# Self-compassion, self-esteem & recovery in psychosis: Investigating the relationships between psychosis severity, content & appraisals.

A thesis submitted to the University of Manchester for the Degree of Doctor of Clinical Psychology in the Faculty of Medical and Human Sciences

2014

Hannah Elizabeth Taylor

School of Psychological Sciences

# List of contents

**Word Count**: (excluding references and appendices)

Paper One: 11,063

Paper Two: 8,647

Paper Three: 4,352

Total word count: 24,062

**Thesis Abstract**

Self-compassion, self-esteem & recovery in psychosis: Investigating the
relationships between psychosis severity, content & appraisals.
Hannah Elizabeth Taylor: A thesis submitted to the University of Manchester for the
Degree of Doctor of Clinical Psychology, June 2014

The aim of this thesis was to explore the relationships between the constructs of self-compassion (SC), self-esteem (SE) and recovery in psychosis. It is presented to the reader as three separate papers. 1) A systematic literature review exploring the relationships between SE and the positive symptoms of psychosis, 2) an empirical study investigating SC, SE, recovery in psychosis and positive psychotic symptoms and 3) a critical appraisal and personal reflection of the processes involved in conducting the research.

Paper one presents a systematic review of the existing literature that explores the relationships between SE and the positive symptoms of psychosis. Thirty-four articles were identified which met the strict criteria. The evidence was mixed and much of it inconclusive. There was some support for the relationship between SE and delusions, in particular paranoia. The evidence for hallucinations was much less conclusive. Recommendations for future research were suggested as were potential clinical implications which arose from the review.

The empirical study presented in paper two explores the relationships between SE, SC and recovery in psychosis, and aimed to assess whether SC was a unique predictor of recovery in psychosis, over and above the impact of SE (using cross-sectional and longitudinal analysis). Further exploratory analysis was conducted to ascertain whether specific positive symptoms of psychosis were related to SC and SE. At baseline, the results indicated that SC did not contribute unique variance in recovery from psychosis over and above that attributable to SE. Longitudinally, SC at baseline was not related to recovery at follow up. Exploratory analysis revealed levels of SE and SC were significantly different in groups who had a presence or absence hallucinations, but not delusions. Methodological strengths and limitations, clinical implications and ideas for future research discussed.

Paper three provides the reader with a critical reflection of the processes involved in the undertaking of the two papers presented. Implications for clinical practice are discussed as well as directions for future research.

Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

Copyright statement

i. The author of this thesis (including any appendices and/or schedules to this thesis) owns certain copyright or related rights in it (the "Copyright") and s/he has given The University of Manchester certain rights to use such Copyright, including for administrative purposes.

ii. Copies of this thesis, either in full or in extracts and whether in hard or electronic copy, may be made only in accordance with the Copyright, Designs and Patents Act 1988 (as amended) and regulations issued under it or, where appropriate, in accordance with licensing agreements which the University has from time to time. This page must form part of any such copies made.

iii. The ownership of certain Copyright, patents, designs, trademarks and other intellectual property (the "Intellectual Property") and any reproductions of copyright works in the thesis, for example graphs and tables ("Reproductions"), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property and/or Reproductions.

iv. Further information on the conditions under which disclosure, publication and commercialisation of this thesis, the Copyright and any Intellectual Property and/or Reproductions described in it may take place is available in the University IP Policy (see http ://www.campus.manchester.ac.uk/medialibrary/policies/intellectual-property.pdf) in any relevant Thesis restriction declarations deposited in the University Library, the University Library's regulations (see http://www.manchester.ac.uk/library/aboutus/regulations) and in The University's policy on presentation of Theses.

**Acknowledgements**

This thesis would not have been possible without the participants who took part and I am grateful for their time and effort. Thank you also to my research supervisor Professor Gill Haddock for all her support and guidance throughout this process. Thank-you Gill for always being available to help and to offer words of support and advice. Thank-you also to Dr James Kelly for our fruitful (and often long!) discussions and to Dr Mary Welford, for your help along the way.

On a personal level, thank-you to my fiancé Paul, for putting up with me through the process of yet another thesis! Thank-you for encouraging me to follow my passion, and for supporting me along this long journey. I promise this is the last one! Thanks also to my beautiful son Noah for his continual smiles and cuddles, they make everything just right. Finally, thank you to my parents for their endless support and encouragement over the years. I hope I've done you proud.

# Paper One

The relationships between self-esteem and positive psychotic symptoms: A

systematic review


This paper has been prepared in accordance with the author guidelines of Clinical

Psychology Review (Appendix A)

**The relationships between self-esteem and positive psychotic symptoms: A systematic review**

Hannah E. Taylor[a*]

James Kelly[b]
Mary Welford[c]
Gillian Haddock[a]


[a] School of Psychological Sciences, University of Manchester, UK, M13 9PL
[b] Lancashire Care NHS Foundation Trust, Blackburn, UK, BB1 3BL
[c] Psychology Associates, Saltash, Cornwall, UK, PL12 6JQ


*Corresponding Author: School of Psychological Sciences, University of

Manchester, 2nd Floor Zochonis Building, Brunswick Street, Manchester, M13 9PL.

UK.

Telephone: +44 (0)161 306 0400
Email address: hannahelizabeth.taylor@postgrad.manchester.ac.uk

**Abstract**

This systematic review explored the relationships between self-esteem (SE) and positive symptoms of psychosis.  There is a plethora of research conducted within this field but as yet, this research has not been synthesised. The review therefore aimed to investigate various aspects relating to the positive symptoms of psychosis, appraisals of psychosis, and the distress and disruption associated with positive psychotic symptoms.

Key psychological and medical online databases were reviewed. Titles and abstracts of all articles were initially read, followed by the full-text of remaining articles. Reference lists were also reviewed for any studies that may have been overlooked in the initial search. Inclusion criteria ensured the articles were (1) from peer reviewed scientific journals, (2) written in English, (3) utilised a clinical adult sample (aged 16+), (4) not theoretical papers, book chapters or conference/dissertation abstracts (5) reported quantitative data, (6) utilised a quantitative measure of SE, (7) did not include only participants with a diagnosis of bipolar disorder and (8) analysed the relationship between SE and psychosis. This search resulted in thirty-four journal articles which met inclusion criteria.

The literature revealed inconsistent findings. Much of the literature related to positive symptoms of psychosis, particularly paranoia.  Findings suggest that there is a negative association between SE and paranoia although no other strong indications or associations were found between hallucinations and appraisals and SE.  More evidence was provided for the emotion consistent account of persecutory delusions, which argues for the direct rather than defensive role of SE in the development and maintenance of delusions.

This review highlights the inconsistencies in the assessment and measurement of SE in relation to psychosis but also draws attention to the importance of assessing SE in people experiencing paranoia. Future research should focus on more longitudinal assessment of the relationship between SE and also the impact of SE on recovery.

**Key words:** psychosis, self-esteem, schizophrenia, systematic-review

**Highlights:**

- There are a number of meaningful links between positive symptoms of psychosis and self-esteem.

- The majority of the research focuses on paranoia and self-esteem, suggesting low self-esteem is related to increased paranoia.

- These links may imply that self-esteem could be a target for intervention when working with people experiencing paranoia.

The relationships between self-esteem and psychosis: A systematic review

## Introduction

Self-esteem (SE) is frequently targeted in psychological approaches to the treatment of psychosis. However, its exact role in the relationship it has with positive psychotic symptoms is unclear, even though it has been subject to various theories. Furthermore, a large amount of research has been conducted within this area but not yet been synthesised in a systematic way. In order to increase our understanding of the relevance of SE in relation to positive symptoms, this article systematically reviews the existing research exploring the relationships between SE in positive symptoms of psychosis.

**Self-esteem**

There are many definitions of SE, however it is widely established to be neither an unchanging "trait" nor a transient "state", but rather a self-concept that fluctuates depending on a number of factors such as social feedback and self-evaluations (Bednar & Peterson, 1995; Crocker & Wolfe, 2001). As a result, SE is thought to develop and fluctuate but remain relatively stable as a result of a person's evaluation of their reactions to life events and circumstances. Along with external feedback, this evaluation is then thought to be internalised as a personal characteristic (Bednar & Peterson, 1995).

**Global and specific self-esteem**

The majority of the literature focuses on *global* SE (Rosenberg et al., 1995). This refers to an individual's overall positive or negative attitude to oneself (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). However, the importance of studying *specific* SE has been highlighted (Brown & Dutton, 1995; Swann, 1987). Specific SE has been defined as one's judgement of a particular facet of oneself

13

(Rosenberg et al., 1995) and relates more directly to behaviour (such as school achievement or success in social relationships) (Owens, Stryker, & Goodman, 2001). It has been argued that global SE is less likely than specific SE to be a good predictor of behaviour, although it is considered to be a good predictor of overall psychological well-being (Rosenberg et al., 1995). Specific SE may have less of a direct impact on overall psychological well-being, as it relates only to one facet of the individual. What impact it does have may be affected by the psychological centrality of the particular facet of the self that is involved (Rosenberg et al., 1995). Much of the research surrounding SE and mental health has focused on mood disorders, where it has been suggested that low SE increases a person's vulnerability to experiencing depression (Beck, 1967). Within the field of mood-disorder research an inverse relationship between global SE and depression has been consistently demonstrated (Rosenberg, 1985; Silverstone & Salsali, 2003; Sowislo & Orth, 2013; Wylie, 1979). However,it has been argued that this may be due to SE and depression being overlapping constructs (Hankin, Lakdawalla, Carter, Abela, & Adams, 2007). Global SE has also been shown to be strongly related to personality and anxiety disorders (Silverstone, 1991; Sowislo & Orth, 2013), with lower levels of SE evident within these populations.

**Self-esteem and psychosis**

SE has become a more prevalent area of study within the field of psychosis (Barrowclough et al., 2003). Research suggests that SE is influential in many aspects of psychosis presentation, including the severity and type of psychotic experiences (e.g. hallucinations and delusions), quality of life, and recovery (Barrowclough et al., 2003; Freeman et al., 1998). Furthermore, a number of environmental factors such as negative family communication (Barrowclough et al., 2003), high expressed emotion

(Butzlaff & Hooley, 1998), stigma (Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001; Staring, Van der Gaag, Van den Berge, Duivenvoorden, & Mulder, 2009), and institutionalisation (Estroff, 1989; Lecomte, Corbiere, & Laisne, 2006) have also been found to be related to SE in people experiencing severe mental health difficulties. There is a suggestion that within psychosis SE is still associated with positive psychotic symptoms (experiences of hallucinations, delusions or thought disorder) when mood is controlled for (Barrowclough et al., 2002). It has been argued that "low SE is a likely product of the psychosis rendering the individual at risk of depression and self-harm and also potentially maintaining symptomatology and further increasing the burden of the disorder" (Hall & Tarrier, 2003, p.318). Additionally, SE in psychosis may take on a contradictory quality whereby individuals can experience both high levels of global negative and positive SE (Barrowclough et al., 2003), and can hold both positive and negative beliefs about the self simultaneously (Taylor et al., 2013).

There is some divergence in the literature with regards to the relationships between SE and psychotic symptoms. Bentall and colleagues have maintained that persecutory delusions originate from the need to protect the individual against low SE as a form of exaggerated attributional bias (Bentall, Corcoran, Howard, Blackwood, & Kinderman, 2001; Bentall, Kinderman, & Kaney, 1994). This model includes the dynamic and fluctuating nature of paranoia and incorporates the instability of SE and psychiatric symptoms, plus contextual factors in which persecutory delusions do not provide a complete defence against low implicit self-esteem reaching awareness. In contrast, Garety and colleagues suggest that negative emotion and low SE have a direct and non-defensive role in the development of symptoms of psychosis (Freeman & Garety, 2003; Freeman, Garety, Kuipers,

Fowler, & Bebbington, 2002; Garety & Freeman, 1999; Garety, Kuipers, Fowler, Freeman, & Bebbington, 2001).

**Self-esteem and delusions.** In relation to the links between specific delusions and SE, much of the research carried out focuses on paranoid or persecutory delusions. A recent systematic review (Kesting & Lincoln, 2013) consistently found low global explicit SE and negative self-schemas in people experiencing persecutory delusions. Research suggests that people who experience a greater severity of persecutory delusions, with higher levels of preoccupation and distress, are likely to experience lower SE and hold negative evaluations about themselves (Smith et al., 2006). Nevertheless, these findings may vary depending on the type of delusion experienced. For example, the severity of *grandiose* delusions has been found to be directly related to higher SE and inversely related to negative beliefs about the self (Smith et al., 2006). Other findings in relation to delusions have suggested that persecutory delusions are associated with unstable SE and that low SE is associated with higher perceived deservedness of the persecution (for a review see Kesting & Lincoln, 2013).

As described, it has been suggested that paranoid delusions are associated with attempts to maintain SE and protect the person from negative thoughts and feelings about the self (Bentall et al., 2001; Bentall et al., 1994; Kinderman & Bentall, 1996). The attempts to avoid such negative thoughts are quite commonly unhelpful, and as such, SE often fluctuates in people with paranoia (Thewissen, Bentall, Lecomte, van Os, & Myin-Germeys, 2008). This would assume that people with paranoia have generally high SE, however a number of studies have found that this is not the case (Smith et al., 2006) and Garety and colleagues suggest that negative beliefs about the self may contribute to the formation and maintenance of

some delusions through the theme of the delusion and it's consistency with firmly held distorted views of the self (Garety et al., 2001).

**Self-esteem and hallucinations.** Low SE has also been found to be a feature in those who experience auditory hallucinations (Smith et al., 2006) and in the development of hallucinations (Romm et al., 2011). Individuals with psychosis, who experience more depression and lower SE, have greater severity of auditory hallucinations, with more negative content and distress (Smith et al., 2006). Barrowclough and colleagues also found a small but significant negative relationship between positive evaluations of the self and auditory hallucinations, and a highly significant positive relationship between negative evaluations of the self and auditory hallucinations (Barrowclough et al., 2003).

**Measurement of self-esteem in psychosis.**

There are a number of explicit SE measures that are described in the psychosis literature. The most commonly utilised measures include the Self-Esteem Rating Scale (SERS; Nugent & Thomas, 1993), the Self-Esteem Rating Scale- Short Form (SERS-SF; Lecomte et al., 2006), and the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). Other measures include the Index of Self-Esteem (ISE; Hudson, 1982) and the Self-Concept questionnaire (SCQ; Robson, 1989).  The use of two scales, positive and negative SE in the SERS and SERS-SF has been recognised as being important for individuals with psychosis (Barrowclough et al., 2003). In addition, the RSES and SERS-SF have been validated in psychosis populations and strengths of the SERS-SF include its swiftness to complete and its adequate psychometric properties (Lecomte et al., 2006).

However, a number of criticisms of the scales have been reported. These include the need for validation in samples experiencing serious mental health

difficulties (SERS) (Lecomte et al., 2006). Furthermore, criticisms of the RSES include difficulties in detecting changes over time, comparisons of individuals and the fact that they are mood-dependent (Barrowclough et al., 2003; Nugent & Thomas, 1993; Torrey, Mueser, McHugo, & Drake, 2000). The ISE has been criticised for its floor affect although it has good reported reliability (.90) and validity (.60) (Nugent & Thomas, 1993). The validity of using self-report questionnaires has also received some disapproval because they only assess global SE (Andrews & Brown, 1993; Brown, Bifulco, Veiel & Andrews, 1990).

The use of semi-structured interview to measure SE has also been discussed. The modified Self-Evaluation and Social Support interview- schizophrenia version (SESS-sv; Humphreys, Barrowclough, & Andrews, 2001) modified from the Andrews & Brown (1991) SESS is one such measure which has good psychometric properties and is considered as useful in addressing more in-depth evaluations of the self, including the co-existence of both positive and negative SE and the ability to distinguish SE from mood variations (Barrowclough et al., 2003). However, there are limitations with this measure, including the length of the interview and the need for training to administer it (Lecomte et al., 2006).

Although most of the research and measures focus on explicit SE, there is a body of evidence exploring implicit SE. Implicit SE is often defined as non-conscious, automatic, and over-learned self-evaluations (Greenwald & Banaji, 1995; Pelham & Hetts, 1999). It has been argued that scores obtained via implicit, as opposed to explicit measures are more apt to capture unfiltered aspects of SE (Dijksterhuis, Albers, & Bongers, 2008; Olson, Fazio, & Hermann, 2007).

Because of the distinction between implicit and explicit SE, it has been argued that these constructs require different measurement strategies (Greenwald &

Farnham, 2000). Researchers have endeavoured to measure implicit SE in people with persecutory delusions using an implicit measure of attributional style and an emotional stroop task (Kinderman, 1994; Lyon, Kaney, & Bentall, 1994). Another method for measuring implicit SE is the Implicit Association Test (IAT). The IAT does not necessitate introspection on the part of the respondent (Greenwald et al., 2002) and reduces self-presentation bias (Egloff & Schmukle, 2002). This suggests that it may be a useful measure for people experiencing persecutory delusions who are anticipated to be motivated to prevent low implicit SE reaching conscious awareness (MacKinnon, Newman-Taylor, & Stopa, 2011).

