

Research Project Report
(C85RES)

University of Lincoln
Faculty of Health, Life & Social Sciences
Doctorate in Clinical Psychology

2010

***SATISFACTION WITH LIFE IN PSYCHOSIS:
CLINICAL EXAMINATION OF THE FOUR-DIMENSION MODEL
OF HAPPINESS AND PSYCHOLOGICAL DISTRESS AMONGST
INDIVIDUALS DIAGNOSED WITH PARANOID SCHIZOPHRENIA.***

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Submitted in part fulfilment of the requirements for the
Doctorate in Clinical Psychology

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THESIS' ABSTRACT

The positive psychology movement has grown out of recognition of an imbalance in medically oriented clinical psychology that focuses on studies of disorder and psychological damage. The movement aspires to encourage research in neglected areas of positive human experience. Also, the beginning of the positive clinical psychology faction has been announced. It aims to extend the scope of positive psychology research and practice onto individuals with psychological difficulties. Understanding and facilitating happiness is the core objective of positive psychology.

In the present research, a correlational study examined the suppositions of the four-dimension model of happiness and psychological distress amongst people experiencing psychosis. The study's objective was to check how emotional distress resulting from psychosis affects the individuals' satisfaction with life. Forty-seven individuals with diagnoses of paranoid schizophrenia completed self report measures of psychoticism, paranoid ideation, depression and anxiety (Brief Symptom Inventory), positive affect (Bradburn's Affect Balance Scale), and life satisfaction (Satisfaction With Life Scale). Correlational patterns of the four-dimension model of subjective wellbeing and psychological distress were replicated with people with experiences of psychosis. However, although the levels of depression and anxiety were clearly elevated in comparison with general population norms, the levels of positive affect remained similar to those in general public, and the average life satisfaction appeared only slightly decreased.

Extended statistical analysis was conducted and the series of mediation analyses were carried out to examine whether the levels of depression, anxiety, and positive affect mediated the relationship between psychosis related distress and the individuals' satisfaction with life. The data were consistent with the dominant, indirect-only mediating role of depression. Possible explanations for the findings are proposed, and clinical and ethical implications from the applied positive psychology perspective are suggested. Study limitations are discussed and recommendations for future research are made.

STATEMENT OF CONTRIBUTION

The author of the present thesis has conducted and completed the following research stages and activities: compiling literature review, generating hypotheses, constructing study model and developing project design, applying for ethical approval, applying for research and development authorisations, scoring questionnaires, entering data, conducting statistical analyses, and interpreting and discussing the results.

Recruitment of participants and data collection have been conducted by: Mr Colin Turner, Consultant Clinical Psychologist, Dr Noel McGrath, Clinical Psychologist, Dr Kerry Beckley, Consultant Clinical Psychologist, Mrs Deborah Kingston, Assistant Psychologist, Dr Anna Tickle, Clinical Psychologist, Dr Ian Brown, Principle Clinical Psychologist, Dr Sharron Brown, Clinical Psychologist, Dr Danielle DeBoos, Clinical Psychologist, and Ms Lynn Chapman, Trainee Clinical Psychologist.

Scientific and academic support has been received from Dr Mark Gresswell, Deputy Director of Doctorate in Clinical Psychology, University of Lincoln. Clinical consultations have been attended with Mr Colin Turner, Consultant Clinical Psychologist, Head of Specialist Services for Adults with Psychosis and Complex Mental Health Difficulties, National Health Service, Lincoln. Statistical advice has been obtained from Dr Dave Dawson, Research Tutor, University of Lincoln.

JOURNAL ARTICLE

The Journal of Positive Psychology guidelines for authors have been adhered to in formatting the present article.
(For detailed guidelines, please see Appendixes E-G.)

Word count:
5,971 (excluding references, figures and tables).

Satisfaction with Life in Psychosis: Clinical Examination of the Four-Dimension Model of Happiness and Psychological Distress Amongst Individuals Diagnosed with Paranoid Schizophrenia.

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RESEARCH ARTICLE

Satisfaction with Life in Psychosis: Clinical Examination of the Four-Dimension Model of Happiness and Psychological Distress Amongst Individuals Diagnosed with Paranoid Schizophrenia.

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Abstract: A correlational study examined the suppositions of the four-dimension model of happiness and psychological distress amongst people experiencing psychosis. The study's objective was to check how emotional distress resulting from psychosis affects the individuals' satisfaction with life. Forty-seven individuals with diagnoses of paranoid schizophrenia completed self report measures of psychoticism, paranoid ideation, depression and anxiety (Brief Symptom Inventory), positive affect (Affect Balance Scale), and life satisfaction (Satisfaction With Life Scale). Correlational patterns of the four-dimension model of subjective wellbeing and psychological distress were replicated with people with experiences of psychosis. However, although the levels of depression and anxiety were clearly elevated in comparison with general population norms, the levels of positive affect remained similar to those in general public, and the average life satisfaction appeared only slightly

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decreased. Possible explanations for the findings were proposed and clinical implications from the positive clinical psychology perspective were suggested. Study limitations were discussed.

Keywords: positive clinical psychology; happiness; satisfaction with life; positive affect; psychosis.

Introduction

Happiness is the most central concern for positive psychology (Peterson, 2006). Subjective wellbeing (SWB) has often been used as a general definition and synonym of happiness (Noddings, 2003), which implies that happiness is intrinsically about subjective and individual experience (Nettle, 2005). Therefore, happiness is perceived as a positive subjective state defined by the individual who believes that his/her life and current events are going well (Diener & Biswas-Diener, 2008).

Empirical studies on SWB have consistently suggested that happiness has at least two integral aspects: affect, which represents the emotional experience of joy, and cognition, which represents evaluation of satisfaction with life (Carr, 2004). Nettle (2005) proposed that happiness might be understood on three different mutually interacting levels: level 1 consists of momentary feelings, such as joy and pleasure, level 2 involves judgements about feelings and life (individual life satisfaction), and level 3 consists of general subjective quality of life and flourishing. Joy is the most immediate and direct sense of happiness and is brought on by a desired state being

attained; there is little cognition involved beyond the recognition that the desired event has occurred (Nettle, 2005). Happiness, however, is not identical to short-term sensory pleasure, to which individuals quickly habituate (Peterson & Park, 2009).

Headey and Wearing (1992) argued that majority of people, regardless of their socio-economic status, feel fairly happy with their lives. The authors proposed that every individual in any stable life situation, that is in the absence of major life changes, arrives at an equilibrium state in which present life is viewed as being almost as satisfying as the life a person expects. In equilibrium state, the present life is regarded as considerably better than the worst previous period in one's life and than the life of an average person in one's community. Consequently, high average levels of SWB appear to be located within a set of perceptions, aspirations and expectancies (Headey & Wearing, 1991). "Human beings construct their world to arrive at a psychologically consistent set of perceptions – an equilibrium state – which supports or bolsters a feeling of wellbeing" (p. 8). Furthermore, a dynamic equilibrium theory (Headey, 2006) proposed that following even such positive or negative major life events as winning a large sum in a lottery or becoming seriously ill, people quickly habituate to their new circumstances and return to their equilibrium state of happiness.

Hence, when people say they are happy, it does not mean that they are literally joyful all the time (Nettle, 2005). The process of overall self-appraisal of one's life is involved, and the degree to which an individual judges the

perceived quality of his/her life favourably results in different levels of life satisfaction (Veenhoven, 1991). This process may occur implicitly or explicitly (Andrews & Withey, 1974). Diener and Lucas (2000) explained that life satisfaction is the function of people's evaluation of how they are doing in their lives generally, especially in the domains that are important to them. Each individual evaluates his/her life differently depending on their expectations, values and previous experiences. Thus, research on SWB should be focused on idiosyncratic assessment of individuals' thoughts and feelings about their lives (Diener & Lucas, 2000). Therefore, Diener and Biswas-Diener (2008) advocated that to measure life satisfaction the exact standards for happiness should be left up to the individual. Despite this idiosyncratic approach, self-reports of happiness appear highly reliable and agree significantly with observers ratings, diary methods and behavioural measures (Peterson & Park, 2009).

However, judgements of life satisfaction are not merely a function of what one thinks about one's life, but also of how one feels at the time of judgemental processes (Veenhoven, 1991). Schwarz and Strack (1991) argued that since moods increase the accessibility of mood congruent information in memory, then if positive affect dominates at the time of the judgement, the selective retrieval of positive cognitions will result in an upbeat evaluation of one's life satisfaction. Therefore, satisfaction with life appears partially dependent on an individual's emotional state (Lewinsohn, Redner & Seeley, 1991). Currently, positive psychology research (e.g. Diener & Lucas, 2000; Argyle, 2001) seems to support the assumption that positive

emotions are not merely the polar opposite of negative moods but these two dimensions are at least partially independent and coexist with each other. Neurophysiological evidence indicating that the brain centres registering positive affect and negative affect are separate appears to support this assumption (Kahneman, 1999). It has been repeatedly demonstrated that in frontal zones, a differential lateralisation for positive and negative emotions exist, with relative left-hemispheric activation for positive emotions and relative right-hemispheric activation for negative emotions (Natale, Gur & Gur, 1983; Ahern & Schwartz, 1985; Alves, Fukusima, & Aznar-Casanova, 2008). These structures, however, have been shown to work together to process and generate emotional information and emotional behaviour (Huppert, 2005). Furthermore, Posner, Russell and Peterson (2005) demonstrated that although relative lateralisation for positive and negative emotions has been supported with empirical research, a strictly dimensional neuroanatomical continuum does not exist, as all affective states arise from coexisting and overlapping neurophysiological systems.

Headey and Wearing (1991) provided evidence that some amount of psychological distress can occur alongside moderately high general levels of happiness. Therefore, SWB was assumed to consist of at least three dimensions: positive affect, life satisfaction and negative affect. In their subsequent publication, Headey and Wearing (1992) argued that negative affect should be subdivided further, as the authors demonstrated that depression and anxiety, the two main forms of psychological distress, were at least partly independent and both were major influences on SWB. The

authors reported that the measures of depression and anxiety were only moderately correlated, and that while individuals could be satisfied with their lives and anxious, it was rare to find people who were satisfied and depressed. Both depression and anxiety were shown to be significant indicators of SWB through their inverse effect on a sense of satisfaction, and on frequency of positive emotions.

Thus, Headey and Wearing (1992) proposed a four-dimension model of SWB and psychological distress. The four reciprocally interacting factors were: life satisfaction, positive affect, depression, and anxiety. Based on data collected from their Australian general population study, the authors established observed correlations between the four dimensions, as presented in Figure 1.

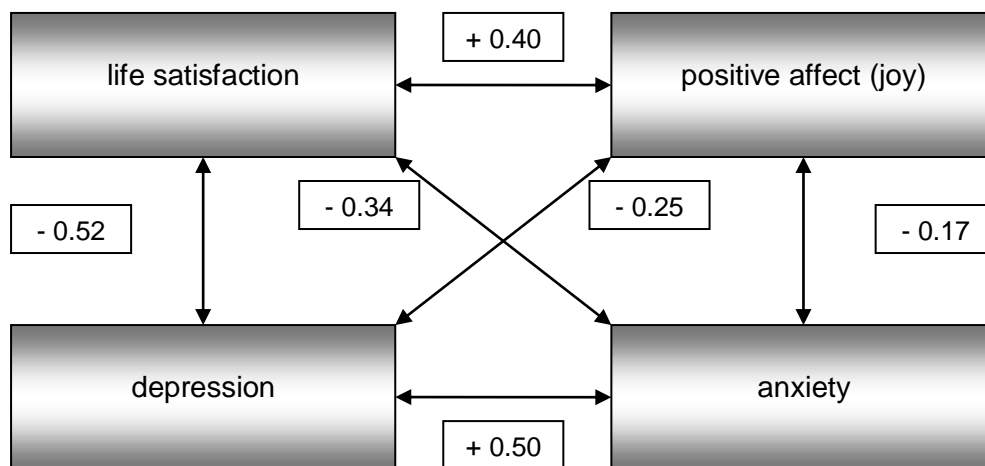


Figure 1. Observed correlations between four dimensions of subjective well-being and psychological distress.

Note: Reproduced with permission from "Understanding Happiness" by B. Headey and A. Wearing, 1992, p. 33.

Given this model, it seemed important that clinicians working with individuals with psychosis know how it applies to their patients, in order to inform finding possible means to maximise their satisfaction with life.

Diagnostic descriptions of psychosis

Psychosis has typically been described using a symptomatological approach. The characteristic symptoms of psychosis have been divided into two major clusters: positive and negative symptoms. Positive symptoms are pathological by their presence (Barrowclough & Tarrier, 1997) and include hallucinations, delusions, thought disorder and cognitive processing abnormalities (Early, Haller, Posner & Raichle, 1997). Negative symptoms refer to deficits in functioning and may include restricted emotional expression, impoverished speech, inattention, lack of motivation, apathy, poor concentration, social withdrawal, lowered activity levels, and avolition (Johns, Sellwood, McGovern & Haddock, 2002). Sass and Parnas (2003) theorised the existence of a third separate category of symptoms of psychosis, which they labelled 'disorganisation' syndrome comprising abnormalities in the organisation of thought, speech and attention.

Diagnostic guidelines of the ICD-10 Classification of Mental and Behavioural Disorders (World Health Organisation [WHO], 1992) necessitate the presence of a minimum of one very clear positive symptom (such as delusions of control or hallucinatory voices) for most of the time during a period of 1 month or more, as the prime requirement for a diagnosis of

schizophrenia. Additionally, paranoid delusions of persecution and/or prominent threatening or commanding hallucinations must be present in order to satisfy diagnostic criteria for paranoid schizophrenia (WHO, 1992). Negative symptoms do not dominate in the clinical picture. (Please see sections on Psychosis Paradigms, page 50, and Diagnostic Descriptions of Psychosis – Critical Remarks, page 56, for further information.)

Emotional distress in psychosis

Psychological distress has been acknowledged in most aetiological models of psychosis (Corcoran et al., 2003) and severe symptoms of depression and anxiety were found prevalent amongst people with chronic psychotic illness (Scheller-Gilkey, Thomas, Woolwine & Miller, 2002). The prevalence of psychiatric comorbidity was found as high as 57.3%, of which approximately 62% of people were found to have some form of anxiety disorder (Good, 2002). Siris (1991) reviewed 29 studies describing the incidence and prevalence of secondary depression in psychosis, and concluded that its occurrence amongst patients diagnosed with schizophrenia ranged to as many as 70% of studied cases. In addition, his review highlighted that the personal wellbeing of depressed psychotic patients was lower, they tended to experience more auditory hallucinations and suicidal ideations, they had lower self-esteem, and were more self-critical and hopeless.

Evidence suggests that higher levels of psychological distress correlate with experiencing positive symptoms of psychosis, especially auditory

hallucinations, as dominating, insulting and commanding (Vaughan & Fowler, 2004). Norman and Malla (1991) reported that high levels of depression and anxiety were associated with hallucinations and delusions but not with negative symptoms. Also, studies reviewed by Bentall (2003) suggested that positive symptoms of psychosis, such as paranoid ideations, were accompanied by emotional distress, such as dysphoria and anxiety.

Cognitive models of psychosis suggest that depression and anxiety do not arise directly from positive symptoms of psychosis but rather from an individual's interpretation of those symptoms and personal meanings attached to those experiences (Fowler, Garety & Kuipers, 1995). Perhaps, the clearest cognitive framework for experiences such as delusions or hallucinations, has been based on Ellis' A-B-C model, where A stands for 'activating event', B stands for 'belief' about activating event, and C stands for 'consequences' of holding a particular belief, including emotional, behavioural and physiological reactions (Dudley & Kuyken, 2006). Within the A-B-C framework, hallucinations are the activating events (As), which are interpreted and appraised by an individual (Bs). These interpretations might be delusional or paranoid in their content, and subsequently trigger associated emotional reactions (Cs), such as anxiety or depression (Chadwick et al., 1996). Hence, following the cognitive framework, the appraisal of unusual experiences appears to play the critical role in determining whether or not an individual arrives at a delusional interpretation of a hallucinatory experience (Steel, 2008).

Freeman, Garety, Kuipers, Fowler & Bebbington (2002) proposed that the reactions of emotional distress in psychosis could be additionally divided into: (1) delusional distress, a primary distress arising directly from the content of a psychotic experience, and (2) depression and anxiety, a secondary distress arising from further appraisal of the experience in the light of individual beliefs. The cognitive content of emotions is hypothesised to be expressed in a symptom of psychosis, such as delusional beliefs, which in turn directly contributes to the exacerbation of distress. Subsequently, anxiety will arise from the threat belief, while depression will be associated with beliefs about the power of the persecutors, personal failure and deserved punishment (Freeman et al., 2002).

Overall, the picture of emotional experiences in psychosis appears to be negative and pessimistic. This may suggest that the levels of positive affect and life satisfaction amongst individuals diagnosed with paranoid schizophrenia might be considerably lower in comparison to the general population. (Please see section on Emotional Distress in Psychosis, page 51, for further information.)

Positive approaches to psychosis

Psychological deficits and disability have traditionally been the focus of clinical psychology, which has rarely prioritised clients' resilience and resourcefulness, whereas the movement of positive psychology has aimed to generate an empirical knowledge base focusing on human strengths which

would complement the deficit-based traditional stance (Carr, 2005). The neglect of well-being within the field of clinical psychology might be explained by its long-established focus on people with severe psychological difficulties which in practice often means tackling problems and reducing distress rather than promoting subjective satisfaction (Conway & MacLeod, 2002). Even though examples of studies describing successfully implemented interventions and their positive impact on wellbeing of people with psychosis have been available in clinical literature (Bryson, Lysaker & Bell, 2002), Braehler and Harper (2008) still reported that quality of life of patients diagnosed with schizophrenia remained low.

Although, Romme (1993) argued that intervention and rehabilitation for people with psychosis should focus on enhancing all fundamental qualities of their lives, the empirical studies on the subject of SWB in psychosis appear underrepresented in comparison with psychopathologically oriented clinical research. Therefore, a need for a more positive approach to psychotic experiences was identified by Chadwick (1997), who argued that people diagnosed with schizophrenia have strengths as well as deficits, and that psychology has to focus on these capacities to increase dignity and life quality of people with psychosis. James (2001) suggested that overcoming a sense of powerlessness might be one of the factors contributing to the increase in SWB of people with psychosis. More recent and positive approaches to the education of mental health practitioners advocated for delivering a thorough training in combating discrimination towards people suffering from severe psychological difficulties, focusing on their human

qualities and encouraging their hope (Houghton, Shaw, Hayward & West, 2006).

From the perspective of positive clinical psychology, as proposed by Joseph and Linley (2006), the role of mental health practitioners is not only to alleviate distress and treat symptoms, but also to facilitate wellbeing, promote health and build strengths. (Please see section on the Positive Psychology and Positive Clinical Psychology Movements, page 44, for further information.) Thus, we argue that as a part of the change advocated by the positive clinical psychology movement, we need to establish whether individuals with psychosis experience happiness in the way that people from general population do. Hence, our study aimed to examine the applicability of the four-dimension model of SWB and psychological distress with people experiencing psychosis.

The present study

A correlational study was conducted to examine the suppositions of the four-dimension model amongst individuals diagnosed with paranoid schizophrenia. (Please see sections on Extended Rationale for the Study, page 59, and Choice of Research Design and Study Model, page 61, for further information.) Our research question was how emotional distress resulting from psychosis affects the individuals' satisfaction with life. In Stage 1 of our analysis, we hypothesised that the correlational patterns proposed by the four-dimension model of happiness and psychological distress would

be replicated with people experiencing psychosis (*Hypothesis 1*). If the model was replicated, in Stage 2, we hypothesised that primary distress resulting directly from the experiences of psychosis would be positively correlated with the anxiety and depression dimensions of the model (*Hypothesis 2*), and inversely correlated with the dimensions of positive affect and life satisfaction (*Hypothesis 3*). Finally, we predicted that the presence of psychosis would be accompanied by heightened levels of depression and anxiety in comparison to the general population norms (*Hypothesis 4*), decreased levels of positive affect (*Hypothesis 5*), and consequently, reduced life satisfaction (*Hypothesis 6*).

Method

Participants

In our study, 47 participants were recruited from mental health specialist in-patient wards and out-patient clinics around National Health Services Trusts in the Midlands UK. Participants were aged from 18 years to above 60, had capacity to give informed consent, and were diagnosed with paranoid schizophrenia.

Of the 42 participants who provided demographic information, 31 were men and 11 were women. 39 were of White British, 2 of White Irish and 1 of Black British Caribbean origin. 29 participants were out-patients and 13 in-patients. Most participants were single, 4 were married and 4 divorced. 32

participants were unemployed, 3 part-time and 1 full-time employed, 3 were students, and 2 were homemakers and carers. (Please see sections on Participants' Demographic Data, page 70, and Sampling Method and Sample Size, page 62, for further information.)

Ethical approval

Ethical approval was granted from the regional Research Ethics Committee (REC) Nottingham 1 regulated by a statutory research governance framework (see Appendix H). Research & development approval was obtained from the local Trusts in Midlands UK (see Appendixes I and J).

Measures

The intensity of psychosis, depression and anxiety symptoms were operationalized through the self-reported levels of distress they caused to an individual, and were measured by the Brief Symptom Inventory (Derogatis, 1993). Positive affect, defined as joy or enjoyment, was measured the Affect Balance Scale (Bradburn, 1969). Satisfaction with life was defined as a cognitive appraisal of an individual's quality of life and was measured by the Satisfaction With Life Scale (Diener, Emmons, Larsen & Griffin, 1985). (Please see sections on Choice of Measures, page 64, and Measurement of Happiness, page 65, for further information.)

Brief Symptom Inventory (BSI)

The BSI is a 53-item self-report inventory, which has been designed to reflect the psychological complaint patterns amongst mental health in-patients and community out-patients. Each BSI item is rated on a five-point scale (0-4) reflecting a person's distress from "not at all" to "extremely". The BSI is a measure of current psychological symptom status and is scored on nine primary symptom dimensions, which are: somatisation, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism (Derogatis, 1993).

The BSI appears to have satisfactory psychometric properties. Normative samples for BSI included 1002 adult psychiatric outpatients, 974 adult non-patients, 423 adult psychiatric inpatients, and 2408 adolescent non-patients. Internal consistency was established using Cronbach alpha coefficients for all nine dimensions, which ranged from 0.71 to 0.85, while test-retest reliability coefficients were estimated between 0.68 and 0.91 (Derogatis, 1993). Internal structure and construct validity was found to be sufficient: orthogonal varimax loadings determined from principal components analysis ranged from 0.35 to 0.71. Convergent and discriminant validity was examined through comparison with the Minnesota Multiphasic Personality Inventory; correlation coefficients scoped from 0.31 to 0.72 (Derogatis, 1993). The BSI has been standardised and normalised for British population (Francis, Rajan & Turner, 1990; Ryan, 2007).

