempts to explain their role. Greater understanding of the factors affecting outcome
is clearly desirable for both the effective organization of services and the
development of effective interventions.

Research on possible indicators of outcome in schizophrenia has covered a
wide range of constructs including: brain physiology, clinical presentation, reaction
to medication and environmental factors; as well as possible psychological variables
such as insight (Davis, 1990), adherence to medication (Sainsbury Centre for Mental
Health, 1998), attachment style (Adshead, 1998), engagement with services (Tait,
Birchwood, & Trower, 2004), cognitive functioning (Hemsley, 1993), and theory of
mind (Pickup, & Frith, 2001). So far, few of these constructs have shown a
consistent, significant association with outcome after a diagnosis of schizophrenia.
The models that explain some of the variation in outcome (though rarely highly
predictive) struggle to translate their findings into clinically relevant and practical
treatment recommendations.

Understanding Recovery

One construct that has recently been found to be predictive of outcome in
schizophrenia, and may offer the possibility of developing theory driven
intervention, is Recovery Style. Recovery Style refers to the overall style of how
people cope with their illness, i.e., how they deal with their experiences of episodes
of psychosis. It is conceptualized as a continuum with a Sealing-over style at one end
and an Integrating style at the other (McGlashan, Levy, & Carpenter, 1975;
McGlashan, 1987). Sealing-over is described as a pattern of isolating and
encapsulating psychotic experiences while Integration is described as a pattern of
seeking to understand ones experiences and accept them as part of ones life. In the
case of schizophrenia, people with an Integrating Recovery Style have generally
been found to have a better outcome than those who have a Sealing-over Recovery Style (Jackson et al., 1998; Thompson, McGorry, & Harrigan, 2003; Tait, Birchwood, & Trower, 2003, 2004). Recovery Style was originally conceived of as a static personality trait, related to early attachment experiences (McGlassan, 1977) but now seems to be a dynamic construct open to change over time (Jackson et al., 1998; Thompson et al., 2003; Tait et al., 2003). Recovery Style has recently been found to be predictive of outcome in schizophrenia at 3- and 6-month follow-up (Tait et al., 2003) and at 12 months post-diagnosis of first episode psychosis (Thompson et al., 2003).

The way people adapt to living with a diagnosis of schizophrenia is a subject that has not received much attention until recently (Drayton, Birchwood, & Trower 1998; McGlashan, 1994). Adaptation had been previously conceptualized as 'insight’, ‘compliance’ or ‘engagement’ by different researchers (Fowler, Garety, & Kuipers, 1995). Research into Recovery Style aims to “ask how the process of adaptation is mediated by the meanings and beliefs that the person attaches to their psychosis” (Drayton et al., 1998, p 270), rather than how closely the explanatory model of the person with a diagnosis of schizophrenia matches that of their carers, as is the case with the measures of adaptation mentioned above.

This approach, beginning with the person's own experience of their illness rather than a medical perspective, mirrors the research in health psychology that has been increasingly successfully predicting outcome from chronic physical illness over that last ten years. Although there is as yet no highly specific theoretical health-psychology model of chronic schizophrenia, an influential framework adopted in the work of predicting adaptation to chronic illness is Leventhal's Self Regulatory Model (SRM) (Leventhal, Nerenz, & Steele, 1984 – see Figure 1).
The SRM suggests that people process threats to their well-being (physical or psychological) both cognitively and emotionally, and that these processes occur in parallel. Actions are selected and performed to deal with perceived threats (such as physical or mental health problems) and feedback from those actions influence the appraisal of both the problem and possible solutions. From this dynamic process Illness Perceptions are formed. The SRM maintains that each person will hold perceptions about; the identity – ideas about the label and symptoms involved in the illness, cause – ideas about the likely cause, timeline – perceptions of the duration of a condition, consequences – perceptions of illness severity and likely impact on levels of functioning, and control or cure – the extent to which an individual believes their condition is amenable to cure or control of their illness.

In a series of studies, Weinman, Petrie and colleagues showed that Illness Perceptions, as operationalized by the Illness Perceptions Questionnaire (IPQ) (Weinman, Petrie, Moss-Morris, & Horne, 1996), could be used to predict who would and would not attend rehabilitation classes, speed of return to work, and
consequent levels of disability after hospitalization from a myocardial infarction (MI) (Petrie, Weinman, Sharpe, & Buckley, 1996; Petrie, Cameron, Ellis, Buick, & Weinman, 2002). The IPQ has also been used successfully to investigate which patients would make the best recovery from Chronic Fatigue syndrome (Moss-Morris & Chalder, 2003) and who would make the best adjustment to Multiple Sclerosis (Jopson & Moss-Morris, 2003), among other adaptations to chronic physical illness.

Although schizophrenia is distinct from the disorders above in being a primarily psychiatric disorder, the impact of beliefs and behaviour on chronic mental health disorders are surely as important as the impact of beliefs and behaviour on chronic physical health disorders, and as such, deserving of further exploration.

To this end, an IPQ for schizophrenia (IPQ-S) has been developed specifically to help understand peoples’ perceptions of this particular disorder (Lobban, Barrowclough, & Jones, in press). The IPQ-S comprises the five sub-scales mentioned above and also adds the dimensions of personal control (over one’s illness), treatment control (over one’s illness), personal blame, illness coherence (the extent to which the person feels they have a coherent understanding of their illness), and emotional representation (the extent to which the person feels emotionally distressed by their illness). These additional dimensions were added by Lobban and colleagues after conducting several focus groups. The group participants were people with a diagnosis of schizophrenia, their carers, and health professionals who were directly involved in the care of people with such a diagnosis. The IPQ-S, including the standard dimensions and the new sub-scales, was found to have good internal reliability, construct validity and reliability over time (Lobban et al., in press).
In 2004, Lobban and colleagues carried out a study on the impact of beliefs on coping and outcome (Lobban, Barrowclough, & Jones, 2004). Cross sectional and longitudinal data were reported for 124 people with a diagnosis of a psychotic disorder. Participants were assessed on measures of symptom severity, beliefs about mental health problems, coping, and appraisal of outcomes — at two time-points, six months apart. From the cross-sectional data, the IPQ-consequences subscale showed the strongest (negative) correlation with the quality of life measure used, independent of levels of disability or symptomatology, indicating that perceptions of greater negative consequences of illness are associated with lowered quality of life (as suggested by Drayton et al., 1998). The validity of the finding by Lobban et al. was supported by replication of the cross-sectional data results from analysis of the longitudinal data from the same study, where beliefs about greater negative consequences were the strongest and most consistent predictor of a poorer outcome even when controlling for symptom severity \( r = -.61, p = < .01 \) and by replication of the findings in other studies (e.g., Drayton et al., 1998).

Using a multiple regression analysis, Lobban and colleagues were able to account for 58% of the variance in outcome in the cross-sectional data by variation in symptoms, IPQ-consequences, IPQ-personal control, and threat appraisal.

In the longitudinal study the authors were able to account for 57% of the variance in outcome by variations in symptoms, IPQ-consequences, and negative coping measures. These are promising figures that are deserving of replication.

**Aims and Hypotheses**

This study aimed to explore the relationships between Illness Perceptions, Recovery Style and outcome. Both Illness Perceptions and Recovery Style are attempts to
describe a person’s thoughts about their illness experience and both have been found to predict outcome in schizophrenia. The IPQ focuses more on discrete cognitions while the RSQ aims to measure an overall attitude. Although they have not yet been studied concurrently, it is plausible that Illness Perceptions may form the building blocks that contribute to a person’s Recovery Style. It is therefore of interest to examine the relationship between the sub-scales of the IPQ-S and Recovery Style. It is hypothesized that Illness Perceptions of an Integrating type would be positively associated with a more Integrating Recovery Style and also with a better outcome. This could have important practical implications as it may highlight areas for future intervention.

Due to limitations of time and resources, only cross-sectional data was collected in this study. However, the study by Lobban et al. showed very similar results from the cross-sectional and longitudinal data. This is encouraging regarding the validity of results from this study.
HYPOTHESES

1 Recovery Style and outcome

A more Integrating Recovery Style will show a positive association with quality of life and a negative association with impairment.

2 IPQ and outcome

Illness Perceptions will show one or more of the following associations with quality of life and impairment:

2.1 Increased levels of IPQ-coherence (denoting less understanding of the illness process), IPQ-emotional representation (denoting higher levels of emotional distress), IPQ-consequences (denoting greater perceived consequences), IPQ-powerful others, biological and external causes will show a positive association with impairment and a negative association with quality of life.

2.2 Increased levels of IPQ-treatment control, IPQ-personal control, IPQ-timeline chronic, IPQ-timeline cyclical, IPQ-cause internal will show a negative association with impairment and a positive association with quality of life.

3 IPQ and Recovery Style

3.1 A more Integrating Recovery Style would be expected to be positively associated with IPQ-treatment control, IPQ-personal control, IPQ-timeline-chronic, IPQ-timeline cyclical, IPQ-cause-internal.
3.2 A more sealing over Recovery Style would be expected to be positively associated with IPQ-coherence (denoting less understanding of the illness process), IPQ-emotional representation (denoting higher levels of emotional distress), IPQ-consequences (denoting greater perceived consequences), IPQ-powerful other, biological and external causes.

METHOD

Plans for this study were approved by the relevant borough’s ethics committee.

Participants

Participants were identified through a London Borough’s Rehabilitation and Residential Mental Health Service. Information about diagnosis, length of contact with services and recent history was taken from medical notes only after written consent was obtained from each participant.

Procedures

The researcher made contact with staff teams at each residential or rehabilitation unit and reviewed medical records to ascertain each resident’s diagnosis and eligibility for the study. Residents were excluded if they had any history of organic brain damage, were felt to be too acutely unwell at the time of data collection or did not have an Axis-I diagnosis of a psychotic illness.

All potential participants were approached by the researcher (MS) and asked to take part in the study. If participants agreed written consent was obtained. The researcher then supported participants to fill in the three self-report measures and
identified a key-worker to fill in the three other-report measures. Participants were paid £5 in recognition of their time and effort.

**Design**

A cross-sectional, correlational survey was used to assess the existence of associations between the measures used in the study.

**Measures**

*Symptom Severity*

The Brief Psychiatric Rating Scale (BPRS) (Overall & Gorham, 1962) is a widely used measure of symptom severity in many psychiatric disorders and has good levels of reliability and validity (Ventura, Green, Shaner, & Liberman, 1993). The expanded version for schizophrenia (Luckoff, Liberman, & Nuechterlein, 1986) was used in this study. The BPRS was filled out for each participant by their key-worker. The extended BPRS consists of 24 items, each rated 1–7 with a higher score indicating higher levels of current symptomatology.

*Engagement with Services*

The Bexley Engagement Scale (BES) (Wolfson & Cupitt, 2001) a six-item measure of service users’ engagement with mental health services was filled in for each participant by their key-worker. The BES was designed for use with people with severe mental health problems and takes into account the fact that people can be engaged with services without being in agreement with them and vice versa. The BES has been shown to have good levels of reliability and validity (Wolfson &
Cupitt, 2001). Each item is rated from 1–4 with a higher score indicating higher levels of engagement with services.

**Functioning and Disability**

The Life Skills Profile (LSP) (Rosen, Hadzi-Pavlovic, & Parker, 1989) was used to assess the presence of impairments in skills of daily living and social interactions. The LSP is a 39-item questionnaire filled in by a key-worker which assesses current levels of impairment in functioning. It has been widely used and shown to have good reliability and validity. Higher scores indicate higher levels of impairment.

**Quality of Life**

The Manchester Short assessment of Quality of Life (MANSA) (Prieb, Huxley, Knight, & Evans, 1999) was used to assess the participants' current levels of satisfaction with their well-being. This is a 25-item self-report questionnaire; 14 questions collect demographic data and 11 questions investigate satisfaction with well-being in areas such as relationships, accommodation, physical and mental health and current income. Higher scores indicate higher levels of satisfaction.

**Recovery Style**

Recovery Style was assessed using the Recovery Style Questionnaire (RSQ) (Drayton et al., 1998). This is a 39-item self-report questionnaire with each item scored either 'agree' or 'disagree'. The questionnaire measures a person's tendency towards an Integrating or Sealing-over Recovery Style. Each answer receives a score of one if it is in the direction of Integration or zero if it is in the direction of Sealing-
over. A higher score indicates an increasing tendency towards an Integrating Recovery Style.

In the original paper the authors scored the measure in such a way as to force a bi-modal distribution and grouped respondents into one of four categories. In light of the current understanding of Recovery Style as a continuum rather than a personality trait, this study scored the RSQ as a continuous construct by scoring positively the answers indicating Integration. This produced a score out of a possible 39, with a higher score indicating a more Integrating Recovery Style.

**Illness Perceptions**

The Illness Perceptions Questionnaire for Schizophrenia (IPQ-S, Lobban et al., in press) was used to assess beliefs about mental health problems. The IPQ-S is a version of the Illness Perceptions Questionnaire (IPQ) (Weinman et al., 1996) which has been specially modified for use with people with a diagnosis of schizophrenia. Cronbach's alphas for the sub-scales range from .57-.95 (Lobban et al., 2002) and all sub-scales showed good reliability and validity. The sub-scales are summarized here and the items are listed in Appendix 4.4.