Studies have suggested that it is also important to take into account the dynamic aspects of SE when investigating psychological mechanisms (Thewissen et al., 2008). More recently, the use of experience sampling methodology (ESM) is being utilised to achieve this. The feasibility, validity, and reliability of ESM has been shown in previous research with healthy individuals (Jacobs et al., 2005), and also with individuals experiencing psychosis (Delespaul, 1995; Myin-Germeys & van Os, 2007; Myin-Germeys, Van Os, Schwartz, Stone, & Delespaul, 2001) and other mental health difficulties (deVries, 1992; Myin-Germeys et al., 2009).

As a result of all these factors, the aim of this review was to further investigate the relationship between SE and psychosis. Specifically, the main research questions were: (1) What are the relationships between SE and the severity and nature of positive symptoms of psychosis?, (2) How does SE relate to appraisals associated with positive psychotic symptoms and (3) How does SE relate to the distress and disruption associated with positive psychotic symptoms?

**Method**

**Search strategy**

Firstly, inclusion criteria were developed. Inclusion criteria for studies were that they (1) utilised original data from a peer-reviewed scientific journal, (2) were written in English, (3) utilised an adult sample (aged 16+), (4) were not theoretical papers, book chapters or conference/dissertation abstracts, (5) were quantitative, (6) utilised a validated measure of SE, (7) included clinical samples (not general population), (8) did not include only participants with a diagnosis of bipolar disorder and (9) focused on the relationships between SE and psychosis (i.e. correlations and regressions), not just the reporting levels of SE in clinical populations.

A three-step search strategy was utilised for the current review. Firstly, key psychological and medical online databases were reviewed for relevant studies. These databases included Medline (1946- March 2014), EMBASE (1980- March 2014) and PsychINFO (1806- March 2014). Relevant studies were searched for using the following key words (self-esteem OR self-concept) AND (psychosis OR schizophrenia, OR schizoaffective, OR schizophreniform OR paranoia OR delusion OR hallucination). Titles and abstracts were then read to assess inclusion. When there was some doubt as to whether the article met criteria, the full text of that article was then read.

Subsequently, in the second step, the full-texts of the remaining articles were then read to determine whether they met inclusion criteria. Instances of uncertainty were discussed with the fourth author. In the third step, reference lists were reviewed for any studies that may have been overlooked in the initial search. This search process resulted in thirty-four papers being included for review. The search process is summarised in Figure 1.

**Figure 1: Systematic review search process**
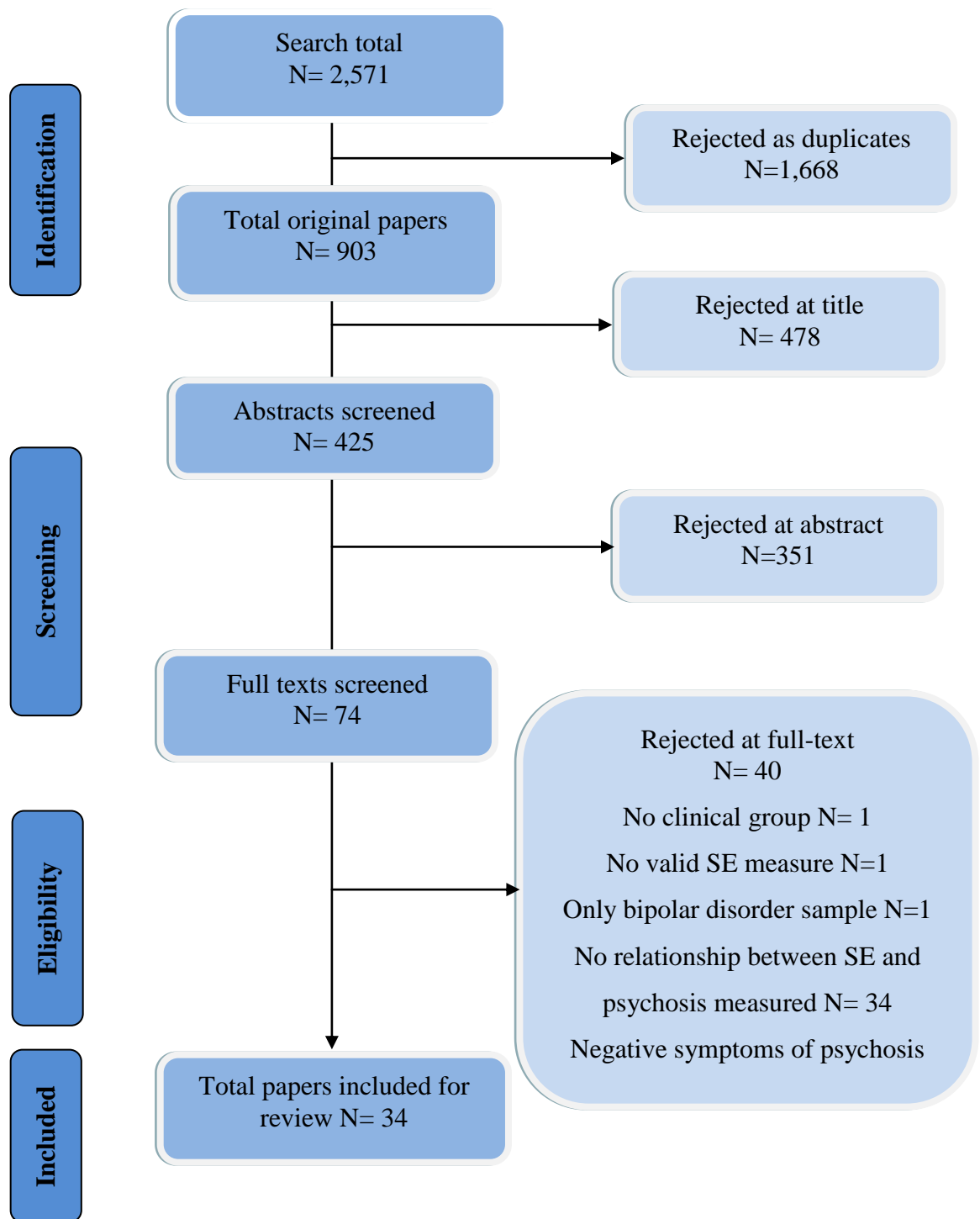


**Quality rating system**

A number of quality rating tools exist for randomised controlled trials, case-control studies, cohort and qualitative studies, few checklists are available to

evaluate the methodological quality of cross-sectional studies. Gilbert (2009)

developed a checklist for cross-sectional studies based on National Institute for Care

Excellence (NICE) checklists (NICE, 2007). Due to this lack of available quality

rating tools for cross-sectional studies, this review employed the checklist outlined

by Gilbert (2009) (Appendix B) and then utilised the NICE rating system for

methodological quality of studies (NICE, 2007) (Appendix C). This NICE rating

system rates the studies from 'good' quality, when all or most of the criteria (from a

quality rating scale checklist such as the one described above) have been fulfilled

(++), to reasonable quality (when some of the criteria have been fulfilled) (+), to

poor quality (when few of the criteria have been fulfilled) (-). Each paper was given

a score out of a possible 16 marks (based on Gilbert's (2009) rating system). It was

decided that a score of 11 or more would be used as a cut-off for the paper to obtain

a 'good' rating. A cut off of 6 or more was used in order to obtain a 'reasonable'

quality rating. Finally, a score of 5 or less was used in order to obtain a 'poor' rating.

This tool had not been widely utilised in previous research and as such is it

not yet a standard tool employed by researchers however it felt as though this was

the most appropriate tool to utilise given the paucity of other suitable rating scales.

All studies were rated by the first author. To determine inter-rater reliability

of study quality ratings, a sample of studies (20% of the total) were also rated by an

independent rater. Initial inter-rater reliability was .83. Remaining discrepancy was

resolved through discussion by both raters.

**Results**

A total of thirty-four studies were included for review. The findings of the

review are presented for the reader in the following format. Firstly, study

characteristics are reported. The key research questions are then presented. Research

question one is separated into sections regarding the overall severity of positive

psychotic symptoms and SE, the relationships between delusions and SE and finally

the relationship between hallucinations and SE. The second and third research

questions are then presented. Firstly, the question regarding the relationship between

SE and appraisals of positive symptoms is presented, and secondly the relationship

between SE and the impact of positive psychotic symptoms.

**Study characteristics**

The oldest study included in the review was published in 1998 (Bowins &

Shugar, 1998) whilst the most recent was 2014 (Paget & Ellett, 2014). From the

thirty-four studies, thirty-one included a cross-sectional design, eight included cross-

sectional and/or longitudinal design and three also utilised ESM. Due to the

inclusion criteria, all studies included clinical populations. One study (Thewissen et

al., 2008) included both clinical and non-clinical populations and analysed their

scores across the groups. Another study (Krabbendam et al., 2002) recruited a

general population sample but followed up on those who had developed psychosis.

The results for the group who developed psychosis are reported in the review results.

**Research Questions**

*(1) What are the relationships between self-esteem and the overall severity*

*of positive symptoms of psychosis?* Twenty-nine of the articles explored the links

between the severity of positive symptoms of psychosis and SE (see Table 1).

*Overall severity of positive symptoms of psychosis*.  Fifteen of the studies

explored the relationship between overall positive symptoms of psychosis and SE

(Barrowclough et al., 2003; Drapalski et al., 2013; Holding, Tarrier, Gregg, &

Barrowclough, 2013; Humphreys & Barrowclough, 2006; Krabbendam et al., 2002;

Magaud, Marshall, Mancuso, & Addington, 2013; Moritz et al., 2010; Morrison et

al., 2013; Pruessner, Iyer, Faridi, Joober, & Malla, 2011; Rodrigues et al., 2013; Roe, 2003; Smith et al., 2006; Sorgaard et al., 2002; Watson et al., 2006; Weinberg et al., 2012). Sample sizes varied hugely from thirty-two (Pruessner et al., 2011) to four hundred and eighteen participants (Sorgaard et al., 2002) which poses difficulties with generalizing the findings of the studies.

Nine of these studies included participants who had a schizophrenia spectrum diagnosis (Barrowclough et al., 2003; Drapalski et al., 2013; Holding et al., 2013; Moritz et al., 2010; Morrison et al., 2013; Rodrigues et al., 2013; Roe, 2003; Sorgaard et al., 2002; Weinberg et al., 2012). Two included participants with "non-affective psychosis" (Smith et al., 2006; Watson et al., 2006) and three included participants with recent onset/first episode psychosis (Humphreys & Barrowclough, 2006; Magaud et al., 2013; Pruessner et al., 2011). One study (Krabbendam et al., 2002) included a large non-clinical sample (N=3,929) and from this those who went on to develop psychosis (N=35) were included in the analysis.

Utilizing the quality rating method described earlier, all but four of the identified papers received a 'good' quality rating; the remaining four (Magaud et al., 2013; Sorgaard et al., 2002; Watson et al., 2006; Weinberg et al., 2012) scored a 'reasonable' quality rating suggesting the findings for all of the studies are valid and can most probably be replicated. In order to score a 'good or 'reasonable' quality rating, the studies utilised representative populations, made explicit the sample characteristics and inclusion criteria, measured outcomes in an objective and valid way, utilised appropriate statistical analysis and minimised the risk of bias or confounding variables. No studies received a 'poor' rating suggesting that the research within the field is of a reasonable to high quality.

Mixed results were found in the fifteen identified articles. Ten found some significant relationships between overall positive symptoms of psychosis scores and SE (Barrowclough et al., 2003; Drapalski et al., 2013; Humphreys & Barrowclough, 2006; Krabbendam et al., 2002; Morrison et al., 2013; Pruessner et al., 2011; Roe, 2003; Smith et al., 2006; Sorgaard et al., 2002; Weinberg et al., 2012). Overall, these studies found that lower SE was related to increased severity of psychotic symptoms. In three of the studies, a positive relationship was found between psychosis score and negative SE and an inverse relationship found between psychosis score and positive SE (Barrowclough et al., 2003; Humphreys & Barrowclough, 2006; Morrison et al., 2013). In two of the studies, when measuring overall SE, higher psychosis scores were significantly associated with lower SE and negative beliefs about the self (Pruessner et al., 2011; Smith et al., 2006). In two studies, negative self-concept was found to predict an increase in positive symptoms (Weinberg et al., 2012) and positive symptoms were shown to be a weak predictor of negative self-concept (Sorgaard et al., 2002). Furthermore, a significant negative relationship was found between increased psychoticism scores and lower SE (Drapalski et al., 2013). In two longitudinal studies, low SE was found to significantly predict the development of psychosis (Krabbendam et al., 2002), and change in SE between discharge from hospital and follow-up (1 year) was significantly related to outcome (psychosis scores) (Roe, 2003).

Of the fifteen articles identified, five found non-significant relationships between the overall positive symptoms of psychosis and SE both longitudinally and cross-sectionally (Holding et al., 2013; Magaud et al., 2013; Moritz et al., 2010; Rodrigues et al., 2013; Watson et al., 2006). Four of the fifteen identified articles

found both significant and non-significant results (Roe, 2003; Smith et al., 2006; Sorgaard et al., 2002; Weinberg et al., 2012).

Ten of the identified articles scored a 'good' quality rating, and the remaining five scored a 'reasonable' rating (Magaud et al., 2013; Roe, 2003; Sorgaard et al., 2002; Watson et al., 2006; Weinberg et al., 2012). This suggests again that the research studies reported were mostly methodologically robust. There does not seem to be any obvious reason as to why some studies found significant relationships and others did not. A variety of measures of psychotic symptoms and SE were utilised in all of the studies (those which revealed significant results and not) and there do not seem to be significant results specifically associated with certain sample populations. Three of the aforementioned studies that did not find significant results utilised a sample of people experiencing first episode psychosis or recent onset psychosis (Humphreys & Barrowclough, 2006; Magaud et al., 2013; Pruessner et al., 2011). Furthermore, one non-significant study included participants with a diagnosis of co-occurring schizophrenia spectrum disorder and substance use disorder (Rodrigues et al., 2013) which could have potentially impacted on the outcome and makes it difficult to compare to other studies which excluded for substance use disorders.

To conclude, research in this area suggests there are some consistent relationships between SE and positive symptoms of psychosis. However, a similar number of the studies identified also reported a number of non-significant relationships between the two constructs leaving an inability to draw any firm conclusions from the area of research. Overall however, more significant relationships were found than non-significant.

***Severity of specific delusions and self-esteem.*** One study (Bowins & Shugar, 1998) found that overall participants experiencing delusions had lower levels of SE and found a significant negative association between delusions and global SE. Eighteen studies however explored specific delusional content types rather than the overall presence/absence of delusions, mainly paranoia and grandiosity.

*Paranoia:* In relation to persecutory delusions, eighteen studies explored the relationships between persecutory delusions (paranoia and suspiciousness) and SE (including negative beliefs about the self; NBS) (Barrowclough et al., 2003; Ben-Zeev, Granholm, & Cafri, 2009; Bentall et al., 2008; Combs et al., 2009; Drake et al., 2004; Garety et al., 2013; Jones, Hansen, Moskvina, Kingdon, & Turkington, 2010; Melo & Bentall, 2013; Moritz et al., 2010; Moritz, Werner, & von Collani, 2006; Rodrigues et al., 2013; Romm et al., 2011; Smith et al., 2006; Thewissen et al., 2008; Thewissen et al., 2011; Udachina, Varese, Oorschot, Myin-Germeys, & Bentall, 2012; Warman & Lysaker, 2011; Watson et al., 2006).

Sample populations in these studies included participants with a diagnosis of a schizophrenia spectrum disorder (Barrowclough et al., 2003; Ben-Zeev et al., 2009; Moritz et al., 2010; Moritz et al., 2006; Rodrigues et al., 2013; Romm et al., 2011; Warman & Lysaker, 2011), participants experiencing non-affective psychosis (Garety et al., 2013; Smith et al., 2006; Watson et al., 2006), participants with current paranoia or persecutory delusions (Bentall et al., 2008; Combs et al., 2009; Melo & Bentall, 2013; Thewissen et al., 2008; Thewissen et al., 2011; Udachina et al., 2012), participants experiencing first episode psychosis (Drake et al., 2004) and 'medication-resistant schizophrenia' (Jones et al., 2010). Sample sizes ranged greatly from N=23 (diagnosis of schizophrenia) (Moritz et al., 2006) to N=257 (Ben-Zeev et al., 2009; Drake et al., 2004). Eleven of the articles received a 'good' quality rating

whilst the remaining seven received a 'reasonable' quality rating. This suggests that the studies reported are likely to be replicable and valid and utilised robust methodology.

Of the eighteen studies which explored paranoia and SE, thirteen found significant relationships between paranoia/persecution/suspiciousness and SE (Ben-Zeev et al., 2009; Bentall et al., 2008; Drake et al., 2004; Garety et al., 2013; Jones et al., 2010; Melo & Bentall, 2013; Moritz et al., 2006; Romm et al., 2011; Smith et al., 2006; Thewissen et al., 2008; Thewissen et al., 2011; Udachina et al., 2012; Warman & Lysaker, 2011). Eleven of these studies found that paranoia was negatively associated with SE (Ben-Zeev et al., 2009; Bentall et al., 2008; Drake et al., 2004; Garety et al., 2013; Jones et al., 2010; Romm et al., 2011; Smith et al., 2006; Thewissen et al., 2008; Thewissen et al., 2011; Udachina et al., 2012; Warman & Lysaker, 2011).