The BSI subscales scored for the purpose of this study were depression, anxiety, psychoticism, and paranoid Ideation. The primary distress resulting directly from the experiences of psychosis was measured with the subscales of psychoticism and paranoid ideation. Derogatis and Melisaratos (1983) described the subscale of psychoticism as representing a continuum progressing from a mild interpersonal alienation to a floridly psychotic state, and consisting of the first-rank symptoms of schizophrenia, including experiences of thought control. The paranoid ideation subscale represented paranoid mode of thinking consisting of thoughts of projection, hostility, suspiciousness, centrality, and fear of loss of autonomy (Derogatis & Melisaratos, 1983). The content of the both subscales combined appeared consistent with the diagnostic criteria for the diagnosis of paranoid schizophrenia (WHO, 1992), as described earlier in the article. Therefore combined scores from both subscales were used to measure individual distress arising directly from the symptoms of psychosis, i.e. delusional distress. The BSI subscales of depression and anxiety were scored to measure emotional distress arising from further appraisal of experiences of psychosis, which also formed the psychological distress elements of the four-dimension model.

Affect Balance Scale (ABS)

The ABS is a 10-item rating scale containing Positive Affect Scale (PAS, five statements reflecting positive feelings) and Negative Affect Scale (NAS, five statements reflecting negative feelings). The statements are presented in a

'yes' or 'no' format. PAS questions receive a rating of 1 for 'yes' and 0 for 'no', whereas NAS ratings are reversed. The affect balance score is computed by subtracting negative affect scores from positive affect scores and adding a constant of 5 to avoid negative scores. The whole set of ten questions can be administered in less than 5 minutes (Bradburn, 1969). For the purpose of this research only the PAS scores were used.

The ABS has shown to have good internal reliability: alpha coefficient was reported to be 0.72 by Devins, Beiser, Dion, Pelletier and Edwards (1997), and 0.74 by Godoy-Izquierdo, Martinez and Godoy (2008). Test-retest reliability of the ABS was established as 0.76 (Ryff, 1989). Factorial invariance resulted with the following outcomes: adjusted goodness-of-fit value was 0.98, and its Bentler and Bonett Index estimated as 0.91 (Devins et al., 1997). The ABS was also reported to show a convergent validity with other measures of related constructs, such as Depression-Happiness Scale (Lewis, McCollam, & Joseph, 2000). The following psychometric properties were described for the PAS: test-retest reliability was established as 0.83 (Ryff, 1989), Cronbach alpha coefficient was found to be 0.82 (Godoy-Izquierdo et al., 2008), and convergent validity with other single-item indicators of happiness ranged from 0.34 to 0.38 (Lewis et al., 2000).

Satisfaction With Life Scale (SWLS)

The SWLS contains five items rated on 7-point scale, from "strongly disagree" to "strongly agree", reflecting a client's appraisal of his/her

subjective well-being. Total scores fall into one of the levels of satisfaction, from “extremely dissatisfied” to “extremely satisfied” (Peterson, 2006). For the purpose of this study, the total scores were used.

Normative data has been established on a diverse (and cross-cultural) population, including psychiatric inpatients, psychotherapy clients, prisoners, persons suffering from physical disabilities, older adults, and students. The SWLS demonstrated strong internal reliability and temporal stability: coefficient alpha for the scale was 0.87, and a 2-month stability coefficient was established as 0.82 (Diener et al., 1985). Over longer time periods, the test-retest reliability decreased to a level of 0.54, which demonstrated that although the SWLS had a temporal stability property (up to four years), yet has proven to hold sufficient sensitivity to detect change in life satisfaction during, for example, a course of intervention (Pavot & Diener, 1993). The SWLS was also reported to have high validity. For example, the loading of Compton’s happiness factor has been established as high as 0.83 (Argyle, 2001). As presented by Pavot and Diener (1993), correlation of SWLS with other self report and non-self report measures of subjective well-being and satisfaction was found to range from 0.28 (informant reports) to 0.68 (e.g. Andrews/Withey Scale). Furthermore, item-total correlations were reported to range between 0.57 and 0.75 (Argyle, 2001).

Procedure

The recruitment and assessment to the current study was conducted entirely by the clinical psychologists from among clients with whom they already had an established therapeutic relationship and working alliance. Clinical psychologists determined whether a particular client within their caseloads met the inclusion criteria for the research. Those who agreed to take part were then asked to sign a consent form and complete the questionnaires. The measures were administered with the participants by their psychologists in a fixed order: BSI, PAS and SWLS. Completion of the full assessment set took approximately 15-20 minutes. (Please see sections on Study Procedure, page 66, and Ethical Considerations, page 67, for further information.)

Results

Stage 1

The levels of depression and anxiety were demonstrated to correlate positively ($r = 0.667$, $\text{sig} < 0.001$) with each other. Satisfaction with life was shown to be positively correlated with positive affect ($r = 0.418$, $\text{sig} = 0.003$) and inversely correlated with depression ($r = -0.473$, $\text{sig} < 0.001$) and anxiety ($r = -0.394$, $\text{sig} = 0.003$). Positive affect was also demonstrated to inversely correlate with depression ($r = -0.274$, $\text{sig} = 0.031$) and with anxiety ($r = -0.169$, $\text{sig} = 0.129$). The latter correlation was low and statistically non-significant. This finding seemed understandable in the light of previous research which demonstrated that it was not uncommon for an individual to be both anxious and joyful (Headey & Wearing, 1992). Furthermore, these

findings remain in agreement with a cognitive model of depression and more contemporary theories of happiness. In depression, negative and self-defeating cognitions are unconditional and overgeneralised affecting an individual's perception of one's whole life (Sanders & Wills, 2005). This does not seem to leave much space for positive and joyful experiences. Whereas, as argued by Csikszentmihalyi (1988, 1997, 2002) in the theory of optimal experiences, heightened levels of anxiety often precipitate and accompany the experiences of enjoyment. Hence, low and statistically non-significant reversed correlation between anxiety and positive affect.

Figure 2 depicts the results of Pearson's 1-tailed r correlation coefficients, as applied to the study model.

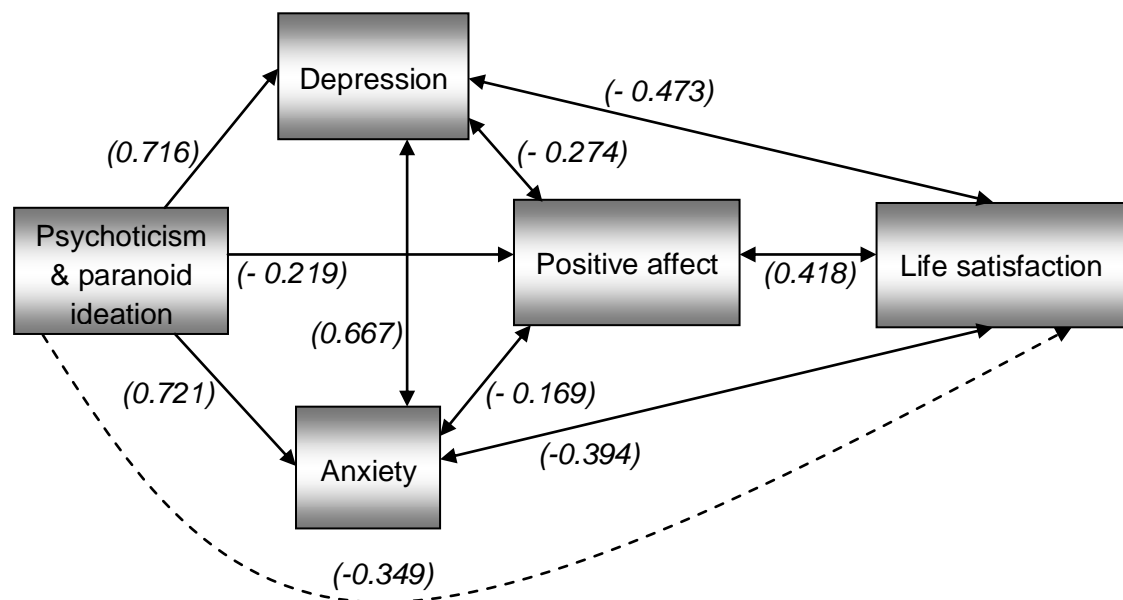


Figure 2. Pearson 1-tailed r correlation coefficients between the study model dimensions.

The findings supported our initial prediction (*Hypothesis 1*). The correlational patterns of the four-dimension model of happiness and psychological distress established for general population were replicated with people experiencing psychosis. Correlation significance levels are shown in Table 1.

Table 1

Pearson 1-tailed r correlation coefficients' significance levels within the study model.

Study model dimensions	P&PI*	Depression	Anxiety	Positive affect	Life satisfaction
P&PI*	---	< 0.001	< 0.001	0.069	0.008
Depression	< 0.001	---	< 0.001	0.031	< 0.001
Anxiety	< 0.001	< 0.001	---	0.129	0.003
Positive affect	0.069	0.031	0.129	---	0.003
Life satisfaction	0.008	< 0.001	0.003	0.003	---

Note: (*) Psychoticism & paranoid ideation.

Stage 2

The levels of psychoticism and paranoid ideation were shown to be strongly positively correlated with the dimensions of depression ($r = 0.716$, $\text{sig} < 0.001$) and anxiety ($r = 0.721$, $\text{sig} < 0.001$) within the four-dimension model (*Hypothesis 2*). The intensity of psychoticism and paranoid ideation was demonstrated to be reversely correlated with the dimension of life satisfaction (-0.349 , $\text{sig} = 0.008$), and was found to show a reversed correlation with positive affect (*Hypothesis 3*), though statistically non-significant ($r = -0.219$, $\text{sig} = 0.069$).

Table 2 presents descriptive sample statistics and general population norms for the study model dimensions. As predicted (*Hypothesis 4*), the sample average levels of depression and anxiety were both increased by at least 1 SD in comparison with the community norms. Given the correlational patterns reported in stage 1, the finding appears consistent with the study model, since the sample levels of psychoticism were increased by approximately 2 SD and the levels of paranoid ideation were heightened by approximately 1.5 SD from the norms. Our sample mean for the positive affect dimension was similar to British general population mean. Hence, contrary to our prediction (*Hypothesis 5*), the participants exhibited the average levels of positive affect. However, the sample mean score on SWLS was placed within 'slightly dissatisfied' range of scores. In comparison, normative data described by Diener et al. (1985) reported that the non-clinical population mean falls within 'slightly satisfied' score range. Consequently, our sample's satisfaction with life was reduced by approximately 1 SD in comparison with general population trend. This result supported our prediction (*Hypothesis 6*).

(Please see sections on Descriptive Statistics, page 71, Normality of Distribution Tests, page 72, and Extended Statistical Investigation – Mediation Analyses, page 76, for further information.)

Table 2

Descriptive sample statistics and normative data for the study model dimensions.

Study model dimensions		Mean	Standard deviation
Psychoticism	sample statistics	1.57	0.93
	BSI norms*	0.27	0.48
Paranoid ideation	sample statistics	1.48	1.04
	BSI norms*	0.54	0.65
Depression	sample statistics	1.58	1.04
	BSI norms*	0.42	0.65
Anxiety	sample statistics	1.48	0.99
	BSI norms*	0.45	0.60
Positive affect	sample statistics	2.96	1.73
	ABS norms**	2.84	Not reported
Life satisfaction	sample statistics	16.40	7.11
	SWLS norms***	23.50	6.43

Note: (*) British non-patient norms reported by Francis et al. (1990).

(**) British non-clinical norms reported by Basabe et al. (2000).

(***) Non-clinical norms reported by Diener et al. (1985).

Discussion and study limitations

Campbell (2007) reported a number of studies describing how people with experiences of psychosis felt trapped within a negative professional framework, which in their opinion encouraged the dismissal of significant aspects of their experience, and appeared stigmatising and discriminatory. In our investigation, we attempted to pursue a positive approach to studying happiness in psychosis, and to extend the focus of positive psychology research onto individuals with severe mental health difficulties.

We tested the suppositions of the four-dimension model of SWB and psychological distress amongst people diagnosed with paranoid schizophrenia. The results supported most of the stated hypotheses and indicated that the four-factor model could be successfully utilised to gain some understanding of underlying emotional processes affecting life satisfaction of individuals with experiences of psychosis. Since the correlations between the dimensions of life satisfaction, positive affect, depression and anxiety were similar to those reported by Headey and Wearing (1992) for the original model, it might be concluded that the four-factor model of SWB and psychological distress applies not only to individuals from non-clinical population, but also to people with severe mental health difficulties, such as psychosis. This finding seems very important, since it indicates that the experiences of SWB amongst people diagnosed with paranoid schizophrenia, the most severe form of psychosis, appear to be governed by mechanisms similar to those of general population. Moreover, a range of the sample scores on the dimensions of positive affect and life satisfaction indicated that individuals experiencing psychosis may even feel very joyful and extremely satisfied with their lives.

However, in comparison with generally slightly satisfied non-clinical population trends, participants of our study appeared on average slightly dissatisfied with their lives. Given the study model, we argue that it is the emotional distress accompanying experiences of psychosis that accounts for this dissatisfaction, rather than the objective presence or absence of symptoms specific for paranoid schizophrenia. As depicted in Figure 2,

elevated levels of psychoticism and paranoid ideation clearly correlated with depression and anxiety dimensions within the model, and resulted in heightened levels of both dimensions in comparison to the general population norms. Consequently, increased levels of depression and anxiety were accompanied by reduced satisfaction with life amongst individuals experiencing psychosis.

Given the above findings, it seems logical that in order to enhance satisfaction with life of a person with psychosis, psychological interventions should focus primarily on reducing symptoms of depression and anxiety. And traditional clinical psychology that emphasises the alleviation of emotional distress may offer exactly these interventions: psychological therapies for depression and anxiety. Yet, positive psychology offers an alternative that complements the traditional deficit-based approach.

Interestingly, our sample levels of positive affect were similar to those reported in general population. We propose that because of those levels of positive affect (despite clearly elevated experiences of depression and anxiety), the average satisfaction with life reported in the sample was only slightly lowered in comparison with population trends. The explanation for this surprising finding might be found within the four-factor model itself which originally suggested that positive and negative affect are separate and only moderately correlated entities (Headey & Wearing, 1992). Furthermore, as proposed by the dynamic equilibrium theory (Headey & Wearing, 1991), every individual in any stable life situation, that is in the absence of major life

changes, arrives at an equilibrium state (psychologically consistent set of perceptions that bolster individual SWB), in which present life is viewed as being almost as satisfying as a person expects and considerably better than the worst previous period in one's life. Following even such a negative major life event as on onset of a serious illness, most people habituate to their new circumstances and return to their equilibrium state of happiness (Headey, 2006). It therefore appears that individuals diagnosed with paranoid schizophrenia are able to adapt to such disconcerting and unsettling experiences as onset of psychosis or admission to acute or secure wards, and return to their equilibrium states.

Furthermore, in their positive mood set-point theory, Diener and Diener (1996) proposed that there is a positive, rather than neutral, baseline for affect in human beings, which has significant adaptive, evolutionary, motivational, social, learning and intrinsic functions. For instance, positive moods give negative events maximum informational value and therefore they can be easily noticed and quickly attended to. Also, it is pertinent for motivational reasons that people are not in a negative mood most of the time. Positive moods energise approach tendencies and these must prevail in human behaviour in order to obtain food, shelter, social contact, sex and so forth. Although the exact set-point varies amongst individuals depending on a person's socialisation and temperament, for most people it remains in the positive range (Diener & Diener, 1996).

Subsequently, a positive clinical psychology practice may offer strengths-based interventions that focus on amplifying an individual's experiences of joy and on increasing a person's satisfaction with life. Joseph and Linley (2006) argued that positive clinical psychologists identify human strengths and promote mental health as assets which buffer against mental illness through educational, relational and social interventions. The four-factor model seems to depict clearly how the enhanced levels of joy and life satisfaction may operate as buffers against psychological distress. However, the model does not appear to suggest what exactly might be done in order to increase an individual's SWB from the positive psychology perspective. Neither does the dynamic equilibrium theory. Indeed, the model seems to imply that the levels of both depression and anxiety ought to be reduced to increase a person's happiness, which appears to be consistent with traditional medically oriented stance. The dynamic equilibrium theory, on the other hand, suggests that if left on his/her own an individual would sooner or later return to the equilibrium levels of SWB. These inconsistencies with the positive clinical psychology position seem to be the major limitation of the study.

Some guidance for psychological interventions from the perspective of positive clinical psychology can be found in an alternative theory of happiness, such as the theory of optimal experience developed and described in detail by Csikszentmihalyi (1988, 1997, 2002). The theory proposes that the states of happiness may be achieved through engagement with everyday life and through involvement in absorbing tasks, such as work

or leisure activities, in which a person exercises individual strengths, talents and interests. The engagement, involvement and absorption in activities that an individual does for their own sake leads to unique harmony and order in consciousness. This 'optimal experience' or 'flow' helps an individual to develop and cultivate an optimistic perception of oneself and the future. These theoretical propositions informed the practical recommendations that Carr (2005) gave to mental health professionals aspiring to pursue positive psychology approach in their practice. For instance, the author suggested that "clinicians may help clients identify their talents and explore ways to use these frequently to generate flow experiences" (p. 5). Given the crucial role that enjoyment, activities, hobbies and work play in the recovery and quality of life of people with enduring mental health difficulties (Pathfinder Hearing Voices Group, 1999; Bryson et al., 2002), the practical recommendations deriving from the theory of optimal experience appear consistent with the needs of individuals experiencing psychosis.

Another limitation of the study model was that it did not offer any explanation of why individuals with psychosis often react with heightened levels of psychological distress. For conceptual purposes, we have taken a cognitive perspective on this matter (Fowler et al., 1995). Cognitive models of psychosis propose that it is not a delusional or hallucinatory symptom in itself that accounts for emotional distress of the individual experiencing psychosis. It is rather the individual's appraisal or interpretation of that experience that triggers a particular emotional reaction (Chadwick, Birchwood & Trower, 1996). For instance, when an individual experiences a threatening auditory

hallucination, s/he might think s/he is being persecuted and, as the result of this thought, starts feeling anxious. Consequently, given the four-factor model of SWB and psychological distress, the person's levels of joy and life satisfaction are assumed to be negatively affected. (Please see section on Cognitive Model of Psychosis, page 53, for further information.)

Finally, we did not consider any external objective indicators that might influence a person's quality of life. We are aware of the debate on the subject of importance of objective indicators that continues to take place in the positive psychology literature. We however support the opinion that the main weakness of objective factors, as explained by Argyle (2001), is that we do not know which to choose, as different people have different hierarchies of values. There is also a problem of finding equivalent measures in different countries. Veenhoven (1991) argued that happiness relates more strongly to psychological variables than to socio-economic indicators, whilst Argyle and Martin (1991) pinpointed that the effect of objective indicators on subjective satisfaction has often been found statistically non-significant. Schwarz and Strack (1991) reported that most objective life circumstances account for less than 5% of the variance in measures of SWB and the combination of a dozen objective domains of life accounts for less than 10%. The assumption of general external laws affecting one's happiness has turned out unfruitful, as the evidence suggests that levels of SWB draw on inner sources rather than on outer ones (Veenhoven, 1991; Diener & Lucas, 2000; Schimmack & Lucas, 2007). People from all socioeconomic and ethnic groups report their satisfaction well above neutral (Diener & Lucas, 2000), and as Peterson and

Park (2009) noticed, “most people rate themselves as somewhat above the midpoint of a happiness scale, whether they are multimillionaires in the United States... or homeless prostitutes in Calcutta...” (p. 304). Hence, the four-dimension model’s focus on internal emotional processes might be seen as both its limitation and its strength. (Please see section on Objective Indicators and Happiness, page 48, for further information.)

(Please see sections on Extended Discussion, page 93, and Discussion of Mediation Analyses’ Results, page 83, for further information.)

Acknowledgment

We wish to acknowledge an effort that Noel McGrath, Kerry Beckley, Deborah Kingston, Anna Tickle, Sharron Smith, Ian Brown, Lynn Chapman and Danielle DeBoos dedicated to the recruitment of participants for our study.

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EXTENDED PAPER

Extended paper word count: 18,370 (excluding references, figures and tables).

Thesis total word count: 24,341 (excluding references, figures and tables).

Extended Background

The Positive Psychology and Positive Clinical Psychology Movements

The positive psychology movement was conceptualised in the late 1990s, as being a science of positive subjective experience, positive individual traits and positive institutions (Robbins, 2008). It grew largely out of recognition of an imbalance in clinical psychology (which focused on studies of disorder and psychological damage) and aspired to encourage research in neglected areas of positive human experience (Gable & Haidt, 2005).

Seligman and Csikszentmihalyi (2000), the pioneers of the positive psychology movement, argued that the exclusive focus on pathology has dominated psychological discipline and resulted in a negativistic model of human beings that lacks the positive features that make life worth living, and a distorted view of normal and exceptional human experience. Since World War II, psychological science has focused on healing and repairing mental damage within a disease model of human functioning. The authors proposed that this attention to the subject of pathology has led to a neglect of studying human strengths and virtues, fulfilled individuals and thriving communities.

Linley, Joseph, Harrington and Wood (2006) argued that psychology has largely neglected the latter two of its pre-World War II tasks: curing mental illness, helping all people to lead more productive and fulfilling lives, and nurturing high talent. Especially, clinical psychology has become a healing discipline based upon a disease model and illness ideology. As Sheldon and King (2001) explained, clinical psychologists have traditionally focused the majority of their attention on treatment of pathologies, and therefore limited attention has been paid to the nature of psychological wellbeing. Therefore, positive psychology attempts to redress what is perceived as an imbalance in the focus of research attention and practice goals in psychology (Linley et al, 2006).

Positive psychology does not deny the distressing, unpleasant or negative aspects of life, and fully acknowledges the existence of human suffering, dysfunctional family systems, and ineffective institutions. As argued by Gable and Haidt (2005), the aim of positive psychology is to study the other (largely neglected) side of the coin in order to recognise and address the full spectrum of human experience. The aim is not to erase or replace work on pathology, dysfunction and distress. Rather the aim is to build up empirically sound knowledge about human strengths, and to integrate and complement the existing evidence base. Positive psychology attempts to shift the implicit value basis of psychological inquiry from exclusively deficit-focus to also an asset-focus, and therefore to synthesise positive and negative aspects of human experience, so that the psychology discipline as a whole becomes unified and integrated (Linley et al., 2006). The aim of positive psychology, as explained by Joseph and Linley (2006), is to promote a holistic approach to human experience, concerned equally with both positive and negative aspects.