- **Identity (58 items).** Fifty-eight mental health experiences associated with schizophrenia were listed including positive symptoms, negative symptoms, affective symptoms, and side effects of medication. For each item participants were asked to indicate whether or not they had experienced this, and whether they attributed it to a mental health problem, effects of medication, and/or other factors. The three identity scales were scored by calculating the proportion of endorsed symptoms attributed to each of the three possible causes.
The remaining subscales all consisted of statements that were scored between 1 = strongly disagree, and 5 = strongly agree.

- **Timeline acute/chronic (6 items)**
- **Timeline cyclical (4)**
- **Consequences (11)**
- **Personal control (4)**
- **Personal blame (3)**
- **Treatment control (5)**
- **Coherence (5)**
- **Emotional representation (9)**
- **Cause – internal (10)**
- **Cause – external (4)**
- **Cause – biological (4)**
- **Cause – powerful others (8)**

High scores denote a more chronic or cyclical timeline, greater perceived negative consequences, greater perceived personal control and belief in treatment, and a sense of having a less coherent understanding. Higher scoring on the emotional representation sub-scale denotes higher levels of emotional distress. Although four causal subscales are included in the IPQ-S the items were not easily classified into meaningful dimensions and were not reported in the original paper by Lobban et al. (2004). For exploratory purposes the causal sub-scales were included in the analysis of this study.
Analysis

Descriptive statistics for all measures are presented followed by univariate correlations investigating the relationships between symptoms, Recovery Style, Illness Perceptions sub-scales and outcomes (impairment and quality of life).

All variables were assessed for skewness and kurtosis. All variables were non-significant for kurtosis and all except two (IPQ-treatment control and illness coherence) were non-significant for skewness. Although the two variables’ distributions differed significantly from normality, regression is known to be relatively robust to this. Therefore, plots of the residuals were examined for significant deviation from normality as this indicates where regression may have been an inappropriate analysis (Field, 2000).

Separate regressions were carried out for the two outcome variables, quality of life and impairment of functioning. The regression to predict quality of life was a multiple regression as there were no variables which needed to be controlled for independent effects. The regression to predict impairment was a hierarchical regression, with symptoms entered into the first block to control for their independent effects. A further hierarchical regression (controlling for the effect of gender) was carried out to investigate the relationship between Illness Perceptions and Recovery Style. Only variables which were significantly correlated with the outcome variable (p < .05) were included in each regression.

Despite multiple statistical testing, a significance level of p < .05 was chosen to interpret the results. This was decided due to the exploratory nature of the study which meant that the risk of making a Type II error was considered more detrimental to future research than the risk of a Type I error. However, care was taken to only examine relationships of prior hypothesis and interest so as to reduce the latter risk.
RESULTS

Patient Characteristics

A total of 112 people were identified as potential participants and approached to take part in the study. 64 declined to take part leaving a sample of 48 (43%). Participants were assessed by the researcher who supported them to fill in three self-report measures and identified their key-worker who was asked to fill in three other-report measures about the study participant.

In the sample, 30% (n = 14) were female and 70% (n = 34) were male, which is broadly representative of the gender split in the population at large with a diagnosis of schizophrenia. 90% (n = 43) of the sample had a diagnosis of schizophrenia, 4% (n = 2) had a diagnosis of depression with psychosis and 6% (n = 3) had a diagnosis of schizo-affective disorder. The mean age of the sample was 41 years (SD 13.2). The mean duration of illness was 16.8 years (Range 2–40 years, SD = 12 years). The mean age at which participants left education was 16.3 years (SD 2.3 years). In the sample, 42% of participants were in-patients, while 58% were living in supported accommodation units within the rehabilitation and residential services. None of the demographics reported above were significantly associated with either of the outcome variables so they were not entered into any further analyses. Gender was significantly associated with Recovery Style and was therefore entered into the regression analysis to predict Recovery Style.

Measures

The mean scores, standard deviations, Cronbach’s alpha (split-half reliability statistic) and sub-group comparisons (by age and gender) for each scale and sub-scale are shown in Table 1 below. All measures were tested for internal reliability
### Table 1. Descriptives for all measures

Significant results shown in bold type for last two columns

<table>
<thead>
<tr>
<th>Scale name and number of items</th>
<th>Mean (St. D.)</th>
<th>Cronbach’s alpha</th>
<th>Association with age Pearson’s r (p)</th>
<th>Association with gender Significance of t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPRS n = 24</td>
<td>55.5 (16.5)</td>
<td>.85</td>
<td>.090 (.543)</td>
<td>.540</td>
</tr>
<tr>
<td>BES n = 6</td>
<td>15.5 (4.2)</td>
<td>.77</td>
<td>−.086 (.568)</td>
<td>.679</td>
</tr>
<tr>
<td>LSP n = 39</td>
<td>30.3 (14.3)</td>
<td>.88</td>
<td>−.037 (.604)</td>
<td>.906</td>
</tr>
<tr>
<td>MANSAn = 11</td>
<td>49.0 (11.3)</td>
<td>.79</td>
<td>−.103 (.486)</td>
<td>.765</td>
</tr>
<tr>
<td>Recovery Style n = 39</td>
<td>21.0 (5.9)</td>
<td>.76</td>
<td>−.210 (.153)</td>
<td><strong>.039</strong></td>
</tr>
<tr>
<td>IPQ-timeline; chronic n = 6</td>
<td>18.0 (5.2)</td>
<td>.82</td>
<td>.047 (.754)</td>
<td>.229</td>
</tr>
<tr>
<td>IPQ-timeline; cyclical n = 4</td>
<td>14.0 (3.1)</td>
<td>.73</td>
<td>−.031 (.836)</td>
<td>.339</td>
</tr>
<tr>
<td>IPQ-consequence n = 11</td>
<td>37.6 (6.5)</td>
<td>.76</td>
<td>−.087 (.571)</td>
<td>.322</td>
</tr>
<tr>
<td>IPQ-personal control n = 4</td>
<td>13.8 (2.1)</td>
<td>.22</td>
<td>−.267 (.080)</td>
<td><strong>.038</strong></td>
</tr>
<tr>
<td>IPQ-treatment control n = 5</td>
<td>16.4 (4.0)</td>
<td>.76</td>
<td>−.286 (.059)</td>
<td>.187</td>
</tr>
<tr>
<td>IPQ-emotional representation n = 9</td>
<td>31.4 (5.7)</td>
<td>.76</td>
<td>.075 (.619)</td>
<td>.181</td>
</tr>
<tr>
<td>IPQ-cause; internal n = 10</td>
<td>6.2 (2.5)</td>
<td>.70</td>
<td>.181 (.228)</td>
<td>.232</td>
</tr>
<tr>
<td>IPQ-cause; external n = 4</td>
<td>2.5 (1.1)</td>
<td>.41</td>
<td>.041 (.784)</td>
<td>.187</td>
</tr>
<tr>
<td>IPQ-cause; biological n = 4</td>
<td>2.3 (0.9)</td>
<td>.61</td>
<td>.112 (.454)</td>
<td>.567</td>
</tr>
<tr>
<td>IPQ-cause; powerful others n = 8</td>
<td>4.3 (2.0)</td>
<td>.70</td>
<td>.041 (.782)</td>
<td>.925</td>
</tr>
<tr>
<td>IPQ-coherence n = 5</td>
<td>13.3 (3.4)</td>
<td>.66</td>
<td>.276 (.067)</td>
<td>.833</td>
</tr>
<tr>
<td>IPQ-personal blame n = 3</td>
<td>9.5 (2.4)</td>
<td>.60</td>
<td>−.062 (.681)</td>
<td>.782</td>
</tr>
<tr>
<td>IPQ-proportion of symptoms ascribed to illness 0.42 (0.29)</td>
<td>n/a</td>
<td>−.099 (.508)</td>
<td>.109</td>
<td></td>
</tr>
<tr>
<td>IPQ-proportion of symptoms ascribed to medication 0.19 (0.17)</td>
<td>n/a</td>
<td>−.216 (.144)</td>
<td>.732</td>
<td></td>
</tr>
<tr>
<td>IPQ-proportion of symptoms ascribed to other causes 0.52 (0.27)</td>
<td>n/a</td>
<td>.040 (.789)</td>
<td>.629</td>
<td></td>
</tr>
</tbody>
</table>

using Cronbach’s alpha split scales reliability test. Only scales with an alpha of more than 0.60 were entered into any further analysis. The personal control sub-scale and the IPQ’s external cause sub-scale were excluded from regression analysis due to low internal reliability (alpha = .22 and .41 respectively).
Sub-groups

Gender was significantly associated with Recovery Style, with male participants showing a small but significantly higher mean score on the RSQ than female participants (female mean RSQ score = 18.29, male mean RSQ score = 22.09, p = .039) indicating a tendency for male participants to report a more Integrating Recovery Style than female participants. Gender was also significantly associated with the IPQ subscale ‘personal control’, with male participants showing a small but significantly higher mean score than female participants (female mean personal control score = 12.67, male mean personal control score = 14.16, p = .038) indicating a tendency for males to report more personal control than females.

Univariate analysis

Following the hypotheses laid out in the introduction, Table 2 shows the results of univariate correlations between the independent variables – symptoms, subscales of the IPQ, the measure of Recovery Style – and the two outcome variables, impairment (LSP) and quality of life (Mansa). Recovery Style (RSQ) was also considered as an outcome variable. In order to minimize the possibility of a Type-1 error, the causal scales, as the least robust, were excluded from any further analysis.

Significant results are shown in bold type.
Table 2. Correlations between independent variables and outcome measures

Significant results are shown in bold type.

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Impairment (LSP) Pearson's r (p)</th>
<th>Quality of Life (MANSA) Pearson's r (p)</th>
<th>Recovery Style (RSQ) Pearson's r (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPRS (symptoms)</td>
<td>.597 (.000)</td>
<td>-.241 (.099)</td>
<td>-.368 (.010)</td>
</tr>
<tr>
<td>Recovery Style</td>
<td>-.318 (.028)</td>
<td>.315 (.029)</td>
<td>n/a</td>
</tr>
<tr>
<td>Timeline - chronic</td>
<td>.103 (.491)</td>
<td>-.164 (.269)</td>
<td>.008 (.958)</td>
</tr>
<tr>
<td>Timeline - cyclical</td>
<td>.142 (.340)</td>
<td>-.066 (.658)</td>
<td>-.114 (.447)</td>
</tr>
<tr>
<td>IPQ-consequence</td>
<td>.140 (.359)</td>
<td>-.444 (.002)</td>
<td>-.171 (.260)</td>
</tr>
<tr>
<td>IPQ-personal blame</td>
<td>-.032 (.830)</td>
<td>-.188 (.207)</td>
<td>-.096 (.520)</td>
</tr>
<tr>
<td>IPQ-treatment control</td>
<td>-.099 (.524)</td>
<td>.278 (.068)</td>
<td>.272 (.075)</td>
</tr>
<tr>
<td>IPQ-emotional repr.</td>
<td>.134 (.376)</td>
<td>-.352 (.016)</td>
<td>-.310 (.036)</td>
</tr>
<tr>
<td>IPQ-coherence</td>
<td>.780 (.612)</td>
<td>-.343 (.021)</td>
<td>-.329 (.027)</td>
</tr>
</tbody>
</table>

**Associations between independent variables and Impairment/Quality of Life**

Increased levels of impairment as measured by the LSP were significantly associated with reporting more symptoms and a less Integrating Recovery Style. Increased quality of life as measured by the MANSA, was significantly associated with a more Integrating Recovery Style, less perceived consequences, lower scores on the emotional representation sub-scales (indicating less emotional distress), lower scores on the ‘illness coherence’ sub-scales (indicating a more coherent understanding of the illness).

No significant associations were found between degree of impairment and quality of life (r = -.166, p = .261) supporting their use as outcome variables in separate regressions.
Associations between Illness Perception variables and Recovery Style

Following hypothesis 3, univariate correlations were computed between the subscales of the IPQ and Recovery Style. A significant negative association was found between a more Integrating Recovery Style and the IPQ sub-scales ‘coherence’ (r = −.329, p = .027) and ‘emotional representation’ (r = −.310, p = .036), indicating that a more Integrating Recovery Style is associated with a sense of having a more coherent understanding of one’s illness and less emotional distress. A more Integrating Recovery Style was also negatively associated with the level of symptoms (r = −.368, p = .010).

Multivariate analysis

In keeping with hypotheses 1, 2 and 3, stated earlier, three regression analyses were carried out to identify which of the independent variables were the best predictors of the outcome variables and to look at the inter-relationship between Illness Perceptions and Recovery Style. Only variables that were significantly correlated with each outcome variable (p < .05) were included in each regression. To check how well the regression equations fitted the data, the standardized residuals were checked. None had an absolute value greater than three, suggesting adequate fit of the data (Field, 2000).