However, one found this result only in participants experiencing "bad me" paranoia[1] (Udachina et al., 2012). Alternatively, using a different methodology (ESM), one study reported that having low SE (and "poor me" paranoia) predicted the experience of "bad me paranoia" within ten days (Melo & Bentall, 2013). Conversely, one of these identified articles found that persecution was positively associated with SE (Moritz et al., 2006). However, the sample size for the schizophrenia group in this study was relatively small (N=23) with only thirteen of the twenty-three participants actually experiencing current persecutory delusions and so the results may not be generalizable. Furthermore, the results should also be

---

[1] People experiencing 'bad me' (BM) paranoia 'tend to blame themselves and see themselves as bad, and view others as justifiably punishing them' (Trower & Chadwick, 1995, p. 265). Alternatively, people experiencing 'poor-me' (PM) paranoia 'tend to blame others, to see others as bad, and to see themselves as victims' (Trower & Chadwick, 1995, p.265) as they believe others are plotting to harm them without any justification.

viewed with caution as the study was exploratory in nature and multiple analyses were two tailed, not adjusted with Bonferroni correction.

Five of the identified articles found some none significant relationships between SE and paranoia/persecution/suspiciousness (Barrowclough et al., 2003; Combs et al., 2009; Moritz et al., 2010; Warman & Lysaker, 2011; Watson et al., 2006). However, one of these studies utilised both the Peter's et al. delusions inventory (PDI; Peters, Joseph & Garety, 1999) and the positive and negative syndrome scales (PANSS; Kay, Fiszbein & Opler, 1987) and found a significant negative association between persecutory beliefs and SE when utilizing the PANSS but not the PDI, suggesting that choice of measure may play a key role when investigating the relationship between these two constructs.

The majority of the evidence suggests that that paranoia or persecution is associated with SE. Most of the evidence suggests that lower levels of SE are related to increases in paranoia. However there is also some evidence suggesting that SE and paranoia are not significantly related and so further research is needed. This may however, be due, in part to the measures utilised, and as such it can be difficult to compare the results.

*Grandiosity:* Nine of the articles identified explored relationships between SE and grandiosity (Barrowclough et al., 2003; Garety et al., 2013; Jones et al., 2010; Moritz et al., 2010; Rodrigues et al., 2013; Romm et al., 2011; Smith et al., 2006; Warman & Lysaker, 2011; Watson et al., 2006) . Sample sizes in these studies ranged from N= 30 (Warman & Lysaker, 2011) to N= 113 (Romm et al., 2011). Populations for these studies included participants with non-affective psychosis (Garety et al., 2013; Smith et al., 2006; Watson et al., 2006), a diagnosis of schizophrenia or schizoaffective disorder (Barrowclough et al., 2003; Moritz et al.,

2010; Rodrigues et al., 2013; Warman & Lysaker, 2011), 'medication resistant' schizophrenia (Jones et al., 2010) and a diagnosis of schizophrenia spectrum disorder (Romm et al., 2011). All studies apart from three (Jones et al., 2010; Warman & Lysaker, 2011; Watson et al., 2006), scored a 'good' quality rating. Again, this suggests that the studies included robust methodology.

Three of the studies demonstrated significant relationships between SE and grandiose delusions (Garety et al., 2013; Moritz et al., 2010; Smith et al., 2006) with all studies using the RSES to measure SE, but utilizing different measures of grandiosity. These studies reported that individuals experiencing grandiose delusions had higher levels of SE and less negative evaluations of themselves. However, the remaining six articles reported no significant relationships between the two constructs. All studies utilised the PANSS to measure grandiosity (apart from Jones et al., 2010 who utilised the comprehensive pathological rating scale (CPRS; Åsberg, Montgomery, Perris, Schalling, & Sedvall, 1978)) but used different measures of SE.

Therefore, the majority of the evidence suggests that SE and grandiose delusions are not consistently linked. Nevertheless, this may be due to the measures utilised, or the different sample populations being explored, and thus it can be difficult to compare the results. Those which utilised the RSES found significant results and those which did not utilise it, did not find such results.

*Other delusional experiences.* Four studies reported the relationships between other delusional experiences and SE (Barrowclough et al., 2003; Romm et al., 2011; Jones et al., 2010; Warman & Lysaker, 2011). Three of the identified studies had samples of participants with a diagnosis of schizophrenia spectrum disorder and one recruited a sample of participants with 'medication resistant schizophrenia' (Jones et al., 2010). Three studies reported no significant relationships between any delusional

experience and SE (Barrowclough et al., 2003; Jones et al., 2010; Romm et al., 2011). One study reported mixed results with significant relationships found between low SE and increased thought broadcast, and thought disturbances (Warman & Lysaker, 2011). However, the sample size in this study was significantly smaller (N=30) than the other three studies. Three of these studies utilised the PANSS, however used different measures of SE (Barrowclough et al., 2003; Romm et al., 2011; Warman & Lysaker, 2011). No conclusive evidence can be taken from these studies, and in order to further clarify these relationships, further research is necessary.

*Severity of hallucinations and self-esteem.* Four of the articles identified explored the relationships between SE and hallucinations, using cross-sectional and longitudinal methodology (Barrowclough et al., 2003; Bowins & Shugar, 1998; Romm et al., 2011; Smith et al., 2006) with varied results. The clinical samples for these studies included participants with non-affective psychosis (Smith et al., 2006), inpatients experiencing current psychotic symptoms (Bowins & Shugar, 1998) and participants with a schizophrenia spectrum diagnosis (Barrowclough et al., 2003; Romm et al., 2011). Sample sizes ranged from N=40 (Bowins & Shugar, 1998) to N=113 (Romm et al., 2011). All articles identified received a 'good' quality rating, suggesting strong methodology.

Results were mixed, and seemed to be dependent on which measure was utilised. When the RSES and /or the SESS-sv, was used, three of the studies found significant negative associations between SE and increased auditory hallucinations (Barrowclough et al., 2003; Romm et al., 2011; Smith et al., 2006). In a longitudinal analysis, SE (measured by the RSES) was found to be a predictor of auditory hallucinations in early psychosis (Romm et al., 2011).

However, no significant relationships between SE and any hallucinatory modality were found in one of the studies which utilised the Coopersmith self-esteem inventory (CSEI, Deusinger, 1986) and the self-rating scale (SRS, Coopersmith, 1959) (Bowins & Shugar, 1998). Furthermore, when utilizing the Brief Core Schema Scales (BCSS; Fowler et al., 2006), auditory hallucinations were not found to be significantly related to negative beliefs about the self (Smith et al., 2006). As a direct result, it is not possible to elucidate whether the results reported are due to the measure utilized or that the relationship between SE and hallucinations is non-existent. In addition, the number of articles identified is too few to draw any firm conclusions from the data and as such further research is necessary to clarify this.

**Summary**

The majority of the studies identified showed a relationship between SE and positive symptoms of psychosis, with significant relationships apparent between the two constructs, mainly overall severity and paranoia. Most of the research in this area has focused on paranoia and SE, with the majority of the articles reporting significant, negative relationships. The concept of "poor me" and "bad me" paranoia has also been explored, with evidence suggesting that the experience of "bad me" as opposed to "poor me" paranoia, may relate to lower levels of SE.

In terms of theory in relation to SE and psychosis, Bentall and colleagues (Bentall et al., 2001; Bentall et al., 1994) have suggested that people experiencing paranoia would engage in defensive processing and as such, positive conscious self-concepts would be maintained. In reviewing the available literature, most of the evidence highlighted paranoia to be associated with more negative self-concepts. As such, there does not seem to be enough evidence to support that the idea that

paranoia acts as defence against low SE (Bentall et al., 1994). However this may be due to the fact that there is currently very little evidence addressing the fluctuating and dynamic nature of SE and psychosis. The majority of the results support the supposition that individuals with paranoia hold negative conscious self-concepts (Freeman et al., 2002).

Limited evidence was reported supporting the relationship between SE and other positive symptoms of psychosis, such as thought broadcast, and as such, further research is required to explore these links.

With regards to hallucinations and SE limited evidence suggested significant relationships between the two constructs, when utilizing the RSES as a tool to measure SE. However, mixed results were reported. All of the studies reported received 'reasonable' to 'good' quality ratings and so show promising outcomes. However more cross-sectional and longitudinal research is needed to further explore these relationships. Finally, little evidence was reported that linked the longitudinal relationships of SE and psychotic experiences, although one study (Krabbendam et al., 2002) did report that low SE at baseline was associated with the development of psychosis. However, this study utilised a small sample size and so further exploration of this is necessary. In addition, as much of the research is cross-sectional, one cannot infer the direction of the reported relationship.

**Table 1: Summary of articles identified for Question 1**

| Author/s and year | Sample | SE measures | Psychosis Measures | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Bowins & Shugar, 1998 | In-patients experiencing current psychotic symptoms in the past month (N= 40) | CSEI SRS | PSE | • Sig negative association between delusions and global SE (GSE) and self-regard.<br>• No sig associations for hallucinations and SE | ++[2] |
| Barrowclough et al., 2003 | Diagnosis of schizophrenia, schizoaffective or schizophreniform disorder (N=59) | RSES SESS-sv | PANSS | • Sig association found between total psychosis scores and SE (positive and negative).<br>• No sig associations between individual positive symptoms and SE<br>• Sig positive associations between NES and hallucinations /delusions.<br>• Sig negative associations between PES and hallucinations but not delusions. | ++ |
| Drake et al., 2004 | First episode psychosis (N=257) | SEI | PANSS PSYRATS | • When paranoia and SE were related, greater paranoia was related to lower SE | ++ |

---

[2] Score indicates that the methodology of the article identified is of a 'good' quality and scored above the cut-off of 11

| Author/s and year | Sample | SE measures | Psychosis Measures | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Sorgaard et al., 2002 | Diagnosis of schizophrenia (minimum 1 year since diagnosis) (N=418) | RSES | BPRS | • Positive symptoms of psychosis were shown to be a weak predictor of negative self-concept. <br> • Positive symptoms did not predict positive self-concept or gross self-concept | +[3] |
| Krabbendam et al., 2002 | Non-clinical population (N=3,929) and analysed those who went onto develop psychosis (N=35) | RSES | CIDI | • Low SE sig predicted development of psychosis | ++ |
| Roe, 2003 | Diagnosis of schizophrenia, schizoaffective, a diagnosis of major affective disorder with psychotic features in hospital (N=43) | RSES | BPRS | • Level of SE at discharge not sig associated with outcome (at 1 year follow up). <br> • Change in SE from discharge to follow up sig associated with outcome | + |
| Moritz et al., 2006 | In-patients with a diagnosis of schizophrenia (N=23), major depressive disorder (N=14), and healthy controls (N=41) | RSES IAT | BPRS | • Sig positive association between paranoia and explicit SE. | + |

[3] Score indicates that the methodology of the article identified is of a 'reasonable' quality and scored about the cut-off of 5

| Author/s and year | Sample | SE measures | Psychosis Measures | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Humphreys & Barrowclough, 2006 | Recent onset of psychosis (N=35); persecutory delusions group (N=15) no persecutory delusions group (N=20) | RSES SESS-sv | PANSS | • Sig positive association between NES, and the severity of psychosis<br>• Sig negative association between total SE and severity of psychosis.<br>Sig positive association between positive symptoms and NES | ++ |
| Smith et al., 2006 | Non-affective psychosis (N=100) | RSES BCSS | PANSS SAPS PSYRATS | • Sig negative association between positive symptoms of psychosis (SAPS) and SE, and negative beliefs about the self (NBS).<br>• No sig associations between positive symptoms (PANSS) and SE or NBS. Sig associations found between both persecutory & grandiose delusions and SE and NBS. | ++ |
| Watson et al., 2006 | Diagnosis of non-affective psychosis (N=100) | RSES | PANSS | • No sig association between SE and psychotic symptoms. | + |
| Bentall et al., 2008 | Current paranoia (N=39), remitted paranoia (N=29), paranoid depression (N=20), non-psychotic depression (N=27) and healthy controls (N=33) | SERS | FPS | • Sig positive association between paranoia and negative SE in all of the groups.<br>• Sig negative association between paranoia and positive SE in the depressed group but not the other groups | + |

| Author/s and year | Sample | SE measures | Psychosis Measures | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Thewissen et al., 2008 | Currently paranoid (N=30), currently non-paranoid (N=34), remitted group (N=15), high schizotypy control (N=38), healthy control group (N=37) | SERS | FPS | • Sig negative association between trait paranoia and trait SE. Sig negative association between trait paranoia and fluctuations in SE. | ++ |
| Combs et al., 2009 | Persecutory delusions (N=32), health controls (N=32), depression control group (N=33) | SERS | FPS | • SE did not predict paranoia scores | + |
| Ben-Zeev et al., 2009 | Diagnosis of schizophrenia (N=144) or schizoaffective disorder (N=55) | SERS-SF | FPS | • Sig negative association between SE and paranoia. Relationship less strong but still significant when depression and anxiety included in mediation analysis | + |
| Jones et al., 2010 | Medication resistant schizophrenia (N=87) | RSES | CPRS | • Sig negative association found between SE and persecution but no other psychotic symptoms. | + |
| Moritz et al., 2010 | Diagnosis of schizophrenia (N=58) and healthy controls (N=44) | RSES | PANSS | • No sig association between SE and positive symptoms of psychosis.<br>• No sig predictors of SE (positive symptoms) | ++ |
| Pruessner et al., 2011 | First episode psychosis (N=32), Ultra High Risk (N=30) and healthy controls (N=30) | SERS | BPRS | • Sig negative association found between SE and total BPRS score | ++ |

| Author/s and year | Sample | SE measures | Psychosis Measures | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Romm et al., 2011 | Schizophrenia spectrum disorder (N=113) | RSES | SCID PANSS | • Sig negative associations between SE and hallucinations and suspiciousness.<br>• No other sig associations found. | ++ |
| Thewissen et al., 2011 | Currently paranoid group (N=30), currently non-paranoid (N=34), remitted group (N=15), high schizotypy group (N=38) and healthy controls (N=37) | ESM | PANSS FPS | • Paranoid episodes were associated with low levels of SE and high levels of negative emotions | ++ |
| Warman & Lysaker, 2011 | Diagnosis of schizophrenia or schizoaffective disorder (N=30) | MSEI | PDI PANSS | • No sig associations between SE and religiously, grandiosity, suspiciousness, paranoid ideation, ideas of reference, or depersonalisation (PDI).<br>• Sig negative associations between SE and persecution, thought disturbance and thought broadcast (PDI). | + |
| Udachina et al., 2012 | Diagnosis of schizophrenia, schizoaffective or delusional disorder and either current or history of persecutory ideation (N=41) and healthy controls (N=23) | SERS-SF ESM SE | PADS PANSS ESM | • Sig negative association found between current paranoia and SE (in bad me, not poor me paranoia). | ++ |

| Author/s and year | Sample | SE measures | Psychosis Measures | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Weinberg et al., 2012 | Diagnosis of schizophrenia spectrum disorder (N=101) | RSES SCCS | PANSS | • Self-concept sig predicted an increase in positive symptoms of psychosis.<br>• Level of SE and SE instability did not sig predict an increase in positive symptoms of psychosis | + |
| Magaud et al., 2013 | First episode psychosis (N= 45) | SERS-SF | PANSS | • Positive or Negative SE not significantly associated with positive symptoms of psychosis | + |
| Morrison et al., 2013 | Participants all had a schizophrenia-spectrum diagnosis (N=122) | SERS-SF | ICD-10 checklist PANSS | • Sig negative relationship found between positive symptoms of psychosis and positive SE<br>• Sig positive relationship found between positive symptoms of psychosis and negative SE | ++ |
| Holding et al., 2013 | Diagnosis of schizophrenia, schizophreniform, psychosis nos, schizoaffective or delusional disorder (N=51) | SESS-sv | PANSS | • No significant relationship between positive symptoms of psychosis and positive or negative self-evaluations | ++ |
| Drapalski et al., 2013 | Diagnosis of schizophrenia spectrum disorder (N=91) | RSES | Brief Symptom Inventory | • Sig negative relationship found between SE and psychoticism | ++ |

| Author/s and year | Sample | SE measures | Psychosis Measures | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Garety et al., 2013 | Current diagnosis of non-affective psychosis (N=31) | RSES BCSS | PANSS | • As SE score increases by 1 point (towards poorer SE) the odds increase for persecutory delusions and decreases for grandiose delusions<br>• Negative SE predicted an increase chance of persecutory delusions. | ++ |
| Melo & Bentall, 2013 | Current paranoia ("poor me" and "bad me", (N=45) and healthy control group (N=25) | RSES | PADS, PDP | • Experiencing poor me paranoia and having low SE at the previous assessment point made it more likely that individuals would experience BM paranoia subsequently. | ++ |
| Rodrigues et al., 2013 | Diagnosis of schizophrenia or schizoaffective disorder & substance-use disorder (N=52) | RSES | PANSS | • No sig relationships found between PANSS factors and SE | ++ |

(2) ***How does SE relate to appraisals associated with positive psychotic symptoms?*** Seven of the identified articles focused on the relationships between appraisals of psychotic experiences and SE (Table 2). Sample sizes varied from twenty-five (Freeman, Garety, & Kuipers, 2001) to one-hundred clinical participants (Smith et al., 2006). Sample populations included a diagnosis of schizophrenia spectrum disorder (Freeman et al., 2001; Udachina et al., 2012), current paranoia or persecutory delusions (Green et al., 2006; Melo & Bentall, 2013; Paget & Ellett, 2014), non-affective psychosis (Smith et al., 2006) and medication resistant schizophrenia (Freeman et al., 1998). All of the articles reported received a 'good' quality rating apart from one (Paget & Ellett, 2014) which received a 'reasonable' rating. This suggests that majority of the studies are of a good quality, are valid, and utilise robust methodology. As such, the results presented can be interpreted with confidence.