The academic and applied focus of the positive psychology movement may be considered on three mutually complementing levels (Seligman & Csikszentmihalyi, 2000). Firstly, the subjective level, which is about valued subjective experiences, such as contentment, life satisfaction, hope, optimism, and flow and happiness. Secondly, the individual or personal level, which is concerned with positive individual traits, interpersonal skills, capacity for love and vocation, courage, perseverance, forgiveness, future-mindedness, spirituality, talent and wisdom. And thirdly, the group or social level, which is about the civic virtues and institutions that create possibilities for better citizenship, such as responsibility, tolerance, nurturance, altruism, civility, moderation, and work ethic. Given these levels, Gable and Haidt (2005) proposed to define positive psychology as the study of the conditions and processes that contribute to the flourishing and optimal functioning of individuals, groups and institutions.

However, Linley et al. (2006) offered a different classification of the levels of analysis in positive psychology: wellsprings (e.g. genetic foundations of wellbeing and early environmental experiences that support the development of

strengths and virtues), processes (that is psychological ingredients that lead to the good life), mechanisms (defined as extra-psychological factors that facilitate the pursuit of a good life, such as interpersonal, organisational, social and political systems, in which human lives are embedded), and outcomes (i.e. subjective, social and cultural states that characterise a good life, such as happiness, fulfilment, health, positive communities and institutions, and political, economic and environmental policies that promote harmony and sustainability). Given their categorisation of positive psychology analysis levels, Linley et al. (2006) proposed the following definition:

Positive psychology is the scientific study of optimal human functioning. At the meta-psychological level, it aims to redress the imbalance in psychological research and practice by calling attention to the positive aspects of human functioning and experience, and integrating them with our understanding of the negative aspects of human functioning and experience. At the pragmatic level, it is about understanding the wellsprings, processes and mechanisms that lead to desirable outcomes. (p. 8)

As argued by Seligman and Csikszentmihalyi (2000), the social and behavioural sciences can create an empirically sound vision of good life and show what actions lead to wellbeing, healthy individuals and thriving communities, and how people's lives can be most worth living. Positive psychology is therefore interested in 'an average person' and attempts to find out what works, what is right, what is improving, and ultimately, what is the nature of effectively functioning human being (Sheldon & King, 2001). Positive psychology, as Joseph and Linley (2006) proposed, is therefore implicitly political because it aspires to provide empirically derived suggestions for how to create a healthier, happier, and more fulfilled world for people. Positive psychologists postulate that the study of human strengths and virtues should be a central topic to a psychology of human condition, rather than one that is left out of psychological focus (Linley et al, 2006), and that affirmation of humanistic principles with emphasis on happiness and optimal experience is made explicit (Robbins, 2008).

Understanding and facilitating happiness is the most central objective for positive psychology researchers and practitioners (Carr, 2004). Happiness can be generally defined as subjective wellbeing (SWB) (Noddings, 2003). Happiness is therefore a positive subjective and individual experience of the person who believes that his/her life and current events are going well (Nettle, 2005; Diener & Biswas-Diener, 2008). Robbins (2008) pinpointed however that positive psychology has shifted from a hedonic vision of positive experiences towards an alternative vision grounded in the Aristotelian concept of eudemonia. While hedonic happiness is perceived through the ratio of pleasures to pains in a person's life, the eudemonic wellbeing reflects an individual who is flourishing in terms of her/his character strengths and personal virtues, including autonomy, mastery of the environment, personal growth, positive interpersonal relationships, self-acceptance, and purpose in life.

Linley and Joseph (2004) argued that a growing number of professional psychologists who work within settings that are primarily clinical consider themselves to be practitioners of positive psychology. The authors defined applied positive psychology, as "the application of positive psychology research to the facilitation of optimal functioning" (p. 4), and explained that applied positive psychologists promote optimal experiences across the full range of human functioning, from disorder and distress to health and fulfilment. Positive psychology concepts have also received increasing attention in clinical psychology. Ruini and Fava (2004) argued that in clinical settings it is particularly important to work on an individual and personal development of a client, with emphasis on changes in wellbeing occurring during psychotherapy. Maddux, Snyder and Lopez (2004) went even further and announced the beginning of the positive clinical psychology movement, which rejects the medical illness ideology as the most accurate approach for conceiving of the psychologically problematic aspects of human life. The authors argued that positive clinical psychologists refute the illness model's premise that normal problems in human lives are symptoms of psychopathologies. "This refutation is based on the assumption that the illness perspective is not a scientific theory or set of facts but rather a socially constructed ideology" (p. 325). Instead, Maddux

et al. (2004) proposed that positive clinical psychologists should adopt an alternative, dimensional model, which assumes that normality and abnormality, wellness and illness, and effective and ineffective psychological functioning lie along a continuum, and so-called psychological disorders are simply extreme variants of normal psychological phenomena and ordinary problems in life. Therefore, as argued by Joseph and Linley (2006), the main role of positive clinical psychologists is to identify individual strengths of their clients and promote their mental health as assets which buffer against emotional and psychological difficulties.

Objective Indicators and Happiness

As argued by Carr (2004), worldwide studies of SWB have demonstrated that the majority of people are moderately happy, and the positive reports of happiness characterise both genders, all age groups, and all races studied. There has been a debate in the field of positive psychology about the importance of objective quality of life indicators and their influence on individual happiness. As initially argued within the discussion paragraph of the main journal paper, there has been however a growing consensus that SWB draws mainly on internal individual sources and that many commonsensical presumptions about the importance of external factors have not been supported with any statistically significant findings (Veenhoven, 1991; Diener & Lucas, 2000; Schimmack & Lucas, 2007). Also, as stated by Argyle (2001), a number of studies suggesting that happiness is not something that can be achieved through 'hard work' or 'good luck' has been increasing. The initial justification for not considering objective indicators of quality of life within the study model has been provided the journal paper discussion paragraphs. Further data to support the argument will now be discussed.

Income. As Western societies got richer during the last five decades, their people have not become any happier, yet at the same time average income has more than doubled (Layard, 2005). In the Great Britain, despite the massive increase in real income at every point of the income distribution, there has been no raise in the number of 'very happy' people, nor any decrease in those who

are 'not very happy' since 1950s. According to income position in British society, 54% of the top quarter and 59% of the bottom quarter respondents perceive themselves as 'quite happy' (Layard, 2005). In a developed nation, economic progress buys only an insignificant amount of extra happiness (Oswald, 1997). Moreover, a comparison of SWB amongst the Western industrialised countries suggests that the rich ones are not happier than the poorer. In fact, some existing evidence suggests that poor people can be even happier than rich ones (Schwarz & Strack, 1991).

Occupational success. Skinner (1974) suggested that the brief state of elation an individual feels upon completing a difficult task seems to be associated with positive reinforcement, which is pleasing and joyful. Haidt (2006) reviewed the existing empirical studies and concluded that there was no evidence suggesting that personal or occupational success increases overall happiness. An underjoyed response to success appears normal. The 'pre-goal attainment positive affect' appears even more stable than the 'post-goal attainment positive affect', which is usually a short-lived feeling of contentment and reduces rapidly after a goal has been achieved (Haidt, 2006).

Marital and employment status. In the face of research outcomes, many intuitive theories turned out to be wrong. For example, not all individuals are unhappy when divorced or unemployed – indeed, some are happier (Argyle, 2001). A number of studies reported that a vast majority (up to 96%) of unmarried, unemployed and relatively uneducated people reported being satisfied with their lives (Diener & Diener, 1996). Almost zero association was found between having children and happiness (Powdthavee, 2009).

Physical and psychological difficulties. Studies reported by Schwarz and Strack (1991) provided some evidence that hospitalised patients can be even happier than a healthy control group. A review of studies conducted by Diener and Diener (1996) suggested that the majority of physically and psychologically disadvantaged individuals report positive SWB. For instance, 68% of a stratified sample of physically disabled adults reported being somewhat to very satisfied.

Human beings seem to possess an ability to regain high levels of SWB even in the face of the most aversive life events, such as major illness, loss or disability (Filipp & Klauer, 1991). The dynamic equilibrium theory of SWB (Headey, 2006) – which is an observational, not an explanatory theory – suggests that individuals generally oscillate around their own set point of SWB, and people usually return to a baseline level of their happiness following major life events, both negative and positive.

Psychosis Paradigms

McCulloch (2006) identified four major models of understanding the aetiology of psychological difficulties. These were: medical – concerned with the biological and chemical basis of an illness (perceived as a mental illness), psychosocial – concerned with life events, family dynamics, and belief systems, intuitive/spiritual – perceiving the mind as a battleground for conflicting forces, such as consciousness vs. unconsciousness, good vs. evil, and existential – viewing mental illness as another form of human existence.

The key paradigms of psychosis emerged mainly from the medical and psychosocial models. The earliest psychiatric paradigm was outlined by Kraepelin and his perspective dominated research between the end of the nineteenth century and the mid-1970s (Morrison, Renton, Dunn, Williams & Bentall, 2004). The key assumption was that psychosis was caused by brain abnormalities that were probably inherited and could be best described via diagnostic concepts such as schizophrenia. The second paradigm, which was a hybrid between medical and psychosocial explanations, is exemplified by stress-vulnerability models of psychosis (Morrison et al., 2004). This paradigm assumes that biologically vulnerable individuals become psychotic only when exposed to stressful and traumatic life events.

Bentall (2006) argued that many researchers studying psychosis believe that there is a current paradigm shift in understanding the aetiology of experiences of psychosis. The psychosocial paradigm of psychosis has its origins in late 1980s and has focused on specific symptoms (particular

experiences and complaints) rather than broad diagnostic categories. It attempts to explain the symptoms of psychosis through underlying psychological processes and individual beliefs arising from significant experiences and interpersonal relationships (Morrison et al., 2004). The psychosocial paradigm focuses on the causal role that some of the environmental factors might have on the aetiology of psychosis (Bentall, 2006). These environmental factors are: family relationships (mainly insecure attachment relationships with parents), traumatic experiences (especially childhood sexual abuse), and discrimination and victimisation (such as racial discrimination and social marginalisation). As argued by Dudley, Siitarinen, James and Dodgson (2009), these causal factors mirror the predominant self-explanations expressed by people with psychosis, which are centred around the themes of traumatic experiences and personal sensitivity. Within the psychosocial paradigm, people with episodes of psychosis are assumed to have experienced serious, abusive and emotionally overwhelming incidents or relationships. Hence, Romme and Escher (2004) suggested that symptoms of psychosis should not be perceived as suggesting the presence of medically identifiable psychopathology, but rather as an extreme psychological reaction to adverse, traumatic and stressful experiences. The psychosocial paradigm also assumes that the same underlying psychological processes (e.g. formation of unhelpful, dysfunctional beliefs) occur in psychosis as they do in other psychological difficulties, such as in anxiety or depression (Good, 2002).

Emotional Distress in Psychosis

Frith and Johnstone (2003) reviewed a history of the models of psychosis and concluded that since the earliest developments of diagnostic criteria for schizophrenia, a decrease in emotional functioning has been included in its overall picture. The Kraepelinian concept of dementia praecox incorporated symptoms of anhedonia, whereas abnormal affect and weakness of volitional processes in schizophrenia were highlighted by Bleuler. Furthermore, lack of self-direction was also described by Schneider in his classification of first-rank symptoms of schizophrenia (Frith & Johnstone, 2003).

As argued by Strauss (1994), individual self-regulatory abilities are considerably decreased in psychosis. Frith (1997) described the importance of negative effect that experiences of psychosis have on a person's awareness of goals and intentions, which might affect an individual's emotional functioning even further. The author concluded that possibly the most subjectively terrifying result of psychotic experience would be the sense of personal autonomy being violated, and belief that control over oneself has been lost. Andreasen (1994) argued that subjective experiences of psychosis effect the entire scope of the individual's cognitions, emotions, and behaviour. Hence, it is unsurprising that a high prevalence of depressive symptomatology has been identified amongst people diagnosed with schizophrenia (Siris, 1991).

Fowler, Garety and Kuipers (1995) reviewed a number of studies which have demonstrated that severe symptoms of depression and anxiety were found prevalent amongst people with chronic psychosis. The authors argued that people diagnosed with schizophrenia were found to frequently report severe anxiety, feelings of despair, loneliness, and unworthiness as being at least of equal, if not higher, importance than the symptoms traditionally defining psychosis itself. Outcomes of the study conducted by Martin and Penn (2001) confirmed that higher levels of paranoid ideation were significantly associated with greater depressed mood, social anxiety and avoidance, evaluation apprehension, and lower self-esteem. Although, depressive symptoms have long been known to accompany symptoms of psychosis, there has been growing appreciation that affective disturbance has its distinct course within the psychotic symptomatology (Scheller-Gilkey, Thomas, Woolwine & Miller, 2002). For instance, Bentall (2003) developed a model of paranoid thinking leading to dysphoria. The psychological processes incorporated into the model were the same as those involved in abnormal mood, which suggested a close relationship between depression and psychosis. Another view on affective symptomatology in psychosis was presented by Maier, Cornblatt and Merikangas (2003) who described depressive disorder as an integral part of premorbid and prodromal symptoms of an emerging psychotic illness.

Cognitive Model of Psychosis

Generally, current views about emotional distress in psychosis fall into two perspectives: in the first, some types of psychosis related symptoms may partially result from emotional disturbance; and in the second, depression and anxiety may arise as a consequence of appraising the experiences of psychosis (Fowler et al., 1995). The former perspective suggests that in extreme instances of depression, experiences of psychosis (such as persecutory delusions) may emerge to defend an individual against the threats to one's self-image (Bentall, Kinderman & Kaney, 1994).

The second perspective has been rooted in cognitive theory of psychological difficulties. Within this perspective, Fowler et al. (1995) suggested that depression should be perceived as an understandable response to the adverse experiences and social circumstances associated with psychosis. An individual with experiences of psychosis may become entrapped into vicious cognitive circles leading to extremely negative conclusions about him/herself, his/her future and the surrounding world. This reaction is associated with feelings of helplessness, despair and hopelessness deriving from negative cognitive appraisal (Fowler et al., 1995). Also, feelings of shame and guilt resulting from having hallucinatory experiences were described by Reeves (2000) as common amongst individuals with psychosis. Moreover, Tarrier (2002) proposed that the depressive/anxious responses might reinforce the psychotic experiences further by contributing through increased activity levels within the arousal system.

Most delusional and hallucinatory experiences appear to have a personal meaning that can often be highly threatening, and therefore could exaggerate the emotional distress of an individual (Fowler et al., 1995). Romme and Escher (1993) reported that people who believed they could not cope with their hallucinations felt considerably weaker and were less able to communicate about the voices. Vaughan and Fowler (2004) reported evidence which suggested that higher levels of psychological distress correlated with experiencing positive symptoms of psychosis, especially auditory hallucinations,

as dominating, insulting and commanding. Diez-Alegria, Vazquez, Nieto-Moreno, Valiente and Fuentenebro (2006) found that personal attribution did, indeed, magnify the severity of psychosis related experiences. Another study conducted by Green et al. (2006) suggested that specific personal appraisal of delusions or hallucinations affected the severity of depression amongst participants with psychosis; depression was higher in those who felt less powerful than their 'persecutors'.

As suggested by Rhodes and Jakes (2000), most delusions relate to fundamental concerns in individuals' lives and to personal aims. Moreover, Lysaker and Lysaker (2001) highlighted that the emotional dysregulation in psychosis might profoundly interfere with maintenance of personal identity. Therefore, emotional distress amongst people diagnosed with schizophrenia can be understood in terms of the nature of their relationship with their delusional or hallucinatory experiences: if an individual's autonomy is perceived to be threatened then the person reacts with emotional distress such as anxiety or depression (Birchwood, Meaden, Trower & Gilbert, 2002). Similarly, Coleman and Smith (2005) argued that hallucinations in themselves may not necessary be the problem; rather the individual relationship with them accounts for the levels of individual psychological distress. Krabbendam et al. (2005) provided some evidence suggesting that the relation between hallucinations and depression is mediated by personal beliefs about the voices. Chin, Hayward and Drinnan (2009) investigated the relationships that people experiencing psychosis had with their voices. The authors concluded that exploration of these relationships might have an effect on emphasizing voice hearer's strengths and ameliorating their distress.

Chadwick, Birchwood and Trower (1996) proposed that particular beliefs about voices predict a person's distress and coping behaviour much better than voice content: beliefs about threat are related to anxiety and avoidance/escape behaviour, whereas beliefs about loss are related to depression and withdrawal. Interestingly, Bentall, Kinderman and Moutoussis (2008) noted that, from a cognitive perspective, people with psychosis who hold paranoid beliefs, like depressed people, make excessively stable and global attributions and have a

pessimistic attributional style. However, in contrast to depressed people, they make excessively external attributions for negative events. Furthermore, a study conducted by Fornells-Ambrojo and Garety (2009) suggested that if the 'poor me' belief dominates in paranoia, it typically generates high levels of anger, depression, and anxiety.

As pinpointed by Chadwick (2008), mental health professionals need to acknowledge that psychosis has both personal meaning and narrative sense for an individual. Understanding the experiences of psychosis in the context of a person's whole life is a very constructive process, and gaining insight into the meaning of an individual's own crisis plays a pivotal role in recovery. Allen et al. (2005) conducted a study which examined the associations between hallucinatory predispositions, emotional status and reasoning. The outcome confirmed that both emotions and cognitions need to be carefully considered in order to understand hallucinatory experiences better.

The cognitive model of psychosis has been supported with empirical research and resulted in development of Cognitive-Behavioural Therapy for psychosis [CBTp] (Fowler et al., 1995; Twamley, Jeste & Bellack, 2003; Morrison, Renton, French & Bentall, 2008). Results of empirical studies on CBTp effectiveness appear encouraging (Roth & Fonagy, 2005; Christodoulides, Dudley, Brown, Turkington & Beck, 2008). CBTp has also been supported with positive results of randomised control trials (Startup, Jackson & Pearce, 2002), and case studies (Kirkland, 2005), and has been recommended by the National Institute for Clinical Excellence within the clinical guidelines for schizophrenia (Berry & Haddock, 2008). Furthermore, a randomised Australian study conducted by Farhall, Freeman, Shawyer and Trauer (2009) demonstrated high satisfaction and acceptability ratings amongst the clients with psychosis and comorbid affective difficulties who received CBTp. Additionally, the mean client-rated working alliance within CBTp appeared excellent. As highlighted by Steel (2008), the development of CBTp has challenged a traditional medical paradigm of psychosis through direct engagement with the content of psychosis related experiences and highlighted the extent to which the aetiology and maintenance of psychosis can be

understood through psychological processes associated with depression and anxiety.

Diagnostic Descriptions of Psychosis – Critical Remarks

Medically oriented descriptions of psychosis continue to dominate within mental health services. Even the latest edition of the Oxford Dictionary of Psychology defines psychosis using medical terminology as: “any mental disorder characterised by delusions and/or prominent hallucinations with or... without insight into their pathological nature” (Colman, 2009, p. 622) [underlined by the researcher].

Approaches to the diagnosis of schizophrenia have changed. Traditionally, diagnosis has depended on the presence of behavioural phenomena that could be recognised by observation or client’s report (Conklin & Iacono, 2003), and negative symptoms have been regarded as a fundamental component of schizophrenia (Andreasen & Flaum, 1991). Boyle (2002) noticed that since the introduction of psychiatric diagnostic systems, a radical change in diagnosing schizophrenia took place and the emphasis moved from negative to positive symptoms. However, recent developments of diagnostic guidelines appear to be placing more prominence on the negative symptoms again. For instance, ICD-10 described the presence of a consistent decrease in the overall quality of the person’s functioning that could be manifested as loss of interest, aimlessness, idleness, a self-absorbed attitude, and social withdrawal (World Health Organisation, 1992).

The psychosocial paradigm of psychosis has produced an evidence base exposing the naivety of medical explanations of the aetiology of psychosis, and revealed a number of shortcomings of psychiatric diagnoses (Leudar & Thomas, 2000; Whitwell, 2005). Read (2004 a, 2004 b) reviewed a number of studies which demonstrated that the diagnostic criteria for schizophrenia do not meet scientific requirements for establishing that the concept objectively exist (reliability), or for being useful in terms of understanding anything (validity), and that the illness theory of schizophrenia fails to establish its biological cause

(aetiology) and predict efficacy of medical treatments (outcome). Johnstone (2006) agreed that diagnostic systems lack any scientific basis and are characterised by low reliability, lack of validity, overlap between categories, and by unclear aetiology, prognosis and treatment. Amongst other criticisms of diagnostic guidelines is their atheoretical and descriptive nature (Dudley & Kuyken, 2006). As noticed by Boyle (2007), empirical studies have not justified any independent ways of deciding which experiences belong to which diagnostic clusters.

Maddux et al. (2004) argued that diagnoses are socially constructed artefacts; their meanings have been negotiated rather than discovered or revealed. They therefore hold no rigorous scientific justification. Furthermore, given that over recent years these socially constructed concepts have expanded with each revision of diagnostic guidelines, more relatively ordinary human behaviours have become pathologised, and consequently the number of people with diagnosable 'mental disorders' has grown. The authors argued that should this tendency remain, "eventually everything that human beings think, feel, do, and desire that is not perfectly logical, adaptive, or efficient will become a mental disorder" (p. 327).

Linley and Joseph (2004) agreed that an extensive use of diagnostic categories and labels amongst clinicians has contributed to an increasing psychiatric medicalisation and pathologisation of everyday life experiences. Furthermore, as argued by Maddux et al. (2004), because of the long established reliance on psychiatric concepts, clinical psychology has also become pathologised and the assumptions of an illness ideology continue as implicit guides to clinical psychologists' activities, that is, the psychological treatment alleviates disordered conditions that reside within the person and are thought of as symptoms. The authors stated further that the illness metaphor prescribes a medicalised way of thinking about psychological distress, and implies that psychological problems are like biological diseases. Psychopathologies are automatically labelled as disorders, rather than extreme variants of common problems in life and expected human difficulties and imperfections. Furthermore, Geekie (2004), and Read and Haslam (2004)

reviewed research demonstrating that bio-genetic explanations of psychosis increase fear and prejudice towards the individuals diagnosed with schizophrenia, and lead to their social marginalisation.