Predicting impairment (LSP scores)

A hierarchical regression analysis was used to predict impairment from the significantly associated independent variables. Symptom severity was entered into the first block using forward selection to ensure that it was controlled for, and Recovery Style was entered into the second block (see Table 3).
Table 3. Predicting impairment from independent variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Adjusted R-squared</th>
<th>R-squared change</th>
<th>Significant F change</th>
<th>Standardized Beta</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – BPRS</td>
<td>.342</td>
<td>.356</td>
<td>.000</td>
<td>.597</td>
<td>.000</td>
</tr>
<tr>
<td>2 – BPRS</td>
<td>.327</td>
<td>.004</td>
<td>.624</td>
<td>.555</td>
<td>.000</td>
</tr>
<tr>
<td>RSQ</td>
<td></td>
<td></td>
<td></td>
<td>-.113</td>
<td>.380</td>
</tr>
</tbody>
</table>

All collinearity statistics were satisfactory (tolerance for model 2 was 0.888).

Overall the regression was significant (F(1,46) = 25.5, p < .000). Symptoms accounted for almost 35% of the variance in impairment scores and the second model involving Recovery Style did not add any explanatory power of significant value over and above what was already explained by symptoms.

Predicting Quality of life (MANS scores)

A multiple regression analysis was used to predict quality of life from the independent variables that correlated significantly with it. Recovery Style and the IPQ; consequence, emotional representation and coherence scales were entered as independent variables (see Table 4).

Table 4. Predicting quality of life from independent variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Adjusted R-squared</th>
<th>R-squared change</th>
<th>Significant F change</th>
<th>Standardized Beta</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSQ</td>
<td>.234</td>
<td>.307</td>
<td>.006</td>
<td>.179</td>
<td>.238</td>
</tr>
<tr>
<td>Coherence</td>
<td></td>
<td></td>
<td></td>
<td>-.252</td>
<td>.092</td>
</tr>
<tr>
<td>Consequence</td>
<td></td>
<td></td>
<td></td>
<td>-.498</td>
<td>.023</td>
</tr>
<tr>
<td>Emotional</td>
<td></td>
<td></td>
<td></td>
<td>.164</td>
<td>.462</td>
</tr>
<tr>
<td>representation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All collinearity statistics were satisfactory (tolerance for the model was 0.858). The regression was significant (F(1,46) = 4.213, p = 0.006). Recovery Style,
IPQ-consequence, coherence and emotional representation together accounted for 23% of the variance in quality of life. The independent effect of IPQ-consequences was significant (Standardized Beta = −.498, p = .023).

**Predicting Recovery Style (RSQ scores)**

A hierarchical regression analysis was used to predict Recovery Style using the IPQ sub-scales of coherence and emotional representation, controlling for gender by entering it in the first block.

<table>
<thead>
<tr>
<th>Table 5. Predicting RSQ from IPQ-S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>1 − Gender</td>
</tr>
<tr>
<td>2 − Gender</td>
</tr>
<tr>
<td>Coherence</td>
</tr>
<tr>
<td>Emotional-r</td>
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All collinearity statistics were satisfactory (tolerance for the model was 0.891). The regression was significant (F(1,46) = 3.328, p = .046). The second model was a significant (p = .046) improvement on the first. Together gender, IPQ-coherence and emotional representation explained 12% of the variance in RSQ.
DISCUSSION

The findings of this study support the hypothesis that an Integrating Recovery Style is associated with better quality of life and lower impairment. In addition some Illness Perceptions were associated with both a better quality of life and a more Integrating Recovery Style.

Hypotheses

*Predicting Impairment*

In the analysis of the data from this study, only symptoms accounted for a significant amount of variance in impairment (35 %) as measured by the LSP. Illness Perceptions and Recovery Style did not account for any of the variance in impairment over and above what was already explained by symptoms. These findings were not in keeping with the hypotheses 1 and 2 in the introduction. Lobban et al. (2004) found that measures of disability were best predicted by symptom levels both cross-sectionally and at follow-up (Lobban et al., 2004), and it may be that the present study had insufficient powered to detect the smaller contribution of Illness Perceptions and Recovery Style as relationships were in the predicted direction though non-significant. Alternately this null finding could be an artefact of the data collection process or a peculiarity of the sample in this study, or an indication that the results form Lobban (2004) are not generalizable to this sample.

It is also possible that specific characteristics of the sample influenced this finding. The sample for this study was drawn from a population with a relatively severe level of impairment (in comparison with previous studies) and a relatively long illness history. Tait et al. (2003), Thompson et al. (2003) and Jackson et al. (1998) drew their samples from community mental health teams (CMHT) or first
episode psychosis programs. The sample for the current study was drawn from a group of people who were too unwell to live in unsupported accommodation or with their families, as do the clients of CMHTs, who had been ill for an average of over 16 years. Such a sample is likely to have a higher level of impairment, and perhaps a more restricted range of Recovery Style. This, coupled with the relatively small sample size could explain the lack of significant findings.

*Predicting Quality of Life*

In this sample, 23% of the variance in quality of life (as measured by the MANSQ) was explained by a model containing Recovery Style, illness coherence, consequences and emotional representation. This is in keeping with Hypotheses 1 and 2 set out in the introduction. It is also noteworthy that none of the variation in quality of life was explained by symptom severity. The only individually significant predictor of quality of life was the IPQ-consequences scale. This is in keeping with the finding by Lobban et al. (2004) in both their cross-sectional and longitudinal analysis.

Lobban et al. (2004) explained a larger proportion of the variance in outcome in their study. This could be due to their larger sample size or to the differences in sample characteristics. However, the fact that these studies used different populations (CMHT patients versus in-patients) lends support to the veracity and possible generalizability of these findings. These results suggest that how people perceive their illness impacts more strongly on their quality of life than either impairment or symptoms. This is in keeping with previous conclusions drawn by Drayton et al. (1998) who suggested that the perception of the severity of an episode of psychosis
was more important in predicting outcome than the symptomatic severity of the
episode as reported by others.

Having a coherent understanding of one’s illness is also related to increased
satisfaction with life. This can be seen as a logical extension to the impact of
consequences, as having a coherent understanding of any illness makes its
consequences easier to predict and plan for has been shown to lead to reduced levels
of emotional distress (Petrie & Weinman, 1997).

**Predicting Recovery Style**

The data from this study indicates that no individual Illness Perception construct was
able to predict variation in Recovery Style alone, but in combination they began to
achieve the power to do so. The IPQ-S subscales *coherence* and *emotional
representation* explained 12% of the variance in Recovery Style. In combination
with gender they created a model that was statistically significant. While this degree
of prediction is of little clinical significance, it may be a lower-bound estimate given
the sample’s limitations discussed above. All other IPQ sub-scales showed
associations with Recovery Style in the predicted directions (except the cause sub-
scales) but did not meet significance. Again sample size and characteristics may be
partly responsible for this finding or it may be that the sub-scales are not
significantly associated with each other (i.e., the null hypothesis was correct).

It is of interest that the same Illness Perceptions that are associated with a
more Integrating Recovery Style are also associated with better quality of life but not
with impairment.

The IPQ emotional representations scale is a measure of the emotional impact or
emotional distress engendered by one’s illness. The results suggest that how
distressed someone is by their illness is more important than how impaired or
disabled they are by it. The results also emphasize the importance of illness
coherence (one’s sense of a coherent understanding of illness) in determining both
levels of distress and satisfaction with life.

Similarities with Previous Studies
The findings of this study are broadly in line with other studies which investigated
similar research questions (Tait et al., 2003, 2004; Thompson et al., 2003; Jackson
et al., 1998) in finding that an Integrating Recovery Style is associated with a more
positive outcome. The findings are also in keeping with Lobban et al. (2004) in
finding that perceived consequences are the single strongest predictor of quality of
life. As in the original paper for the IPQ-S (Lobban et al., 2004) the causal sub-scales
were difficult to operationalize. The cause scales had low internal reliability
(demonstrated by low alpha co-efficients) and little relationship to other variables.
While they offer the tantalizing possibility of extending the measurable components
of this health model of schizophrenia, no reliable structure for the items emerged
from this study.

In contrast to Lobban et al.’s findings, Illness Perceptions about the time-line
of the illness, personal control and treatment control were not associated with either
impairment or quality of life. It is possible that having drawn the sample from a more
disabled population these constructs did not have sufficient variance within them to
be detected by a smaller sample size such as the one in this study. It is also possible
that there is no association between these constructs and quality of life.
Alternative Explanations of the Findings

In setting the probability of a Type I error at .05 despite multiple analyses, it is possible that the results found are simply a product of random variation and measurement error. However, the fact that the results were largely in the direction of hypotheses 1–3 argues against this. Further research replicating these findings would be needed to make confident predictions about variation in outcome from the variables measured in this study.

Clinical Implications

If, as the results of this study suggest, perceived consequences are the best predictor of quality of life, and emotional distress and a sense of illness coherence are the best predictors of an Integrating Recovery Style, the results lend support to psychosocial intervention as a very worthwhile adjunct to pharmacological treatments. Although symptoms are highly relevant to impairment, they appear to make little contribution to quality of life. Supporting a move away from a purely medical understanding of schizophrenia, the results highlight the role of emotional distress that often accompanies the experience of schizophrenia but which has received relatively little research attention (Birchwood & Jackson, 2001).

Taking this into account, the finding of this study that levels of emotional distress are associated with quality of life and Recovery Style, is in keeping with previous findings that a difficult attachment experience in childhood is associated with increased levels of distress and a worse outcome from schizophrenia (Drayton et al., 1998).
Future Research Questions

As with most research in psychology this study raises more questions than it answers. Areas that would be indicated for future research from the results of this study are discussed below.

*Emotional Coping Processes*

Leventhal et al. (1984) suggested, in their Self-Regulatory Model (SRM), that threats to well-being are appraised both emotionally and cognitively, and that these processes are separate but occur simultaneously and in parallel. The development of the IPQ focused on operationalizing the cognitive threat appraisal process rather than the emotional one. The results of this study and others reviewed in the introduction suggest that the amount of distress experienced by people with the same illness can differ greatly, over and above their differences in symptomatology. It would therefore, seem timely to further explore the emotional process of threat appraisal and resolution. If it were possible to identify people at most risk of adjustment difficulties they could be targeted for extra support and possible preventative interventions.

Currently it might be possible for clinicians to use the RSQ in clinical settings to investigate the presenting Recovery Style profile of new patients and to screen for people with a highly Sealing-over style who may be at higher risk of a particularly poor outcome. It has been suggested by some authors (Jackson et al., 1998) that interventions should be matched to a person's Recovery Style, with Sealing-over styles suggesting the use of more behavioural strategies such as relaxation training and Integrative Recovery Styles suggesting the use of more exploratory, psychotherapeutic-style interventions.
Clinicians could also use the IPQ-S (or perhaps relevant sub-scales) to measure perceived consequences, levels of emotional distress and illness coherence. This could be used as a screening tool for identifying people at high risk of adjustment problems and also to monitor the effectiveness of interventions aimed at increasing coherence or decreasing distress.

*Decreasing Emotional Distress*

The aim of the research suggested above would be to help people at most risk of adjustment difficulties to suffer less distress and therefore potentially achieve a better outcome. It is possible that such an avenue of research may yield ideas for the treatment of all people diagnosed with schizophrenia as well as those at most risk of adjustment difficulties. To find ways of decreasing distress it would seem pertinent to return with the information from this study to the people who took part in it and ask them what helps them to be less distressed. Perhaps it is time to offer more emotional support to people with a diagnosis of schizophrenia and realize that underneath the relatively complex symptomatology of this disorder, well-being is still the priority for treatment. This idea is commensurate with the developing body of evidence on the impact of cognitive behavioural therapy for psychosis and its focus on lessening distress rather than symptoms.

*Increasing Coherence*

The other variable that was associated with better quality of life and a more Integrating Recovery Style was the IPQ-coherence scale. This scale measures how coherent an understanding one has of ones illness. Bearing in mind the theories on threat appraisal (e.g., Lazarus, & Folkman, 1984) it makes sense that if a person has
a greater understanding of a situation, they will be less distressed by it and feel that they have more control over it. It is possible that in feeling unsure about the aetiology of schizophrenia ourselves, clinicians have not given sufficient importance to helping people understand what is happening to them when they have a psychotic experience. It is probable that to this end, some information may be more conducive to feelings of illness coherence than other information and this should be investigated.

Schizophrenia has various related cognitive deficits, primarily involving memory and attention. Cognitive capacity will impact directly on how much information a person can both store and retrieve. This could in turn directly affect to what extent the person can achieve an Integrating Recovery Style. It seems from the results of this study that the narrative of one's illness, the sense of illness coherence, impacts directly on Recovery Style. The stronger the sense of illness coherence, the more possibility there is of a person having an Integrating Recovery Style. It may be necessary in that case, for clinicians to explore not only what information people need but what support they need to understand it, store it and retrieve it.

Research has shown that elaborating information aids in its recall, as does presenting it in multiple modalities (Emerson, Hatton, Bromley, & Caine, 1998). It is therefore a challenge to clinicians to present information in such a way as to be understandable and easily recalled. Perhaps other areas of psychology research, such as those in the fields of education and learning difficulties may be able to help in the development of such resources.
Limitations

The study had several limitations inherent in its' cross-sectional design, measures and sample size. Cross sectional studies can only show associations between variables and cannot offer any insight into the direction of causation. Hence it is possible that perceiving oneself as having a poorer quality of life causes the perception of more consequences to one's illness rather than vice-versa. Only longitudinal study designs, preferably following people over an unusually extended period of time (given the chronic nature of the disorder), with at least three time points at which measures are taken, could really begin to explain causal relationships between variables.