Three of these studies explored appraisals of the power of the persecutor and SE, and whether the person felt the persecutor was malevolent or omnipotent (Freeman et al., 2001; Green et al., 2006; Paget & Ellett, 2014). No significant relationships were found in two of these studies (Freeman et al., 2001; Paget & Ellett, 2014). However increased feelings of power in relation to the persecutor were found to be negatively correlated with SE in another study, in participants experiencing persecutory delusions (Green, et al., 2006). As the initial two studies had relatively small sample sizes, further research is needed to be able to draw any firm conclusions as to the nature of the relationship between appraisals of power in relation persecutory delusions and SE.

One study explored appraisals of controllability of auditory hallucinations and SE (Smith et al., 2006). It was found that controllability was significantly

positively related to SE (as measured by the RSES) with results suggesting that as beliefs about the controllability of hallucinations increase, so do levels of SE. However this was not true of the relationship between controllability and negative beliefs about the self (as measured by the BCSS). Due to the fact that only one study explored controllability and SE, more research is needed to further examine these relationships and consequently, no firm conclusions can be drawn.

Two studies explored conviction in delusional experiences and its relationship to SE (Freeman et al., 1998; Smith et al., 2006). No significant relationships were reported. However it was found that as delusional conviction decreased over time so did the "value of existence" factor of SE (as measured by the SCQ) (Freeman et al., 1998). However, overall this shows little evidence for the relationship between conviction in delusional experiences and SE.

Two studies investigated the perceived deservedness of paranoid experiences and its relationship to SE (Melo & Bentall, 2013; Udachina et al., 2012), the latter utilizing experience sampling methodology (ESM). A moderate but significant inverse relationship was found between feelings of deservedness and SE in a clinical group (Melo & Bentall, 2013). However, this relationship was no longer significant when scores were calculated across both clinical and non-clinical participants. Furthermore, negative SE was positively (and positive SE negatively) correlated with both a questionnaire based and ESM measurement of deservedness (Udachina et al., 2012). Again, these are promising results; however the sample sizes for these two studies were relatively small. Therefore, in order to draw any firm conclusions, more research is needed.

Summary

Regarding the relationships between appraisals in psychosis and SE, no firm evidence is reported supporting the relationship between conviction and delusional experiences. There is some evidence which supports the relationship between perceived power of the persecutor and SE, and deservedness of persecution and low SE. However, there is also evidence to the contrary and so further research is necessary before firm conclusions can be drawn. More research is required exploring controllability and conviction of delusional experiences and SE in order to make any judgements regarding the nature of their relationships.

**Table 2: Summary of articles identified for Question 2**

| Author/s and year | Sample | SE measure | Psychosis measure | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Freeman et al., 1998 | Medication resistant psychosis (N=53) | SCQ | SCAN | • No sig relationship between delusional conviction and SE.<br>• No sig relationships found between the linear trend for delusional conviction and linear trend for total SE.<br>• Sig association between decrease in delusional conviction over time and decrease in "value of existence" factor of SE | ++[4] |
| Freeman et al., 2001 | Diagnosis of schizophrenia, schizoaffective or delusional disorder + current persecutory delusions (N=25) | RSES | Mental-state exam and case-notes | • No sig association between the power of the persecutor and SE | ++ |
| Green et al., 2006 | Current persecutory delusions and non-affective psychosis (N=70) | RSES | SAPS | • Sig negative association between increased feelings of power in relation to persecution and SE | ++ |

---

[4] Score indicates that the methodology of the article identified is of a 'good' quality and scored above the cut-off of 11

| Author/s and year | Sample | SE measure | Psychosis measure | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Smith et al., 2006 | Non-affective psychosis (N=100) | RSES BCSS | PANSS SAPS PSYRATS | • Delusional conviction not sig related to SE or negative beliefs about the self. <br> • Controllability sig positively associated with SE but not negative beliefs about the self. | ++ |
| Udachina et al., 2012 | Diagnosis of schizophrenia, schizoaffective or delusional disorder plus current or history of paranoia (N=41) and health controls (N=23) | SERS-SF ESM SE | PADS PANSS ESM deserved-ness | • Sig association between SE (positive and negative) and deservedness of persecution. | ++ |
| Melo & Bentall, 2013 | Current paranoia ("poor me" and "bad me") (N=45) and healthy control group (N=25) | RSES ESM | PADS, PDP | • A moderate but significant negative relationship found between feelings of deservedness and SE. However, this relationship was no longer significant when scores were calculated across both clinical and non-clinical participants. | ++ |
| Paget & Ellett, 2014 | Current persecutory delusions (inpatient and outpatient) (N=30) | RSES | SAPS, PANSS, PSYRATS | • No sig relationship found between appraisal of persecutor (as malevolent or omnipotent) and SE | +[5] |

[5] Score indicates that the methodology of the article identified is of a 'reasonable' quality and scored about the cut-off of 5

(3) ***How does SE relate to the distress and disruption associated with***

***positive psychotic symptoms?*** Two of the articles identified for the review focused

on the relationships between the impact of psychosis and SE (Haddock et al., 2011;

Smith et al., 2006) (Table 3). Both articles reported sample sizes of N=100. Sample

populations included non-affective psychosis (and within a three month relapse of

positive psychotic symptoms) (Smith et al., 2006), and in the second study, a

diagnosis of a schizophrenia spectrum disorder (Haddock et al., 2011). Both studies

received a 'good' quality rating score.

The first study (Smith et al., 2006), which utilised the Psychotic symptoms

rating scales (PSYRATS; Haddock, McCarron, Tarrier & Faragher, 1999) reported a

number of significant relationships between the impact of psychosis (both

hallucinations and delusions) and SE (as measured by the RSES and the BCSS).

Participants who had lower SE were more preoccupied and distressed by their

delusions. Participants who had lower SE were also more distressed by their

hallucinations. Increased disruption to life due to auditory hallucinations was found

to be significantly related to lower SE. However disruption to life caused by

delusional experiences was not found to be significantly related to SE.

The second study (Haddock et al., 2013) which utilised the Subjective

Experiences of Psychosis Scale (SEPS) reported a number of significant

relationships between the impact of psychosis and SE. The negative impact of

psychotic experiences was found to be negatively correlated with positive SE and

positively correlated with negative SE. Positive dimensions of psychotic experiences

such as the amount of pleasant experiences was significantly correlated with positive

SE, but not negative SE. Similarly, negative dimensions of psychotic experiences

were significantly correlated with negative SE but not positive SE. In addition, a

number of non-significant relationships were also reported, including the positive impact of psychotic experiences and SE, and the impact of positive or negative support and SE. This presents a mixed picture of the role of SE on the impact of psychotic experiences.

**Summary**

Although both articles reported relatively strong sample sizes and achieved good quality ratings, the lack of comparable research conducted in this particular area means no firm conclusions can be drawn the from the studies. They do show some support for the apparent relationship between SE and the impact of psychosis, although more studies are necessary to clarify this link. It may be that this is a relatively new area of focus, as much of the previous research has focused on symptoms of psychosis and SE. One study (Haddock et al., 2011) reported that the negative impact of psychotic experiences was significantly related to negative SE, and positive experiences of psychosis were linked to positive SE. However this study utilised a relatively new measure investigating the impact of psychotic experiences and further research utilizing this measure is needed to further explore this area. The second study (Smith et al., 2006) also found significant relationships. These relationships included the amount and intensity of distress and SE being inversely related, in people experiencing both delusions and hallucinations. More research is required to clarify the nature of this relationship.

**Table 3: Summary of articles identified for Question 3**

| Author/s and year | Sample | SE measure | Psychosis measure | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Smith et al., 2006 | Non-affective psychosis (N=100) | RSES BCSS | PANSS SAPS PSYRATS | • Increased amount and intensity of distress (delusions) sig associated with lower SE and higher NBS.<br>• Disruption to life of delusions not sig associated with SE or NBS.<br>• Amount of preoccupation not sig associated with NBS or SE<br>• Increased duration of preoccupation with delusions sig associated with increased NBS and lower SE.<br>• All subscales related to impact of hallucinations sig positively associated with lower SE.<br>• All hallucination subscales of PSYRATS (apart from disruption to life) sig positively associated with lower NBS | ++[6] |

[6] Score indicates that the methodology of the article identified is of a 'good' quality and scored above the cut-off of 11

| Author/s and year | Sample | SE measure | Psychosis measure | Key Findings | Quality rating |
|---|---|---|---|---|---|
| Haddock et al., 2011 | Diagnosis of schizophrenia, schizoaffective disorder, non-organic psychosis, delusional disorder or acute and transient psychosis (N=100) | SERS | SEPS | • Sig associations found between positive and negative SE and impact of psychotic experiences.<br>• Sig positive associations found between positive SE and positive dimensions of psychosis.<br>• Sig positive association between negative SE and negative dimensions of psychosis.<br>• No sig associations found between any other subscales and SE | ++ |

**Key for tables**: RSES = Rosenberg Self-Esteem Scale, SERS= Self-Esteem Rating Scale , SERS-SV= Self-esteem rating scale (short-form) (Nugent & Thomas, 1993),  SCCS= Self-Concept Clarity Scale (Lecomte et al., 2006), BCSS= Brief Core Schema Scales (Campbell et al., 1996), FSCS= Frankfurt Scales of Self-Concept (Fowler et al., 2006), MSEI= multi-dimensional self-esteem inventory (Deusinger, 1986), IAT= implicit associations test (O'Brien & Epstein, 1987, 1988) , SESS-sv= the Self=Evaluation and Social Support Interview- Schizophrenia version (Greenwald, McGhee, & Schwartz, 1998), SCQ= the Self-Concept Questionnaire (Humphreys et al., 2001), CSEI= Coopersmith Self-Esteem Inventory  (Robson, 1989), SRS= Self Rating Scale (Coopersmith, 1959), PANSS= Positive and Negative Syndrome Scale (Kaney & Bentall, 1989), SAPS= Scale for the assessment for positive symptoms (Kay, Fiszbein, & Opler, 1987), CPRS= Comprehensive Psychopathological Rating Scale (Andreasen, 1984), BPRS = Brief Psychiatric rating scale (Åsberg et al., 1978), FPS= Feningstein Paranoia Scale (Overall & Gorham, 1962), PSE= Present state examination (Fenigstein & Vanable, 1992), SCAN= Schedule for Clinical Assessment in Neuropsychiatry (Miller, O'Connor, & DiPasquale, 1993), SCID= Structured Clinical Interview for DSM-IV disorders (Wing, Babor, Brugha, Burke, & et al., 1990), PSYRATS= Psychotic symptoms rating scales (First & Gibbon, 2004), PDI= Peters et al. Delusions Inventory (Haddock, McCarron, Tarrier, & Faragher, 1999), PADS= Persecution and deservedness scale (Peters, Joseph, & Garety, 1999), CIDI= Composite international diagnostic interview (Melo, Corcoran, Shryane, & Bentall, 2009), SEPS= Subjective experience of psychosis scale (Robins, Wing, Wittchen, Helzer, & et al., 1988), PDP= Perceived deservedness of persecution (Melo & Bentall, 2013).

**Discussion**

The aim of this systematic review was to investigate the evidence

exploring the relationships between SE and the positive symptoms of psychosis.

The research surrounding SE and positive symptoms of psychosis is vast and as

such stringent inclusion criteria and research questions were developed in order

to better investigate these relationships. There is an abundance of research

exploring SE and psychosis, however much of this research does not explore the

relationships between the two constructs. Much of the literature reports levels of

SE in various clinical populations, rather than measuring relationships between

the two constructs. There is a growing consensus that individuals who

experience psychosis present with low levels of SE at different stages of their

illness. However, it is apparent when synthesising the results in this review that

the evidence relating to these relationships is inconclusive, with varying results

dependent on the measures utilised for both SE and psychotic experiences.

**Strengths and limitations of the articles identified.**

There were a number of strengths and limitations of the articles

identified. With regards to strengths, all of the articles received a 'good' or

'reasonable' quality rating suggesting that all or most of the quality criteria had

been fulfilled. Of the articles which scored a 'reasonable' rating, there were a

number of contributory factors which included studies not reporting; how many

people who were asked to take part chose not to, whether participants were

recruited over the same period of time, actual p-values for the main outcomes,

the main potential confounders and taking these into account in the

design/analysis, explicit inclusion criteria, sufficiently described sample

characteristics and minimisation of bias (participant and researcher). However as

previously mentioned, none of the studies received a 'poor' rating thus the quality levels of the studies reported are of a reasonable standard.

By the nature of the review, many of the articles identified utilised cross-sectional analysis. Advantages of cross-sectional analysis include the ability to analyse a number of variables at one time and there is less chance of attrition, however this type of analysis does not afford us the ability to draw any firm conclusions about direction of causality. Some studies utilised longitudinal analysis, which also has its advantages and disadvantages. Such analysis allows us to explore the direction of relationships between two variables, however, attrition rates can be high (e.g. Krabbendam et al., 2002; Weinberg et al., 2012) and there can be confounding variables (which are not measured) but could impact on the results such as medication, family attitudes, psychosocial interventions and social support to name but a few, all which can impact on the results. Therefore, one cannot be absolutely certain that the outcome of the results is solely due to the relationships between the variables (Brain, 2002). Furthermore, these variables could mediate the relationship between SE and psychosis. Only one study identified in the review, explored whether depression and anxiety mediated this relationship (Ben-Zeev et al., 2009 ). Furthermore, some studies conducted multiple analyses, increasing the risk of type I errors.

The majority of the articles identified utilised measures of explicit SE as opposed to implicit SE. A number of studies discuss the measurement of explicit SE and the limitations surrounding this (for details see; Bentall et al., 2001; Bentall et al., 1994; Smith, Freeman, & Kuipers, 2005). Only one of the studies utilised the implicit associations test (IAT) (Greenwald & Banaji, 1995) and measured implicit SE (Moritz et al., 2006). An advantage of using this test is that it provides a direct estimate of implicit SE (Moritz et al., 2006). Additionally,

many of the studies utilised the RSES measure, one that has not been validated

for use within psychosis populations. Self-report measures are open to self-

representation bias (Udachina et al., 2012) and may lead to results inaccurately

reflecting the construct being measured, resulting in over-inflated relationships

between variables (Razavi, 2001). Direct interviews may be preferable to

measure SE, however only two of the identified articles utilised this methodology

(Barrowclough et al., 2003; Humphreys & Barrowclough, 2006).

Other methodological limitations include relatively small sample sizes,

with over a third of the studies recruiting less than 50 participants. However,

some of the studies reported recruited large samples, thus making the findings of

these articles more robust.  The sample populations differed amongst the articles

identified, including participants who were inpatients, outpatients, experiencing

first episode psychosis and remitted psychotic experiences to name but a few

sample characteristics. This makes it difficult to compare studies overall, as

many of them are not representative of the general population of people who

experience psychosis. Furthermore, many of the studies focused on participants

who experienced paranoia. People experiencing current persecutory delusions

may prove to be a difficult sample to recruit into research, due to their concerns

about other people's intentions (MacKinnon et al., 2011). This may result in

selection bias of participants who are experiencing less intense or distressing

delusions.

**Limitations of the review process**

As with all systematic reviews based on published studies, the findings of

this review are subject to publication bias (Hawton, Sutton, Haw, Sinclair, &

Deeks, 2005). In addition, only studies which were published in English were

included, which may have excluded other important studies. Another potential

limitation was that (although only validated measures of SE were included), many of the studies utilised differing measurements of SE. This meant that it was difficult to compare articles identified and often meant there were discrepancies in the outcomes of the studies. However, only including articles which utilised a specific measure of SE would have most definitely limited the generalizability of the results. It has been argued that there are difficulties with utilizing the RSES given the overlap it has with measures of depression (Barrowclough et al., 2003). Barrowclough et al., (2003) controlled for depression in their study and found that the significance between SE and paranoia was lost. It was therefore suggested that any relationship between the RSES and symptomatology was potentially due to the measurement of negative affect reflected in the RSES (Barrowclough et al., 2003). Furthermore, with regards to the RSES, although not many, six of the studies who reported utilizing the RSES found similar results (three exploring grandiosity and three exploring hallucinations) and as such further research utilizing this tool is necessary in order to see if these results are replicated. Similarly, many of the studies utilised different methods to measure experiences of psychosis, ranging from semi-structured interviews to self-report questionnaires, again making it difficult to compare outcomes.