Romme and Escher (2004) warned that the medical model of psychosis may be dangerous, since it subsumes the link between personal history and the emergence of symptoms of schizophrenia, and therefore diverts intervention onto pharmacological therapy, hinders psychological support, and increases the chances of the symptoms' recurrence. Medical models of psychological difficulties hold that the causes of emotional and behavioural problems are located inside the individual, and are analogous to symptoms of medical illnesses (Joseph & Linley, 2006). Campbell (2007) argued that many patients diagnosed with schizophrenia felt trapped within the negative medically oriented professional framework, which in their opinion encouraged the dismissal of significant aspects of their experience, and seemed stigmatising and discriminatory. Descriptive and schematic psychiatric outline of 'schizophrenic' difficulties and minimisation of psychological understanding of individual experiences, such as in Levi (1998), does indeed seem emotionless and entrapping.

Read, Mosher and Bental (2004) noticed, however, that there has been an increasing recognition amongst the clinical psychology practitioners and researchers that the notion of 'schizophrenic disease' is not supported by sound scientific research and is extremely damaging to those with such a stigmatising psychiatric label. The authors argued further that the psychiatric model of schizophrenia has been responsible for unhelpful and unjustifiable pessimism about the recovery chances and ignored psychological investigation of what is actually happening in the lives of those experiencing psychosis. Moreover, reductionistic biological theories of schizophrenia have led to lobotomizing, electroshocking and drugging of those labelled as schizophrenic, despite the paucity of scientific evidence supporting the effectiveness of such practices (Read, 2004 c, Ross & Read, 2004).

To summarise the diagnostic concepts of mental illnesses, Bentall (2004) used the metaphor of astrology:

Like star signs, psychiatric diagnoses are widely believed to tell us something about ourselves, to explain our behaviour and personality, and to predict what will happen to us in the future. Like star signs, diagnoses fail on all of these counts, and peddle meaningless generalisations... or extravagant but unsubstantiated claims... as if they are scientific truths. (p. 195)

Extended Rationale for the Study

As argued by Bentall (2004), “emotions play a pivotal role in human nature... Yet, curiously, they are not usually considered to be important features of some of the extreme forms of mental suffering...” (p. 205). Strauss (1989) raised the issue of mental health professionals often ignoring or avoiding many aspects of patients’ reports about their experiences of psychosis. He argued that “we in mental health field do not listen to what patients experience as well as we think. There are many things that patients are trying to tell us about their subjective experiences that we systematically fail to hear...” (p. 179). The author suggested that this implicitly dismissive attitude was the outcome of a limited range of experiential phenomena operationalized by descriptive psychiatry. Therefore, he urged mental health professionals to look into subjective experiences of psychotic patients more openly and to use a growing variety of subjective assessment scales more readily.

Social disadvantage of individuals with psychosis has been another issue described in mental health literature. For instance, Lingwood (2006) argued that people with severe psychological problems have historically been located at the edges of community life and have been amongst the most excluded of all social groups. Furthermore, Thornicroft (2006) noticed that many people with mental health issues suffer enormous disadvantage and discrimination in most aspects of their lives, which negatively affects their mood and emotional functioning.

Strauss (1989) proposed that understanding, studying and treating severe psychopathology requires a focus on the subjective functioning of a 'sufferer', which would involve the person's feelings, interpretations, goals, actions and interpersonal functioning. Harper (2001) acknowledged that the growing importance of psychosocial concepts of psychosis challenged clinicians to offer service users a choice of individually fitted explanations and interventions, so they could make sense of their experiences in the context of their lives.

Since empirical evidence suggested lack of concordance between subjective improvement and observed change in psychosis related symptomatology (Cramer et al., 2001; Kupper & Tschacher, 2008), and the strong influence of patients' mood and emotional functioning on their subjective symptoms' appraisal (Fakhoury, Kaiser, Roeder-Wanner & Priebe, 2002), the necessity to focus on individual experiences and subjective quality of life of people with psychosis has become even more important. The significance of acknowledging the subjective experiences of people with psychosis and enhancing their SWB has been mentioned on a number of occasions (Hayward, Blank & Cooke, 2005; Campbell, 2007; May, 2007) and a brief example of possible implementation of SWB concepts into understanding and increasing SWB and life quality of a person with psychosis was described over a decade ago by Csikszentmihalyi (1997). Nevertheless, the authors of the present study were unable to find any relevant literature reporting empirical studies that would test some propositions of SWB concepts amongst individuals with experiences of psychosis. In our opinion, this underrepresentation of positive psychology studies amongst individuals with severe mental health difficulties may contribute to the implicit ignorance of their capability to experience happiness, and consequently to the maintenance of a discriminatory and disadvantaging stance towards those diagnosed with schizophrenia.

This surprising finding has led the authors of the present research to appreciate the need for the gap in the knowledge to be filled, and the study constitutes an effort to test the suppositions of one of the SWB concepts amongst individuals with experiences of psychosis. We hope to demonstrate that people who experience psychosis are fully capable of being happy and

satisfied with their lives. Moreover, based on suppositions of the four-dimension model of SWB and psychological distress, we hope to show that the mechanisms governing happiness and satisfaction with life amongst those diagnosed with paranoid schizophrenia are similar to individuals from the general population. Therefore, the present study attempts to pursue a positive clinical psychology approach to research in psychosis, through which we endeavour to challenge the establishment of a medically oriented stance to understanding severe mental health difficulties.

Extended Methodology

Choice of Research Design and Study Model

As argued by Langdridge (2004), the choice of specific study design ought to be informed by the research question or hypotheses, by the investigator's belief about research and by the researcher's ability to use different methods. A non-experimental correlational design with the use of standardised questionnaires was selected for two main reasons. Firstly, it stays in line with the researcher's positivistic understanding of science, in which hypothetico-deductive method is applied in order to empirically test specific hypotheses generated by existing theories, concepts and models. And secondly, a correlational design appeared appropriate to investigate the research hypotheses. As explained by Leary (2004), correlational research can be used to investigate the relationships between a number of naturally occurring variables. Given that the correlational design can be also used to examine how well a specific outcome may be predicted by one or more pieces of information (Salkind, 2000), an additional mediation analyses of the gathered data are also reported in the extended paper.

Furthermore, given the study model depicted in Figure 2 (page 22), it might be argued that the proposed model offers a simplified view of the complex psychological processes. However, since the model is explicitly based on the empirical studies conducted previously within the areas of (a.) SWB, and (b.) psychological distress in psychosis, it does indeed meet the criterion of

usefulness in explaining the investigated phenomena (Estes, 1993). The model also meets the 'good-enough principle' as it can be carefully reproduced by another researcher and the findings may be scrutinized and disconfirmed in the future (Serlin & Lapsley, 1993).

The researcher's philosophy of science – a brief note. The quantitative, correlational study design corresponded with the researcher's philosophy of science. The author of the present study has taken a positivistic standpoint to understanding of science. The researcher agrees with a central principle of positivism, which argues that the only phenomena that can be studied scientifically are those that can be submitted to direct observation and quantitative measurement (Coolican, 2004). Within the positivistic context, a hypothetico-deductive method was utilised in the present research in order to empirically test specific hypotheses which had been generated by existing theories, concepts and models, and by previous empirical evidence.

Sampling Method and Sample Size for Initial and Extended Statistical Analyses

Non-probability convenience sampling was adopted for the purpose of this study. Based on previous research conducted with the particular client group in the catchment area (N. McGrath & C. Turner, personal communication, January, 2009), the researcher predicted that a large number of potential participants would decline their involvement with the study. Hence, the study had to be conducted with those accessible and agreeing to participate. As argued by Leary (2004), non-probability samples are perfectly acceptable for psychological research, since the goal is typically not to describe how the population behaves but rather test the specific hypotheses regarding relations between variables in the particular sample. "Of course, we may wonder whether the results generalize to other kinds of samples, but this question does not undermine the quality of particular study" (Leary, 2004, p.126).

No particular minimum sample size guidelines have been recommended for conducting bivariate correlational statistical analyses, such as calculating

Pearson's r coefficients between variables. However, bearing in mind that the effect size and statistical power of conducted tests are both intrinsically linked to the sample size (Field, 2009), the researchers aimed to recruiting the maximum possible amount of participants within the catchment area.

Furthermore, mediation analysis was chosen for the purpose of additional statistical analysis of the gathered data. Again, the sample size recommendations for mediation analysis were found to be unclear. For instance, Frazier, Tix and Barron (2004) mentioned that the sample size in mediation analysis should be adequate to maximize the chances of detecting significant interaction effects. However, since multiple regression is an integral part of establishing mediating effects, Frazier et al. (2004) also suggested that the sample size might be calculated accordingly to the multiple regression requirements. Therefore, rules for minimum acceptable sample size in multiple regression were followed while deciding about the participant numbers needed for conducting a meaningful statistical analysis.

Field (2009) recommended at least 10 cases of data per predictor variable, while another rule described by Foster, Barkus and Yavorsky (2006) suggested that the smallest number of respondents required should be $40+k$ (where 'k' was the number of predictors). Furthermore, simulation studies reported by Babyak (2004) have shown that the 'rules of thumb' described above were more than satisfactory. The results suggested that when there were fewer than 10 data cases per predictor, the estimates tended to be biased. However, "for linear models, such as multiple regression, a minimum of 10 to 15 observations per predictor variable will generally allow good estimates" (Babyak, 2004, p.415).

A predictor in multiple regression is a variable that is used in combination with others to predict values of a criterion (or outcome) variable (Hammond, 2000). Given that only two predictors will be entered into each multiple regression model while conducting a series of three separate mediation analyses, the minimum sample size in the present study had been established as 20 to 30 participants.

Choice of Measures

Alternatives to the Brief Symptom Inventory (BSI). An alternative measure considered for the estimation of positive psychotic symptoms, depression and anxiety was The Positive and Negative Syndrome Scale (PANSS). The PANSS has a wide clinical use and strong psychometric properties (Shankar & Nate, 2007). It is, however, recommended that an interviewer undergoes thorough training prior to its use, and its administration takes at least 30-40 minutes (Kay, Opler, Fiszbein, & Ramirez, 2000). In fact, based on clinicians' experiences with the use of PANSS, the administration of the measure with clients with psychosis may take up to a few hours, which may evoke high levels of distress among the interviewees and, consequently, high attrition (N. McGrath & C. Turner, personal communication, January, 2009). In comparison, the BSI requires only 8-10 minutes to complete. It is therefore more useful and appropriate in settings where clients may not tolerate the assessment well and when assessment time is limited (Derogatis, 1993).

Other alternative measures considered were the Beck Depression Inventory – 2nd Edition (Arnau, Meagher, Norris & Bramson, 2001) and the Beck Anxiety Inventory (Leyfer, Ruberg & Woodruff-Borden, 2006). However, the BSI does contain the depression and anxiety dimensions amongst the other scales, and both were described as having strong psychometric properties (Derogatis, 1993). For example, Ruz et al. (2010) reported the following properties of the BSI Anxiety Scale: Cronbach alpha internal consistency coefficient was established as 0.62 (significant at 0.01 level), item-total correlations ranged from 0.67 to 0.83, criterion-related validity examined through correlation with State Anxiety Inventory was 0.69 (Spearman coefficient), and construct validity was also reported to be high.

To ensure the participants' comfort and willingness to take part in the study, the researcher aimed to limit the assessment time to minimum. Therefore the BSI had been chosen over the mentioned alternative measures.

Alternative to the Affect Balance Scale (ABS). The Positive Affectivity and Negative Affectivity Schedule (PANAS) was considered as an alternative to the ABS. It consists of 20 items describing different feelings, which are rated by respondents on the 'not at all' to 'extremely' scale (Carr, 2004). However, as identified by Pressman and Cohen (2005), the PANAS includes adjectives that are not typical mood items (e.g. 'strong', 'determined', or 'active'), and excludes low-activated moods such as 'calm', 'content', and 'relaxed' as well as many common positive affect adjectives such as 'cheerful' and 'joyful'. In the researcher's opinion, this limited the tool's usefulness in measurement of constructs related to emotional aspects of happiness. The ABS, on the other hand, is well regarded by authorities in positive psychology (Argyle, 2001), and has demonstrated usefulness in clinical and medical research (e.g. Kushner et al., 2008).

Alternative to the Satisfaction with Life Scale (SWLS). The Oxford Happiness Questionnaire (OHQ) was considered by the researcher as an alternative option for the assessment of life satisfaction. However, Kashdan (2004) argued that in comparison with the other well-established happiness measures, the 29-item OHQ is longer, is overly redundant with the constructs of self-esteem, sense of purpose and social interest, and has no theoretical rationale for diffuse content being assessed. The author recommended the SWLS to be a much more accurate measure of life satisfaction and described it as "less time-intensive, theory-driven, with good psychometric properties" (p.1231).

Measurement of Happiness

A measurement of SWB may pose some concern to researchers and clinicians (Basu, 2004), especially when applied to those with severe mental health difficulties (Cramer et al., 2001). Some authors have even questioned the validity of subjective aspects of quality of life assessments with individuals with complex mental health issues due to credibility of patients' self report being negatively affected by their psychological difficulties (Basu, 2004) and due to

the possibility of having diminished insight into their illness (Vaz, Bejar & Casado, 2002).

However, Noddings (2003) argued that the judgement of happiness can be best and only made by the person who claims or disavows happiness him/herself. Subjective appraisal may differ considerably from the observational one made by the external assessor; thus, it can never be credibly judged that a person is happy, if the person says that s/he is not (Noddings, 2003). Happiness appears to be located mainly in the mind; it depends on how we perceive things, how we appraise events in relation to our individual values and expectations. Therefore, in studying happiness, researchers should be concerned primarily with measurement of subjective side of wellbeing, rather than objective measures of social indicators (Argyle, 2001).

Study Procedure

Messari and Hallam (2003) reported that the main reason for refusal to participate in research study among the clients with psychosis was that “they did not wish to meet anyone else but the therapist” (p.173). Hence, the recruitment and assessment in the current study were conducted entirely by the clinical psychologists among their clients with whom they already had an established therapeutic relationship and working alliance.

Clinical psychologists determined whether a particular client within their caseloads met the inclusion criteria for the research. In order to make this decision they inspected their clients' case notes and searched for the ICD-10 F20.0 diagnosis of paranoid schizophrenia (WHO, 1992), which was the only information obtained from the participants' medical records. The clients were first informally asked to take part in the study by their psychologists during one of their sessions. If they expressed initial interest, they were given information sheets which provided a clear, accessible and detailed explanation of the research goals and procedures (see Appendix A). They were then allowed at least a week to make up their minds, ask additional questions and to request further information about the study. Those who agreed to take part were then

asked to sign a consent form (see Appendix B) and complete the questionnaires at the subsequent session. The measures were administered with the participants by their clinical psychologists in a fixed order: the BSI, the ABS and the SWLS. Completion of the full assessment set took approximately 15-20 minutes. Most of the clients preferred to complete the measures by themselves. Only a few asked their psychologists to read the items aloud. After the questionnaires had been completed, they were immediately sealed in an envelope together with demographic data, however separately to the consent form. Following the assessment, should participants wish to, they were afforded the opportunity to debrief their Psychologist about their experiences of participating in the study, and ask any additional questions. Additionally, the participants' care co-ordinators, if applicable, were informed about the research in writing (see Appendix D). The sealed envelopes were then posted to the Chief Investigator's university base and stored securely in locked cabinets. Consent forms were stored separately to the data obtained from the questionnaires. The research team had no access to the identifiable personal data on the consent forms.

Ethical Considerations

The British Psychological Society (BPS) Code of Conduct, Ethical Principles and Guidelines (2005) were followed by the research team throughout the study. The following principles were addressed: informed consent, lack of deception and coercion, debriefing, right to withdraw from the investigation, confidentiality, protection of participants, and sharing results.

Cozby (2009) explained that to allow potential participants to give informed consent, they should be provided with all information that might influence their decision of whether to participate. In the current study all clients identified as potential participants were given out information sheets describing the study in a detailed, accessible and comprehensive manner. They were given the opportunity to make up their minds for at least a week. They were all encouraged to ask their Psychologists questions and consult other persons and professionals who were not involved in the study (e.g. nurse, social worker,

general practitioner, friend, etc.). Contact telephone numbers to chief and principle investigators were also provided, should they have wished to discuss any matter related to the research.

The participants were not deceived in any way prior, during or after the study. Barrett (2000) clarified that deception in research, understood as withholding of information or misleading of participants, is unacceptable if the participants are likely to object or experience apprehension once debriefed. The study's goals and procedures were made explicit to the participants before they consented to the research, and the measures used were thoroughly described.

As explained by Leary (2004), coercion to participate occurs when participants agree to take part in the study because of real or implied pressure from an individual who has some authority or influence over them. All participants were recruited by their Psychologists with whom they had already established a therapeutic relationship, which might be perceived as a potential limitation of the study and might pose an ethical concern. As described by Evans-Jones, Peters and Barker (2009), clients with psychosis, due to the nature of their clinical presentation and their past interpersonal experiences, may often find it difficult to establish a sound therapeutic relationship with a therapist and may distrust or hold delusional beliefs about their therapists' intentions. This might have potentially distorted the participants' perception of their Psychologists' underlying intentions when they were asked to take part in the research study. Bearing in mind the potential misinterpretation of the Psychologists' intentions, which would lead to an amplification of the power imbalance within the therapeutic relationship, the BPS (2005) guidelines and recommendations made by Leary (2004) were followed in order to prevent these from occurring. To be exact, all participants were carefully explained in a simple and accessible language that they did not have to participate, and should they decline, this would not have any negative effect on therapeutic relationship or on psychological intervention they were receiving. It was also made clear to the participants at the outset of the study (both by their Psychologists and within Participant Information Sheets) that they had a right to withdraw from the research at any time, without giving any particular reasons.

All participants were also encouraged to raise any worries or concerns they had about their participation in the study outside of the therapeutic relationship. They were advised to discuss their participation with other professionals involved in their care or with family members prior to making their decisions about taking part in the study.

As recommended by the BPS (2005), all participants were given a chance to talk about their experiences of taking part in the research with their Psychologists, thus any negative emotional effects were monitored and addressed. After completion of the questionnaires all participants were given an opportunity to debrief with their Psychologist about any negative feelings evoked while taking part in the study. The BPS (2005) stated that “investigators have a primary responsibility to protect participants from physical or mental harm during the investigation” (p.11). Prior to commencement of the study, the researcher had put considerable effort to select the measures that would require minimum time for their administration (to reduce eventual distress resulting from answering questions about personal experiences), and present strong psychometric properties at the same time. Additionally, reflective space that was provided to the participants after administration of the measures aimed to ensure that any distress evoked while participating in the research was immediately acknowledged and addressed in a supportive and empathic manner by a qualified and trusted professional.

Confidentiality in research means that all the information that participants provide may be used only for purposes of the study and may not be disclosed to others (Leary, 2004). As described in the study procedures, after the questionnaires had been completed, they were immediately sealed in an envelope together with demographic data. Consent forms were sealed separately. The envelopes were then posted to the researcher’s university base and stored securely in locked cabinets. Personal information (consent forms) were stored and locked separately to the research data. The researcher did not have any access to participants’ personal information. The questionnaires and consent forms were coded, which allowed particular set of research and

personal data to be securely destroyed should any participant decide to withdraw from the study.

Salkind (2000) urged researchers to share the results of the study with the participants as soon and practical as possible. The research results were disseminated among the Clinical Psychologists who had recruited participants for the study. All participants were given a possibility to be informed about the research outcomes. Those who had expressed their interest in the results were contacted by their Psychologists and briefed on the study outcomes.

Extended Results

Participants' Demographic Data

Demographic data were collected from participants using Demographic Data Screening Sheet (see Appendix C). Of 47 recruited participants, 42 provided demographic data. Tables 3 to 8 present detailed frequency and percentage statistics of the sample's demographic information.

Table 3

Participants' gender – frequency table

Gender	Frequency	Percent
Female	11	23.4
Male	31	66.0
Not stated	5	10.6

Table 4

Participants' age – frequency table

Age	Frequency	Percent
18 – 29	15	31.9
30 – 39	9	19.1
40 – 49	13	27.7
50 – 59	4	8.5
60 – 69	1	2.1
Not stated	5	10.6

Table 5

Participants' relationship status – frequency table

Relationship status	Frequency	Percent
Single	34	72.3
Married	4	8.5
Divorced	4	8.5
Not stated	5	10.6

Table 6

Participants' employment status – frequency table

Employment status	Frequency	Percent
Unemployed	32	68.1
Employed part-time	3	6.4
Employed full-time	1	2.1
Full-time student	3	6.4
Homemaker / carer	2	4.3
Retired	1	2.1
Not stated	5	10.6

Table 7

Participants' ethnicity – frequency table

Ethnicity	Frequency	Percent
White British	39	83.0
White Irish	2	4.3
Black British – Caribbean	1	2.1
Not stated	5	10.6

Table 8

Participants' patient status – frequency table

Patient status	Frequency	Percent
In-patient	13	27.7
Out-patient	29	61.7
Not stated	5	10.6

Descriptive Statistics

Descriptive data, including dispersion, central tendency and distribution statistics, for the study model variables are presented in Table 9.

Table 9

Descriptive statistics for the study model variables

Statistics	PPI*	Depression	Anxiety	Positive affect	Life satisfaction
Mean	3.06	1.58	1.48	2.96	16.40
Mean SE	0.25	0.15	0.14	0.25	1.03
Median	3.20	1.50	1.50	3.00	15.00
Mode	1.00	2.67	1.50	5.00	13.00
SD	1.73	1.04	0.99	1.73	7.11
Variance	3.00	1.09	0.98	2.99	50.68
Skewness	0.19	0.17	0.24	-0.48	0.44
Skew SE	0.34	0.34	0.34	0.34	0.34
Kurtosis	-0.85	-1.15	-0.95	-0.99	-0.63
Kurt. SE	0.68	0.68	0.68	0.68	0.68
Range	7.00	3.33	3.33	5.00	28.00
Minimum	0.00	0.00	0.00	0.00	5.00
Maximum	7.00	3.33	3.33	5.00	33.00

Note. (*) Psychoticism and paranoid ideation.

It appears interesting that although most of the study participants were single (72.3%) and unemployed (68.1%), and over 27% were in-patients in specialist psychiatric wards, the range of reported positive affect levels and satisfaction with life levels were wide. The sample scores range on the dimensions of positive affect and life satisfaction indicated that individuals diagnosed with paranoid schizophrenia may feel very joyful and extremely satisfied with their lives. This finding seems to support the four-dimension model of SWB and psychological distress that focuses on internal emotional processes of an individual rather than on external factors. This appears to further support some of conclusions drawn from positive psychology research regarding the role of objective indicators of happiness, which have been summarised in the thesis.