The use of self-report questionnaires has been heavily criticized in research literature as has the use of other-report questionnaires but as yet this remains the method of choice in most psychological research. The lack of association between scores on the measure of impairment and the measure of quality of life, of which the former was rated by an observer and the latter by the participant, could be taken as upholding the debate that surrounds the validity of questionnaires in general. The fact that each participant answered the same questions on the self-report measures does not necessarily mean that each participant understood the questions in the same way. There was no possibility of training participants to increase inter-rater reliability in order to address this issue. Hence the researcher (MS) read out each questionnaire to all the participants and answered any questions regarding their content, to increase consistency in the interpretation of the questions by participants. However, the same thing was not possible for the other-report questionnaires as in order to increase response rates the researcher had to leave questionnaires for the
nurses and key-workers to complete independently. Therefore, consistency in interpretation of the other-report measures cannot be guaranteed.

The size of the sample in the study was sufficient for the initial power analysis. However, the power analysis was calculated on scores from previous studies involving less severely impaired populations. As previously mentioned, using a more disabled, more chronic sample may lessen the range of variability in Recovery Style and outcome and therefore make the explanation of any variance more difficult. A larger sample size would increase the possibility of finding subtle differences in a more unwell population. The sample size also restricted the likelihood of obtaining smaller but none the less relevant effects in regression analysis for some aspects of Illness Perception (Type II error).

In light of the areas covered above, it should be noted that the results of this study may not generalize to a less severe, less chronically ill population. It is also not possible to presume that the results of this study would generalize to any population with a diagnosis of psychotic illnesses other than schizophrenia as 96% of this sample had such a diagnosis.

It is probable that changing the scoring of the Recovery Style questionnaire (RSQ) to reflect its current conception as a continuous rather than categorical variable, would affect the results. The new scoring resulted in a normally distributed variable rather than a bi-modal distribution as resulted from the original method (Drayton et al., 1998; Jackson et al., 1998; Tait et al., 2003; Thompson et al., 2003). This may have had an impact on the strength of any associations found between variables. The fact that despite this change, the RSQ was associated with the dependent variables in the same direction as previous studies lends support to the use of a continuous scoring method.
A final note regarding the sample: it was not possible to compare potential participants who declined to take part in the study with those who did take part. It should be acknowledged that there may be significant differences between the two groups (a self-selection bias) which may impact on the validity and generalizability of the results.

**Summation**

Research supports the suggestion that an Integrating Recovery Style is associated with a better quality of life and with maximizing outcome in general. Future research in this area could explore ways to make it possible for people to integrate their psychotic experiences by increasing their sense of illness coherence and decreasing distress levels around such experiences.

It is possible that the process of transition from a Sealing-over style to an Integrating one is crucial to the recovery process. If we use the allegory of a chronic trauma model, when someone is overwhelmed by a distressing experience they stop processing the experience in the usual way and encapsulate it into a memory that is consciously avoided, but which often reappears as thought intrusions, heightened levels of anxiety and in dreams (Brewin, 2001). This could be considered a type of 'Sealing-over'. Therapy for traumatic stress disorders involves re-incorporating the encapsulated memory into every day thought processes (a sort of Integration). In both cases the process of re-integration of the encapsulated experience is directly linked to increased well-being. Clinicians need to find ways to help people with a diagnosis of schizophrenia to integrate their distressing experiences into their lives, in order to achieve the best possible quality of life for each person who receives a diagnosis of schizophrenia.
References


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Part III

Critical Appraisal
CRITICAL APPRAISAL

This study was based on the idea that an Integrating Recovery Style would be associated with a better outcome for people with a diagnosis of schizophrenia and that certain Illness Perceptions would be associated with a more Integrating Recovery Style and hence a better outcome. The results were broadly in keeping with these expectations; however the details of the results were quite surprising. Both the hypotheses above were supported by the study. However, the particular areas of Illness Perceptions that were found to be associated with a more Integrating Recovery Style were unexpected, as they highlight the relevance of the emotional impact of schizophrenia.

In retrospect this finding is less surprising in light of the fact that most previous research into Illness Perceptions has been done on physical health problems, where cognition-focused Illness Perceptions, particularly causal-perceptions, have proved valuable in predicting, and even modifying, outcomes from chronic illness (see Petrie & Weinman, 1997, for an overview). This study was only the second to use the Self Regulatory Model (SRM – Leventhal, Nerenz, & Steele, 1984) and the Illness Perceptions paradigm (Weinman & Petrie, 1997), to look at mental health issues. This study replicated the findings of the first study (Lobban, Barrowclough, & Jones, 2004), which concluded that emotion-focused Illness Perceptions explain the largest proportion of variance in quality of life (of the variables included in the study). Possible interpretations of the findings and suggestions for future research will now be discussed.
STRENGTHS AND WEAKNESSES OF THE STUDY

The findings of this study were broadly in line with those of studies reviewed in the introduction to the empirical paper and the literature review (i.e., Tait, Birchwood, & Trower, 2003, 2004; Thompson, McGorry, & Harrigan, 2003; Jackson et al., 1998) in finding that an Integrating Recovery Style was associated with a higher quality of life. The findings were also in keeping with Lobban, Barrowclough, & Jones (2004) in finding that perceived consequences (‘consequence-perceptions’) were the single strongest predictor of quality of life.

As in the original paper for the IPQ-S (Lobban et al., 2004) the causal subscales were difficult to operationalize. The cause scales had low internal reliability (demonstrated by poor low Cronbach’s alpha coefficients) and little relationship to other variables. While theoretically they may hold the possibility of extending the measurable components of this health model of schizophrenia, no reliable structure for the causal-perceptions emerged from this study.

Design

The cross-sectional design of the study was necessary due to limitations of time and resources. Cross sectional studies can only show associations between variables and cannot offer any insight into the direction of causation. Hence it is possible that perceiving oneself as having a worse quality of life causes the perception of more consequences to one’s illness rather than vice-versa. Only longitudinal study designs, with at least three time points at which measures are taken, could really begin to explain causal relationships between variables.
Methods

The use of self-report questionnaires has been heavily criticized in research literature (see Barker, Pistrang, & Elliot, 1994, for an overview) as has the use of other-report questionnaires, but to date this remains the method of choice in most psychological research. The lack of association between scores on the measure of impairment and the measure of quality of life, of which the former was rated by an observer and the latter by the participant, could be taken as supporting the debate that surrounds the validity of questionnaires in general.

Moreover, the fact that each participant answered the same questions on the self-report measures does not necessarily mean that each participant understood the questions in the same way. There was no possibility of training participants to increase inter-rater reliability. Hence the researcher (MS) read out each questionnaire to each participant and answered any questions regarding their content, to encourage consistency in the interpretation of the questions by participants. However, the same procedure was not possible for the other-report questionnaires as in order to increase response rates the researcher had to leave questionnaires for the nurses and key-workers to fill in at their convenience. Therefore, consistency in interpretation of the other-report measures cannot be guaranteed and could have contributed to non-significant findings.

Sample size

A power analysis done in the planning stages of the study suggested that 46 participants would be needed to find a statistically significant medium effect size. Forty eight participants were recruited. However, the power analysis was done taking scores from previous studies involving less severely impaired populations. In
retrospect, using a more disabled, more chronic sample may have lessened the range of variability and therefore made the explanation of variance in the dependent variables more difficult. A larger sample size would increase the possibility of finding subtle differences in a more unwell population such as the one in this study.

Generalizability

In light of the areas covered above, it should be noted that the results of this study may not generalize to a less severe, less chronically ill population, such as those who took part in several of the earlier studies upon which the design of this one was based. It is not possible to presume that the results of this study would generalize to any population with a diagnosis of psychotic illnesses other than schizophrenia as 96% of this sample had such a diagnosis. It is also possible that the results of this study may not generalize to other populations of a similar clinical presentation and history. This could only be known through further research.

Scoring and Severity

It is probable that changing the scoring of the Recovery Style Questionnaire (RSQ) to reflect its conception as a continuous rather than categorical variable, may have affected the results. The new scoring resulted in a normally distributed variable rather than a bi-modal distribution as was previously found (Drayton, Birchwood, & Trower, 1998; Jackson et al., 1998; Tait et al., 2003; Thompson et al., 2003). It is likely that this would have an impact on the findings because participants will no longer fall into such clearly delineated groups. This is unlikely to alter the pattern of associations between variables but may affect the strength of any associations found.
The fact that the RSQ was associated with the dependent variables in the same direction as previous studies and as predicted by the hypothesis, lends support to the use of a continuous scoring method. However, the use of a different scoring method meant that it was not possible to compare the scores from this study to the score from other studies. This would allow a comparison of the different samples used in terms of their range and distribution of Recovery Style, which may have been interesting given the variation in clinical severity between study samples (although this was not the original purpose of the study). It is possible that in such a severely unwell sample as in this study, there may have been a general trend towards Sealing-off that could have made constructs associated with an Integrating Recovery Style harder to find.

Sub-scales of the IPQ

In previous research on chronic physical illness (e.g., Petrie, Weinman, Sharpe, & Buckley, 1996; Petrie, Cameron, Ellis, Buick, & Weinman, 2002) the causal sub-scales of the IPQ have been important in predicting outcome. The causal scales in this study were difficult to operationalize as they did not easily fall into distinct sub-scales and the sample size was not sufficient to allow factor analysis. As mentioned above, this is an area which further research may elucidate.

CLINICAL IMPLICATIONS

If, as the results of this study suggested, emotional distress, illness coherence, and perceived consequences were the best predictor of quality of life, and emotional distress and a sense of illness coherence were the best predictors of Recovery Style,
the results lend support to psychosocial intervention as an important adjunct to pharmacological means. Although symptoms are highly relevant to impairment, they appeared to make little contribution to quality of life. Such a finding supports a move away from a purely medical understanding of schizophrenia.

The results of this study highlighted the role of the emotional distress that often accompanies the experience of schizophrenia but which has received relatively little research attention (Birchwood & Jackson, 2001).

The findings of this study, namely, that Illness Perceptions of greater emotional distress were associated with a poorer quality of life and a more sealing over Recovery Style, were also in keeping with previous findings from similar areas of research suggesting that a difficult attachment experience in childhood is associated with a worse outcome from schizophrenia. For example Drayton et al., (1998) found that, in their study, only people with an insecure attachment-history and a diagnosis of schizophrenia were rated as severely depressed, as oppose to people with a secure attachment-history and a diagnosis of schizophrenia who were all mildly depressed.

**Practical implications**

Currently it might be possible for clinicians to use the RSQ in clinical settings to investigate the presenting Recovery Style profile of new patients and to screen for people with a highly Sealing-over style who may be at higher risk of a particularly poor outcome. Jackson et al. suggested that there may be a crucial period in the first 2-5 years after the onset of a psychotic illness “within which time treatment may exert maximal impact in reducing the severity of the illness and its outcomes” (Jackson et al., p 93). The RSQ may be of use as a clinical tool to monitor Recovery
Style, or any changes in it, during such a period. This would also allow monitoring of
the effectiveness of any interventions designed to help people to achieve a more
Integrating Recovery Style.

It has been suggested by some authors that interventions should be matched
to a person’s Recovery Style, with Sealing-over styles indicating the use of more
behavioural strategies such as relaxation training and Integrative Recovery Styles
suggesting the use of more exploratory, psychotherapeutic-style interventions
(Jackson et al., 1998).

Clinicians could also use the IPQ-S (or perhaps relevant sub-scales) to
measure perceived consequences, levels of emotional distress and illness coherence.
This could be used as a screening tool for identifying people at high risk of
adjustment problems and also to monitor the effectiveness of interventions aimed at
increasing coherence or decreasing distress.

The IPQ was developed with the intention that it could be used to identify
key cognitions linked to outcome. In other areas of IPQ research (see Petrie &
Weinman, 1997), once these cognitions have been identified the next step is to create
CBT (cognitive behavioural therapy) type intervention to modify cognitions in such
a way as to maximize outcome from which ever disorder is being studied. This
would be the ultimate aim of future research into the cognitions held by people with
a diagnosis of schizophrenia.

Policy Implications

Currently there is no routine psychotherapy offered to people with psychotic
disorders. Some authors suggest this is due to the “dominance of the Neo-
Kraepelinian model with its investment in schizophrenia as a brain disease” (Jackson
et al., 1998, p 93). If research continues to support the finding that the emotional trauma of schizophrenia is paramount in relation to QOL, perhaps therapeutic interventions that address the emotional impact of such a diagnosis may become routine in the future.

As with all NHS services, economic viability would have to be proven for such a service to be routinely offered. However, increasing evidence suggests that preventative treatment is more economical than crisis management. The cost of managing long-term schizophrenia is vast (World Health Organization, 2001). Residential care for people who have become severely impaired by their disorder would probably show itself to be far costlier than even relatively intensive, individual, emotion-focused therapy, if such a treatment prevents long term disability in even a proportion of people who receive the diagnosis of schizophrenia each year, therefore, avoiding the need for long term residential service use.