The current review only included studies which utilised clinical populations of people experiencing psychosis. It might have been useful to also include studies which investigated SE and psychosis across the continuum of psychosis, including those investigating both the general population and 'at risk' psychosis population. This may have provided insight into changes in SE across different stages of psychosis. It has been suggested that SE plays an important factor in the development of psychosis (Garety et al., 2001) and so including these populations may help to clarify this further. When exploring the

relationship between overall positive symptoms and SE, three of the studies which utilized a sample of people experiencing first episode psychosis found no significant relationships. It has been argued that the demoralising and stigmatizing effects of psychosis may be less prominent in this group than for a chronic illness, which may explain the lack of significant relationship (Holding et al., 2013). Therefore, it would be interesting to explore the relationships across clinical groups at difference stages of psychosis.

**Clinical implications**

In light of the seemingly strong association between SE and paranoia, these constructs may be an important target for therapeutic interventions. Specifically, interventions could be developed around the psychological processes involved in paranoia and their relationship to SE. Processes involved in concepts such as "poor me" and "bad me" paranoia (Trower & Chadwick, 1995) could be factored into clinical assessment or case formulations on which a subsequent intervention would be based. It seems that SE is a fluctuating concept and so therapists should also be aware of the potential for clients to shift in their evaluations of themselves throughout therapy (Melo, Taylor, & Bentall, 2006). As such ongoing reformulation is important as such states can change regularly and people's perceived deservedness of paranoia can change over time (Melo, Taylor, & Bentall, 2006). The findings of this review give some support to the importance of addressing SE within therapy which is already advocated in cognitive-behavioural interventions for people experiencing psychosis (Fowler, Garety, & Kuipers, 1995; Hall & Tarrier, 2003; Melo et al., 2006; Morrison, Renton, Dunn, Williams, & Bentall, 2003). A pilot study exploring cognitive behavioural therapy for people experiencing psychosis with low SE (Hall & Tarrier, 2003) described participant feedback reporting the intervention as

acceptable, beneficial and well-received. The intervention which focused on SE showed improvements in SE, decreased psychotic experiences and improved social functioning which was apparent at a month follow up (Hall & Tarrier, 2003). However this was a pilot study which utilised a small sample size and so further research is required.

**Future research**

The use of prospective designs is necessary in order to establish predictive relationships and to draw inferences regarding the direction of relationships between SE and psychosis. Although a number of prospective studies were identified within the review, there remains a gap in the evidence exploring these relationships. The prospective studies that have been conducted so far have mainly followed up clinical groups during the course of the illness/disorder. However, it would be interesting and useful to explore how recovery is associated with SE and psychosis and how SE impacts on the recovery journey. More specifically, it may be useful to explore the role of SE plays in recovery from psychosis.

None of the articles identified in this review utilised an experimental manipulation of SE and its relationship with psychotic experiences. This is unsurprising given the obvious ethical issues that would arise when employing such methodology, due to potentially risking a worsening of experiences. A possible solution would be to induce very minimal short term states of low SE, however there may be issues with ecological validity.

Finally, further research could also explore other theoretical constructs which are related to SE, and investigate their relationships within psychosis. Research has explored the relationship between SE and self-compassion and has shown that although they are moderately correlated (Neff, 2005), SC may predict

more stable feelings of self-worth than SE and is less contingent on particular outcomes (Neff & Vonk, 2009).

## Conclusions

This review has revealed that there are some consistent relationships between SE and the positive symptoms of psychosis. There was little direct evidence supporting the relationship between appraisals of psychosis and SE. There seems to be some emerging evidence in the literature regarding the relationship between the impact of psychosis and SE, although this research is minimal and in its infancy. The majority of the research shows strongest links between paranoia and SE, although this is also the area where most research has been conducted. Nevertheless, the relationship between SE and paranoia may still be an important target for therapeutic interventions.

## References

Addington, D., Addington, J., & Maticka-Tyndale, E. (1993). Assessing depression in schizophrenia: The Calgary Depression Scale. *The British Journal of Psychiatry, 163*(Suppl 22), 39-44.

Andreasen, N. C. (1984). *The Scale for the Assessment of Positive Symptoms (SAPS)*. Iowa City, IA: The University of Iowa.

Andrews, B., & Brown, G. W. (1991). *The Self Evaluation and Social Support Interview (SESS)*. Royal Holloway, University of London.

Andrews, B., & Brown, G. W. (1993). Self-esteem and vulnerability to depression: the concurrent validity of interview and questionnaire measures. *Journal of Abnormal Psychology, 102*(4), 565-572.

Åsberg, M., Montgomery, S. A., Perris, C., Schalling, D., & Sedvall, G. (1978). A Comprehensive Psychopathology Rating Scale. *Acta Psychiatrica Scandinavica, 57*(S271), 5-27. doi: 10.1111/j.1600-0447.1978.tb02357.x

Barrowclough, C., Tarrier, N., Humphreys, L., Ward, J., Gregg, L., & Andrews, B. (2003). Self-esteem in schizophrenia: Relationships between self-

evaluation, family attitudes, and symptomatology. *Journal of Abnormal Psychology, 112*(1), 92-99. doi: 10.1037/0021-843X.112.1.92

Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does High Self-Esteem Cause Better Performance, Interpersonal Success, Happiness, or Healthier Lifestyles? *Psychological Science in the Public Interest, 4*(1), 1-44.

Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: the dark side of high self-esteem. *Psychological review, 103*(1), 5-33.

Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.

Bednar, R. L., & Peterson, S. R. (1995). *Self-esteem: Paradoxes and innovations in clinical theory and practice* (2nd ed.): American Psychological Association.

Ben-Zeev, D., Granholm, E., & Cafri, G. (2009). Symptoms of depression and anxiety mediate the relationship between self-esteem and paranoia. *Schizophrenia Research, 115*(2-3), 377-378. doi: 10.1016/j.schres.2009.06.009

Bentall, R. P., Corcoran, R., Howard, R., Blackwood, N., & Kinderman, P. (2001). Persecutory delusions: A review and theoretical integration. *Clinical Psychology Review, 21*(8), 1143-1192. doi: 10.1016/s0272-7358(01)00106-4

Bentall, R. P., & Kaney, S. (1989). Content-specific information processing and persecutory delusions: An investigation using the emotional Stroop test. *British Journal of Medical Psychology, 62*, 355-364.

Bentall, R. P., Kinderman, P., & Kaney, S. (1994). The self, attributional processes and abnormal beliefs: Towards a model of persecutory delusions. *Behaviour Research and Therapy, 32*(3), 331-341. doi: 10.1016/0005-7967(94)90131-7

Bentall, R. P., Rouse, G., Kinderman, P., Blackwood, N., Howard, R., Moore, R., et al. (2008). Paranoid delusions in schizophrenia spectrum disorders and depression: The transdiagnostic role of expectations of negative events and negative self-esteem. *Journal of Nervous and Mental Disease, 196*(5), 375-383. doi: 10.1097/NMD.0b013e31817108db.

Birchwood, M., Meaden, A., Trower, P., Gilbert, P., & Plaistow, J. (2000). The power and omnipotence of voices: subordination and entrapment by voices and significant others. *Psychological Medicine, 30*(02), 337-344.

Birchwood, M., Trower, P., Brunet, K., Gilbert, P., Iqbal, Z., & Jackson, C. (2007). Social anxiety and the shame of psychosis: A study in first episode psychosis. *Behaviour Research and Therapy, 45*(5), 1025-1037. doi: http://dx.doi.org/10.1016/j.brat.2006.07.011

Bowins, B., & Shugar, G. (1998). Delusions and self-esteem. *Canadian Journal of Psychiatry, 43*(2), 154-158.

Braehler, C., Gumley, A., Harper, J., Wallace, S., Norrie, J., & Gilbert, P. (2012). Exploring change processes in compassion focused therapy in psychosis: Results of a feasibility randomized controlled trial. *British Journal of Clinical Psychology*, n/a-n/a. doi: 10.1111/bjc.12009

Brain, C. (2002). *Advanced Psychology: Applications, Issues & Perspectives*: Nelson Thornes.

Brown, G. W., Bifulco, A., Veiel, H. O. F., & Andrews, B. (1990). Self-esteem and depression. *Social Psychiatry and Psychiatric Epidemiology, 25*(5), 225-234. doi: 10.1007/bf00788643

Brown, J. D., & Dutton, K. A. (1995). The thrill of victory, the complexity of defeat: Self-esteem and people's emotional reactions to success and failure. *Journal of personality and social psychology, 68*(4), 712-722. doi: 10.1037/0022-3514.68.4.712

Butzlaff, R. l., & Hooley, J. M. (1998). Expressed emotion and psychiatric relapse: A meta-analysis. *Archives of General Psychiatry, 55*(6), 547-552. doi: 10.1001/archpsyc.55.6.547

Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of personality and social psychology, 70*(1), 141-156. doi: 10.1037/0022-3514.70.1.141

Carter, S. (1998). Neuroendocrine persepctives on social attachment and love. *Psychoneuroendocrinology, 23*(8), 779-818. doi: 10.1016/s0306-4530(98)00055-9

Cinnirella, M., & Loewenthal, K. M. (1999). Religious and ethnic group influences on beliefs about mental illness: A qualitative interview study.

*British Journal of Medical Psychology, 72*(4), 505-524. doi: 10.1348/000711299160202

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*: L. Erlbaum Associates.

Combs, D. R., Penn, D. L., Michael, C. O., Basso, M. R., Wiedeman, R., Siebenmorgan, M., et al. (2009). Perceptions of hostility by persons with and without persecutory delusions. *Cognitive Neuropsychiatry, 14*(1), 30-52. doi: 10.1080/13546800902732970

Coopersmith, S. (1959). A method for determining types of self-esteem. *The Journal of Abnormal and Social Psychology, 59*(1), 87-94. doi: 10.1037/h0048001

Creemers, D. H. M., Scholte, R. H. J., Engels, R., Prinstein, M. J., & Wiers, R. W. (2012). Implicit and explicit self-esteem as concurrent predictors of suicidal ideation, depressive symptoms, and loneliness. [Article]. *Journal of Behavior Therapy and Experimental Psychiatry, 43*(1), 638-646. doi: 10.1016/j.jbtep.2011.09.006

Crocker, J., Moeller, S., & Burson, A. (2010). The Costly Pursuit of Self-Esteem *Handbook of Personality and Self-Regulation* (pp. 403-429): Wiley-Blackwell.

Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin, 130*, 392-414.

Crocker, J., & Wolfe, C. T. (2001). Contingencies of self-worth. *Psychological Review, 108*(3), 593-623. doi: 10.1037/0033-295x.108.3.593

Davis, L. W., Strasburger, A. M., & Brown, L. F. (2007). Mindfulness: an intervention for anxiety in schizophrenia. *Journal of psychosocial nursing and mental health services, 45*(11), 23-29.

Davison, A. C., & Hinkley, D. V. (2006). *Bootstrap Methods and their Application*: Cambridge University Press.

Delespaul, P. (1995). *Assessing schizophrenia in daily life*. Maastricht: ISPER.

Depue, R. A., & Morrone-Strupinsky, J. V. (2005). A neurobehavioral model of affiliative bonding. *Behavioral and Brain Sciences, 28*, 313–395.

Deusinger, I. M. (1986). *Die Frankfurter Selbstkonzeptskalen (FSKN) (the Frankfurt Self-Concept Scales)*. Hogrefe: Gottingen.

deVries, M. W. (1992). *The experience of psychpathology: Investigating mental disorders in their natural settings*. New York: Cambridge University Press.

Dijksterhuis, A., Albers, L. W., & Bongers, K. C. A. (2008). Digging for the real attitude: Lessons from research on implicit and explicit self-esteem. In R. E. Petty, R. H. Fazio & P. Briñol (Eds.), *Attitudes: Insights from the new implicit measures* (pp. 229-250). New York, NY, US: Psychology Press.

Drake, R. J., Pickles, A., Bentall, R. P., Kinderman, P., Haddock, G., Tarrier, N., et al. (2004). The evoluation of insight, paranoia and depression during early schizophrenia. *Psychological Medicine, 34*(2), 285-292. doi: 10.1017/S0033291703008821

Drapalski, A. L., Luckstead, A., Perrin, P. B., Aakre, J. M., Brown, C. H., DeForge, B. R., et al. (2013). A Model of Internalized Stigma and Its Effects on People With Mental Illness. *Psychiatric Services, 64*(3), 265-269. doi: doi: 10.1176/appi.ps.001322012

Egloff, B., & Schmukle, S. C. (2002). Predictive validity of an implicit association test for assessing anxiety. *Journal of personality and social psychology, 83*(6), 1441-1455. doi: 10.1037/0022-3514.83.6.1441

Eicher, A. C., Davis, L. W., & Lysaker, P. H. (2013). Self-Compassion: A Novel Link With Symptoms in Schizophrenia? *The Journal of Nervous and Mental Disease, 201*(5).

Estroff, S. E. (1989). Self, Identity, and Subjective Experiences of Schizophrenia: In Search of the Subject: Oxford University Press.

Fenigstein, A., & Vanable, P. A. (1992). Paranoia and self-consciousness. *Journal of personality and social psychology, 62*(1), 129-138. doi: 10.1037/0022-3514.62.1.129

First, M. B., & Gibbon, M. (2004). The Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) and the Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II). In M. J. H. D. L. Segal (Ed.), *Comprehensive handbook of psychological assessment, Vol. 2: Personality assessment* (pp. 134-143). Hoboken, NJ, US: John Wiley & Sons Inc.

Fowler, D., Freeman, D., Smith, B., Kuipers, E., Bebbington, P., Bashforth, H., et al. (2006). The Brief Core Schema Scales (BCSS): psychometric

properties and associations with paranoia and grandiosity in non-clinical and psychosis samples. *Psychological Medicine, 36*(6), 749-759. doi: 10.1017/S0033291706007355

Fowler, D., Garety, P. A., & Kuipers, L. (1995). *Cognitive behaviour therapy for psychosis: theory and practice*: Wiley.

Frame, L., & Morrison, A. P. (2001). Causes of posttraumatic stress disorder in psychotic patients. *Archives of General Psychiatry, 58*(3), 305-306.

Freeman, D., Garety, P., Fowler, D., Kuipers, E., Dunn, G., Bebbington, P., et al. (1998). The London - East Anglia randomized controlled trial of cognitive-behaviour therapy for psychosis IV: Self-esteem and persecutory delusions. *British Journal of Clinical Psychology, 37*(4), 415-430.

Freeman, D., Garety, P., & Kuipers, E. (2001). Persecutory delusions: Developing the understanding of belief maintenance and emotional distress. *Psychological Medicine, 31*(7), 1293-1306. doi: 10.1017/S003329170100455X

Freeman, D., Garety, P., & Phillips, M. L. (2000). An examination of hypervigilance for external threat in individuals with generalized anxiety disorder and individuals with persecutory delusions using visual scan paths. *Quarterly Journal of Experimental Psychology, 53*(2), 549-567.

Freeman, D., & Garety, P. A. (2003). Connecting neurosis and psychosis: the direct influence of emotion on delusions and hallucinations. *Behaviour Research and Therapy, 41*(8), 923-947. doi: 10.1016/s0005-7967(02)00104-3

Freeman, D., Garety, P. A., Kuipers, E., Fowler, D., & Bebbington, P. E. (2002). A cognitive model of persecutory delusions. *British Journal of Clinical Psychology, 41*(4), 331-347. doi: 10.1348/014466502760387461

Garety, P., & Freeman, D. (1999). Cognitive approaches to delusions: A critical review of theories and evidence. *British Journal of Clinical Psychology*.

Garety, P., Kuipers, E., Fowler, D., Freeman, D., & Bebbington, P. E. (2001). A cognitive model of the positive symptoms of psychosis. *Psychological Medicine, 31*(02), 189-195. doi: doi:10.1017/S0033291701003312

Garety, P. A., Gittins, M., Jolley, S., Bebbington, P., Dunn, G., Kuipers, E., et al. (2013). Differences in Cognitive and Emotional Processes Between

Persecutory and Grandiose Delusions. *Schizophrenia Bulletin, 39*(3), 629-639. doi: 10.1093/schbul/sbs059

Gilbert, N. (2009). *Disclosure of eating disorders and subsequent help seeking.* Clinical Psychology Doctorate Thesis, Birmingham University, Birmingham.

Gilbert, P., & Andrews, B. (1998). *Shame: Interpersonal Behavior, Psychopathology, and Culture*: Oxford University Press.

Gilbert, P., & Irons, C. (Eds.). (2005). *Therapies for shame and self-attacking, using cognitive, behavioural, emotional imagery and compassionate mind training*. London: Routledge.

Gilbert, P., McEwan, K., Mitra, R., Franks, L., Richter, A., & Rockliff, H. (2008). Feeling safe and content: A specific affect regulation system? Relationship to depression, anxiety, stress, and self-criticism. *The Journal of Positive Psychology, 3*(3), 182-191. doi: 10.1080/17439760801999461

Green, C., Garety, P., Freeman, D., Fowler, D., Bebbington, P., Dunn, G., et al. (2006). Content and affect in persecutory delusions. *British Journal of Clinical Psychology, 45*(4), 561-577. doi: 10.1348/014466506X98768

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review, 102*(1), 4-27. doi: 10.1037/0033-295x.102.1.4

Greenwald, A. G., Banaji, M. R., Rudman, L. A., Farnham, S. D., Nosek, B. A., & Mellott, D. S. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review, 109*(1), 3-25. doi: 10.1037/0033-295x.109.1.3

Greenwald, A. G., & Farnham, S. D. (2000). Using the Implicit Association Test to measure self-esteem and self-concept. *Journal of personality and social psychology, 79*(6), 1022-1038. doi: 10.1037/0022-3514.79.6.1022

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of personality and social psychology, 74*(6), 1464-1480. doi: 10.1037/0022-3514.74.6.1464

Gumley, A., Braehler, C., Laithwaite, H., MacBeth, A., & Gilbert, P. (2010). A Compassion Focused Model of Recovery after Psychosis. *International*

*Journal of Cognitive Therapy, 3*(2), 186-201. doi: 10.1521/ijct.2010.3.2.186

Gumley, A., White, C. A., & Power, K. (1999). An interacting cognitive subsystems model of relapse and the course of psychosis. [10.1002/(SICI)1099-0879(199910)6:4<261::AID-CPP211>3.0.CO;2-C]. *Clinical Psychology & Psychotherapy, 6*(4), 261-278.