Normality of Distribution Tests

As proposed by Field (2009), in samples of 30 or more, score distribution tends to be normal. Nevertheless, normality of the score distribution was investigated for each variable in the study model. Initially, the values of skewness and kurtosis were investigated. In a perfect normal distribution both

values should be zero. The further the values are from zero, the more likely it is that the data are not normally distributed (Field, 2009). In the present study, the skewness values were as follows: 0.19 for psychoticism and paranoid ideation, 0.17 for depression, 0.24 for anxiety, -0,48 for positive affect, and 0,44 for life satisfaction. The skewness values for the first three variables were close to zero. The positive affect scores were expected to be slightly piled-up on the right of the distribution, whereas the life satisfaction scores on the left. The kurtosis values were as follows: -0.85 for psychoticism and paranoid ideation, -1.15 for depression, -0.95 for anxiety, -0,99 for positive affect, and -0,63 for life satisfaction. The negative kurtosis values indicated flat and light-tailed distributions.

Subsequently, histograms with normal curves and P-P (probability-probability) plots were generated. PP graphs plot the cumulative probability of a variable against the cumulative probability of normal distribution (Field, 2009). Histograms and PP plots for the study model dimensions are presented in Figures 3 to 7.

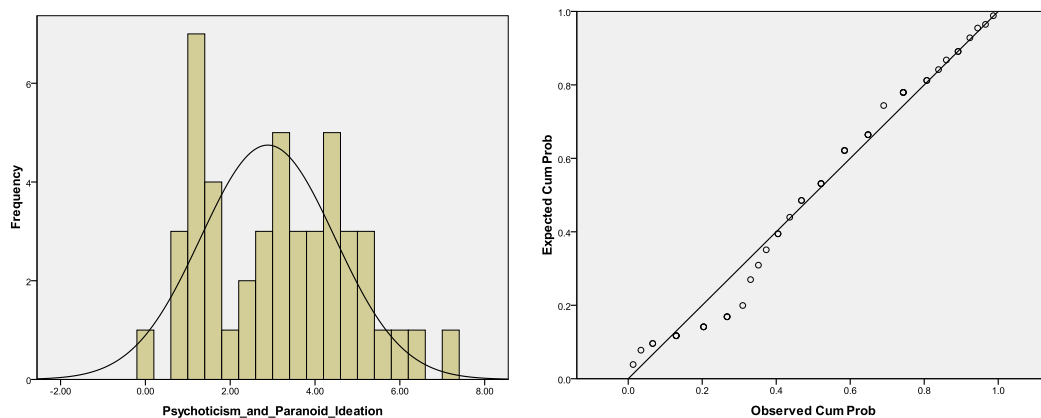


Figure 3. Histogram and P-P plot for the psychoticism and paranoid ideation variable.

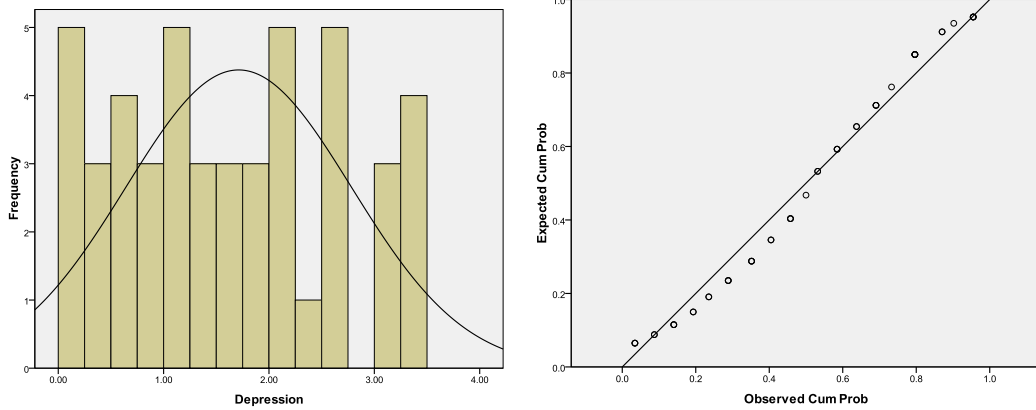


Figure 4. Histogram and PP plot for the depression variable.

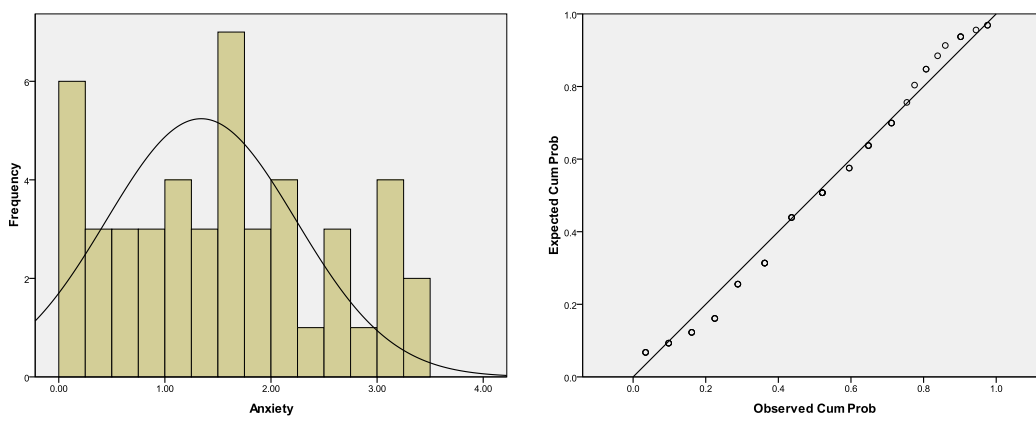


Figure 5. Histogram and PP plot for the anxiety variable.

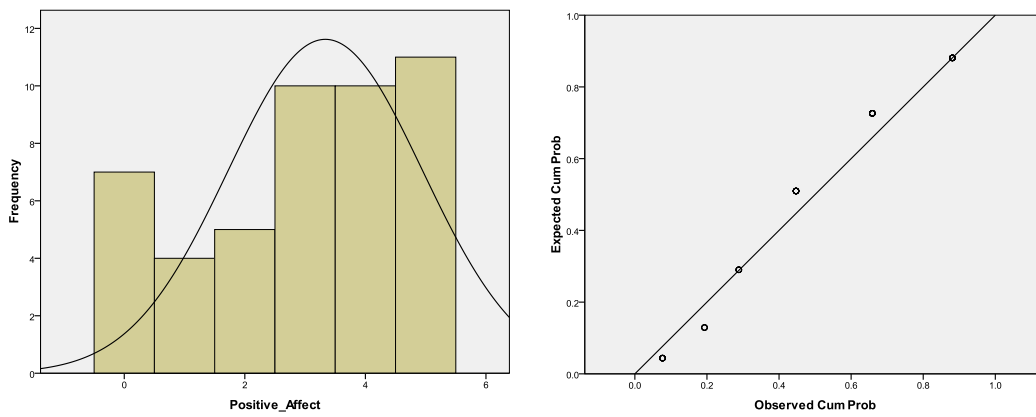


Figure 6. Histogram and PP plot for the positive affect variable.

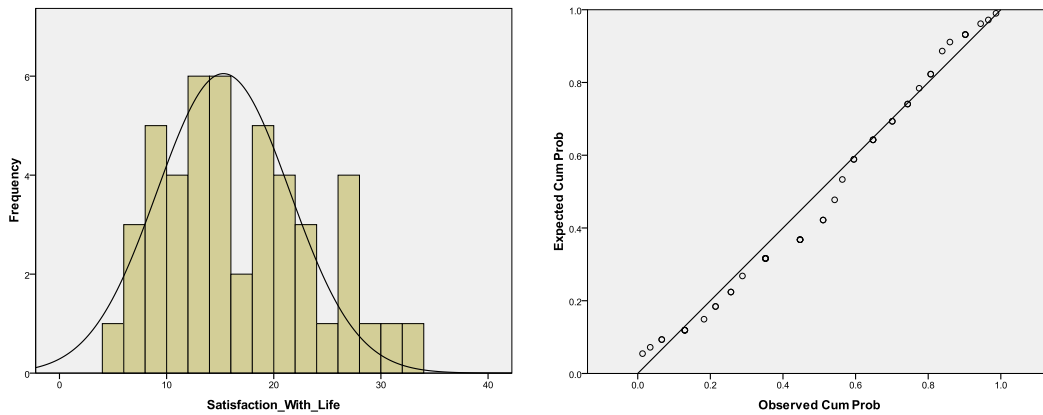


Figure 7. Histogram and PP plot for the life satisfaction variable.

The histograms for the psychoticism and paranoid ideation, depression, and life satisfaction variables appear to have bell-shaped curves. Although most of the observed residuals depicted on the P-P plots are not placed exactly on the normal distribution lines, they do not seem greatly deviant from the line. These observations appear to indicate that the sample scores on those three variables approximate normal distributions. However, the histograms for anxiety and positive affect seem to indicate that the residuals on these two variables might differ from a normal distribution.

Therefore, additional analysis was undertaken, and Kolmogorov-Smirnov (K-S) test of normality was computed for each variable in the study model, as presented in Table 10. The results demonstrated that the scores distribution on the depression, anxiety and life satisfaction variables approximated normal distribution. The positive affect residuals appeared significantly different from normal distribution (sig = 0.001). It was rather surprising to find that the K-S statistic for psychoticism and paranoid ideation was shown to be statistically significant (sig = 0.048), as well. However, as explained by Field (2009), a significant K-S test does not necessarily suggest whether the deviation from normality is enough to bias any statistical procedures that are applied to the data. Furthermore, the author argued that in large samples (that is 30 or more) the K-S statistic can be significant even when the scores are only slightly different from a normal distribution. These statistics should therefore always be interpreted in conjunction with histograms, P-P plots and the values of skewness and kurtosis. And in the case of the psychoticism and paranoid

ideation variable, the histogram, the P-P plot and the values of skewness and kurtosis did not indicate a major deviation from a normal distribution.

Table 10

Results of Kolmogorov-Smirnov normality test

Variables:	Kolmogorov-Smirnov Statistic	Significance
PPI*	0.129	0.048
Depression	0.106	0.200
Anxiety	0.094	0.200
Positive affect	0.173	0.001
Life satisfaction	0.122	0.079

Note. (*) Psychoticism and paranoid ideation.

Extended Statistical Investigation – Mediation Analyses

Introduction to Mediation Analysis

A variable is assumed to mediate the relationship between a predictor and an outcome variable if the predictor first has an effect on the mediator, which in turn influences the outcome variable (Miles & Shevlin, 2001). In other words, a mediated relationship between variables occurs if a predictor has its effect on the outcome variable via another variable, the mediator.

As defined by MacKinnon, Fairchild and Fritz (2007), mediation analysis is a “method to increase information obtained from a research study when measures of the mediating process are available” (p. 598). Frazier et al. (2004) argued that the main purpose of mediation analysis is to investigate why an association between a predictor and an outcome variable exists. In descriptive correlational studies, mediators provide further information about how two variables are associated, and allow a more precise explanation of the relationship between those two variables (Bennett, 2000). In psychological research, where an individual is the relevant unit of analysis, mediators are often some internal properties of a person that transform the effects of a predictor variable in some way (Baron & Kenny, 1986). These can be some

behavioural, biological, psychological or social constructs that transmit the effect of one variable onto another variable (MacKinnon et al., 2007).

There is a causal chain involved in mediation (Baron & Kenny, 1986). A mediating variable is placed in a causal sequence between two other variables. In its simplest form, mediation represents the addition of a third variable to the $X \rightarrow Y$ relation, where firstly predictor variable (X) causes the mediator (M), and then M causes the outcome variable (Y), so $X \rightarrow M \rightarrow Y$ (MacKinnon et al., 2007). The mediation model presented in Figure 8 assumes a three-variable system in which the following causal paths occur: a representing the relation of predictor variable to mediator, b representing the relation of mediator to outcome variable adjusted for predictor variable, and c' representing the relation of predictor variable to outcome variable adjusted for mediator (MacKinnon et al., 2007).

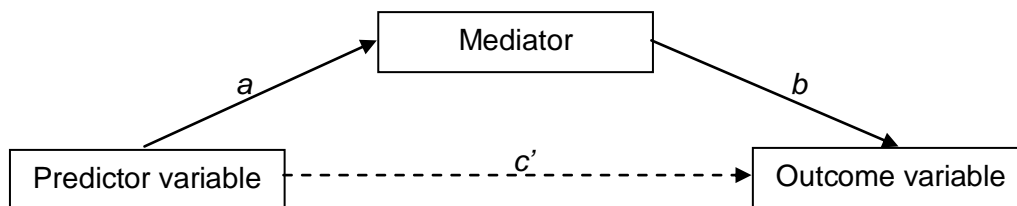


Figure 8. Causal chain between three variables in mediation analysis. Based on “Mediation Analysis”, by D.P. MacKinnon et al., 2007, *Annual Review of Psychology*, 58, p. 595.

There are two general types of mediational studies (MacKinnon et al., 2007). The first type uses theory regarding mediational processes to design experiments. The second type of study consists of investigating how a particular effect occurs through the use of correlational means. In the latter type, a third variable is added to the analysis of a relation that occurs between predictor and outcome variable, in order to improve understanding of the relation or to determine if the relation is spurious. In this type of study, a mediator improves understanding of such a relation because, based on theoretical assumptions or previous research, it is proposed to be the integral part of the $X \rightarrow M \rightarrow Y$ causal sequence.

Mackinnon et al. (2007) proposed that two models exist when thinking of mediation. The first one is theoretical, corresponding to unobservable relations among the investigated variables. The second one is empirical, relating to statistical analysis of collected data. The authors stated that the key challenges of mediation analysis were to correctly infer the actual state of mediation from observations, and to use a theoretical justification to support the studied model.

Therefore, the starting point to construct a mediation model is a theoretically informed possibility that a mediator variable occurs 'between' the studied predictor and outcome variables (Bennett, 2000). Frazier et al. (2004) stated that decisions about potential mediators are based on previous research and existing theories, and are best made *a priori* in the design stage rather than *post hoc*.

The most commonly used method to investigate mediating effects is the causal steps approach (Mackinnon et al., 2007). In this approach, the following four steps must be taken to establish that a mediated relationship exists: (1) predictor variable must be shown to significantly relate to the outcome variable using regression, (2) predictor variable must be demonstrated to significantly relate to mediating variable using regression, (3) using multiple regression, the mediator must be shown to be significantly related to the outcome variable while the predictor variable remains controlled, and (4) when controlling for the mediator, the coefficient relating the predictor variable to the outcome variable must be smaller (in absolute value) than the coefficient detected in step 1 (Miles & Shevlin, 2001), or the relationship between the predictor and the outcome variable must be less significant than in step 1 (Bennett, 2000). When in step 4, the relationship between the predictor variable and the outcome variable is smaller than in step 1 (but still greater than zero) and the coefficient is statistically significant, then the data suggest partial mediation (Mackinnon, et al., 2007). If, when controlling for the mediator, the effect of the predictor variable on the outcome variable is zero, or the relationship is at least no longer statistically significant, then the data are consistent with a dominant, or complete, mediation model (Miles & Shevlin, 2001).

The Present Study

In the present study, the mediators have been identified on theoretical grounds and their choice has been also informed by previous research. Both theoretical and empirical justifications for the study model have been discussed in the main journal article and in the extended paper parts of the thesis.

Based on the propositions of the four-dimension model of happiness and psychological distress (Figure 1, page 10) and empirical evidence describing elevated levels of emotional distress amongst individuals with psychosis, the results of the initial statistical analysis were depicted in Figure 2 (page 22). The research question underpinning the extended statistical analysis was about how emotional distress resulting from psychosis is associated with the individuals' satisfaction with life. Given the study model and the results of stages 1 and 2 of our statistical analysis, it was hypothesised that psychoticism and paranoid ideation would be associated with a person's life satisfaction via the mediating effects of depression, anxiety and positive affect (*Hypothesis 1*). Furthermore, given the strength of the correlations between the dimensions within the study model and their significance levels, it was hypothesised that depression would be shown to have the strongest mediating properties of the three mediators, and that positive affect would have the weakest (*Hypothesis 2*).

As argued by MacKinnon et al. (2007), mediating processes often include multiple mediators, which are likely to provide a more accurate estimation of mediation effects in a variety of research contexts. The authors explained that the mediation models which consist of more than one mediator are straightforward extensions of the single-mediator models. Derived from the main study model, Figure 9 depicts the three mediational sub-models, which were investigated separately in order to establish mediating properties for each of the hypothesised mediators. In the mediational sub-models, the dimension of psychoticism and paranoid ideation acted as predictor variable, life satisfaction was an outcome variable, and depression, anxiety and positive affect were mediating variables.

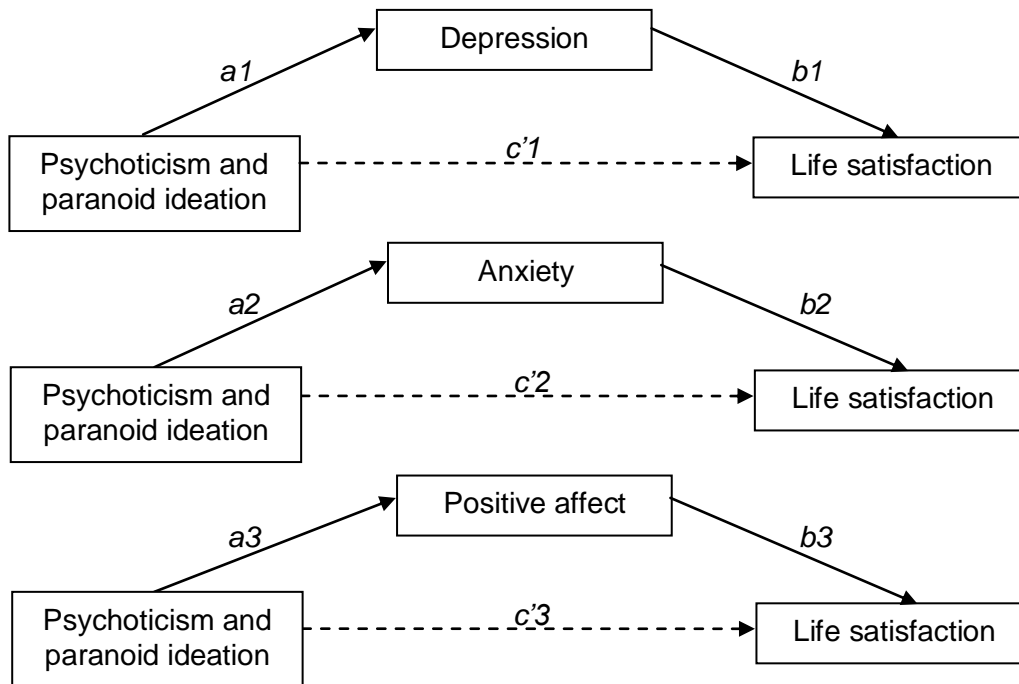


Figure 9. Mediational sub-models: depression, anxiety and positive affect as the hypothesised mediators of the association between psychosis related distress and satisfaction with life.

Mediation Analyses' Results

The causal steps approach utilising the series of simple regressions (steps 1 and 2) and a multiple regression (steps 3 and 4) was used to investigate mediating properties of the hypothesised mediators. Also, as suggested by Bennett (2000), in multiple regression stage of mediation analysis, both the predictor and mediator variables must be entered simultaneously with the outcome variable. Hence, the forced entry method was chosen for conducting multiple regressions in our mediation analyses.

Table 11 summarises the statistical results for causal steps 1 to 4 of the mediation analysis with depression as the mediating variable.

Table 11

Causal steps of mediation analysis with depression as the mediating variable

Causal steps	R square	Coefficient B	B significance
Step 1	0.122	- 1.431	0.016
Step 2 (path a1)	0.513	0.432	< 0.001
Step 3 (path b1)	0.224	- 3.123	0.020
Step 4 (path c'1)	-	- 0.082	0.917

In step 1 of the first mediation analysis, psychoticism and paranoid ideation were shown to be significantly related to life satisfaction: $B = -1.431$, $\text{sig} = 0.016$. Coefficient B suggested that with a single unit change in psychoticism and paranoid ideation, an individual's satisfaction with life decreased by approximately one and a half of units. Furthermore, based on R square value, psychoticism and paranoid ideation were estimated to account for 12.2% of the variation in the levels of life satisfaction.

In step 2, psychoticism and paranoid ideation were demonstrated to be significantly related to depression, the mediating variable (path a1 in Figure 9): $B = 0.432$, $\text{sig} < 0.001$. With a single unit change in psychoticism and paranoid ideation, the depression levels of an individual increased by approximately a half of a unit. Also, psychoticism and paranoid ideation were shown to account for 51.3% of variance in depression levels.

In step 3, when controlling for psychoticism and paranoid ideation, depression was demonstrated to be significantly related to life satisfaction (path b1 in Figure 9): $B = -3.123$, $\text{sig} = 0.020$. Coefficient B value suggested that when psychoticism and paranoid ideation is controlled, with a single unit change in depression, an individual's life satisfaction decreased by more than three units. Furthermore, when controlling for the predictor variable, depression was shown to account for 22.4% of variance in life satisfaction.

In step 4, when controlling for the mediator, the predictor variable's association with the outcome variable (path c'1 in Figure 9) was shown to be close to zero and statistically non-significant: $B = -0.082$, $\text{sig} = 0.917$. The results suggest that when controlling for depression, the change in life

satisfaction associated with a single unit change in psychoticism and paranoid ideation was close to zero and, in addition, was statistically non-significant. According to the methodology described by Miles and Shelvin (2001), the amount of mediation was estimated by calculating the difference between the absolute values of coefficients in steps 1 and 4. The amount of mediation was therefore 1.349, which accounted for 94.26% of the initial B coefficient. Consequently, the data were consistent with a dominant mediation model suggesting that depression acts as a dominant mediator in the relationship between psychoticism and paranoid ideation (predictor variable) and life satisfaction (outcome variable). However, if dominant mediating role of depression was to be supported with further evidence, then both anxiety and positive affect would be shown as statistically non-significant mediators in the current study model.

Table 12 summarises the statistical outcomes of the mediation analysis with anxiety as the mediating variable.

Table 12

Causal steps of mediation analysis with anxiety as the mediating variable

Causal steps	R square	Coefficient B	B significance
Step 1	0.122	- 1.431	0.016
Step 2 (path a2)	0.519	0.412	< 0.001
Step 3 (path b2)	0.164	- 2.130	0.143

Given that the predictor and outcome variables were the same in each of the mediation analyses, the results of causal step 1 also remained the same. In step 2 of the second mediation analysis, psychoticism and paranoid ideation were shown to be significantly related to anxiety (path a2 in Figure 9): B = 0.412, sig < 0.001. Coefficient B value suggested that with a single unit change in psychoticism and paranoid ideation, the anxiety levels of an individual increased by almost a half of a unit. Moreover, psychoticism and paranoid ideation were shown to account for 51.9% of variance in anxiety levels.