FUTURE DIRECTIONS FOR RESEARCH

Decreasing emotional distress

Following from the results of this study, one aim of future research could be to investigate ways to help people at most risk of adjustment difficulties to suffer less distress and therefore achieve a better outcome. It is possible that such an avenue of research may yield ideas for the treatment of all people diagnosed with schizophrenia as well as the most vulnerable ones.

To find ways of decreasing distress it would seem pertinent to return with the information from this and other studies to the people who took part in them and use qualitative research methods, such as small, supported focus groups, to ask people
with a diagnosis of schizophrenia what helps them to be less distressed. Perhaps it is
time to offer more emotional support to people with a diagnosis of schizophrenia and
realize that underneath the relatively complex symptomatology of this disorder, well-
being is still the priority for treatment. This idea is commensurate with the
developing body of evidence on the impact of cognitive behavioural therapy for
psychosis and its focus on lessening distress rather than symptoms.

**Increasing Coherence**

One of the three variables that were associated with better quality of life and a more
Integrating Recovery Style was the IPQ-coherence scale. This scale measures how
coherent an understanding one has of one’s illness. Bearing in mind the theories on
threat appraisal (i.e., Lazarus & Folkman, 1984, 1993) and research on information
giving and anxiety in physical illness (Johnston, 1980; Johnston & Voge, 1993) it
is clear that increasing a persons understanding of their situation decreases distress
and promotes well being by enhancing feelings of control over stressful situations.

It is possible that in feeling unsure about the aetiology of schizophrenia,
clinicians may not give sufficient importance to helping people understand what is
happening to them when they have a psychotic experience. The importance of illness
coherence is understood in the treatment of physical illnesses but seems to be often
forgotten in mental health.

It is probable that some pieces of information are more conducive to feelings
of illness coherence than other and this should be investigated.

Schizophrenia results in various related cognitive deficits, primarily
involving memory and attention. Cognitive functioning will impact directly on how
much information a person can store in and retrieve from their memory. Such
processes will directly affect the extent to which a person can achieve a coherent narrative of their illness and so move towards an Integrating Recovery Style. It appears from the results of this study that the narrative of one’s illness, the sense of illness coherence, impacts directly on Recovery Style. The stronger the sense of illness coherence, the more possibility there is of a person having an Integrating Recovery Style. It may be necessary for clinicians to explore not only what information people need but what support they need to understand it, store it, and retrieve it.

In one unit the researcher met a female service-user who was very distressed and said ‘no-one tells me what’s going on, I don’t know why I’m here, I don’t understand what happened’. The researcher reported this to the participant’s key-worker who replied, ‘I tell her every week but she doesn’t remember from one conversation to the next’.

Research has shown that elaborating information aids in its recall, as does presenting it in multiple modalities (Emerson, Hatton, Bromley, & Caine, 1998). It is therefore a challenge to clinicians to present information in such a way as to be understandable and more easily recalled. Perhaps other areas of psychology research, such as those in the fields of education and learning difficulties may be able to help in the development of such resources.

**Recovery Style**

Another avenue of possible intervention lies in modifying the way in which research is conducted by recruiting more service-user involvement and using a less reductionist approach. For example, clinicians and researchers often have a hypothesis such as ‘an Integrating Recovery Style is better for illness outcome’ but
do not share that information directly with the people who most need it, that is, people who have received a diagnosis of schizophrenia. Perhaps, instead of following a reductionist philosophy and breaking information down into components such as distress and coherence, researchers could explore with study participants what might help them to achieve a more Integrating Recovery Style – using appropriate language to explain the concepts involved and offering sufficient support for the answers to be found. This would take considerable time and effort on the part of both service users and providers, but may produce a valuable body of knowledge for future treatment as well as being of direct value to the individual with the diagnosis of schizophrenia in terms of both increasing illness coherence and decreasing emotional distress.

Such an approach may also lead to new areas of investigation as individual answers may be very different from what is found when analysing answers from groups – as is commonly done in research – as to what may help people move towards a more Integrating Recovery Style.

Attachment

The process of preparing the literature review brought to the fore the impact of early experiences, primarily attachment experiences, on adjustment to a diagnosis of schizophrenia. For example, as mentioned above, Drayton et al. (1998) found that an insecure attachment history was associated with a less Integrating Recovery Style, more severe depression and worse outcome in people with a diagnosis of schizophrenia.

Attachment failure has been repeatedly linked with problems in later life (Rutter, 1995) and it has been suggested that the majority of people with ‘psychiatric
disorders’ will have histories of failed attachment experiences, although only a small proportion of those who have failed attachment experiences will go on to develop psychiatric disorders (Adshead, 1998).

Tait et al. (2004), also found that people with a diagnosis of schizophrenia and insecure attachment experiences were more likely to use avoidant coping strategies (such as ‘denial’ or a Sealing-over Recovery Style) which were in turn linked to poorer outcomes, than people with a diagnosis of schizophrenia who had had secure attachment experiences.

Lazarus and Folkman (1984) suggested that threats are experienced when an event is perceived as; capable of causing harm such that the perceiver feels they do not have the resources to deal with. Attachment theorists argue that early attachment experiences shape people’s ideas of safety and danger, both of the world and one’s standing in it (Bowlby, 1973, 1980; Fonagy et al., 1996). It would be logical to assume that a person with a history of insecure attachments would feel more threatened by an event than a person with a secure attachment-history experiencing the same event.

For each individual with a diagnosis of schizophrenia, there may be certain areas of their illness that they feel more or less secure in their ability to deal with. Pinpointing the areas of most threat to each individual could help us to support people more effectively, so reducing distress and hopefully promoting an Integrating Recovery Style leading to a better outcome.

Due to constraints of time and resources, attachment history was not included as an independent variable in this study. It would be of great interest to look at associations between attachment history and Illness Perceptions in mental health issues. As detailed above, such information may help us to understand not only who
is most vulnerable to adjustment difficulties but what particular schemas they hold that make them so vulnerable. If we could understand why different people with similar levels of symptomatology and impairment can have such discrepant emotional reactions to their illness, clinicians may be able to reduce such distress more effectively and increase quality of life for all.

**IPQ subscales**

More research into the beliefs people hold about the causes of their illness and the impact of such beliefs on behaviour, quality of life, and impairment would be of great interest in this area. Behaviours are often driven by causal beliefs as causal beliefs impact directly on other areas of Illness Perceptions (see Weinman & Petrie, 1997, for an overview). Further research on the individual consequence-perceptions may also highlight particular areas for clinical intervention.

**Cognitive Load**

A chronic trauma analogy might suggest that people use a Sealing-over Recovery Style when they can no longer cope with what has happened and continues to happen to them. Much like someone having a post-traumatic stress disorder (PTSD) type reaction to a severely traumatic event, it could be argued that people going through a psychotic episode cannot process what is happening to them because they are too frightened and distressed by their unusual and subjectively inexplicable experiences (Harrop & Trower, 2003).

Research from various areas including post-traumatic disorder, personality disorders and neuropsychology, have suggested that when we are emotionally overwhelmed, the frontal lobes of the brain, which are involved in higher level
conscious processes, stop processing information in a higher order fashion (Brewin, 2001; Grey, Young, & Holmes, 2002). Instead of encoding experiences as verbally accessible memories (VAM) we encode them as sensory accessible memories (SAM). This lack of verbal (or symbolic) encoding means that we cannot integrate the experience until the SAM is processed into a VAM. The process for doing this necessitates the controlled re-experiencing of the SAM to allow it to be integrated by the brain in a different manner as a VAM (Brewin, 2001).

Such a reaction may occur when a person experiences a shocking event during which they feel that their personal safety is threatened. This is particularly true when personal safety is threatened in a situation that was previously considered safe. The person in the grip of a psychotic episode is often very frightened and emotionally overwhelmed – often in a situation they previously felt was safe, such as with their family – and perhaps cannot process and encode their experience as a VAM. This may be where psychological interventions need to focus their efforts, in helping people feel less distressed and overwhelmed by their experiences in order to avert the creation of SAMs and change pre-existing SAMs into VAMs that can then be dealt with by the brain in a different, less traumatic, more Integrating way.

RESEARCH PROCESS

Several areas of learning garnered from the research process seem pertinent for discussion at this point.

Initially, the plan for data collection was to spend a week at each of the residential or rehabilitation units in turn, and collect all possible data from that unit within that
week. On commencement of data collection it immediately became apparent that this would not be possible, due to various reasons such as senior staff not being available that week, some residents being away or very unwell, some residents feeling uncomfortable talking to someone they did not know about their personal experiences, the team meeting not being held that week, etc. The unifying strand of these obstacles was the erroneous belief that it might be possible to walk into an already functioning system and disrupt it without any resistance.

People need time to get to know new faces, both staff and clients of the service alike. This is particularly pertinent when dealing with a group of people suffering from a disorder that often entails paranoid thinking and also when the disorder in question is one that makes people feel extremely marginalized by society. Several times, people who had on several occasions refused to participate in the study, came forward at a later date to propose themselves as participants. By then, they had seen the researcher on numerous occasions around the unit with other residents (who often subsequently discussed their experiences). Time was needed for participants to become familiar with the researcher’s presence, to see other residents participate and then confirm that no harm was done to them, or perhaps simply for their curiosity to be raised. This should be taken into account in any future research planning.

An observation made by one of the clinical psychologists attached to two of the units also engendered a valuable learning experience. The clinical psychologist in question mentioned to the researcher that the two units to which he consulted differed widely in terms of the ease of gaining access to the residents. At one unit the door was not closely monitored and people such as residents, visitors and staff came
and went often and freely. Within that unit, residents were notoriously difficult to engage in any research or even in therapeutic activities.

At the other unit the door was much more closely monitored – by use of a camera and entry phone system and by staff who were much more demanding in knowing what the business of any visitor might be – but once access was gained almost all the residents were keen to participate. This inverse relationship proved to be a consistent finding throughout the 12 units involved in the research. In fact, in the one unit where the researcher had most ease of access, she was (literally) chased away by a furious resident demanding to know ‘why the **** should we let you use us as your guinea-pigs?’. No resident of that unit took part in the study.

One last, perhaps naively, unexpected obstacle to the research process was the participation of staff on the units involved. Managers where difficult to track down but most were supportive of the project once contact was established. However, there were large discrepancies in how the information was disseminated from managers to staff on their respective units. On some occasions, when the researcher called to arrange to commence recruitment in a unit (always after confirmation from the manager) staff at the unit had no idea who she was or why she was there.

The research process involved the key-worker of each participant to fill in three questionnaires about the participant. This was supported by managers but again there was great variation in reactions from staff. Some staff actively recruited the residents they key-worked in to the study, while other key-workers needed several phone-calls, prompts and repeated visits to actually complete the agreed questionnaires. In fact, some of the staff presented more of a challenge to data
collection than the participants, while in other units staff members were a formidable resource in increasing participant numbers.

Such variation between units was unexpected and an important lesson for future research in terms of expecting variability between research units and recruiting ground level staff into the research process to raise participation levels.

**Conclusion**

Most forms of therapeutic intervention have in common the aim of raising the level of representation of an experience from unconscious and embedded, to a higher order of processing which allows people to increase the control they can exert over their experiences, or to reduce the control that our experiences have over us. This is found in therapies as distinct as Intensive-Interaction with people with profound learning disabilities to PTSD work and from physical health psychology interventions to psychoanalysis. The results of this study suggest that a similar process is needed to optimize outcome after a diagnosis of schizophrenia, with a specific need to increase coherence and reduce distress. It is reassuring to find that similar principles may apply in working with a chronic and devastating illness as schizophrenia, as it allows us to draw on many years of good research and large bodies of knowledge and experience regarding such processes, as long as one identifies, understands and accepts the connections between them.
References


Part IV

Appendices
Miss M Sapochnik
Sub-Department of Clinical Health Psychology
Phillips House
Torrington Place
London
WC1E 6BT

Dear Miss Sapochnik,

LREC Ref: 03/97
Title: Illness perceptions and recovery style in schizophrenia

I am pleased to note that the Local Research Ethics Committee has recommended to the Trust that there are no ethical reasons why your study should not proceed.

Projects are registered with the North Central London Research Consortium if they utilise patients, staff, records, facilities or other resources of Camden Primary Care Trust, Islington Primary Care Trust, the Camden & Islington Mental Health and Social Care Trust, Barnet Primary Care Trust, Enfield Primary Care Trust or Haringey Teaching Primary Care Trust. On the basis of the documentation supplied to us, your study has the support of the clinical service manager/assistant locality director of the service in which it will be based.

The Camden and Islington Mental Health and Social Care Trust therefore grants approval to begin research based on the proposal reviewed by the ethics committee and subject to any conditions set out in their letter of 30 March 2004. Should you fail to adhere to these conditions or deviate from the protocol reviewed by the ethics committee, then this approval would become void. The approval is also subject to your consent for information to be extracted from your project registration form for inclusion in NHTS project registration/management databases and, where appropriate, the National Research Register and the UCL Clinical Research Network register.