Haddock, G., McCarron, J., Tarrier, N., & Faragher, E. B. (1999). Scales to measure dimensions of hallucinations and delusions: The psychotic symptom rating scales (PSYRATS). *Psychological Medicine: A journal of Research in Psychiatry and the Allied Sciences, 29*(4), 879-889. doi: 10.1017/s0033291799008661

Haddock, G., Wood, L., Watts, R., Dunn, G., Morrison, A. P., & Price, J. (2011). The Subjective Experiences of Psychosis Scale (SEPS): Psychometric evaluation of a scale to assess outcome in psychosis. *Schizophrenia Research, 133*(1), 244-249. doi: 10.1016/j.schres.2011.09.023.

Hall, P. L., & Tarrier, N. (2003). The cognitive-behavioural treatment of low self-esteem in psychotic patients: a pilot study. *Behaviour Research and Therapy, 41*(3), 317-332. doi: 10.1016/S0005-7967(02)00013-X

Hankin, B. L., Lakdawalla, Z., Carter, I. L., Abela, J. R. Z., & Adams, P. (2007). Are Neuroticism, Cognitive Vulnerabilities and Self–Esteem Overlapping or Distinct Risks for Depression? Evidence from Exploratory and Confirmatory Factor Analyses. *Journal of Social and Clinical Psychology, 26*(1), 29-63. doi: 10.1521/jscp.2007.26.1.29

Hartley, S., Haddock, G., & Barrowclough, C. (2012). Anxiety and depression and their links with delusions and hallucinations in people with a dual diagnosis of psychosis and substance misuse: A study using data from a randomised controlled trial. *Behaviour Research and Therapy, 50*(1), 65-71. doi: http://dx.doi.org/10.1016/j.brat.2011.10.007

Hartley, S., Thomas, N., & Haddock, G. (2009). Delusion and Auditory Hallucination Content Coding Manual (DAHC-MAN), Unpublished Coding Manual.

Hawton, K., Sutton, L., Haw, C., Sinclair, J., & Deeks, J. J. (2005). Schizophrenia and suicide: systematic review of risk factors. *The British Journal of Psychiatry, 187*(1), 9-20. doi: 10.1192/bjp.187.1.9

Holding, J. C., Tarrier, N., Gregg, L., & Barrowclough, C. (2013). Self-esteem and Relapse in Schizophrenia: A 5-Year Follow-up Study. *The Journal of Nervous and Mental Disease, 201*(8). doi: 10.1097/NMD.0b013e31829c4ffc.

Hudson, W. W. (1982). Index of Self-Esteem. In J. Fischer & K. Corcoran (Eds.), *Measures for clinical practice and research: A sourcebook* (4 ed., Vol. 2, pp. 188-189). New York: Oxford University.

Humphreys, L., & Barrowclough, C. (2006). Attributional style, defensive functioning and persecutory delusions: Symptom-specific or general coping strategy? *British Journal of Clinical Psychology, 45*(2), 231-246. doi: 10.1348/014466505X50509

Humphreys, L., Barrowclough, C., & Andrews, B. (2001). *The Self Evaluation and Social Support Interview: Schizophrenia Version (SESS-sv).* Academic Division of Clinical Psychology, University of Manchester.

Hutton, P., Morrison, A. P., Wardle, M., & Wells, A. (2014). Metacognitive Therapy in Treatment-Resistant Psychosis: A Multiple-Baseline Study. [10.1017/S1352465812001026]. *Behavioural and Cognitive Psychotherapy, 42*(02), 166-185.

Jacobs, N., Nicolson, N. A., Derom, C., Delespaul, P., van Os, J., & Myin-Germeys, I. (2005). Electronic monitoring of salivary cortisol sampling compliance in daily life. *Life Sciences, 76*(21), 2431-2443. doi: 10.1016/j/lfs.2004.10.045

Johnson, D. P., Penn, D. L., Fredrickson, B. L., Meyer, P. S., Kring, A. M., & Brantley, M. (2009). Loving-kindness meditation to enhance recovery from negative symptoms of schizophrenia. *Journal of Clinical Psychology, 65*(5), 499-509. doi: 10.1002/jclp.20591

Johnson, W. B., Johnson, S. J., Sullivan, G. R., Bongar, B., Miller, L., & Sammons, M. T. (2011). Psychology in extremis: Preventing problems of professional competence in dangerous practice settings. *Professional Psychology: Research and Practice, 42*(1), 94-104. doi: 10.1037/a0022365

Jones, R. M., Hansen, L., Moskvina, V., Kingdon, D., & Turkington, D. (2010). The relationship between self-esteem and psychotic symptoms in schizophrenia: A longitudinal study. *Psychosis: Psychological, Social*

*and Integrative Approaches, 2*(3), 218-226. doi: 10.1080/17522431003602430

Jordan, C. H., Spencer, S. J., Zanna, M. P., Hoshino-Browne, E., & Correll, J. (2003). Secure and defensive high self-esteem. *Journal of personality and social psychology, 85*(5), 969-978.

Kaney, S., & Bentall, R. P. (1989). Persecutory delusions and attributional style. *British Journal of Medical Psychology, 62*(2), 191-198. doi: 10.1111/j.2044-8341.1989.tb02826.x

Kay, S. R., Fiszbein, A., & Opler, L. A. (1987). The Positive and Negative Syndrome Scale (PANSS) for Schizophrenia. *Schizophrenia Bulletin, 13*(2), 261-276. doi: 10.1093/schbul/13.2.261

Kay, S. R., Opler, L. A., & Lindenmayer, J.-P. (1988). Reliability and validity of the Positive and Negative Syndrome Scale for schizophrenics. *Psychiatry Research, 23*(1), 99-110. doi: 10.1016/0165-1781(88)90038-8

Kernis, M. H. (2003). Toward a Conceptualization of Optimal Self-Esteem. *Psychological Inquiry, 14*(1), 1-26. doi: 10.1207/s15327965pli1401_01

Kernis, M. H. (2005). Measuring Self-Esteem in Context: The Importance of Stability of Self-Esteem in Psychological Functioning. [10.1111/j.1467-6494.2005.00359.x]. *Journal of Personality, 73*(6), 1569-1605.

Kesting, M.-L., & Lincoln, T. M. (2013). The relevance of self-esteem and self-schemas to persecutory delusions: A systematic review. *Comprehensive Psychiatry, 54*(7), 766-789. doi: 10.1016/j.comppsych.2013.03.002

Kinderman, P. (1994). Attentional bias, persecutory delusions and the self-concept. *British Journal of Medical Psychology, 67*(1), 53-66. doi: 10.1111/j.2044-8341.1994.tb01770.x

Kinderman, P., & Bentall, R. P. (1996). A new measure of causal locus: the internal, personal and situational attributions questionnaire. *Personality and Individual Differences, 20*(2), 261-264. doi: 10.1016/0191-8869(95)00186-7

Kirkbride, J. B., Barker, D., Cowden, F., Stamps, R., Yang, M., Jones, P. B., et al. (2008). Psychoses, ethnicity and socio-economic status. *The British Journal of Psychiatry, 193*(1), 18-24.

Krabbendam, L., Janssen, I., Bak, M., Bijl, R. V., de Graaf, R., & van Os, J. (2002). Neuroticism and low self-esteem as risk factors for psychosis.

*Social Psychiatry and Psychiatric Epidemiology, 37*(1), 1-6. doi: 10.1007/s127-002-8207-y

Krstev, H., Jackson, H., & Maude, D. (1999). An investigation of attributional style in first-episode psychosis. *British Journal of Clinical Psychology, 38*(2), 181-194.

Laithwaite, H., O'Hanlon, M., Collins, P., Doyle, P., Abraham, L., Porter, S., et al. (2009). Recovery After Psychosis (RAP): A Compassion Focused Programme for Individuals Residing in High Security Settings. *Behavioural and Cognitive Psychotherapy, 37*(05), 511-526. doi: doi:10.1017/S1352465809990233

Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of personality and social psychology, 92*(5), 887-904. doi: 10.1037/0022-3514.92.5.887

Lecomte, T., Corbiere, M., & Laisne, F. (2006). Investigating self-esteem in individuals with schizophrenia: Relevance of the Self-Esteem Rating Scale-Short Form. *Psychiatry Research, 143*(1), 99-108. doi: 10.1016/j.psychres.2005.08.019

Link, B. G., Struening, E. L., Neese-Todd, S., Asmussen, S., & Phelan, J. C. (2001). Stigma as a barrier to recovery: The consequences of stigma for the self-esteem of people with mental illnesses. *Psychiatric services (Washington, D.C.), 52*(12), 1621-1626. doi: 10.1176/appi.ps.52.12.1621

Liotti, G., & Gilbert, P. (2011). Mentalizing, motivation, and social mentalities: Theoretical considerations and implications for psychotherapy. *Psychology and Psychotherapy: Theory, Research and Practice, 84*(1), 9-25. doi: 10.1348/147608310x520094

Lyon, H. M., Kaney, S., & Bentall, R. P. (1994). The defensive function of persecutory delusions. Evidence from attribution tasks. *The British Journal of Psychiatry, 164*(5), 637-646. doi: 10.1192/bjp.164.5.637

MacBeth, A., & Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review, 32*(6), 545-552. doi: http://dx.doi.org/10.1016/j.cpr.2012.06.003

MacKinnon, K., Newman-Taylor, K., & Stopa, L. (2011). Persecutory delusions and the self: An investigation of implicit and explicit self-esteem. *Journal of Behavior Therapy and Experimental Psychiatry, 42*(1), 54-64. doi: 10.1016/j.jbtep.2010.05.003

Magaud, E., Marshall, C., Mancuso, E., & Addington, J. (2013). Use of the Self-Esteem Rating Scale—Short Form in a first episode of psychosis sample. *Schizophrenia Research, 143*(2), 399-400. doi: 10.1016/j.schres.2012.11.022

Mann, M., Hosman, C. M. H., Schaalma, H. P., & de Vries, N. K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. *Health Education Research, 19*(4), 357-372.

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*, 954-969.

Mayhew, S. L., & Gilbert, P. (2008). Compassionate mind training with people who hear malevolent voices: a case series report. *Clinical Psychology & Psychotherapy, 15*(2), 113-138. doi: 10.1002/cpp.566

McKenna, G., Haddock, G., & Fox, J. (2014). The nature of decision making in eating disordered populations: A systematic review. ClinPsyD Thesis. The University of Manchester. UK.

Melo, S., & Bentall, R. P. (2013). 'Poor me' versus 'Bad me' paranoia: The association between self-beliefs and the instability of persecutory ideation. *Psychology and Psychotherapy: Theory, Research and Practice, 86*(2), 146-163. doi: 10.1111/j.2044-8341.2011.02051.x

Melo, S., Corcoran, R., Shryane, N., & Bentall, R. P. (2009). The persecution and deservedness scale. *Psychology and Psychotherapy: Theory, Research and Practice, 82*(3), 247-260. doi: 10.1348/147608308x398337

Melo, S., Taylor, J. L., & Bentall, R. P. (2006). Poor me versus bad me paranoia and the instability of persecutory ideation. *Psychology and Psychotherapy: Theory, Research and Practice, 79*(2), 271-287. doi: 10.1348/147608305x52856

Miller, L. J., O'Connor, E., & DiPasquale, T. (1993). Patients' attitudes toward hallucinations. *American Journal of Psychiatry, 150*(4), 584-588.

Moritz, S., Veckenstedt, R., Randjbar, S., Vitzthum, F., Karow, A., & Lincoln, T. M. (2010). Course and determinants of self-esteem in people diagnosed with schizophrenia during psychiatric treatment. *Psychosis: Psychological, Social and Integrative Approaches, 2*(2), 144-153. doi: 10.1080/17522430903191791

Moritz, S., Werner, R., & von Collani, G. (2006). The inferiority complex in paranoia readdressed: a study with the Implicit Association Test. *Cognitive Neuropsychiatry, 11*(4), 402-415. doi: 10.1080/13546800444000263

Morrison, A., Renton, J., Dunn, H., Williams, S., & Bentall, R. (2003). *Cognitive Therapy for Psychosis: A Formulation-Based Approach*: Taylor & Francis.

Morrison, A. P., Hutton, P., Wardle, M., Spencer, H., Barratt, S., Brabban, A., et al. (2012). Cognitive therapy for people with a schizophrenia spectrum diagnosis not taking antipsychotic medication: an exploratory trial. [10.1017/S0033291711001899]. *Psychological Medicine, 42*(05), 1049-1056.

Morrison, A. P., Shryane, N., Beck, R., Heffernan, S., Law, H., McCusker, M., et al. (2013). Psychosocial and neuropsychiatric predictors of subjective recovery from psychosis. *Psychiatry Research, 208*(3), 203-209. doi: 10.1016/j.psychres.2013.05.008

Morrison, A. P., Turkington, D., Pyle, M., Spencer, H., Brabban, A., Dunn, G., et al. (2014). Cognitive therapy for people with schizophrenia spectrum disorders not taking antipsychotic drugs: a single-blind randomised controlled trial. *The Lancet, 383*(9926), 1395-1403. doi: http://dx.doi.org/10.1016/S0140-6736(13)62246-1

Myin-Germeys, I., Oorschot, M., Collip, D., Lataster, J., Delespaul, P., & van Os, J. (2009). Experience sampling research in psychopathology: opening the black box of daily life. *Psychological Medicine, 39*(09), 1533-1547. doi: 10.1017/S0033291708004947.

Myin-Germeys, I., & van Os, J. (2007). Stress-reactivity in psychosis: Evidence for an affective pathway to psychosis. *Clinical Psychology Review, 27*(4), 409-424. doi: 10.1016/j.cpr.2006.09.005

Myin-Germeys, I., Van Os, J., Schwartz, J. E., Stone, A. A., & Delespaul, P. A. (2001). Emotional reactivity to daily life stress in psychosis. *Archives of General Psychiatry, 58*(12), 1137-1144. doi: 10.1001/archpsyc.58.12.1137.

National Institute for Clinical Excellence. (2007). *The guidelines manual*. London.

Neff, K. D. (2003a). The Development and Validation of a Scale to Measure Self-Compassion. *Self and Identity, 2*(3), 223-250.

Neff, K. D. (2003b). Self-Compassion: An Alternative Conceptualization of a Healthy Attitude Toward Oneself. *Self and Identity, 2*(2), 85-101.

Neff, K. D. (2011). Self-Compassion, Self-Esteem, and Well-Being. [10.1111/j.1751-9004.2010.00330.x]. *Social and Personality Psychology Compass, 5*(1), 1-12.

Neff, K. D., Kirkpatrick, K. L., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality, 41*(1), 139-154. doi: 10.1016/j.jrp.2006.03.004

Neff, K. D., & Vonk, R. (2009). Self-Compassion Versus Global Self-Esteem: Two Different Ways of Relating to Oneself. *Journal of Personality, 77*(1), 23-50. doi: 10.1111/j.1467-6494.2008.00537.x

Neil, S. T., Kilbride, M., Pitt, L., Nothard, S., Welford, M., Sellwood, W., et al. (2009). The questionnaire about the process of recovery (QPR): A measurement tool developed in collaboration with service users. *Psychosis, 1*(2), 145-155. doi: 10.1080/17522430902913450

Nugent, W. R., & Thomas, J. W. (1993). Validation of a Clinical Measure of Self-Esteem. *Research on Social Work Practice, 3*(2), 191-207. doi: 10.1177/104973159300300205

O'Brien, E. J., & Epstein, S. (1987, 1988). *MSEI: The Multidimensional Self-Esteem Inventory*. Odessa, FL: Psychological Assessment Resources, Inc.

Olson, M. A., Fazio, R. H., & Hermann, A. D. (2007). Reporting Tendencies Underlie Discrepancies Between Implicit and Explicit Measures of Self-Esteem. *Psychological Science, 18*(4), 287-291. doi: 10.1111/j.1467-9280.2007.01890.x

Overall, J. E., & Gorham, D. R. (1962). The Brief Psychiatric Rating Scale. *Psychological Reports, 10*, 799-812. doi: 10.2466/pr0.1962.10.3.799

Owens, T. J., Stryker, S., & Goodman, N. (2001). *Extending Self-Esteem Theory and Research*: Cambridge University Press.