However, in step 3, when controlling for psychoticism and paranoid ideation, anxiety was demonstrated to no longer have a significant relationship

with life satisfaction (path b2 in Figure 9), as the significance level of coefficient B was 0.143. Therefore, step 4 of the second mediation analysis could not be undertaken, which suggested that anxiety was not a statistically significant mediator of the relationship between the predictor and the outcome variable.

Table 13 presents statistical results of mediation analysis with positive affect as the mediating variable.

Table 13

Causal steps of mediation analysis with positive affect as the mediating variable.

Causal steps	R square	Coefficient B	B significance
Step 1	0.122	- 1.431	0.016
Step 2 (path a3)	0.048	- 0.219	0.139

In step 2 of the third mediational analysis, psychoticism and paranoid ideation were shown not to act as a significant predictor of positive affect (path a3 in Figure 9). Hence, causal steps 3 and 4 of our third mediation analysis could not be undertaken, and the data suggested that positive affect was not a statistically significant mediator either.

Discussion of Mediation Analyses' Results

The results of mediational analyses were consistent with a dominant mediation model and suggested that depression acted as a dominant mediator in the relationship between psychoticism and paranoid ideation (predictor variable) and life satisfaction (outcome variable). The reported statistical analysis therefore showed only partial support for the hypotheses. Although, it was predicted that depression would be shown to have the strongest mediating properties of the three mediators, and positive affect the weakest (*Hypothesis 2*), given the correlations between the study model dimensions (as presented in Figure 2, page 22), we expected anxiety and positive affect to act as partial mediators as well (*Hypothesis 1*). However, given that the correlation coefficient between the dimensions of psychoticism/paranoid ideation and positive affect was shown to be weak and statistically non-significant, it is more

understandable that positive affect did not have any significant mediating properties. Moreover, this finding is consistent with suppositions of the four-dimension model of happiness and psychological distress, in which positive and negative affect are separate and only moderately correlated entities that coexist with each other.

Given the size and significance levels of anxiety correlation coefficients with both the predictor and the outcome variables (presented in Figure 2 and in Table 1, pages 22-23), the results of the second mediation analysis (suggesting no significant mediating effects for anxiety), were more surprising. However, again, the possible explanation for this finding appears to be placed within the empirical foundations of the four-dimension model reported by Headey and Wearing (1992). The authors argued that although depression and anxiety were both major influences on SWB (i.e. through their inverse effect on a sense of satisfaction, and on frequency of positive emotions), the two main forms of psychological distress were at least partly independent, and while individuals could be satisfied with their lives and anxious, it was very rare to find people who were both satisfied and depressed.

Baron and Kenny (1986) suggested that, since psychological processes have a variety of causes, a more reasonable objective would be to seek mediators that significantly decrease the relationship between the predictor variable and the outcome variable, rather than eliminating the relationship completely. MacKinnon et al. (2007) agreed that it is often unrealistic to expect that a single mediating variable would be a dominant, let alone complete, explanation of the relationship. On the other hand, Zhao, Lynch and Chen (2010) argued that partial mediation can often reflect an unknown and unmeasured second mediator. Therefore, the authors suggested that if the hypothesised causal $X \rightarrow M \rightarrow Y$ chain was to be supported with statistical evidence then once the mediator is controlled, there should be no partial effect of predictor variable on the outcome variable. Consequently, if a study model allows for the possibility that the predictor may affect the outcome variable 'directly' as well as indirectly, when the mediator is controlled the relationship between the predictor and the outcome variables should only be weaker than

the initial relationship between these variables when M is not controlled. Zhao et al. (2010) argued further that although there should always be a prior theoretical reason to expect an indirect mediated effect, the concept of direct effect is clearly statistical, and the strongest evidence for mediation is provided when there is no partial effect once mediator is controlled. The authors argued that there is no reason to hypothesise any direct effects *a priori*, and the direct path remains theoretically unexplained (i.e. this is an artefact). If such a direct effect remains even when the mediator is controlled in multiple regression, it may be interpreted as evidence of the effect of one or more unknown and unmeasured mediators. In a case when a mediated effect exists and there is no direct effect remaining in the final step of the mediation analysis, instead of using terms such as 'complete' or 'dominant' mediation, Zhao et al. (2010) proposed using the term 'indirect-only' mediation, which serves as a more accurate guide to discussing the implications of the results for theory and practice.

In the present study, the results of mediational analyses fitted in with the dominant mediation model, and depression was shown to be the dominant mediator of the relationship between psychosis related distress (measured on the scales of psychoticism and paranoid ideation) and satisfaction with life. The data supported the indirect-only $X \rightarrow M \rightarrow Y$ mediation type, in which an increase in the levels of psychoticism and paranoid ideation (X) would reduce an individual's satisfaction with life (Y) only if accompanied by the increase in the depression levels (M). The concept of the direct $X \rightarrow Y$ effect was evidently statistical, and served to establish the mediating properties of the other variables. Given the empirical foundations of the four-dimension model of happiness and psychological distress (Headey & Wearing, 1992), and the theoretical assumptions of the cognitive model of psychosis (Fowler et al., 1995; Chadwick et al., 1996), the indirect-only $X \rightarrow M \rightarrow Y$ relationship appears to fit in with the current knowledge more accurately.

Frazier et al. (2004) argued that when interpreting the results of mediational analysis, the issue of an 'alternative equivalent model' must be acknowledged. That is, for any given mediational model there are likely to be alternative models with different patterns of relations amongst the investigated variables that are

consistent with the data. As noticed by MacKinnon et al. (2007), “although the consideration of a third variable may appear simple, three-variable systems can be very complicated, and there are many alternative explanations of observed relations other than mediation” (p. 595).

In principle, the four-dimension model of SWB and psychological distress chosen for the purpose of the study is only one of a number of happiness concepts, and the cognitive viewpoint on emotional distress in psychosis is not the only available one. However, the choice of the study model has been supported with empirical evidence, which was reported adequately within the frames of the thesis. Yet, it is important to remember that although depression was shown to be the dominant mediator between the predictor and the outcome variable, psychoticism and paranoid ideation accounted only for 12.2% of the variation in the levels of life satisfaction amongst the individuals with psychosis. Moreover, when controlling for the predictor variable, depression accounted for 22.4% of variance in life satisfaction. It is therefore important for future research to focus on establishing the other determinants of satisfaction with life of people experiencing psychosis. Both internal (personal, psychological) and external (objective) variables might be considered in future research. For instance, theory of optimal experience described in detail by Csikszentmihalyi (1988, 1997, 2002) may serve as an ‘alternative equivalent model’ and provide some indications for additional personal determinants of life satisfaction amongst individuals with severe mental health difficulties (e.g. engagement, involvement and absorption in activities), which might inform the future research focus. On the other hand, there has been an ongoing debate taking place in the positive psychology literature on the subject of objective determinants of SWB, and some conclusions from the debate (i.e. these regarding the relatively minimal importance of the external factors in comparison with individual and psychological ones) have been reported within the thesis. However, as argued by Romme (1993), Chadwick (1997), James (2001), and Read (2004 d) it is fundamentally important to address the objective disadvantages and widespread stigmatisation that people with psychosis are subjected to, as well as to focus on their individual human strengths (Carr, 2005).

Furthermore, the causal steps process of conducted mediational analyses seemed too prescriptive and appeared to imply that if the statistical assumptions of causal steps were met and a series of regressions were conducted, then a definite answer about mediating effects would be provided. Bramwell (1996) argued that since mediation analysis relies on correlational techniques, rather than on the manipulation of cause and effect in an experimental or at least quasi-experimental way, it cannot provide any 'proof' that the direction of causality is that which a researcher predicts. Similarly, Bryman and Cramer (2001) proposed that a correlational study cannot establish the causal effects and the generation of causal explanations from correlational research can be meaningless; these effects can only be inferred. Frazier et al. (2004) argued that since causal inferences generally cannot be made on the basis of non-experimental studies, then with correlational data exploratory procedures can be interpreted merely in correlational terms and the only conclusion that can be made is that the causal model is consistent with the data. Bryman and Cramer (2001) suggested that in order to make inferences about the likely direction of cause and effect, "the researcher must look to probable directions of causation... or to theories which suggest that certain variables are more likely to proceed others" (p. 229). In addition, Kenny (2008) argued that, given the causal assumption that underlies a mediational analysis, if the study model is misspecified, then the mediation analysis' results are not so much meaningless, but rather misleading. It is, therefore, of major importance for any researcher to justify the assumptions that have been made in any mediational model.

In the present study, the justification for causal directions in mediational models was established on the grounds of previous empirical research, as described in theoretical introduction of the journal paper and in the extended part of the thesis. It is only argued here that the indirect causal model with depression acting as the mediator was consistent with the data. It is also acknowledged that the presented findings can only be interpreted in correlational terms, and the researcher does not claim to provide any 'proof' for the direction of causality.

Nonetheless, Kenny (2008) strongly disagreed with the idea that experimental studies are the only legitimate design for drawing causal conclusions. The author argued that the experimental requirement of manipulation prevents studying many variables of which manipulation is unethical. Moreover, if the mediators are internal psychological processes, then these variables can only be measured and not manipulated. Hence, Kenny (2008) concluded that “if we can only study variables that we manipulate, we have a science that artificially limits itself from studying as causes variables that cannot be manipulated” (p. 356). The points Kenny made were very important in the context of the present study. Given the study’s subject, the idea of constructing an experiment in which variables such as psychoticism and paranoid ideation, depression or anxiety are in any way ‘manipulated’ appears highly unethical, if at all possible.

Statistical Assumptions of the Mediation Analysis and Multiple Regression Models

MacKinnon et al. (2007) argued that a correctly specified mediation model must meet the following four assumptions: (1) no misspecification of the causal $X \rightarrow M \rightarrow Y$ order, (2) no misspecification of causal direction, (3) no misspecification due to unmeasured variables that cause variables in the mediation analysis, and (4) no misspecification due to imperfect measurement. At the same time, the authors acknowledged however that in most situations these assumptions may be difficult to test and may even be untestable, so that proof of a mediating relation is impossible. “A more realistic approach is to incorporate additional information from prior research..., theory, and qualitative methods to bolster the tentative conclusion that a mediation relation exists” (MacKinnon et al., p. 602). Furthermore, Bryman and Cramer (2001) noticed that it is only possible to control for those variables which occur to a researcher as potentially pertinent in the context of the study, and which are relatively easy to measure. “Other variables will constitute further contaminating factors, but the effects of these are unknown” (p. 229).

As previously stated, in the present study the causal directions in mediation models were hypothesised on the grounds of previous empirical research and relevant theories. These were presented in theoretical introduction of the journal paper and in the extended part of the thesis. Furthermore, a number of conclusions from the field of positive psychology on the subject of importance of objective indicators of SWB (in this study, the unmeasured variables) were reported in the journal paper discussion and in the extended part of the thesis. Consequently, it is the view of the author that the exclusion of those variables from the study model has been justified. However, the issue of an 'alternative equivalent model' has been acknowledged and the possible directions for the future research were proposed. Moreover, the choice of the measures for the present study was made on the grounds of their sound psychometric properties, which were reported in detail in the main journal paper.

The assumptions of the multiple regression model were also tested. To be able to generalise from the regression model, a number of underlying assumptions must be met, which include: variable types, non-zero variance, no perfect multicollinearity, independent errors, homoscedasticity, linearity, and uncorrelated external variables (Field, 2009, Foster et al., 2006). These will now be discussed.

The criterion needs to be a quantitative normally distributed variable (Howitt & Cramer, 2008). Furthermore, predictor variables must be at least categorical and should have some variation in value; but they do not need to be normally distributed (Field, 2009). Normality of scores distribution has been already discussed in the extended part of the thesis. Satisfaction with life, as measured by the SWLS, is a quantitative variable measured on a semi-interval scale. All predictors, as measured by the BSI and the ABS, are quantitative semi-interval variables.

As explained by Field (2009), to meet the assumption of no perfect multicollinearity, there should be no perfect linear relationship between the predictors, which in practice means that the correlation coefficients between the

predictors should be below 0.9 in their absolute values. On the other hand, given the assumptions of a mediational model, the predictor variable is assumed to cause the mediator, so these two variables should be correlated on a statistically significant level. Consequently, the presence of such a correlation results in multicollinearity, in which the effects of predictor variable and mediator on the outcome variable are estimated (Baron & Kenny, 1986). Nonetheless, the assumption of no perfect multicollinearity has been met, as correlation coefficients between the predictors in the present study were all below 0.9 in their absolute values, as presented in Figure 2 (page 22). Furthermore, as recommended by Foster et al. (2006), multicollinearity in multiple regression models was also assessed using Variance Inflation Factor (VIF) and tolerance statistics in SPSS. These statistics are reported in Table 14. Given that both VIF values were less than 10 and tolerance statistics were above 0.2 then there was no indication for concern (Field, 2009).

Table 14

Multicollinearity statistics for multiple regressions in mediation analyses 1 and 2

Multiple regression model	VIF	Tolerance
Mediation analysis 1	2.050	0.487
Mediation analysis 2	2.080	0.481

To meet the assumption of non-zero variance, the predictors must have some variation in value (Field, 2009). Dispersion statistics were used to investigate this assumption (Foster et al., 2006). These statistics were already reported in Table 9 (page 68) and indicated non-zero variance for each of the variables.

The assumption of independent errors was investigated with the Durbin-Watson statistics, which are summarised in Table 15. A conservative rule suggested that values less than 1 or greater than 3 indicate a violation of the assumption; the closer to 2 the values are the better (Field, 2009). Both statistics approximated 2, therefore the assumption of independent errors was met.

Table 15

Durbin-Watson tests for multiple regressions in mediation analyses 1 and 2

Multiple regression model	Durbin-Watson
Mediation analysis 1	1.992
Mediation analysis 2	1.835

Homoscedasticity requires all residuals at each level of predictors to have the same variance. Also, the assumption of linearity entails that the modelled relationship is a linear one. As recommended by Field (2009), the scatterplots of *ZRESID (i.e. Regression Standardized Residual) by *ZPRED (i.e. Regression Standardized Predicted Value) were produced for multiple regressions in order to investigate the homoscedasticity and linearity assumptions. The scatterplots are presented in Figures 10 and 11. The points on both graphs appear randomly and evenly dispersed throughout the scatterplots. The patterns therefore indicate that the assumptions of both homoscedasticity and linearity were met.

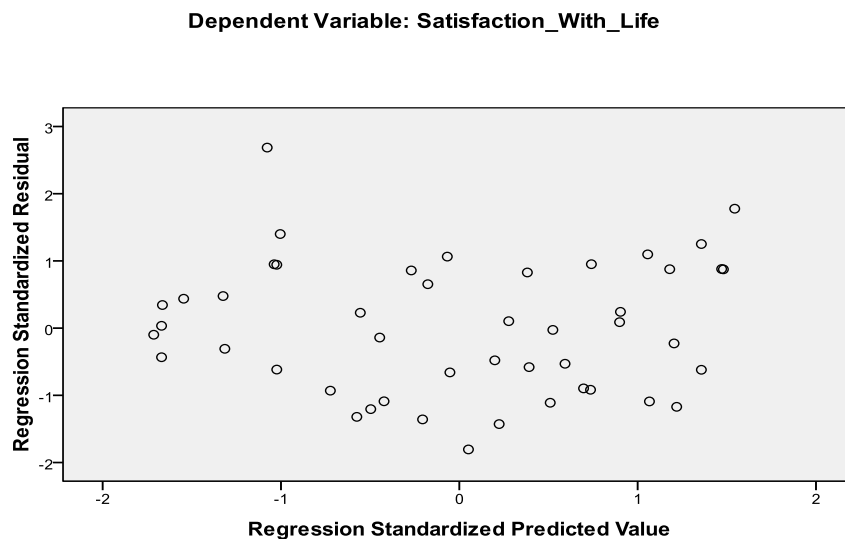


Figure 10. Scatterplot for multiple regression in mediation analysis 1 (predictors: psychoticism/paranoid ideation and depression).

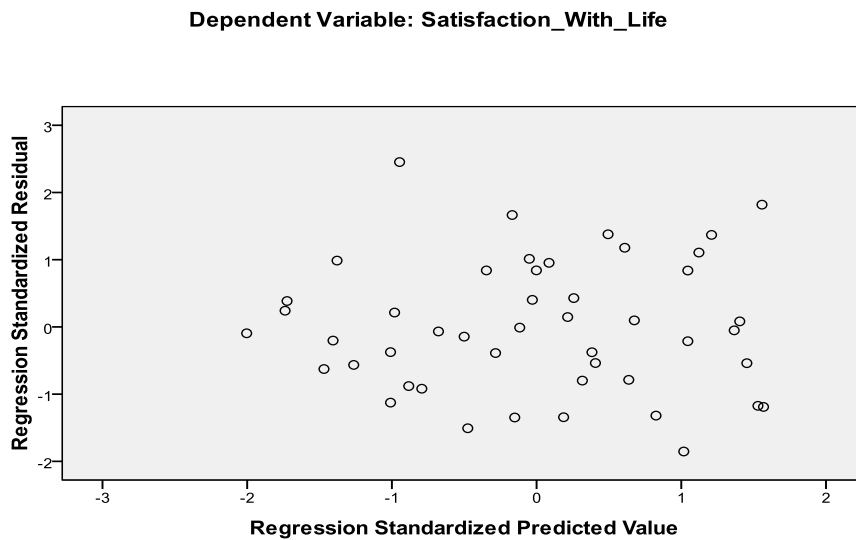


Figure 11. Scatterplot for multiple regression in mediation analysis 2 (predictors: psychoticism/paranoid ideation and anxiety).

Although Field (2009) stated that predictors should not be correlated with external variables, he also acknowledged that some authors treat these variables as parts of an error term that includes any random factor in the way in which the outcome varies. On the other hand, Leary (2004) argued that “because correlational research cannot control or eliminate extraneous variables, correlated variables are naturally confounded” (p.180). The issue of external variables (that is, objective indicators of individual SWB) has already been discussed on a number of occasions throughout the thesis, and some justification for their exclusion from the study model has been provided. Also, the researcher has acknowledged a possibility of an ‘alternative equivalent model’ and proposed some possible directions for the future research.

Effect Size and Statistical Power

As suggested by MacKinnon et al. (2007), standardised regression coefficients may serve as effect size measures for individual relations in mediation analyses. Table 16 presents standardised coefficients Beta for steps 1 to 4 of mediation analyses in the present study. Significance levels of the

coefficients correspond to those reported for B coefficients in Tables 11 to 13 (pages 77-79).

Table 16

Standardised coefficients Beta for steps 1 to 4 of mediation analyses in the present study

	Mediation analysis 1	Mediation analysis 2	Mediation analysis 3
Coefficient Beta for step 1	- 0.349	- 0.349	- 0.349
Coefficient Beta for step 2	0.716	0.721	- 0.219
Coefficient Beta for step 3	- 0.459	- 0.297	---
Coefficient Beta for step 4	- 0.020	---	---

In the present study, the statistical power of the multiple regression stages of mediational analyses was computed using the G*Power software programme (Faul, Erdfelder, Lang, & Buchner, 2007). G*Power required however that the effect size was calculated using the f^2 statistic. Coolican (2004) suggested the following f^2 equation: $f^2 = R^2 / (1 - R^2)$. The results of power calculations are presented in Table 17.

Table 17

Statistical power of the multiple regression stages of mediational analyses 1 and 2

Power calculation	Multiple regression stage of mediation analysis 1	Multiple regression stage of mediation analysis 2
f^2 effect size	0.235	0.129
α error probability	0.05	0.05
Predictors no.	2	2
Sample size	47	47
Statistical power (1-β error prob.)	0.948	0.782

Extended Discussion

Findings in the Context of Previous Research

Discussions of the findings in the context of previous research, both positive and traditional clinical psychology, were already presented in the journal article

and the extended part of the thesis. Additional reflections will now be considered.

Seligman and Csikszentmihalyi (2000) argued that given the long established pathological bias of most research in the field of clinical psychology, much more is known about how negative emotions and experiences lead to distress and illness than is known about how positive emotions promote health and wellbeing. As argued by authors such as Chadwick (1997), James (2001), and Campbell (2007), especially in the speciality of severe mental health difficulties and psychosis, the research appears to be traditionally informed by a medical model of 'mental illness' and focused on pathology, which consequently has had dismissing, stigmatising, discriminatory and marginalising effects on the individuals diagnosed with schizophrenia who have been perceived as 'not normal' and substantially different in comparison with those from, so called, non-clinical population.

The establishment of the positive applied psychology (Linley & Joseph, 2004) and the positive clinical psychology (Maddux et al., 2004; Joseph & Linley, 2006) movements have been an inevitable response to the negativistic and medicalised orientation of traditional clinical psychology research studies. Conway and MacLeod (2002) advocated for clinical incorporation of SWB ideas into the current symptom-oriented settings amongst those with severe psychological difficulties. The author of the present study attempts to pursue the developing science of positive psychology in clinical research, and the current investigation aspires to extend the positive clinical psychology focus onto the disadvantaged individuals with severe mental health difficulties, namely those with the diagnosis of paranoid schizophrenia.

In the present study, the concept of SWB, or happiness, which so far seemed to be restricted for (that is, studied exclusively amongst) those from 'normal' and 'non-clinical' populations, was examined with individuals diagnosed with paranoid schizophrenia. The suppositions of the four-dimension model of SWB and psychological distress were investigated, and the results suggested that the model applies not only to individuals from the general population, but

also to people with severe mental health difficulties, namely psychosis. Indeed, the experiences of happiness amongst people diagnosed with paranoid schizophrenia appear to be governed by mechanisms similar to those of general population. Furthermore, as indicated by the range of the sample scores on the dimensions of positive affect and life satisfaction it is understood that individuals experiencing psychosis may even feel very joyful and extremely satisfied with their lives. The findings therefore suggest, that individuals traditionally perceived as having 'abnormal' and 'pathological' experiences, are indeed no different from people representing so called non-clinical populations in the sense that they also possess strengths and virtues, and like any human being, are capable of experiencing joy and being satisfied with their lives even in the face of adverse experiences related to being diagnosed with paranoid schizophrenia or being hospitalised.