Permission to conduct research is also conditional on the research being conducted in accordance with the Department of Health Research Governance Framework for Health and Social Care:

- Appendix A to this letter outlines responsibilities of principal investigators;

The North Central London Research Consortium is a partnership between Camden PCT, Barnet PCT, Enfield PCT, Haringey PCT, Islington PCT, Barnet, Enfield & Haringey Mental Health Trust and Camden & Islington Mental Health and Social Care Trust. The Consortium also encompasses the former North Central Thames Primary Care Research Network (NCTEn).
Appendix B details the research governance responsibilities for other researchers. It also outlines the duties of all researchers under the Health and Safety at Work Act 1974. Principal investigators should disseminate the contents of Appendix B to all those in their research teams.

Further information on the research governance framework for health and social care can be found on the DH web pages at http://www.doh.gov.uk/research/
Staff working within trusts covered by the research consortium can also find the information on the Trust Intranet.

Researchers are also reminded that personally identifiable information on living persons must be collected, stored, processed and disclosed in accordance with the Data Protection Act 1998. Such data may be in the form of electronic files, paper files, voice recordings or photographs/scans/X-rays. Further information on the Data Protection Act is available from your organisation’s Data Protection Officer or from the Consortium R&D Unit. The Medical Research Council also publishes the guidance booklet ‘Personal Information in Medical Research’ which is available from http://www.mrc.ac.uk/pdf-pimr.pdf

Except in the case of commercially funded research projects, the following acknowledgement and disclaimer MUST appear on all publications arising from your work.
*This work was undertaken with the support of [***Insert Trust***] Trust, who received [***insert ‘funding’ or a ‘proportion of funding’ ***] from the NHS Executive, the views expressed in this publication are those of the authors and not necessarily those of the NHS Executive.

* "a proportion of funding" where the research is also supported by an external funding body; "funding" where no external funding has been obtained.

This is a requirement of the contract between the Trust and the NHS Executive in which the Trust receives funding to cover the infrastructure costs associated with performing non-commercial research.

Please make all members of the research team aware of the contents of this approval. I wish you every success with your research.

Yours sincerely

Dr Paul Fox
Research Operations Director

The North Central London Research Consortium is a partnership between Camden PCT, Barnet PCT, Enfield PCT, Haringey PCT, Islington PCT, Barts, Enfield & Harlowby Mental Health Trust and Camden & Islington Mental Health and Social Care Trust. The Consortium also comprises the former North Central Thames Primary Care Research Network (NCTE).

November 2003.sp
Appendix 2: Service User Information Sheet

Camden and Islington NHS
Mental Health and Social Care Trust

Centre Number:
Date:
Patient Identification Number:

Service User: INFORMATION SHEET

Study: The way people think about their illness

Name of Researcher: Manuela Sapochnik (supervised by Ken Bledin)

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

Purpose of the study
This study is about finding out whether the ideas people have about their illness are linked to the way they deal with the treatment they receive.

Why have I been chosen?
All available clients of the Camden & Islington Mental Health Rehabilitation and Residential Services will be asked to take part in this study. You have been asked because you are a client of this service.

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

What will happen to me if I take part?
If you decide to take part the researcher (Manuela Sapochnik) will arrange a convenient time to come to see you. You will spend about 60 minutes with the researcher answering 3 short questionnaires. These questionnaires are about
1. Your own ideas about your illness
2. Your own feelings about your recovery
3. Your satisfaction with how things are for you at the moment.

There are no right or wrong answers and all your answers will be kept strictly confidential. This study is interested in your ideas about your experiences.

If you complete all three questionnaires you will be paid £5 in recognition of your time and effort.
You will also be asked to consent to
- the researcher looking at your medical records
- the researcher asking your key worker to fill in some questionnaires about how they see your illness

Camden & Islington supporting partnership in mental health

PROFESSOR DAVID TAYLOR: Chair
ERVILLE MILLAR: Chief Executive

SD02010M
P.I.S. (February 2001)
Camden and Islington NHS
Mental Health and Social Care Trust

What are the possible risks or disadvantages of taking part?
There are no risks involved in taking part. All the information gathered will be completely anonymous. Your name will not be on any of the questionnaires. You can stop at any time without giving a reason and it will have no effect at all on your treatment. If you find answering the questionnaires upsetting at any point the interview will stop and you will be helped to find your key-nurse or someone else you feel comfortable with to talk to.

What are the possible benefits of taking part?
There are no direct clinical benefits to you from taking part in this study. However, if you do decide to take part, the information we get from this study may help staff to work more effectively with some people with mental health difficulties in the future.

Will my taking part in this study be kept confidential?
All information which is collected about you during the course of the research will be kept strictly confidential.

What will happen to the results of the research?
The information collected will be analysed and a report will be written summarising the findings. The researcher will come back to your ward or project to tell you and the staff about what we find out and ask for service users' ideas about how we might use that information to help people. A brief report may be published in a scientific journal in a year or two. It will not be possible to identify you or anyone else in the report.

Who has reviewed the study?
The study has been reviewed by the Camden and Islington research Committee.

What if something goes wrong?
If you find answering the questionnaires upsetting at any point the interview will stop and you will be helped to find your key-nurse or someone else you feel comfortable with to talk to.

If you would like any further information
Please ask the researcher (Manuela Sapochnik) your primary nurse, your key worker or Ken Bledin, Clinical Psychologist (any member of the staff team can help you to contact Ken if you want to). You can contact Manuela on 020 7679 1897 (Sub-Department of Clinical Health Psychology, Phillips House, Torrington Place, London WC1E 6BT).

Thank you for reading this information sheet, and for taking part in the study should you decide to do so.

---

Camden
ISLINGTON
supporting partnership in mental health

PROFESSOR DAVID TAYLOR: Chair
ERVILLE MILLAR: Chief Executive
SD62108M
P.I.S. (February 2001)
Appendix 3: Participant Consent Forms

Camden and Islington NHS
Mental Health and Social Care Trust

Centre:
Date:
Patient Identification Number:

Service users Consent Form

Study: The way people think about their illness

1. I confirm that I have read and understand the information sheet dated for the above study and have had the opportunity to ask questions.

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

3. I understand that sections of any of my medical notes may be looked at by Manuela Sapochnik (the researcher) where it is relevant to my taking part in this research. I give permission for this individual to have access to my records.

4. I understand that Manuela Sapochnik (the researcher) will ask my key worker to fill in 3 questionnaires about how they see my illness. I give consent Manuela Sapochnik to ask my key-worker to do this.

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

Name of Patient

Date

Signature

Name of Person taking consent (if different from researcher)

Date

Signature

Researcher

Date

Signature

Camden

Islington

supporting partnership in mental health

PROFESSOR DAVID TAYLOR: Chair
ERVILLE MILLAR: Chief Executive
Centre:
Date:
Staff Identification Number:

Camden and Islington
NHS
Mental Health and Social Care Trust

Staff Consent Form

Study: The way people think about their illness

Thank you for reading this information sheet, and for taking part in the study should you decide to do so.

Please initial box

1. I confirm that I have read and understand the information sheet dated ______________ for the above study and have had the opportunity to ask questions.

☐

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

☐

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

☐

Name of staff member
Date
Signature

Name of Person taking consent (if different from researcher)
Date
Signature

Researcher
Date
Signature

Camden
ISLINGTON

PROFESSOR DAVID TAYLOR: Chair
ERVILLE MILLAR: Chief Executive

Supporting partnership in mental health
Appendix 4: Service-user Questionnaires

4.1 Manchester Short Assessment of Quality of Life

Participant Code:

Date:

This is a short questionnaire about how satisfied you are right now with different areas of your life. The first 2 sections are for information gathering and the last section is asks how happy you are with how things are at the moment. Please answer all the questions.

Section 1

<table>
<thead>
<tr>
<th>Date of Birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Ethnic Origin</td>
</tr>
<tr>
<td>Diagnosis</td>
</tr>
</tbody>
</table>

Section 2

1. Age at leaving full time education?

2. Employment status?

3. What is your occupation?

4. How many hours a week do you work?

5. What is your total monthly income after tax?

6. Which if any state benefits do you receive?

7. How many children (if any) do you have?

8. Who (if any body else) do you live with?

9. In which type of residence do you currently live?
## Section 3

This section asks you to answer the questions using a 7-point scale (unless otherwise indicated) like this:

1 = couldn’t be worse  
2 = displeased 
3 = mostly satisfied 
4 = mixed 
5 = mostly satisfied 
6 = pleased 
7 = couldn’t be better

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. How satisfied are you with your life as a whole today?</td>
<td></td>
</tr>
<tr>
<td>11. How satisfied are you with your job/training/education (main occupation)?</td>
<td></td>
</tr>
<tr>
<td>12. How satisfied are you with your financial situation?</td>
<td></td>
</tr>
<tr>
<td>13. Do you have anyone who you would call a close friend?</td>
<td>Yes/No</td>
</tr>
<tr>
<td>14. In the last week have you seen a friend? (visited or been visited or met a friend outside home and work?)</td>
<td>Yes/No</td>
</tr>
<tr>
<td>15. How satisfied are you with the number and quality of your friendships?</td>
<td></td>
</tr>
<tr>
<td>16. How satisfied are you with your leisure activities?</td>
<td></td>
</tr>
<tr>
<td>17. How satisfied are you with your accommodation?</td>
<td></td>
</tr>
<tr>
<td>18. In the past year have you been accused of a crime?</td>
<td>Yes/No</td>
</tr>
<tr>
<td>19. In the past year have you been the victim of physical violence?</td>
<td>Yes/No</td>
</tr>
<tr>
<td>20. How satisfied are you with your personal safety?</td>
<td></td>
</tr>
<tr>
<td>21. How satisfied are you with the people you live with? Or, if you live alone, how satisfied are you with living alone?</td>
<td></td>
</tr>
<tr>
<td>22. How satisfied are you with your sex life?</td>
<td></td>
</tr>
<tr>
<td>23. How satisfied are you with your relationship with your family?</td>
<td></td>
</tr>
<tr>
<td>24. How satisfied are you with your health?</td>
<td></td>
</tr>
<tr>
<td>25. How satisfied are you with your mental health?</td>
<td></td>
</tr>
</tbody>
</table>

Thank you very much
4.2 Recovery Style Questionnaire

Participant code:

Date:

Written below are a list of statements about your illness. Please read them carefully and tick one box for each question to show if you agree or disagree. There are no right or wrong answers, just what you think. Please answer all the questions.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>There was a gradual build-up to me becoming ill.</td>
</tr>
<tr>
<td>2.</td>
<td>My illness is not part of my personality.</td>
</tr>
<tr>
<td>3.</td>
<td>I am responsible for what I think when I am ill.</td>
</tr>
<tr>
<td>4.</td>
<td>I am not interested in my illness.</td>
</tr>
<tr>
<td>5.</td>
<td>My illness taught me new things about myself.</td>
</tr>
<tr>
<td>6.</td>
<td>I need help to solve the problems caused by my illness.</td>
</tr>
<tr>
<td>7.</td>
<td>My illness was caused by my difficulties in coping with life.</td>
</tr>
<tr>
<td>8.</td>
<td>I have had a nervous breakdown.</td>
</tr>
<tr>
<td>9.</td>
<td>I can see positive aspects to my illness.</td>
</tr>
<tr>
<td>10.</td>
<td>My illness has had a strong impact on my life.</td>
</tr>
<tr>
<td>11.</td>
<td>I am not frightened of mental illness.</td>
</tr>
<tr>
<td>12.</td>
<td>I liked some of the experiences I had when I was ill.</td>
</tr>
<tr>
<td>13.</td>
<td>My illness helped me find a more satisfying life.</td>
</tr>
<tr>
<td>14.</td>
<td>My illness came on suddenly and went suddenly.</td>
</tr>
<tr>
<td>15.</td>
<td>My illness is part of me.</td>
</tr>
<tr>
<td>16.</td>
<td>I am not responsible for my actions when I am ill.</td>
</tr>
<tr>
<td>17.</td>
<td>I am curious about my illness.</td>
</tr>
<tr>
<td>18.</td>
<td>I understand myself better because of my illness.</td>
</tr>
<tr>
<td>19.</td>
<td>I can manage the problems caused by my illness alone.</td>
</tr>
<tr>
<td>20.</td>
<td>Others are to blame for my illness.</td>
</tr>
<tr>
<td>21.</td>
<td>I have had a medical illness.</td>
</tr>
<tr>
<td>22.</td>
<td>Nothing good came from my illness.</td>
</tr>
<tr>
<td>23.</td>
<td>My illness has had little effect on my life.</td>
</tr>
<tr>
<td>24.</td>
<td>I am frightened of mental illness.</td>
</tr>
<tr>
<td>25.</td>
<td>I don't like any of the unusual experiences I had when I was ill.</td>
</tr>
<tr>
<td>26.</td>
<td>It's hard to find satisfaction with life since I was ill.</td>
</tr>
<tr>
<td>27.</td>
<td>My illness came on very suddenly.</td>
</tr>
<tr>
<td>28.</td>
<td>My illness is alien to me.</td>
</tr>
<tr>
<td>Question</td>
<td>Agree</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>29. I am responsible for my thoughts and feelings when I am ill.</td>
<td></td>
</tr>
<tr>
<td>30. I don't care about my illness now that I am well.</td>
<td></td>
</tr>
<tr>
<td>31. I want to be the person I was before my illness.</td>
<td></td>
</tr>
<tr>
<td>32. Others can help me solve my problems.</td>
<td></td>
</tr>
<tr>
<td>33. My illness was caused by stress in my life.</td>
<td></td>
</tr>
<tr>
<td>34. I have suffered an emotional breakdown.</td>
<td></td>
</tr>
<tr>
<td>35. Being ill had good parts too.</td>
<td></td>
</tr>
<tr>
<td>36. I'm not really interested in my illness.</td>
<td></td>
</tr>
<tr>
<td>37. I liked some of the unusual ideas I had when I was ill.</td>
<td></td>
</tr>
<tr>
<td>38. My life is more satisfying since my illness.</td>
<td></td>
</tr>
<tr>
<td>39. My attitude to mental illness is better now than before I was ill.</td>
<td></td>
</tr>
</tbody>
</table>

Thank you very much!
4.3 *Illness Perceptions Questionnaire for schizophrenia*

Participant code:

Date:

YOUR VIEWS ABOUT YOUR MENTAL HEALTH PROBLEMS

Please tick any of the following terms that have been used to describe your mental health problems, and add any other terms that may have been used. For each term, please indicate the extent to which you would agree that this label describes the experiences you have had.