Paget, A., & Ellett, L. (2014). Relationships Among Self, Others, and Persecutors in Individuals With Persecutory Delusions: A Repertory Grid Analysis. *Behavior Therapy, 45*(2), 273-282. doi: 10.1016/j.beth.2013.12.001

Palmier-Claus, J., Dunn, G., Drake, R., & Lewis, S. (2011). The negative and positive self: A longitudinal study examining self-esteem, paranoia and negative symptoms in individuals with first-episode psychosis. *Early Intervention in Psychiatry, 5*(2), 150-155.

Pelham, B. W., & Hetts, J. J. (1999). Implicit and explicit personal and social identity: Toward a more complete understanding of the social self. In T. Tyler & R. Kramer (Eds.), *The Psycholology of the social self*. Mahwah, NJ: Erlbaum.

Peters, E. R., Joseph, S. A., & Garety, P. A. (1999). Measurement of Delusional Ideation in the Normal Population: Introducing the PDI (Peters et al. Delusions Inventory). *Schizophrenia Bulletin, 25*(3), 553-576.

Pitt, L., Kilbride, M., Nothard, S., Welford, M., & Morrison, A. P. (2007). Researching recovery from psychosis: a user-led project. *Psychiatric Bulletin, 31*(2), 55-60.

Pruessner, M., Iyer, S. N., Faridi, K., Joober, R., & Malla, A. K. (2011). Stress and protective factors in individuals at ultra-high risk for psychosis, first episode psychosis and healthy controls. *Schizophrenia Research, 129*(1), 29-35. doi: 10.1016/j.schres.2011.03.022

Razavi, T. (2001). Self-report Measures: an Overview of concerns and limitations of questionnaire use in Occupational Stress Research (Discussion papers in Accounting and Management Science, 23pp). Southampton, UK: University of Southampton School Of Management.

RedbridgeCVS. (2008). Barriers to seeking help: What stops ethnic minority groups in Redbridge accessing mental health services  Retrieved 20th May 2014, from http://www.redbridgecvs.net/index.php?nuc=documents&id=6&cat=11

Robins, L. N., Wing, J., Wittchen, H. U., Helzer, J. E., & et al. (1988). The Composite International Diagnostic Interview: An epidemiologic

instrument suitable for use in conjunction with different diagnostic systems and in different cultures. *Archives of General Psychiatry, 45*(12), 1069-1077. doi: 10.1001/archpsyc.1988.01800360017003

Robson, P. (1989). Development of a new self-report questionnaire to measure self esteem. *Psychological Medicine, 19*(02), 513-518. doi: doi:10.1017/S003329170001254X

Rodrigues, S., Serper, M., Novak, S., Corrigan, P., Hobart, M., Ziedonis, M., et al. (2013). Self-Stigma, Self-Esteem, and Co-occurring Disorders. *Journal of Dual Diagnosis, 9*(2), 129-133. doi: 10.1080/15504263.2013.777988

Roe, D. (2003). A prospective study on the relationship between self-esteem and functioning during the first year after being hospitalized for psychosis. *Journal of Nervous and Mental Disease, 191*(1), 45-49. doi: 10.1097/00005053-200301000-00008

Romm, K., Rossberg, J., Hansen, C., Haug, E., Andreassen, O., & Melle, I. (2011). Self-esteem is associated with premorbid adjustment and positive psychotic symptoms in early psychosis. *BMC Psychiatry, 11*(1), 136. doi: 10.1186/1471-244X-11-136

Rosenberg, M. (1965). *Society and the Adolescent Self-Image*. Princeton, NJ: Princeton University Press.

Rosenberg, M. (1985). Self-concept and psychological well-being in adolescence. In R. Leahy (Ed.), *The Development of the Self* (pp. 205-246): New York Academic Press.

Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review, 60*(1), 141-156. doi: 10.2307/2096350

Schore, A. N. (1994). *Affect regulation and the origin of the self: The neurobiology of emotional development*. Hillsdale, NJ: Lawrence Erlbaum.

Sedikides, C. (1993). Assessment, enhancement, and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychiatry, 65*(317-338).

Silverstone, P. (1991). Low self-esteem in different psychiatric conditions. *British Journal of Clinical Psychology, 30*(2), 185-188. doi: 10.1111/j.2044-8260.1991.tb00936.x

Silverstone, P., & Salsali, M. (2003). Low self-esteem and psychiatric patients: Part I – The relationship between low self-esteem and psychiatric diagnosis. *Annals of General Hospital Psychiatry, 2*(2). doi: 10.1186/1475-2832-2-2

Slade, M. (2009). *Personal Recovery and Mental Illness: A Guide for Mental Health Professionals*: Cambridge University Press.

Smith, B., Fowler, D. G., Freeman, D., Bebbington, P., Bashforth, H., Garety, P., et al. (2006). Emotion and psychosis: Links between depression, self-esteem, negative schematic beliefs and delusions and hallucinations. *Schizophrenia Research, 86*(1-3), 181-188. doi: 10.1016/j.schres.2006.06.018

Smith, N., Freeman, D., & Kuipers, E. (2005). Grandiose delusions: An experimental investigation of the delusion as defense. *Journal of Nervous and Mental Disease, 193*(7), 480-487. doi: 10.1097/01.nmd.0000168235.60469.cc

Sorgaard, K. W., Heikkila, J., Hansson, L., Vinding, H. R., Bjarnason, O., Bengtson-Tops, A., et al. (2002). Self-esteem in persons with schizophrenia. A Nordic multicentre study. *Journal of Mental Health, 11*(4), 405-415. doi: 10.1080/09638230020023769

Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological Bulletin, 139*(1), 213-240. doi: 10.1037/a0028931

Staring, A. B. P., Van der Gaag, M., Van den Berge, M., Duivenvoorden, H. J., & Mulder, C. L. (2009). Stigma moderates the associations of insight with depressed mood, low self-esteem, and low quality of life in patients with schizophrenia spectrum disorders. *Schizophrenia Research, 115*(2-3), 363-369. doi: 10.1016/j.schres.2009.06.015

Stone, L., & Finlay, W. M. L. (2008). A Comparison of African-Caribbean and White European Young Adults' Conceptions of Schizophrenia Symptoms and the Diagnostic Label. *International Journal of Social Psychiatry, 54*(3), 242-261.

Swann, W. B. (1987). Identity negotiation: Where two roads meet. *Journal of personality and social psychology, 53*(6), 1038-1051. doi: 10.1037/0022-3514.53.6.1038

Taylor, H.E., Stewart, S.L.K., Dunn, G., Parker, S., Fowler, D., & Morrison, A.P. (2013). Core schemas across the continuum of psychosis: A comparison of
clinical and non-clinical groups. *Behavioural and Cognitive Psychotherapy,*
*First View,* 1-13. doi: 10.1017/S13524655813000593

Thewissen, V., Bentall, R. P., Lecomte, T., van Os, J., & Myin-Germeys, I. (2008). Fluctuations in Self-Esteem and Paranoia in the Context of Daily Life. *Journal of Abnormal Psychology, 117*(1), 143-153. doi: 10.1037/0021-843X.117.1.143.

Thewissen, V., Bentall, R. P., Oorschot, M., à Campo, J., van Lierop, T., van Os, J., et al. (2011). Emotions, self-esteem, and paranoid episodes: An experience sampling study. *British Journal of Clinical Psychology, 50*(2), 178-195. doi: 10.1348/014466510X508677

Torrey, W. C., Mueser, K. T., McHugo, G. H., & Drake, R. E. (2000). Self-esteem as an outcome measure in studies of vocational rehabilitation for adults with severe mental illness. *Psychiatric services (Washington, D.C.), 51*(2), 229-233. doi: 10.1176/appi.ps.51.2.229

Trower, P., & Chadwick, P. (1995). Pathways to Defense of the Self: A Theory of Two Types of Paranoia. *Clinical Psychology: Science and Practice, 2*(3), 263-278. doi: 10.1111/j.1468-2850.1995.tb00044.x

Udachina, A., Varese, F., Oorschot, M., Myin-Germeys, I., & Bentall, R. P. (2012). Dynamics of self-esteem in "poor-me "bad-me" paranoia. *Journal of Nervous and Mental Disease, 200*(9), 777-783. doi: 10.1097/NMD.0b013e318266ba57

Upthegrove, R., Atulomah, O., Brunet, K., & Chawla, R. (2013). Cultural and social influences of negative illness appraisals in first-episode psychosis. *Early Intervention in Psychiatry, 7*(4), 399-406. doi: 10.1111/j.1751-7893.2012.00389.x

Warman, D. M., & Lysaker, P. H. (2011). Delusional ideation and self-esteem in individuals with psychotic disorders. *Journal of Nervous and Mental Disease, 199*(1), 58-61. doi: 10.1097/NMD.0b013e3182044b43

Watson, P. W., Garety, P., Weinman, J., Dunn, G., Bebbington, P. E., Fowler, D., et al. (2006). Emotional dysfunction in schizophrenia spectrum psychosis: the role of illness perceptions. *Psychological Medicine, 36*(6), 761-770. doi: 10.1017/S0033291706007458

Weinberg, D., Shahar, G., Noyman, G., Davidson, L., McGlashan, T. H., & Fennig, S. (2012). Role of the self in schizophrenia: A multidimensional examination of short-term outcomes. *Psychiatry(New York), 75*(3), 285-297. doi: 10.1521/psyc.2012.75.3.285.

Wing, J. K., Babor, T., Brugha, T., Burke, J., & et al. (1990). SCAN: Schedules for Clinical Assessment in Neuropsychiatry. *Archives of General Psychiatry, 47*(6), 589-593. doi: 10.1001/archpsyc.1990.01810180089012

Wood, L., Price, J., Morrison, A., & Haddock, G. (2010). Conceptualisation of recovery from psychosis: a service-user perspective. *The Psychiatrist, 34*(11), 465-470.

Wylie, R. C. (1979). *The Self-Concept* (Vol. 1). Lincoln, NE.: University of Nebraska Press.

# Paper Two

The relationships between self-compassion, self-esteem and recovery in

psychosis

Prepared in accordance with author guidelines for the Journal of Consulting and

Clinical Psychology (Appendix D)

# The relationships between self-compassion, self-esteem and recovery in psychosis

Hannah E. Taylor[1*]

James Kelly[2]

Mary Welford[3]

Gillian Haddock[1]

[1] School of Psychological Sciences, University of Manchester, UK, M13 9PL

[2] Lancashire Care NHS Foundation Trust, Blackburn, UK, BB1 3BL

[3] Psychology Associates, Saltash, Cornwall, UK, PL12 6JQ

*Corresponding Author: School of Psychological Sciences, University of Manchester, 2nd Floor Zochonis Building, Brunswick Street, Manchester, M13 9PL. UK.

Email address: hannahelizabeth.taylor@postgrad.manchester.ac.uk

**Abstract**

**Objective:** The aim of this study was to investigate the relationships between self-esteem (SE), self-compassion (SC), the severity of positive psychotic symptoms and recovery in psychosis. Levels of SE and SC in relation to specific hallucinations and/or delusions were also explored. It was hypothesised that SC would be a unique predictor of recovery in psychosis over and above the impact of SE (when controlling for depression).

**Method:** Ninety-five participants were recruited. All had an ICD-10 diagnosis of schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder or psychotic disorder (not otherwise specified). Sixty-six participants were followed-up at nine months. Participants completed all questionnaires at baseline and follow-up. Cross-sectional and longitudinal analyses were conducted.

**Results:** At baseline, both SC and SE were positively associated with recovery and negatively associated with psychotic symptoms and depression. SC was not a significant predictor of recovery over and above the impact of SE. Longitudinally, SC (at baseline) was not found to be significantly associated with recovery or positive symptoms (at follow up). Exploratory analysis revealed that the presence of delusions was not significantly related to SE or SC. The presence of auditory hallucinations was however significantly related to lower levels of SE and SC. Significantly lower levels of common humanity, mindfulness and self-judgement were found in the presence of auditory hallucinations.

**Conclusions**: The results demonstrated that SE and SC are associated and linked to psychotic symptoms and recovery in psychosis. SE was found to be a unique predictor of recovery over and above the impact of SC. Clinical implications and future research suggestions are discussed.

Key words: psychosis, schizophrenia, self-compassion, self-esteem.

## Introduction

### Self-esteem

Self-esteem (SE) has been defined as an appraisal of self-worth based on the anticipation of evaluation by others, and by personal achievements (Kernis, 2005; Romm et al., 2011). It has been described as a person's global appraisal of his/her negative value based upon the success a person feels they have achieved in different domains and roles in their life (Markus & Nurius, 1986). It has been argued that the short term benefits of pursuing SE outweigh the long-term benefits (Crocker, Moeller, & Burson, 2010; Crocker & Park, 2004) and that people may actually engage in problematic behaviours in order to pursue high SE (for a review see Crocker & Park, 2004). People may try to maintain high SE by ignoring negative feedback as biased or unreliable, and attribute failures to external causes (Sedikides, 1993). They may make downward comparisons which underlie discrimination and prejudice, and become angry or antagonistic towards those who threaten their ego (Baumeister, Smart, & Boden, 1996; Kernis, 2005). Evidence suggests that SE can fluctuate on a day to day basis, as opposed to trait levels of global self-worth which tend to be relatively constant over time (Kernis, 2003; Palmier-Claus, Dunn, Drake, & Lewis, 2011; Thewissen, Bentall, Lecomte, van Os, & Myin-Germeys, 2008).

However, SE is not always unstable and healthy forms of SE also exist (Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003). Positive SE is viewed as a basic feature of positive mental health but is also a shield against the impact of negative experiences and events (Mann, Hosman, Schaalma, & de Vries, 2004). There is an abundance of research indicating the positive impact of

79

SE on a variety of factors including coping with stress and physical illness, quality of life and job satisfaction, to name but a few (see Mann et al., 2004). However, it has been suggested that high SE is not held in such regard, and that other than enhancing persistence, adventurous behaviour and willingness to experiment, seems to have few added benefits (Baumeister, Campbell, Krueger, & Vohs, 2003). Research suggests that experiencing unstable SE means a person is highly focused on the impact of negative events on self-worth which in turn can make them more vulnerable to low mood (Kernis, 2005). Low SE has been shown to play a significant role in the development of various mental health difficulties, with research reporting low SE being associated with depressed mood and suicidal ideation (Creemers, Scholte, Engels, Prinstein, & Wiers, 2012). SE has also been found to predict anxiety and vice versa (Sowislo & Orth, 2013).

There is a growing body of evidence with regards to the relationships between SE and psychosis (for a review see Taylor, Kelly, Welford, & Haddock, 2014). Evidence suggests that positive psychotic symptoms (Jones, Hansen, Moskvina, Kingdon, & Turkington, 2010; Romm et al., 2011; Thewissen et al., 2011) and negative psychotic symptoms (Jones et al., 2010; Palmier-Claus et al., 2011) are associated with low SE. However, "normal" or high SE has also been found in people experiencing psychosis (Kinderman, 1994; Krstev, Jackson, & Maude, 1999). A number of authors have suggested that low SE can contribute to the development of psychotic symptoms (Barrowclough et al., 2003; Drake et al., 2004; Freeman et al., 1998).

There is some divergence in the literature with regards to the relationships between SE and psychotic symptoms. Bentall and colleagues have maintained that persecutory delusions originate from the need to protect the

individual against low SE as a form of exaggerated attributional bias (Bentall, Corcoran, Howard, Blackwood, & Kinderman, 2001; Bentall, Kinderman, & Kaney, 1994). In contrast, Garety and colleagues suggest that negative emotion and low SE have a direct and non-defensive role in the development of symptoms of psychosis (Freeman & Garety, 2003; Garety, Kuipers, Fowler, Freeman, & Bebbington, 2001).

**Self-compassion**

It has been suggested that self-compassion (SC) could be considered as an alternative way of viewing oneself that is not based upon feelings of self-worth (Neff, 2003a, 2003b). Gilbert (2005) suggests that SC enhances well-being because it helps individuals to feel cared for, connected, and emotionally calm. It has been suggested that there are two basic positive affect systems; one is focused on contentment and self-soothing, the other on achieving and "doing" (Depue & Morrone-Strupinsky, 2005). In evolutionary terms, SC focuses on the interaction between motivational, soothing and threat systems (Depue & Morrone-Strupinsky, 2005; Liotti & Gilbert, 2011). SC can work to deactivate and reduce the activation of the threat system (a system which is linked with feelings of defensiveness, avoidance, appeasement and insecurity associated with the limbic system) via the activation of the self-soothing system or affiliative system (Depue & Morrone-Strupinsky, 2005). This is a system linked with feelings of safeness, secure attachment and the oxytocin-opiate system (Gilbert & Irons, 2005). The soothing system is thought to be a major regulator of the threat system. A positive attachment between parent and child integrates and stimulates the soothing system as a natural regulator of threat (Carter, 1998). Early difficult life experiences can disrupt this process and make it hard for people to access the soothing system at times of threat (Schore, 1994). As such,

these people are more likely to experience high levels of shame and self-criticism (Gilbert & Irons, 2005).

Research has shown that SC can be empirically differentiated from SE (Neff, Kirkpatrick, & Rude, 2007). It has been argued that the differences between SE and SC may come, in part, from the different physiological systems each tap into (Gilbert & Irons, 2005). SE represents an evaluation of self-worth (based on superiority/inferiority) that supports the development of social rank stability and is linked to dopamine activation and energizing impulses (Gilbert et al., 2008). In short, SE is related to well-being because it helps people to feel superior and confident whereas SC helps people to feel, secure, content and safe (Neff, 2011). SC is positively associated with social-connectedness and emotional resilience (Neff et al., 2007). In feeling content with others, one is less concerned with one's value in comparison to others (Neff et al., 2007).