It seems important to ask the question about how might traditional clinical psychology explain the fact that, despite all the difficulties, objective disadvantages and stigma attached to the mental illness diagnoses, the studied individuals managed on average to live their lives with enjoyment and satisfaction? Unfortunately, as stated by Sheldon and King (2001), clinical psychologists know very little about the nature of human wellbeing and about the essence of positive emotions. However, the still young and developing science of positive psychology may suggest some answers. Linley and Joseph (2004) argued that instead of detecting varied nuances of human behaviour as being representative of underlying psychopathology, positive clinical psychologists focus on human strengths, capacities and resources, the key assets that allow them to survive, despite the obstacles they might face. A decade ago, Seligman and Csikszentmihalyi (2000) described a number of studies, which demonstrated that emotions have direct effects on physiology and the immune system, and indirect effects on marshalling psychological and social resources and shaping the motivation to health-promoting behaviour. Furthermore, Gable and Haidt (2005) presented some evidence that positive processes may shield people from negative emotional experiences. The answers can also be found in the four-dimension model of SWB and psychological distress itself (Headey & Wearing, 1992). As positive emotions

are generally inversely correlated with negative emotions, substituting the former for the latter may bring therapeutic and preventive effects, and maintain fair levels of satisfaction with life. In the present study, this indeed seemed to be the case. Although, the levels of psychoticism, paranoid ideation, depression and anxiety were clearly elevated, the studied individuals were on average only slightly dissatisfied with their lives, and appeared to maintain the levels of positive affect similar to the general British norms. These results suggested that happiness amongst people with experiences of psychosis, as conceptualised through the four-dimensional model, is governed by the same mechanisms as amongst those from so called non-clinical population. This seemed to confirm further that people who were traditionally perceived as disabled by the experiences of their 'illness', indeed have strengths and assets, just like anyone else.

Additionally, the current study has shown that having experiences of psychosis does not automatically make people unhappy or unsatisfied. Therefore, the results of the current study appear to provide further support for the cognitive model of psychosis (e.g. Fowler et al., 1995), which advocates the idiosyncratic view (in opposition to the homogeneous perception dictated by the medical model of mental illness) of psychosis. Indeed, the present study's results suggested that individuals with experiences of psychosis, additionally suffering from objective disadvantages, such as hospitalisation or stigma attached to the labels of paranoid schizophrenia, are able to experience joy and to be satisfied with their lives. It is important to note here, that the researcher's cognitive perspective of psychosis has not only been implicit in this study, but has also been conveyed in the process of measurement of psychosis related distress. The already described A-B-C model of psychosis proposed that: (A) a specific activating event, such as a hallucination, is (B) appraised and interpreted by an individual in a situational context, and effects in (C) the associated levels of distress (Chadwick et al., 1996; Dudley & Kuyken, 2006). In the present study, the BSI inventory scales of psychoticism and paranoid ideation were utilised to measure the psychosis related distress levels. The participants were asked to describe how much they were distressed or bothered by the experiences specified on both scales during the past 7 days including the

day of the measurement (Derogatis, 1993). Therefore, given the A-B-C model of psychosis, the 'C' was measured. To measure the 'As', that is symptoms of schizophrenia as an illness, and suggest that those symptoms would have a direct effect of individuals' life satisfaction, would be to hypothesise that the medical ideology of mental illness was true, with which the researcher explicitly disagrees and, instead, advocates for an idiosyncratic and heterogeneous approach to experiences of psychosis. Cognitive understanding of psychosis appears to treat each individual on their own merits, which stays in line with the positive clinical psychology approach advocated in this thesis. As explained by Linley and Joseph (2004), applied positive psychology is not prescriptive in the sense that it dictates specific interventions; it is rather facilitative in the way that it helps individuals achieve their own personal objectives.

Further Discussion of Clinical Implications

Several clinical implications were already stated in the discussion paragraph of the main journal paper. The additional clinical implications will now be discussed.

Research studies, as already reported in the thesis, have consistently shown a high prevalence of affective difficulties amongst people with experiences of psychosis (e.g. Marneros & Akiskal, 2007; Altamura, Dragogna, Pozzoli & Mauri, 2009). Depression appears the most frequently reported emotional response amongst those diagnosed with schizophrenia (e.g. Siris, 1991; Gaebel, Bittner & Wolwer, 2007). The present study suggests that, having an imperative and the central influence on SWB, depression is a very powerful emotional experience amongst individuals with psychosis. The results of the mediational analyses conducted within the present study suggested that depression is the dominant mediator of the inverse relationship between psychosis related distress and individual satisfaction with life. Therefore, its influence on SWB of individuals with experiences of psychosis appears essential, even central.

Hence, as already mentioned in the discussion paragraph of the journal paper, the provision of an effective psychological therapy for depression seems of major importance for individuals with psychosis in order to enhance their SWB. Given the supportive outcomes of the reviews of studies on the effectiveness of cognitive-behavioural therapy (CBT) for depression (e.g. Barkham & Parry, 2008), it is assumed that traditional clinical psychology has an evidence based tool to assist the clients in alleviating their depressive experiences. Meta-analytic review of research studies conducted by Roth and Fonagy (2005) demonstrated that the efficacy of CBT for depression has been favourable when compared with no therapy and with other less structured interventions. Also, examples of individual studies have shown that: (1) a considerably higher proportion of clients who completed CBT achieved clinically significant reduction in depression symptoms (71.4%) compared with only 13% of non-completers (Cahill et al., 2003), (2) CBT considerably reduced sad affect, daily negative automatic thoughts and unhelpful attitudes (Furlong & Oei, 2002; Parrish et al., 2009), and (3) helped depressed individuals achieve full remission at one year follow-up (Barton, Armstrong, Freeston & Twaddle, 2008).

However, as already discussed in detail, the input of traditional clinical psychology practitioners ends when the high levels of depression are ameliorated (e.g. Sheldon & King, 2001). Conway and MacLeod (2002) argued that well-being and positive experiential aspects differ considerably from the mere absence of negative experiences, and that positive experiences are related to protection and recovery from depression. Furthermore, Ruini and Fava (2004) reported some studies which suggested that an increase in psychological wellbeing may protect against relapse and recurrence of depression, and that the route to lasting recovery lies not exclusively in alleviating the negative symptoms, but in creating and maintaining positive experiences. Hence, the authors postulated for incorporation of the concept of SWB into the definition of recovery from any form of psychological suffering. It has already been stated that positive clinical psychologists may work both to alleviate distress and to promote optimal functioning, and these are not distinct or separate roles. However, when the distress has been alleviated, the role of

applied positive psychologists is not complete. As argued by Linley and Joseph (2004), positive clinical psychologists aim to facilitate their clients' development fully until the point of optimal functioning by moving them beyond the absence of psychopathology. From the perspective of positive psychology, a clinical intervention is not completed until wellbeing is present. This approach serves to buffer subsequent stresses, hence it has a preventive function (Runi & Fava, 2004).

This is not to suggest that depression should be addressed somehow independently or instead of the symptoms of psychosis within the course of psychotherapeutic intervention. As already discussed, cognitive models of psychosis recognize depression as an understandable response to positive symptoms and incorporate psychological distress into the overall picture of psychosis (Fowler et al., 1995, Chadwick et al., 1996). This is mirrored within the types of cognitive-behavioural interventions offered to individuals with psychosis, which do not differ considerably from those offered in depression. These include: psychoeducation about cognitive and emotional processes underlying and maintaining the symptoms, development of strategies to recognise and challenge negative thoughts and beliefs, recognising stressors and coping with triggers for mood changes, behavioural activation to battle boredom and inactivity, setting goals in life and developing plans to attain them (Johns, Sellwood, McGovern & Haddock, 2002), modification of negative thinking through seeking alternative explanations, development of calming and relaxation strategies, learning distraction strategies (Collerton & Dudley, 2004), completing regular homework assignments to recognise and monitor unhelpful beliefs and emotional responses (Rector, 2007), disconfirming unhelpful behaviours through behavioural experiments (Hagen & Nordahl, 2008), promoting social interaction and inclusion, identification and modification of safety behaviours (Valmaggia, Tabraham, Morris & Bouman, 2008), and utilisation of therapeutic relationship to develop collaboration and sound working alliance (Evans-Jones et al., 2009). As depression often appears to be an integral part of psychosis rather than a completely separate entity requiring a separate treatment, the interventions listed above will target and address the

underlying cognitive and behavioural processes of both depression and the experiences of psychosis.

Furthermore, it is argued here that, given the results of the present study suggesting that individuals with psychosis are as capable of experiencing positive emotions and of being as satisfied with their lives as any person from the general population, clinical interventions based on the positive psychology values are also applicable to people with severe mental health difficulties. It is also postulated that these individuals are as deserving of being provided with the evidence based tools to increase their happiness as anyone else. And the positive clinical psychology movement appears to have developed some applicable interventions.

Maddux at al. (2004) explained that positive clinical psychology assessments and interventions do not differ from those grounded in the illness model in terms of particular strategies or tactics. In fact, more often than not, the positive psychology strategies borrow from those that have proven useful as traditional psychological treatments. The difference is placed in the domains of psychological functioning that are the focus of assessments and in the specific changes in psychological functioning that interventions are designed to facilitate. That is, positive psychological assessments and interventions focus on the enhancement of people's strengths and assets in addition to, and in times instead, the alleviation of psychological distress.

Nevertheless, Ruini and Fava (2004) presented a protocol for Wellbeing Therapy (WBT), which is a structured, short-term psychotherapeutic strategy based on an educational model and cognitive theory. In WBT a client is encouraged to identify episodes of wellbeing (even very short ones), and to recognise and challenge the thoughts and beliefs which have led to the premature interruption of wellbeing. The activities that are likely to elicit SWB are then encouraged and reinforced. Preliminary validation studies of WBT with residual phase of affective disorders, such as depression, were also reported by the authors. The participants were assigned randomly to either WBT or CBT. The results suggested that both therapies were associated with a significant

reduction of symptoms. However, when the residual symptoms were compared after treatment, WBT was shown to have an advantage over CBT. The authors concluded that while in the acute phase of affective illness removal of symptoms may yield the most substantial changes, the enhancement of positive experiences appears more effective in its residual phase.

The results of the studies conducted by Ruini and Fava (2004) appear substantially important for the discussion of the present study. They suggest when the traditional psychological treatments, such as CBT, may have an advantage over the more contemporary methods, and when the positive psychology interventions, such as WBT, seem more beneficial. It appears reasonable to propose that the individuals with psychosis who experience high levels of depression should first be provided with a psychological therapy that targets the experiences of depression, in order to alleviate psychological distress. After the depression levels have been alleviated, it seems plausible to suggest that in order to improve the client's SWB and life satisfaction, a positive clinical psychology intervention, such as WBT, should be implemented.

Seligman, Steen, Park and Peterson (2005) reported empirical validation studies (based on randomised control trials) on the efficacy of five psychological interventions to increase individual happiness. One of the investigated interventions focused on building gratitude, two focused on increasing awareness of what is most positive about oneself, and two focused on identifying strengths of character. These interventions were compared to a placebo control. The results suggested that increasing awareness of positive individual features and practicing signature strengths of character made people happier and less depressed for up to six months. Another empirical finding reported by Robbins (2008) suggested that the pursuit of hedonic experiences (i.e. momentary pleasures) was a non-significant predictor of SWB, while eudaimonic experiences, such as engagement in the activities of a person's day-to-day life, were much better predictors of SWB. "To be engaged, to find meaning in that engagement, and to find pleasure through the fulfilment of that meaning and engagement is to live a *full life*" (p. 101).

Those findings, which support the theory of flow, give further indications for possible interventions that can be provided to the individuals with severe mental health difficulties in order to improve their satisfaction with their lives. The theory of flow proposes that the states of happiness can only be achieved through engagement with the activities of everyday life and through involvement in absorbing tasks, such as work or leisure, in which a person exercises individual strengths, talents and interests. This engagement, involvement and absorption in activities lead to the state of a unique harmony in consciousness, the flow (Csikszentmihalyi, 1988, 1997, 2002). Given the stigma and social isolation which are so often reported to be attached to the label of schizophrenia (e.g. Chadwick, 1997; James, 2001; Campbell, 2007), it seems therefore of major importance that people with psychosis are encouraged to pursue activities, interests and hobbies which they find absorbing, and which they had pursued prior to the onset of their difficulties, in order to buffer them against the negative emotional consequences of the objective disadvantages. In the context of the reported studies, it also seems plausible to argue that the individuals with experiences of psychosis need to be assisted in retaining or going back to their jobs, in which they could use their strengths. In fact, the central importance of activities in recovery from psychosis has already been stressed by the Pathfinder Hearing Voices Group (1999), Coleman and Smith (2005), and Whitwell (2005). It is not to say, given the study model utilised within the current research that these objective changes would automatically lead to the improvement in the individuals' satisfaction with life. Rather it is to suggest that the positive experiences of exercising individual resources would help the individuals to buffer against high levels of psychological distress, which in consequence would help to increase life satisfaction. Indeed, the present study has clearly demonstrated that the objective indicators of quality of life do not make people automatically happy or unhappy. Rather, as discussed in detail earlier, these are the emotional responses to individual evaluations of personal circumstances (cognitive model) and the ability to gradually adapt to adverse circumstances (dynamic equilibrium theory) that influence the person's satisfaction with life.

In conclusion, there appear to be three major clinical implications of the present study. Firstly, both the replication of the four-dimension model of happiness and psychological distress and the results of mediational analyses suggest the central role that depression plays in decreasing SWB of an individual with psychosis. Therefore, alleviating psychological distress through addressing depression within a therapeutic intervention provided for psychosis appears essential. For instance, CBT has demonstrated its effectiveness with depression, and techniques employed in CBTp appear very similar to those used in cognitive therapy for depression.

Secondly, not only alleviation of psychological distress in psychosis seems pertinent. From the perspective of Positive Clinical Psychology, interventions that aim to increase an individual's SWB would lead to a further and lasting recovery from psychosis-related distress and protection against a relapse of depression. Since it has been demonstrated in the present study that individuals diagnosed with paranoid schizophrenia were as capable of experiencing positive emotions as any other person from a general population, then Positive Clinical Psychology interventions appear applicable, as well. WBT and other positive interventions (such as building gratitude or identifying strengths of character) have been supported with initial evidence.

Thirdly, more contemporary theories of happiness also seem to provide some guidance on possible interventions that might be employed to increase SWB of individuals with psychosis. Theory of flow has been presented as a possible framework for a range of behaviourally oriented interventions increasing the occurrence of optimal experiences.

Recommendations for Future Research

Several recommendations for future research were already made in the paragraph dedicated to the discussion of mediational analyses. The additional recommendations will now be discussed.

Robbins (2008) argued that due to the nature of eudaimonic understanding of character strengths and virtues, positive psychology researchers need to face the inevitable epistemological and methodological implications of that commitment. In the author's opinion, researchers pursuing a positive psychology perspective on human experience need to adopt qualitative methods in their research and integrate natural scientific and human scientific methods of investigation. Given that the experiences of happiness and evaluations of life satisfaction are heterogeneous in their nature, that is, as argued by Argyle (2001), different people have different values and objectives in their lives, it appears logical to suggest that qualitative studies should follow the current research. The present study was an initial attempt to test the suppositions of one of the SWB models amongst individuals with psychosis. Since the patterns of interactions between psychological distress with happiness were replicated from the general population, it now appears pertinent to establish how individuals with severe psychological difficulties perceive their own levels of life satisfaction, how they think their levels of happiness are affected by their experiences of psychosis, what they do and what they find useful in elevating their levels of happiness, and what interventions they receive that they find helpful in increasing satisfaction with their lives. Qualitative methods of scientific enquiry would therefore appear appropriate to investigate these topics.

Since the potential applicability of positive psychology interventions (e.g. WBT) were argued in the thesis, an empirical investigation of this argument needs to be undertaken. As suggested by Basu (2004), "the ultimate purpose of health interventions is to enhance the quality of life" (p. 35). Therapeutic practice of applied positive psychologists therapeutic aims to privilege clients' resilience rather than their shortcomings and enhance their control in areas that matter to them in order to increase their ability to explore the future from an optimistic perspective (Carr, 2005). Gable and Haidt (2005) stated that there is an ultimate need for positive psychology to develop effective interventions to increase and sustain wellbeing in the individuals. Joseph and Linley (2006) argued that positive clinical psychology should focus on helping individuals with enduring psychological difficulties adapt to adverse and threatening events, and

facilitate growth after adversity (adversarial growth). Unfortunately, these remain merely arguments and, in order to extend the positive psychology focus onto the disadvantaged and stigmatised individuals with severe mental health difficulties, these arguments need to be supported with empirical evidence. Such evidence would encourage the utilisation of positive therapeutic interventions in daily clinical practice with people who experience psychosis, and help them to achieve and maintain higher levels of SWB in their lives. Moreover, as argued earlier in the thesis, the increased happiness and satisfaction levels would also have buffering and preventive benefits against future episodes of heightened psychological distress.

It has already been established that the experience of illness and its treatment might be frightening, disorienting and disabling (Chadwick, 1997). The concept of psychological control, i.e. the sense of being prepared for and having appropriate means to cope with an impending stressful event, has received much attention in positive psychology and led to the development of interventions for patients to prepare them for upcoming procedures. For instance, Taylor and Sherman (2004) reported some studies which demonstrated that how people cope with an illness can affect their subsequent psychological and physical health and illness-related behaviour. Since the individual perception of control over hallucinations has been argued as one of the main determinants of emotional distress in psychosis (e.g. Romme & Escher, 1993, Green et al., 2006), it appears important to investigate the effectiveness of the positive clinical psychology interventions to increase psychological control in people with experiences of psychosis, in order to alleviate their distress and increase their wellbeing.

Carr (2005) argued that from a scientific point of view there are great possibilities for future research related to testing positive psychology theories and models. The author asserted that “there are endless opportunities to empirically test hypotheses derived from these theories about the relationships between large set variables and well-being” (p. 6). However, given that positive psychology starts to have an enormous popular value, because people in general are interested in what they can do to be happier, healthier and more

fulfilled, there is an immense temptation for positive psychology to descend into popularist science. Therefore, as argued by Linley et al. (2006), it is important for the positive psychology movement researchers to conduct quality studies characterised by methodological rigour and practical relevance.

Ethical Reflection

As argued by Taylor and Sherman (2004) research in the field of psychology has focused disproportionately on the negative fallout from acute and chronic illness. Maddux et al. (2004) postulated that despite clinical psychology's deeply entrenched association with medical model, it was time to abandon the illness ideology and replace it with a positive clinical psychology's notions of health, happiness, and human strengths. The present study supports this postulation, and aspires to promote the positive psychology approach to the particularly disadvantaged individuals with severe psychological difficulties, namely to those with experiences of psychosis.

Maddux et al. (2004) argued that the medical model promotes dichotomies between normal and abnormal behaviours, between clinical and non-clinical problems, and between clinical and non-clinical populations, which seems to further isolate and disadvantage people diagnosed with mental illnesses. The results of the present research have shown that people with a diagnosis of paranoid schizophrenia, who given the medical model should present as fundamentally different, are very similar to those from so called non-clinical population in their abilities to experience happiness. The results, therefore, provided some evidence that these dichotomies are misleading and false.

Maddux et al. (2004) argued that conceptions of psychological abnormality, along with specific diagnostic categories and labels, are not facts about people but merely social constructs, which are abstract concepts reflecting shared views that were developed and agreed on collaboratively over time by professionals, theorists, researchers, the media and the culture in which all were embedded. The meanings of these constructs were negotiated rather than discovered or revealed. For these reasons, Maddux et al. (2004) stated that:

The various specific categories of mental disorders found in traditional psychiatric diagnostic schemes... are not psychological facts about people, nor are they testable scientific theories. Instead, they are heuristic social artefacts that serve the same sociocultural goals as do our constructions of race, gender, social class, and sexual orientation – maintaining and expanding the power of certain individuals and institutions, as well as maintaining the social order as defined by those in the power. (p. 326)

Therefore, as concluded by Maddux et al. (2004), the socially constructed illness ideology and associated socially constructed psychiatric diagnostic schemes have resulted in the proliferation of mental illnesses and pathologisation of human existence. Consequently, as argued by Joseph and Linley (2006), professions of clinical psychology, counselling and psychotherapy should not be agents of social control, but agents of personal growth and social change, and challenge both researchers and applied practitioners to rethink their positions in relation to these issues.

The question that needs to be asked here is therefore why the researcher used a diagnostic category as the inclusion criterion for the present study? Given that one of the initial hypotheses was that the four-dimension model of SWB and psychological distress would be replicated within the study sample, the implicit idea was to further demonstrate that the dichotomies implied by the mental illness ideology, even in the case of such a stigmatising diagnosis as this of paranoid schizophrenia, are ambiguous and unhelpful.

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APPENDIXES

Appendix A

Participant Information Sheet

(Version 2, date: 04/11/2009)

Research title: Satisfaction with Life in Psychosis.

We would like to invite you to take part in a research study. Before you decide you need to understand the purpose of the research and what it would involve for you. Please take time to read the following information carefully. Talk to others about the study if you wish. You may wish to talk to your Nurse, Care Coordinator, Social Worker or any other person that can provide independent advice on your participation.

The first part of the information sheet explains the purpose of this study and tells you what will happen to you if you take part. The second part gives you more detailed information about the conduct of the study. Ask us if there is anything that is not clear or if you would like more information. Please feel free to ask your Psychologist any additional questions regarding this research project. Should you wish to talk to the researcher this can be also arranged for you. Take time to decide whether or not you wish to take part.

PART I.

1. Purpose of the study and its background.

Experiences such as hearing voices and having thoughts of being followed or persecuted by others are typical symptoms of psychosis. These are often accompanied by low mood and anxious feelings decreasing person's happiness and life satisfaction.

The aim of this research is to understand in what way the experiences mentioned above affect how satisfied people are with their lives. There have not been any previous studies looking into this subject, therefore the project aims to address this particular gap in the current knowledge.

2. Why have I been invited?

You have been invited to participate in this study because your Psychologist believes your experiences will contribute to our research, and we hope that you may agree to share them.

3. Do I have to participate?

No. Taking part in the research is entirely voluntary. It is up to you to decide whether you want to take part or not. Should you agree to participate, we will then ask you to sign a relevant consent form. You are free to withdraw at any time, without giving any reason. If you decide not to participate, this would not affect the standard of care you receive.

4. What will happen to me if I participate and what will I need to do?

Should you decide to take part, you will be asked to complete three brief questionnaires. This normally takes 15-20 minutes in total. The questionnaires will ask you a number of questions about your current feelings and how satisfied you are with your life. You can complete the questionnaires during your next appointment.

5. Are there any disadvantages of taking part in the study?

Completion of the questionnaires might make you think more about your life. Sometimes, when you answer the questions you may realise that you are not entirely satisfied with your life, which might make you feel sad. If you become distressed at any point of the study, please talk to your Psychologist about these feelings.