<table>
<thead>
<tr>
<th>Label/term</th>
<th>tick if been used</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please write the term / label that you feel best describes your mental health problems:

__________________________________________________________________________
Listed below are a number of experiences that you may or may not have had since your mental health problems began. Please indicate by circling Yes or No whether or not you have had each of these experiences SINCE YOUR MENTAL HEALTH PROBLEMS BEGAN. In the next column, please indicate whether you think that this experience is part of your mental health problems, due to side-effects of medication, or due to other factors. If you feel that it is due to an equal combination of these factors, then you can put a tick in more than one column.

<table>
<thead>
<tr>
<th>I have had this experience since my mental health problems</th>
<th>This experience is/was:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Part of my mental health problems</td>
</tr>
<tr>
<td>Being irritable</td>
<td>YES</td>
</tr>
<tr>
<td>Pacing</td>
<td>YES</td>
</tr>
<tr>
<td>Worrying</td>
<td>YES</td>
</tr>
<tr>
<td>Believing people can read my mind</td>
<td>YES</td>
</tr>
<tr>
<td>Receiving messages from the TV or media</td>
<td>YES</td>
</tr>
<tr>
<td>Loss of motivation</td>
<td>YES</td>
</tr>
<tr>
<td>Poor appetite</td>
<td>YES</td>
</tr>
<tr>
<td>Mood swings</td>
<td>YES</td>
</tr>
<tr>
<td>Being violent</td>
<td>YES</td>
</tr>
<tr>
<td>Being withdrawn</td>
<td>YES</td>
</tr>
<tr>
<td>Being secretive</td>
<td>YES</td>
</tr>
<tr>
<td>Sleeping a lot</td>
<td>YES</td>
</tr>
<tr>
<td>Not doing much</td>
<td>YES</td>
</tr>
<tr>
<td>Lack of energy</td>
<td>YES</td>
</tr>
<tr>
<td>Imagining things</td>
<td>YES</td>
</tr>
<tr>
<td>Paranoia</td>
<td>YES</td>
</tr>
<tr>
<td>Hearing voices</td>
<td>YES</td>
</tr>
<tr>
<td>Feeling restless</td>
<td>YES</td>
</tr>
<tr>
<td>Having thoughts I would rather not have</td>
<td>YES</td>
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<tr>
<td>----------------------------------------</td>
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</tr>
<tr>
<td>Difficulty concentrating</td>
<td>YES</td>
</tr>
<tr>
<td>Being suspicious of other people</td>
<td>YES</td>
</tr>
<tr>
<td>Feeling I am possessed</td>
<td>YES</td>
</tr>
<tr>
<td>Memory problems</td>
<td>YES</td>
</tr>
<tr>
<td>Believing that my thoughts are being broadcast to others</td>
<td>YES</td>
</tr>
<tr>
<td>Feeling I am being watched</td>
<td>YES</td>
</tr>
<tr>
<td>Thinking people are laughing at me</td>
<td>YES</td>
</tr>
<tr>
<td>Believing I am a different person</td>
<td>YES</td>
</tr>
<tr>
<td>Gaining weight</td>
<td>YES</td>
</tr>
<tr>
<td>Feeling agitated</td>
<td>YES</td>
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<tr>
<td>Being argumentative</td>
<td>YES</td>
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<tr>
<td>Feeling suicidal</td>
<td>YES</td>
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<tr>
<td>Loss of interest in my personal care</td>
<td>YES</td>
</tr>
<tr>
<td>Being self-absorbed</td>
<td>YES</td>
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<tr>
<td>Difficulty sleeping</td>
<td>YES</td>
</tr>
<tr>
<td>Not helping around the house</td>
<td>YES</td>
</tr>
<tr>
<td>Becoming bored easily</td>
<td>YES</td>
</tr>
<tr>
<td>Difficulty doing everyday tasks</td>
<td>YES</td>
</tr>
<tr>
<td>Problems communicating with other people</td>
<td>YES</td>
</tr>
<tr>
<td>Being aggressive</td>
<td>YES</td>
</tr>
<tr>
<td>Panic attacks</td>
<td>YES</td>
</tr>
<tr>
<td>Loss of self confidence</td>
<td>YES</td>
</tr>
<tr>
<td>Feeling worthless</td>
<td>YES</td>
</tr>
<tr>
<td>Seeing things that are not really there</td>
<td>YES</td>
</tr>
<tr>
<td>Experiencing strange smells</td>
<td>YES</td>
</tr>
<tr>
<td>Clouded thoughts</td>
<td>YES</td>
</tr>
<tr>
<td>Feeling low</td>
<td>YES</td>
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<tr>
<td></td>
<td>YES</td>
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<td>--------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Shakiness</td>
<td></td>
</tr>
<tr>
<td>Talking or laughing to</td>
<td></td>
</tr>
<tr>
<td>myself</td>
<td></td>
</tr>
<tr>
<td>Losing touch with reality</td>
<td></td>
</tr>
<tr>
<td>Believing I am special</td>
<td></td>
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<tr>
<td>Anxiety</td>
<td></td>
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<tr>
<td>Hyperactive</td>
<td></td>
</tr>
<tr>
<td>Having bizarre thoughts</td>
<td></td>
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<tr>
<td>Not being able to</td>
<td></td>
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<tr>
<td>understand other people</td>
<td></td>
</tr>
<tr>
<td>Frittering money away</td>
<td></td>
</tr>
<tr>
<td>Senses seem heightened</td>
<td></td>
</tr>
<tr>
<td>so that noises and colours</td>
<td></td>
</tr>
<tr>
<td>seem more intense</td>
<td></td>
</tr>
<tr>
<td>Excessive smoking</td>
<td></td>
</tr>
<tr>
<td>Feeling nervous</td>
<td></td>
</tr>
</tbody>
</table>

We are interested in your own personal views of how you NOW see your mental health problems. We understand that your views are likely to have changed considerably over time, but please indicate how you NOW view things.

Please indicate how much you agree or disagree with the following statements about your mental health problems by ticking the appropriate box.

<table>
<thead>
<tr>
<th>VIEWS ABOUT YOUR MENTAL HEALTH PROBLEMS</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP 1 My mental health problems will last a short time</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>IP 2 My mental health problem is a serious condition</td>
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<tr>
<td>IP 3 There are some things which I can do to control my symptoms</td>
<td></td>
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<tr>
<td>IP 4 There is little treatment available that can improve my mental health problems</td>
<td></td>
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<tr>
<td>IP 5</td>
<td>I get depressed when I think about my mental health problems</td>
<td></td>
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<tr>
<td>IP 6</td>
<td>I feel very puzzled by my mental health problems</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>IP 7</td>
<td>My mental health problem is likely to be permanent rather than temporary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP 8</td>
<td>My mental health problem does not have much effect on my life</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP 9</td>
<td>To some extent what I do can determine whether my mental health problems get better or worse</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IP 10</td>
<td>When I think about my mental health problems I get upset</td>
<td></td>
<td></td>
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<tr>
<td>IP 11</td>
<td>My treatment will be effective in managing my mental health problems</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>IP 12</td>
<td>I don’t have any understanding of my mental health problems at all</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IP 13</td>
<td>My mental health problems will last for a long time</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>IP 14</td>
<td>My mental health problems have financial consequences</td>
<td></td>
<td></td>
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<tr>
<td>IP 15</td>
<td>My mental health problems make it more difficult for me to do day to day things</td>
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<tr>
<td>IP 16</td>
<td>Nothing I do will affect my mental health problems at all</td>
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<td></td>
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<tr>
<td>IP 17</td>
<td>My mental health problems make me feel angry</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IP 18</td>
<td>The negative effects of my mental health problems can be prevented (avoided) by my treatment</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>IP 19</td>
<td>I feel that I don’t know anything about my mental health problems</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>IP 20</td>
<td>My mental health problems will pass quickly</td>
<td></td>
<td></td>
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<tr>
<td>IP 21</td>
<td>Sometimes I have more symptoms than other times</td>
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<tr>
<td>IP 22</td>
<td>My mental health problems cause difficulties for those who are close to me</td>
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</tr>
<tr>
<td>IP</td>
<td>My actions will have no effect on the outcome of my mental health problems</td>
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<td>----</td>
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<tr>
<td>IP</td>
<td>My mental health problems do not worry me</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>IP</td>
<td>My mental health problems make no sense to me at all</td>
<td></td>
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</tr>
<tr>
<td>IP</td>
<td>I expect to have this mental health problem for the rest of my life</td>
<td></td>
<td></td>
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<tr>
<td>IP</td>
<td>I don't get on as well with my family since my mental health problems</td>
<td></td>
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<tr>
<td>IP</td>
<td>If I tried harder I could control my symptoms</td>
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<tr>
<td>IP</td>
<td>Having this mental health problem makes me feel anxious</td>
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<tr>
<td>IP</td>
<td>My treatment can control my mental health problems</td>
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<tr>
<td>IP</td>
<td>I have a clear picture or understanding of my mental health problems</td>
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<tr>
<td>IP</td>
<td>I have times when I am well and times when I am not so well</td>
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<tr>
<td>IP</td>
<td>My mental health problems have messed up my social life</td>
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<tr>
<td>IP</td>
<td>I could do more to help myself</td>
<td></td>
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<tr>
<td>IP</td>
<td>My mental health problems mean that I am valued less by other people</td>
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<tr>
<td>IP</td>
<td>My mental health problems make me feel afraid</td>
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<tr>
<td>IP</td>
<td>There is no treatment that can help with my condition</td>
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<tr>
<td>IP</td>
<td>Sometimes the symptoms of my mental health problems are worse than other times</td>
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<tr>
<td>IP</td>
<td>My mental health problems make working very difficult</td>
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<tr>
<td>IP</td>
<td>If I was a stronger person I would get better</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>IP</td>
<td>My mental health problems make me feel worthless</td>
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</tbody>
</table>
### Illness Perceptions and Recovery Style in Schizophrenia

#### CAUSES OF MY MENTAL HEALTH PROBLEMS

We are interested in what you consider may have been the causes of your mental health problems. As people are very different, there is no correct answer for this question. We are most interested in your own views rather than what others including doctors or family may have suggested to you.

Below is a list of possible causes for your mental health problems. Please indicate how much you agree or disagree that they were causes for you by ticking the appropriate box.

<table>
<thead>
<tr>
<th>Possible Causes</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>C 1 Stress or worry</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>C 2 Hereditary; it runs in my family</td>
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<tr>
<td>C 3 A germ or virus</td>
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<tr>
<td>C 4 Diet or eating habits</td>
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<tr>
<td>C 5 Chance or bad luck</td>
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<tr>
<td>C 6 Poor medical care in my past</td>
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<tr>
<td></td>
<td>污染在环境</td>
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<tr>
<td>C 7</td>
<td>My own behaviour</td>
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<td>C 8</td>
<td>My family's behaviour</td>
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<tr>
<td>C 9</td>
<td>My mental attitude, e.g., thinking about life negatively</td>
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<tr>
<td>C 10</td>
<td>Family problems</td>
<td></td>
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<tr>
<td>C 11</td>
<td>Overwork</td>
<td></td>
<td></td>
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<tr>
<td>C 12</td>
<td>Alcohol</td>
<td></td>
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<tr>
<td>C 13</td>
<td>Taking illicit drugs</td>
<td></td>
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<td></td>
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<tr>
<td>C 14</td>
<td>My personality</td>
<td></td>
<td></td>
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<tr>
<td>C 15</td>
<td>Brain damage or abnormality</td>
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<tr>
<td>C 16</td>
<td>Lack of friends or people who cared about me</td>
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<tr>
<td>C 17</td>
<td>Chemical imbalance in the brain</td>
<td></td>
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<tr>
<td>C 18</td>
<td>A trauma; something disturbing or shocking that happened in my life</td>
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</tr>
<tr>
<td>C 19</td>
<td>Death of a loved one</td>
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<tr>
<td>C 20</td>
<td>Money worries</td>
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<tr>
<td>C 21</td>
<td>Someone spiked my drink with illicit drugs</td>
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<tr>
<td>C 22</td>
<td>Lack of sleep</td>
<td></td>
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<tr>
<td>C 23</td>
<td>Thinking about things too much</td>
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<tr>
<td>C 24</td>
<td>My upbringing</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>C 25</td>
<td>Being bullied at school</td>
<td></td>
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</tbody>
</table>
Below, please list in rank order the three most important factors that you now believed caused YOUR mental health problems. You may use any of the items from the box above, or you may have additional ideas of your own.