6. What are the possible benefits of taking part?

There is no direct benefit of participating in this study. However, by agreeing to take part in the study you will help other Psychologists to have a better understanding of how satisfied the service recipients are with their lives. In the future, this may also help other people with experiences similar to yours feel happier and more satisfied.

7. What happens when the research study stops?

The research data generated by the study will be analysed and will form an important part of the researcher's doctoral thesis.

8. What if there is a problem?

Any complaint about the way you have been dealt with during the study will be addressed. If you are considering participation, please see Part II of this sheet for more information.

9. Will my taking part in the study be kept confidential?

Yes. We will follow ethical and legal practice guidelines and all information about you will be handled in confidence. The details are included in Part II.

If the information in Part I has interested you and you are considering participation, please read the additional information in Part II before making any decision.

PART II.

1. What will happen if I don't want to carry on with the study?

Your involvement with the study will be brief and will not exceed 15-20 minutes. All the data collected will be anonymised. However, if you decide to withdraw from the study after completing the questionnaires, you will need to inform your Psychologist, and we will securely destroy all the collected information.

2. What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions. The contact numbers are listed at the end of this form. If you remain unhappy and wish to complain formally, you can do this through the Lincolnshire Partnership NHS Foundation Trust complaints procedure. Details of the procedure can be obtained from the clinic or at your ward.

3. Will my taking part in this study be kept confidential?

Yes. All information which is collected during the course of the research will be kept strictly confidential, and all personal and demographic information will be anonymised. The consent form signed by you will be filed in your clinical folder. Its copy will be locked securely in a filing cabinet at the University of Lincoln and will be destroyed after completion of the study. You will not need to write your name down on the questionnaires. After you fill them in, you will put them into a sealed envelope, which will then be coded and forwarded to the research team by your Psychologist.

Your Psychologist will not have any access to the completed questionnaires and will not be viewing them. Your participation in the study will have no impact on your medical care.

4. Should any other health care professionals be involved?

It is not necessary to seek consent from any other health professional involved in your care, as they will not be involved in the study at any point of this

research. However, feel free to discuss your participation with anyone who might give you an independent advice.

5. What will happen to the results of the research study?

This study is a major part of the researcher's doctoral thesis and the results will be published in a relevant scientific journal. The published data will be the general outcome of the study and your personal information will not be recognisable. If you are interested in what we have found, the overall research outcome will be given to your Psychologist on a 'Results Information Sheet'. Should you wish to be informed about the results of the research, please notify your Psychologist.

6. Who is organising and funding the study?

The study is organised and funded by The University of Lincoln.

7. Who has reviewed the study?

All research in the NHS is looked at by independent group of people, called a Research Ethics Committee to protect your safety, rights, wellbeing and dignity. This study has been reviewed and given favourable opinion by the Nottingham 1 Research Ethics Committee. It has been also reviewed by the research tutors at the University of Lincoln including an Academic Research Supervisor, and a Clinical Research Supervisor in the NHS.

8. Further information and contact details.

Should you wish to obtain further information, please refer to the following:

- General information about research – your Clinical Psychologist.
- Specific information about this research project – Mr Pawel Mankiewicz (Trainee Clinical Psychologist) or Mr Colin Turner (Consultant Clinical Psychologist): 01522577385.
- Advice as to whether you should participate – your Nurse, Care Coordinator, Care Support Worker, and Social Worker.
- Who you should approach if unhappy with the study – Mr Pawel Mankiewicz (Trainee Clinical Psychologist) or Mr Colin Turner (Consultant Clinical Psychologist): 01522577385.

Appendix B

Participant Consent Form

(Version 2, date: 04/11/2009)

Title of Project: **Satisfaction with Life in Psychosis.**

Names of Researchers: Mr Pawel D. Mankiewicz – *Chief Investigator*
Mr Colin Turner – *Principal Investigator*

Please initial relevant boxes:

1. I confirm that I have read and understand the information sheet dated 18/09/2009 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

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 my participation and all demographic/personal data obtained will be anonymised.

4. I understand that relevant sections of my medical notes and data collected during the study, may be looked at by the research team from University of Lincoln, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.

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

Name of Client

Date

Signature

Name of Person taking consent

Date

Signature

Appendix C

Demographic Data Sheet

Participant code:.....OP/IP

Please circle as applicable:

Gender:	Female Male
Age:	18-29 30-39 40-49 50-59 60-69 70 and above
Marital status:	Single Married Separated Divorced Widowed
Employment status:	Employed full-time (30 hrs or more per week) Employed part-time Unemployed Full-time student Retired Full-time homemaker or carer
Ethnicity:	White British White Irish White – any other white background. Mixed – White & Black Caribbean Mixed – White & Black African Mixed – White & Asian Mixed – any other mixed background Asian or Asian British – Indian Asian or Asian British – Pakistani Asian or Asian British – Bangladeshi Asian or Asian British – any other Asian background Black or Black British – Caribbean Black or Black British – African Black or Black British – any other Black background Other Ethnic Groups – Chinese Other Ethnic Groups – any other ethnic group

Categories of ethnicity and employment status based on the IAPT Data Set Questionnaire adapted from: IAPT (2008). *Improving Access to Psychological Therapies outcomes toolkit 2008/9. Relieving distress, transforming lives.* Retrieved January 19th 2010 from <http://www.pro-ne.nhs.uk>

Appendix D
Letter to Care Co-ordinator

Date: 04/11/2009.
Version 1.

Date: _____

To: _____

Dear _____,

We would like to inform you that Mr/Mrs/Ms _____ (NHS No: _____) has agreed to participate in our study titled 'Satisfaction with Life in Psychosis'. The aim of this research is to understand how the positive symptoms of psychosis affect how satisfied people are with their lives.

The client's participation has been anonymous, and involved completing three questionnaires: Brief Symptoms Inventory, Affect Balance Scale, and Satisfaction with Life Scale. The study has been founded by The University of Lincoln, and constituted an integral part of the Chief Investigator's doctoral qualifications in Clinical Psychology.

Should you wish to acquire further information about the study, do not hesitate to contact us.

With kind regards,

Pawel D. Mankiewicz
Trainee Clinical Psychologist
Chief Investigator

Colin Turner
Consultant Clinical Psychologist
Principal Investigator

Appendix E

The Journal of Positive Psychology Guidelines for Authors

1. Introduction

It is essential that authors prepare their manuscripts according to established specifications. Failure to follow them may result in your paper being delayed and the effectiveness of the search capabilities offered by electronic delivery will depend upon the care used by authors in preparing their manuscripts. Therefore, contributors are strongly encouraged to read these instructions carefully before preparing a manuscript for submission, and to check the manuscript for compliance with these notes before submitting it for publication.

2. Submitting a Paper to *The Journal of Positive Psychology*

All submissions should be made online at *The Journal of Positive Psychology's* ScholarOne Manuscripts site. New users should first create an account. Once a user is logged onto the site submissions should be made via the Author Centre.

Please make sure your complete contact address information - including email address - is provided at the time of submission.

3. General Guidelines

The Journal of Positive Psychology considers all manuscripts on the strict condition that they have been submitted only to *The Journal of Positive Psychology*, that they have not been published already, nor are they under consideration for publication or in press elsewhere. Authors who fail to adhere to this condition will be charged with all costs which *The Journal of Positive Psychology* incurs and their papers will not be published.

Contributions to *The Journal of Positive Psychology* must report original research and will be subjected to review by referees.

Writing your paper

- For all manuscripts non-discriminatory language is mandatory. Sexist or racist terms should not be used.
- A typical article will not exceed 7,500 words. Papers that greatly exceed this will be critically reviewed with respect to length. Authors should include a word count with their manuscript.
- Each paper should have four to ten keywords.
- Papers are accepted only in English.
- Manuscripts should be double-spaced throughout including the reference section, with wide (3 cm) margins.
- All the authors of a paper should include their full names, affiliations, postal addresses, telephone and fax numbers and email addresses on the cover page of manuscripts.
- Abstracts (150 word maximum) are required for all papers submitted and should precede the text of a paper.
- Manuscripts should be compiled in the following order: title page; abstract; keywords; main text; acknowledgments; appendixes (as appropriate); references; table(s) with caption(s) (on individual sheets); figure caption(s) (as a list).
- When using a word which is or is asserted to be a proprietary term or trade mark authors must use the symbol® or TM or alternatively a footnote can be inserted using the wording below:

This article includes a word that is or is asserted to be a proprietary term or trade mark. Its inclusion does not imply it has acquired for legal purposes a non-proprietary or general significance, nor is any other judgement implied concerning its legal status.

4. Copyright

As an author, you are required to secure permission if you want to reproduce any figure, table, or extract from the text of another source. This applies to direct reproduction as well as "derivative reproduction" (where you have created a new figure or table which derives substantially from a copyrighted source). For further information and FAQs, please see <http://journalauthors.tandf.co.uk/preparation/permission.asp>.

5. Style guidelines

Description of the Journal's article style (see Appendix F).

Description of the Journal's reference style (please see the internet link: http://www.tandf.co.uk/journals/authors/style/reference/tf_A.pdf); Quick guide (see Appendix G).

Any consistent spelling style is acceptable. Use single quotation marks with double within if needed.

If you have any questions about references or formatting your article, please contact authorqueries@tandf.co.uk (please mention the journal title in your email).

Word templates: Word templates are available for this journal. If you are not able to use the template via the links or if you have any other template queries, please contact authortemplate@tandf.co.uk

6. Free article access

Corresponding authors will receive free online access to their article through our website (www.informaworld.com) and a complimentary copy of the issue containing their article. Reprints of articles published in this journal can be purchased through Rightslink® when proofs are received. If you have any queries, please contact our reprints department at reprints@tandf.co.uk

7. Page Charges

There are no page charges to individuals or institutions.

Appendix F

The Journal of Positive Psychology Article Style

	Goes after refs Text smaller
Spelling preferences	Please consult the instructions for authors
Punctuation	Initials (e.g. US, NJ, BBC) do not have full points between them. For names of article authors and in references, no space between initials (J.P. Smith, Smith, J.P. or Smith JP depending on reference style). Please consult the instructions for authors for additional information
Dashes	Spaced on rules for parenthetical dashes Use an rule between spans of numbers (e.g. 20–40), including page numbers in references
Numbers and units	Numbers: spell out one to nine, then 10, 1000, 10,000 10% (except at start of sentence) Units: follow author
Dates	4 October 2005 in the twenty-first century in the 1970s
Editorial	Editorial (as title) If editorial has a title, use EDITORIAL (section heading) Title of editorial Editor Name <i>Affiliation if wanted</i>
Other article types	Follow style for main article
Book reviews	BOOK REVIEWS (as section heading) Book title: all bold , by Author and Author /edited by Author, Cambridge, Harvard University Press, 2003, xliii + 584 pp., US\$28.95 (paperback), ISBN 0-95-445440-6 Reviewer's Name <i>Affiliation</i> <i>Email</i> (c) year, Author Name
Obituary	References go before reviewer details Next review follows after a space No copyright line on first page of reviews OBITUARY (section heading) Name and dates if given (as title) Author Name <i>Affiliation</i> <i>Email</i>

Taylor & Francis Style No. 4 (double column, titles centred)	
Running heads	<i>(verso)</i> J. Smith and P. Jones or J. Smith et al. if 3 or more authors. If J.B. Smith then initials are closed up <i>(recto)</i> Journal Title centred on pages
Article type (when needed)	RESEARCH ARTICLE bold caps, centred
Title	Bold, first word and proper nouns cap only centred
Authors	An Author and Another Author (initials closed up if J.B. Smith) centred
Affiliation	<i>Department, University, City, Country; Department, University, City, Country</i> centred
Received dates	<i>(Received 20 July 2005; final version received 17 August 2006)</i> After affiliation, centred
Abstract	Text smaller, indented both sides centred
Keywords	Keywords: word; another word; lower case except names Position aligned with abstract, same size as abstract
Correspondence details	Given as footnote on page 1* *Corresponding author. Email: xxxxxxxx ranged left, no indent. Postal address not needed. If there is only one author, use *Email: xxxxxxxx
Headings	A. Bold initial cap only B. Bold italic initial cap only C. <i>Italic initial cap only</i> D. <i>Italic initial cap only</i> . Text runs on All ranged left, numbers to be included if supplied, no indent below. Indented
Paragraphs	(Table 1) in text
Tables	Table 1. Title initial cap only. (ranged left above table) Note: This is a note. (ranged left under table)
Figures	(Figure 1) in text. Figure 1. Caption initial cap only. (ranged left under figure) Note: This is a note. (ranged left under figure)
Displayed quotations	Indented left and right, smaller font (over 40 words, or when appropriate)
Lists	(1) for numbered lists Bullets if wanted
Equations	Equation (1) in text Centred
Acknowledgements	A heading Goes before notes, bio notes and refs Text smaller
Notes	Notes (A heading) A heading Goes before notes, bio notes and refs Text smaller 1. This is a note. 2. This is another note. Text smaller
Notes on contributors	Notes on contributors (A heading) First author details. Line space Second author details. Goes after Acknowledgements, before refs Text smaller
Appendix	Appendix 1. Title if given (A heading)

Appendix G

The Journal of Positive Psychology References Style

Taylor & Francis Reference Style A
APA
Quick Guide
Authors are encouraged to consult the complete style guide for full details of this style, including how to cite references in the text. If you can't access this document online, please contact authorqueries@tandf.co.uk

Journal article	<p>Author, A.A., Author, B.B., & Author, C.C. (Year). Title of article. <i>Title of Periodical</i>, volume number, pp–pp. doi:xx.xxxxxxxx</p> <p>Author, A.A., & Author, B.B. (Year). Title of article. <i>Title of Periodical</i>, volume number, pp–pp. doi:xx.xxxxxxxx</p> <p>Author, A., Author, B., Author, C., Author, D., Author, E., Author, F., ... Author, Z. (Year). Title of article. <i>Title of Periodical</i>, volume number, pp–pp. doi:xx.xxxxxxxx</p>
Book	<p>Author, A.A. (Year of publication). <i>Title of work: Capital letter also for subtitle</i>. Location: Publisher.</p> <p>Author, A.A. (Year of publication). <i>Title of work: Subtitle</i>. Retrieved from http://www.xxxxx</p> <p>Author, A.A. (Year of publication). <i>Title of work: Subtitle</i>. doi:xxxxxxx</p> <p>Editor, A.A., & Editor, B.B. (Eds.). (1997). <i>Title of work: Subtitle</i>. New York, NY: Russell Sage Foundation.</p>
Chapter	<p>Author, A.A., & Author, B.B. (Year of publication). Title of chapter. In A. Editor & B. Editor (Eds.), <i>Title of book</i> (pages of chapter). Location: Publisher.</p> <p>Author, A.A., & Author, B.B. (Year of publication). Title of chapter. In A. Editor & B. Editor (Eds.), <i>Title of book</i> (pages of chapter). Retrieved from http://www.xxxxx</p> <p>Author, A.A., & Author, B.B. (Year of publication). Title of chapter. In A. Editor & B. Editor (Eds.), <i>Title of book</i> (pages of chapter). Location: Publisher. doi:xxxxxxx</p>
Report	<p>Author, A. (2009). <i>Title of report</i> (Research Report No. xx). Retrieved from NGO website: http://www.ngo.xxxxx.pdf</p> <p>National Institute of Mental Health. (1990). <i>Clinical training in serious mental illnesses</i> (DHHS Publication No. ADM 90-1679). Retrieved from http://www.xxxxx.pdf</p> <p>Shuker, R., Openshaw, R., & Soler, J. (Eds.). (1990). <i>Youth, media, and moral panic</i> (Delta Research Monograph No. 11). Retrieved from Massey University, Department of Education website: http://www.university/reports/xxxxx.pdf</p>
Newspaper article	<p>Schultz, S. (2005, December 28). Calls made to strengthen state energy policies. <i>The Country Today</i>, pp. 1A, 2A.</p> <p>Schultz, S. (2005, December 28). Calls made to strengthen state energy policies. <i>The Country Today</i>. Retrieved from http://xxx.xxx.com</p>
Thesis	<p>Author, A.M. (2009). <i>Title of dissertation</i> (Doctoral dissertation). Retrieved from http://www.university/etd/</p> <p>Author, A. (2009). <i>Title of dissertation</i> (Doctoral dissertation/Master's thesis). Retrieved from Database Name. (Accession/Order No.)</p> <p>Wilfley, D.E. (1989). <i>Interpersonal analyses of bulimia</i> (Unpublished doctoral dissertation). University of Missouri, Columbia.</p>
Conference paper, poster session	<p>Author, A. (Year, Month). <i>Title of paper</i>. Paper presented at the meeting of the Society, City, State.</p> <p>Lanktree, C. (1991, February). <i>Early data on the Trauma Symptom Checklist for Children (TSC-C)</i>. Paper presented at the meeting of the American Professional Society on the Abuse of Children, San Diego, CA.</p> <p>Ruby, J., & Fulton, C. (1993, June). <i>Beyond redlining: Editing software that works</i>. Poster session presented at the annual meeting of the Society for Scholarly Publishing, Washington, DC.</p>

10 December 2009
 Mr Pawel Mankiewicz
 LPFT, Specialist Services
 Carlisle Court
 Long Leys Road
 Lincoln
 LN1 1PS

Dear Mr. Mankiewicz

Study Title: Satisfaction With Life in Psychosis
REC reference number: 09/H040384
Protocol number: 1

Thank you for your letter of 18 November 2009, responding to the Committee's request for further information on the above research and submitting revised documentation.

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

Confirmation of ethical opinion

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

Ethical review of research sites

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

Conditions of the favourable opinion

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

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

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.riforum.nhs.uk>. Where the only involvement of the NHS organisation is as a Participant Identification Centre, management permission for research is not required but the R&D office should be notified of the study. Guidance should be sought from the R&D office where necessary.

This Research Ethics Committee is an advisory committee to East Midlands Strategic Health Authority. The National Research Ethics Service (NRES) represents the NRES Directorate within the National Patient Safety Agency and Research Ethics Committees in England.

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

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

Approved documents

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

Document	Version	Date
REC application	22593/63867/1979	21 September 2009
Protocol	1	18 September 2009
Investigator CV	Mankiewicz	11 August 2009
CV	Turner	11 August 2009
CV	Gresswell	
Participant Information Sheet	1	18 September 2009
Participant Consent Form	1	18 September 2009
Referees or other scientific critique report		
Satisfaction with life scale (SWLIC)		
Affect balance scale		
Hand-scored answer sheet		
Brief symptom inventory		
Assignment feed back sheet		21 September 2009
Assignment feedback sheet		
Participant Information Sheet	2	04 November 2009
Participant Consent Form	2	04 November 2009
GFP/consultant Information Sheets	Letter to Participants Care Coordinator/Psychiatrist v1	04 November 2009
Response to Request for Further Information		18 November 2009

Statement of compliance

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

After ethical review

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

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

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

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

Appendix H

NHS Research Ethics Committee Approval Letter

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.
 We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

09/H040384 Please quote this number on all correspondence

Yours sincerely

P. Wood

Dr Kate Pointon
 Chair

Email: trish.wheat@nottspect.nhs.uk

Enclosures: *After ethical review – guidance for researchers*

Copy to: Dr Mark Gresswell – University of Lincoln

R&D office for NHS care organisation at lead site – Lincolnshire Partnership NHS Trust

Appendix I
Research & Development Approval Letter 1

Lincolnshire Partnership 
NHS Foundation Trust

Our ref: 09/H0403/84
15th December 2009

Research and Effectiveness Department
Lincolnshire Partnership NHS Foundation Trust
Unit 8, The Point
Lions Way
Sleaford
Lincolnshire
NG34 8GG

Mr Pawel Mankiewicz
LPFT Specialist Services
Carholme Court
Long Leys Road
Lincoln
LN1 1FS

Tel: 01529 222206
Fax: 01529 222217

Dear Mr. Pawel Mankiewicz,

Re: Trust Approval for Research Study titled; Satisfaction with life in psychosis

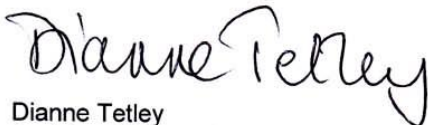
REC Reference: 09/H0403/84

In addition to your approval by the Nottingham Research Ethics Committee 1 (10.12.2009) we are pleased to notify you that Trust approval has now also been granted. You may now commence your research. Please retain this letter to verify that you have Trust approval to proceed.

We may contact you from time to time to monitor progress with your work. If the research is terminated or you complete this work, please let the Research and Effectiveness Department know so they can amend their records.

Do contact us if you require any further advice. We wish you every success with your work.

Yours sincerely



Dianne Tetley
Assistant Director for Research and Effectiveness

Enc: Data Protection Guidance on the transportation of personal identifiable data

Appendix J

Research & Development Approval Letter 2

Please keep this letter with you during the course of your research to confirm that you have Directorate and RMG Dept. approval, to gain access to the areas where your research is taking place. If you or others have concerns they can contact the RMG department on 0115 9681300 ext 10663 or mobile 07747 030196 or by email to jayne.simpson@nottshc.nhs.uk.



Research Management and Governance
Institute of Mental Health
2nd Floor, Duncan MacMillan House
Porchester Road
Nottingham
NG3 6AA
Tel: 0115 969 1300

E-mail: jayne.simpson@nottshc.nhs.uk
Direct Line: ext 10661 / 01663

Our ref: AMH/18/06/10

Date 18/06/2010

Lincolnshire Partnership NHS Foundation Trust
Specialist Services
Carholme Court
Long Leys Road
LN1 1FS

Dear Mr P. Mankiewicz

I am writing to confirm that the following study is authorised to take place within our Trust:

Title: Satisfaction with life Psychosis
Directorate(s): Adult Mental Health Nottinghamshire County and Bassetlaw
Start Date: 18/06/10
End Date: 15/10/10
Outline: The purpose of the study is to investigate whether levels of satisfaction with life amongst those with psychosis depend on symptom severity. Patients will be recruited from those receiving outpatient services and will be asked to complete a brief questionnaire, taking 15 - 20 minutes. 44 patients are needed from Lincolnshire and Nottinghamshire and a Honorary Contract/ letter of access was not required.

We wish you well with your work. In accordance with the Research Governance framework, The Trust RMG Department follows up such work to assess its impact and influence on practice and policy. You will receive a brief progress report form to complete six months after the start of your study which will provide you with the opportunity to let us know of any problems you may be having. We will also ask you for some information at the end of your study.

Yours sincerely

Dr Peter Miller
Medical Director