The most important causes for me:

1. __________________________________________

2. __________________________________________

3. __________________________________________

Thank you very much for completing this questionnaire
4.4 Illness Perceptions Questionnaire for schizophrenia – subscale items

**Cause Items**
- Stress or worry
- Hereditary; it runs in my family
- A germ or virus
- Diet or eating habits
- Chance or bad luck
- Poor medical care in my past
- Pollution in the environment
- My own behaviour
- My family’s behaviour
- Money worries
- Family problems
- Overwork
- Alcohol
- Taking illicit drugs
- My personality
- Brain damage or abnormality
- Lack of friends or people who cared about me
- Chemical imbalance in the brain
- Death of a loved one
- Lack of sleep
- Thinking about things too much
- My upbringing
- Being bullied at school
- My mental attitude, e.g., thinking about life negatively
- A trauma; something disturbing or shocking that happened in my life
- Someone spiked my drink with illicit drugs

**Timeline acute/chronic**
- My mental health problems will last a short time (R)
- My mental health problems are likely to be permanent rather than temporary
- My mental health problems will last for a long time.
- My mental health problems will pass quickly (R).
- I expect to have these mental health problems for the rest of my life
- My mental health problems will improve in time (R)

**Timeline cyclical**
- Sometimes I have more symptoms than other times.
- I have times when I am well and times when I am not so well.
- Sometimes the symptoms of my mental health problems are worse than other times
- Some of my symptoms will be there all the time but others will come and go.

**Consequences**
- My mental health problem is a serious condition.
- My mental health problems do not have much effect on my life. (R).
- My mental health problems have financial consequences for me.
- My mental health problems make it more difficult for me to do day to day things.
- My mental health problems cause difficulties for those who are close to me.
- I don't get on as well with our family since their mental health problems.
- My mental health problems have messed up my social life.
- My mental health problems mean that I am valued less by other people.
- My mental health problems make working very difficult for me.
- I have lost important relationships as a result of my mental health problems.
- My mental health problems have had some positive effects on my life (R).
**Personal Control**
- There are some things that I can do to control my symptoms.
- To some extent, what I do can determine whether my mental health problems get better or worse.
- Nothing I do will affect my mental health problems (R)
- My actions will have no effect on the outcome of my mental health problems (R)
- Personal Blame
- If I tried harder I could control my symptoms
- I could do more to help myself
- If I were a stronger person, I would get better

**Treatment Control**
- There is little treatment available that can improve my mental health problems (R)
- My treatment will be effective in managing my mental health problems.
- The negative effects of my mental health problems can be prevented (avoided) by my treatment
- My treatment can control my mental health problems.
- There is no treatment that can help with my condition (R)

**Illness Coherence**
- I feel very puzzled by my mental health problems.
- I don’t have any understanding of my mental health problems at all
- I feel that I don’t know anything about my mental health problems
- My mental health problems make no sense to me at all
- I have a clear picture or understanding of my mental health problems (R)

**Emotional Representation**
- I get depressed when I think about my mental health problems
- When I think about my mental health problems I get upset
- My mental health problems make me feel angry
- My mental health problems do not worry me (R)
- My mental health problems make me feel anxious
- My mental health problems make me feel afraid
- My mental health problems make me feel worthless
- I get very frustrated by my mental health problems
- I feel a sense of loss due to my mental health problems

(R) = item is reverse scored
Appendix 5: Staff Questionnaires

5.1 Bexley Engagement Scale

BEXLEY ENGAGEMENT MEASURE

Engagement is the process of building a trusting relationship between a mental health worker and client. The BEM aims to measure the degree to which this relationship has formed at any point in time.

<table>
<thead>
<tr>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client's name:</td>
</tr>
<tr>
<td>Completed by:</td>
</tr>
<tr>
<td>Relationship to client:</td>
</tr>
</tbody>
</table>

Over the last month,

**Contact**

How often is it possible to have planned contact with the person?

- 4 always
- 3 usually
- 2 sometimes
- 1 rarely
- 0 never

**Participation**

How often does the person participate with you in a shared activity that does not require them to share much about themself, e.g. going to the shops?

- 4 always
- 3 usually
- 2 sometimes
- 1 rarely
- 0 never

**Collaboration**

How often does the person collaborate with you in completing a task that requires them to share significant things about themself, e.g. filling in a form?

- 4 always
- 3 usually
- 2 sometimes
- 1 rarely
- 0 never

**Openness**

How often does the person talk openly about their thoughts and feelings?

- 4 always
- 3 usually
- 2 sometimes
- 1 rarely
- 0 never

**Help seeking**

How often does the person ask for your help and advice?

- 4 always
- 3 usually
- 2 sometimes
- 1 rarely
- 0 never
Treatment
How often does the person enter into negotiation about treatment options e.g. psychotropic medication, psychotherapy?
4 always 3 usually 2 sometimes 1 rarely 0 never

Total Score
Add the score on each domain _________

© Paul Wolfson and Caroline Cupitt, Oxleas NHS Trust, March 2001
5.2 *Brief Psychiatric Rating Scale*

**Easy Test Creator**

© 2001 Richard Lakeman

Brief Psychiatric Rating Scale

Instructions

This test consists of 24 symptom constructs, each to be rated in a 7-point scale of severity ranging from 'not present' to 'extremely severe'.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Not Assessed</th>
<th>Not Present</th>
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<td>24 Mannerisms and posturing</td>
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5.3 *Life Skills Profile*

**Easy Test Creator**

© 2001 Richard Lakeman

*Life Skills Profile (LSP)*

Instructions

Complete the questionnaire as you assess the client's general functioning (i.e., not during crises when he or she is ill, or becoming ill, but his or her general state over the past three months).

**Question 1**

Does this person generally have any difficulty with initiating and responding to conversation?

- No difficulty with conversation
- Slight difficulty with conversation
- Moderate difficulty with conversation
- Extreme difficulty with conversation

**Question 2**

Does the person generally intrude or burst in on others' conversation (e.g., interrupts you when you are talking)?

- Not intrusive at all
- Slightly intrusive
- Moderately intrusive
- Extremely intrusive

**Question 3**

Does this person generally withdraw from social contact?

- Does not withdraw at all
- Withdraws slightly
- Withdraws moderately
- Withdraws totally or near totally

**Question 4**
ETC - Life Skills Profile - Sample Test

Does this person generally show warmth to others?
   - Considerable warmth
   - Moderate warmth
   - Slight warmth
   - No warmth at all

Question 5
Is this person generally angry or prickly towards others?
   - Not angry at all
   - Slightly angry
   - Moderately angry
   - Extremely angry

Question 6
Does this person generally take offence readily?
   - Not angry at all
   - Somewhat ready to take offence
   - Quite ready to take offence
   - Extremely ready to take offence

Question 7
Does this person generally make eye contact with others when in conversation?
   - Appropriate eye contact
   - Slightly reduced eye contact
   - Moderately reduced eye contact
   - Extremely reduced or no eye contact

Question 8
Is it generally difficult to understand this person because of the way he or she speaks (e.g. jumbled, garbled or disordered)?
   - Not at all difficult
   - Slightly difficult
   - Moderately difficult

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ETC - Life Skills Profile - Sample Test

Question 9
Does this person generally talk about odd or strange ideas?
- No odd ideas
- Slightly odd ideas
- Moderately odd ideas
- Extremely odd ideas

Question 10
Is this person generally well groomed (e.g. neatly dressed, hair combed)?
- Well groomed
- Moderately well groomed
- Poorly groomed
- Extremely poorly groomed

Question 11
Is this person's appearance (facial appearance, gestures) generally appropriate to his or her surroundings?
- Unremarkable or appropriate
- Slightly bizarre or inappropriate
- Moderately bizarre or inappropriate
- Extremely bizarre or inappropriate

Question 12
Does this person wash himself or herself without reminding?
- Generally
- Occasionally
- Rarely
- Never

Question 13
Does this person generally have an offensive smell (e.g. due to body, breath or clothes)?
### Question 14

Does this person wear clean clothes generally, or ensure that they are cleaned if dirty?
- Maintains cleanliness of clothes
- Moderate cleanliness of clothes
- Poor cleanliness of clothes
- Very poor cleanliness of clothes

### Question 15

Does this person generally neglect her or his physical health?
- No neglect
- Slight neglect of physical problems
- Moderate neglect of physical problems
- Extreme neglect of physical problems

### Question 16

Does this person generally maintain an adequate diet?
- No problem
- Slight problem
- Moderate problem
- Extreme problem

### Question 17

Does this person generally look after and take her or his own prescribed medication (or attend for prescribed injections on time) without reminding?
- Reliable with medication
- Slightly unreliable
- Moderately unreliable
- Extremely unreliable
Question 18
Is this person willing to take psychiatric medication when prescribed by a doctor?
- Always
- Usually
- Rarely
- Never

Question 19
Does this person co-operate with health services (e.g. doctors and/or other health workers)?
- Always
- Usually
- Rarely
- Never

Question 20
Is this person generally inactive (e.g. spends most of the time sitting or standing around doing nothing)?
- Appropriately active
- Slightly inactive
- Moderately inactive
- Extremely inactive

Question 21
Does this person generally have definite interests (e.g. hobbies, sports, activities) in which he or she is involved regularly?
- Considerable involvement
- Moderate involvement
- Some involvement
- Not involved at all

Question 22
Does this person attend any social organisation (e.g. church, club or interest group but excluding psychiatric therapy groups)?
ETC - Life Skills Profile - Sample Test

Question 23
Can this person generally prepare (if needed) her or his own food / meals?
- Quite capable of preparing meals
- Slight limitations
- Moderate limitations
- Totally incapable of preparing food/meals

Question 24
Does this person generally budget (if needed) to live within his or her means?
- Quite capable of budgeting
- Slight limitations
- Moderate limitations
- Totally incapable of budgeting

Question 25
Does this person generally have problems (e.g. friction, avoidance) living with others in the household?
- No obvious problems
- Slight problems
- Moderate problems
- Extreme problems

Question 26
What sort of work is this person generally capable of (even if unemployed, retired or doing unpaid domestic duties)?
- Capable of full-time work
- Capable of part-time work
- Capable only of sheltered work
- Totally incapable of work
ETC - Life Skills Profile - Sample Test

Question 27
Does this person behave recklessly (e.g. ignoring traffic when crossing the road)?

- Not at all
- Rarely
- Occasionally
- Often

Question 28
Does this person destroy property?

- Not at all
- Rarely
- Occasionally
- Often

Question 29
Does this person behave offensively (includes sexual behaviour)?

- Not at all
- Rarely
- Occasionally
- Often

Question 30
Does this person have habits or behaviours that most people find unsociable (e.g. spitting, leaving lighted cigarette butts around, messing up the toilet, messy eating)?

- Not at all
- Rarely
- Occasionally
- Often

Question 31
Does this person lose personal property
ETC - Life Skills Profile - Sample Test

<table>
<thead>
<tr>
<th>Question 32</th>
<th>Does this person invade others' space (rooms, personal belongings)?</th>
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<tbody>
<tr>
<td>☐ Not at all</td>
<td>☐ Rarely</td>
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<tr>
<td>☐ Occasionally</td>
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<thead>
<tr>
<th>Question 33</th>
<th>Does this person take things which are not his or hers?</th>
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<tbody>
<tr>
<td>☐ Not at all</td>
<td>☐ Rarely</td>
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<tr>
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<thead>
<tr>
<th>Question 34</th>
<th>Is this person violent towards others?</th>
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<td>☐ Rarely</td>
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<th>Is this person violent to him or herself?</th>
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<tr>
<td>☐ Occasionally</td>
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ETC - Life Skills Profile - Sample Test

Question 36
Does this person get into trouble with the police?
- Not at all
- Rarely
- Occasionally
- Often

Question 37
Does this person abuse alcohol or other drugs?
- Not at all
- Rarely
- Occasionally
- Often

Question 38
Does this person behave irresponsibly?
- Not at all
- Rarely
- Occasionally
- Often

Question 39
Does this person generally make and / or keep up friendships?
- Friendships made or kept well
- Friendships made or kept up with slight difficulty
- Friendships made or kept up with moderate difficulty
- No friendships made or none kept up

Complete all questions. Check your answers ...
Click FINISHED button when test is complete.

FINISHED
Reset

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