There are however overlaps between the two constructs (Neff, 2003a) and SE and SC are moderately correlated. It has been found however, that SC is a stronger, unique negative predictor of anger, self-rumination, social comparisons, contingent and unstable self-worth (Neff & Vonk, 2009) over and above the impact of SE. Research suggests that SC can serve as protective on a number of dimensions including less personal self-evaluation and ego-defensiveness, greater resilience and stability (Neff, 2011).

**Self-compassion in mental health**

A recent meta-analysis has shown a large effect size for the relationship between SC and mental health difficulties (MacBeth & Gumley, 2012). The analysis found that higher-levels of SC were significantly related to lower levels of mental health difficulties including depression, anxiety and stress (MacBeth & Gumley, 2012). Research exploring SC in psychosis is still in its infancy and

much of it is limited to case reports (Davis, Strasburger, & Brown, 2007; Eicher, Davis, & Lysaker, 2013; Johnson et al., 2009; Mayhew & Gilbert, 2008). Recent research exploring the relationship between SC and psychosis has found higher SC scores are associated with lower scores on positive and negative symptoms of psychosis, excitement, and emotional discomfort symptom scales (Eicher et al., 2013). Although research exploring SC and psychosis is in its early stages, that which has been conducted has shown encouraging trends suggesting that lower self-compassion is related to increased clinical symptoms (Eicher et al., 2013).

In relation to SC and psychosis, it is well documented that threat processing and emotional regulation can be difficult for people experiencing psychosis (Bentall & Kaney, 1989; Braehler et al., 2012; Freeman, Garety, & Phillips, 2000; Garety & Freeman, 1999). Fear of relapse, traumatic memories, and feelings of loss, shame, and stigma can add to increase the level of distress and perceived threat (Braehler et al., 2012; Gumley, Braehler, Laithwaite, MacBeth, & Gilbert, 2010). People experiencing psychosis may encounter feelings of shame and fear in response to the return of physiological, emotional or cognitive-perceptual experiences which could indicate the potential for relapse (Gumley, White, & Power, 1999). Fears of being victimised and stigmatised in relation to psychosis can also cause shame (Braehler et al., 2012). Such stigma and resultant shame in people experiencing psychosis can also inhibit affiliative connections to others, which in turn can increase feelings of entrapment (Birchwood, Meaden, Trower, Gilbert, & Plaistow, 2000) and increased social anxiety (Birchwood et al., 2007; Gilbert & Andrews, 1998). Consequently, it has been suggested that compassion-focused therapy (CFT) is a beneficial way of working therapeutically with individuals experiencing psychosis (Johnson et al., 2011; Laithwaite et al., 2009; Mayhew & Gilbert, 2008) and for recovery in

psychosis (Gumley et al., 2010). Furthermore, a recent study investigating the feasibility of group CFT for psychosis found positive outcomes (Braehler et al., 2012).

There is increasing interest in the concept of recovery in psychosis (Pitt, Kilbride, Nothard, Welford, & Morrison, 2007; Slade, 2009). The multidimensional nature of the recovery process in psychosis has been highlighted and although it includes symptom change, is not restricted to this (Wood, Price, Morrison, & Haddock, 2010). The term recovery has been defined in a diverse manner dependant on an individual's perspective and there is still uncertainty about what factors contribute to the construct of recovery (Wood et al., 2010). Therefore, it has been suggested that recovery-oriented therapies for people with psychosis need to be individualised and aim to enable/empower people to reduce distress and work towards personal goals (Mayhew & Gilbert, 2008). In relation to SC, a study evaluating the effectiveness of a group intervention utilizing a compassion focused approach has shown initial promising results in relation to recovery in psychosis (Laithwaite et al., 2009).

It seems that the links between SE and SC, and the role these constructs play in the recovery process in psychosis have not yet been clearly elucidated. This study attempts to explore these relationships further and investigate the relationships between SE, SC and recovery in psychosis, using both cross-sectional and longitudinal analysis. Despite the limited research on SC and psychosis, it was hypothesized, based on the research available, that SE and SC would be associated and that SC would be a unique predictor of recovery in psychosis over and above SE. Finally, another aim was to explore the relationships between particular types of delusions and hallucinations with SC

and SE, and distress in relation to this. Given the exploratory nature of the latter research question, no specific hypotheses were made.

## Method

### Participants

The data utilised formed part of the baseline data and nine-month follow up data for an ongoing trial, the Self-help Therapy and Recovery trial (STAR-T, NIHR number 8246). This trial was an evaluation of different levels of support in using a recovery guide for people with psychosis. Participants in this trial were able to choose their preferred treatment option (treatment as usual [TAU], low support or high support) or elect to be randomised to a treatment option. The main outcome variable for this trial was recovery (as measured by the Questionnaire about the Process of Recovery; QPR; Neil et al., 2004). Other measures of interest were included by the trial investigator which included measures of SE and SC. This study was the only one to focus on the outcome data for SE and SC collected for the trial. Ethical approval for the trial was obtained as approved by the North West 10 research ethics committee, Greater Manchester North (reference: 09/H1011/81).

Participants for the trial had to meet the following inclusion criteria: (1) An ICD-10 diagnosis of schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder or psychotic disorder (not otherwise specified), (2) Receiving mental health services in a North West of England NHS trust and (3) have the ability to give informed consent. Potential participants were excluded if they had a primary organic disorder and if they did not speak and/or read English. Participants experiencing an acute exacerbation of symptoms requiring inpatient or other changes to medical treatment did not take part in the study. All participants were given a participant information sheet to

read (appendix E), gave informed consent (appendix F) and those meeting

criteria were assessed using the measures listed below. Data was collected from

95 participants at baseline and for 66 participants at nine month follow up. Key

outcome data for the trial reported no significant differences between any of the

groups and so for this study, the groups were collapsed and analysed as one

sample. The first author was not involved in the recruitment for this trial but

collected a proportion of data for this trial at both month 9 and month 15

assessment points.

Descriptive statistics for demographic variables can be found in Table 4.

**Table 4: Demographic information at baseline and follow-up**

|  | Participants | |
|---|---|---|
|  | **Baseline (N=95)** | **Follow-up (N=66)** |
| **Age (M, (SD))** | 35.88 (10.87) | 35.92 (10.77) |
| **Age (Median)** | 35 | 35.50 |
| **Female (%)** | 36.8 | 31.8 |
| **Male (%)** | 63.2 | 68.2 |
| **Ethnicity (%)** | | |
| White | 80 | 81.8 |
| BME | 17.9 | 18.2 |
| Not specified | 2.1 | n/a |
| **Diagnosis (%)** | | |
| Psychosis | 36.8 | 31.8 |
| Schizophrenia | 41.1 | 48.5 |
| Schizoaffective disorder | 12.6 | 10.6 |
| Delusional disorder | 3.2 | 3.0 |
| Paranoid Schizophrenia | 6.3 | 6.1 |

**Procedure**

Three analyses were conducted for the current paper to answer the following three questions. A brief overview of the procedure for each is presented.

*Question 1: How are self-compassion, self-esteem and recovery in psychosis related?* This involved cross-sectional analysis of baseline data, exploring the links between SC, SE and recovery (general recovery and symptom severity) in psychosis. A key aim of this study was to elucidate the relationships between these concepts. Due to the overlap between the constructs of SE and depression, this was also measured and controlled for throughout the analyses.

*Question 2: Does self-compassion predict recovery in psychosis over and above the impact of self-esteem?* This involved longitudinal analysis utilizing data collected at baseline and nine month follow up, testing the hypothesised links between SC, SE and recovery in psychosis. More specifically, the author wanted to examine whether SC predicted self-reported recovery in psychosis and positive psychotic symptoms, over and above the impact of SE and depression.

*Question 3: Are delusions and hallucinations subgroups associated with self-compassion and self-esteem?* This involved the exploratory analysis of baseline data to investigate the relationships between both SC and SE and the experience of delusions and auditory hallucinations and distress in relation to this. In order to facilitate this exploration, a coding system of delusions and hallucination subtypes was utilised, and conducted by the author. Please refer to Appendix G for a copy of, and an in-depth review of the symptom content coding system. Information relevant to the coding was taken from 'symptom summary sheets' (Appendix H), which were routinely completed as a supplementary part of the Positive and Negative Syndrome Scale (PANSS; Kay,

Fiszbein, & Opler, 1987) assessment procedure, if auditory hallucinations or delusions were reported.

**Measures**

Recovery was measured in two ways. Firstly, utilizing the Questionnaire about the Process of Recovery (QPR; Neil et al., 2009) (Appendix I) and second, using the positive symptoms scores of the Positive and Negative Syndrome Scale (PANSS; Kay et al., 1987). The QPR is a 22-item self-report questionnaire developed based on interviews about recovery in psychosis. Two subscale scores are produced which are the intrapersonal sub-scale and interpersonal subscale. It has good internal consistency (.93) and good test-re-test reliability (.70) for both sub-scales (Neil et al., 2009). For the current study, internal consistency was excellent (22 items α = .93).

The PANSS is a clinician-administered, 30-item semi-structured interview consisting of seven items assessing positive symptoms of schizophrenia, seven items assessing negative symptoms of schizophrenia and sixteen items assessing global psychopathology. A number of studies have demonstrated the reliability and validity of this scale in samples of people with psychosis (Kay, Opler, & Lindenmayer, 1988). For the current study only the positive subscale was utilised.

Self-compassion was measured utilizing the Self-Compassion Scale (SCS) (Appendix J). The SCS (Neff, 2003a) is a 26-item self-report scale which includes six subscales which have been shown to be highly inter-correlated, and confirmatory factor analysis has determined that a single higher order factor of SC can explain these inter-correlations (Neff, 2003a). The SCS has been demonstrated to have good internal consistency (.92) as well as good test-retest reliability (.93) in general population samples (Neff, 2003a); however this scale

88

has not yet been validated in psychosis samples. Internal consistency for the current study was excellent (26 items α = .93).

SE was measured utilizing the Self-esteem rating scale (short form) (SER-SF) (Appendix K). The SER-S (Lecomte, Corbiere, & Laisne, 2006) is a 20 item scale with both positive and negative SE subscales. This measure has been found to be a reliable and valid instrument for measuring SE in individuals with mental health problems (Lecomte et al., 2006). Both the positive and negative subscales of the SERS-SF has been demonstrated to have test-retest reliability (.90 and .91 respectively) and good internal consistency (.90 and .87 respectively) (Lecomte et al., 2006). Internal consistency for the current study was excellent (negative subscale 10 items α = .92, positive subscale 10 items α = .94).

Depression was measured and controlled for, utilizing the Calgary Depression Scale for Schizophrenia (CDSS) (Addington, Addington, & Maticka-Tyndale, 1993) (Appendix L). The CDSS is a structured interview measure specifically designed for use with individuals experiencing schizophrenia. The CDSS distinguishes between depression and negative symptoms of psychosis (Addington et al., 1993). The CDSS has been shown to possess good internal consistency (.79), and test re-test reliability (.90), plus good correlations with other well established measures of depression in schizophrenia samples (Addington et al, 1993).

Distress in relation to psychotic symptoms was measured utilizing the Psychotic Symptoms Rating Scales (PSYRATS). The PSYRATS (Haddock, McCarron, Tarrier, & Faragher, 1999) consists of two scales designed to rate auditory hallucinations and delusions. It has good inter-rater reliability and

validity against other symptom measures with high internal consistency correlations with PANSS scores in psychosis samples (Drake et al., 2004)

Delusions and hallucination subtypes were measured utilizing the Delusion and Auditory Hallucination Content Coding Manual (DAHC-MAN). The DAHC-MAN (Appendix G; Hartley, Thomas, & Haddock, 2009) is a coding system developed to facilitate the coding of information relevant to the content of hallucinations and delusions. When complete, the forms include information on the actual content of the voice or delusions, the type of hallucination, the number of voices, the sex of the voice, the form of the voice, the origin of the voice as appraised by the participant, along with a conviction rating regarding this origin, and whether the content of the voice was positive or negative.

**Inter-rater reliability**

Researchers who conducted and rated the PANSS and PSYRATS underwent training and met minimum criteria on 'gold standard' reliability cases prior to undertaking assessments. Inter-rater reliability was assessed using randomly selected cases. Average intraclass correlations from these analyses were .981 for the PSYRATS and .852 for the PANSS. To determine inter-rater reliability of the DAHC-MAN, a sample of participants (10% of the total) were also rated by an independent rater (author of the DAHC-MAN) with an intra-class correlation of 1.0.

**Analyses**

The statistical programme SPSS 20 for Windows was used. The first author conducted all data analysis for this study. Descriptive statistics for the variables utilised to answer questions one and two can be found in Table 5. The $n$ varies for each subscale as participants provided varying proportions of data for the different measures. When scores deviated from normality, data

transformations were conducted. However none were successful therefore non-parametric analyses were utilised where appropriate. For some analyses, parametric methods via bootstrapping with 1000 samples were utilised. This methodology involves generating confidence intervals through a process of random re-sampling and is utilised when there is non-normality within the data (Davison & Hinkley, 2006). A number of measures were unevenly distributed therefore a number of analyses were tested utilizing bootstrapping methodology. P-values for significant correlations are reported using Cohen's standards (Cohen, 1988). A significance level of $p \leq 0.01$ was chosen in order to reduce the possibility of Type II errors.

**Table 5: Mean (standard deviations) and medians for all continuous variables**

| Scales and Subscales (*n*) | Range | Median | Mean |
|---|---|---|---|
| Time 1 QPR total (92) | 71 | 54.19 | 53.59 (13.93) |
| Time 1 QPR intrapersonal (92) | 42 | 42 | 40.66 (12.16) |
| Time 1 QPR interpersonal (92) | 13 | 13 | 12.93 (2.96) |
| Time 2 QPR total | 71 | 58 | 57.29 (13.17) |
| Time 2 QPR intrapersonal | 59 | 46 | 44.18 (10.96) |
| Time 2 QPR interpersonal | 14 | 14 | 13.11 (2.82) |
| Time 1 SERS (89) | 120 | 10 | 9.43 (25.35) |
| Time 1 SERS Positive self-esteem (89) | 60 | 42 | 32.84 (14.39) |
| Time 1 SERS Negative self-esteem (89) | 60 | 31 | 42.27 (13.43) |
| Time 1 SCS total (90) | 22.35 | 17.80 | 17.23 (4.63) |
| Time 1 SCS self-kindness (89) | 4 | 2.80 | 2.79 (1.02) |
| Time 1 SCS self-judgement (87) | 4 | 3 | 2.95 (1.08) |
| Time 1 SCS common-humanity (89) | 4 | 2.75 | 2.83 (1.05) |
| Time 1 SCS isolation (88) | 4 | 2.5 | 2.78 (1.01) |
| Time 1 SCS mindfulness (88) | 4 | 3 | 3.05 (1.06) |
| Time 1 SCS over-identified (87) | 4 | 3 | 2.89 (.99) |
| Time 1 Calgary depression scale (92) | 20 | 4 | 4.96 (4.08)* |
| Time 1 PANSS positive symptoms (92) | 17 | 12 | 12.79 (4.30)* |
| Time 2 PANSS positive symptoms (66) | 16 | 11 | 11.59 (3.59)* |

An asterix (*) by the mean indicates that the variable was non-normally distributed for the group.

## Results

*Question 1: What are the relationships between self-compassion, self-esteem and recovery in psychosis?* The first analyses examined links between SE and SC. Depression was also included in the analysis due to the overlap between the constructs of depression and SE (Barrowclough et al., 2003). In line with previous research (Leary, Tate, Adams, Batts Allen, & Hancock, 2007; Neff & Vonk, 2009), the correlations indicated a significant degree of overlap between the two key constructs (SE and SE) and between SE and depression (Table 6).

Correlations also indicated a significant relationship between SE and gender however this became non-significant when controlling for the other variables.

**Table 6: Non-parametric correlations and partial correlations (with bootstrapping of 1000 samples) between self-esteem, self-compassion, depression and gender**

|  | Bivariate correlations | | Partial correlations | |
|  | Self—esteem | Self-compassion | Self-Esteem (CI) | Self-compassion(CI) |
|---|---|---|---|---|
| Self-compassion | .57** | --- | .47** (.23-.69) | --- |
| Age | .00 | .11 | -.01 (-.24-.22) | .16 (-.01-.39) |
| Gender | -.25** | -.16 | -.16 (-.33-.05) | -.02 (-.19-.19) |
| Depression | -.55** | -.38** | -.41**(-.61--.45) | -.13 (-.32-.04) |

*Note: Partial correlations controlled for all other variables other than the two being correlated*
*\*\*significant at p<.01*

Correlations were then conducted exploring the relationships between SE, SC, recovery, positive symptoms and depression (Table 7). All variables were significantly correlated at p<.01 level with the exception of SC and positive symptoms which was significant at the p<.05 level.

**Table 7: Correlations between self-esteem, self-compassion, depression and recovery**

|  | Self—esteem | Self-compassion | Recovery | Depression | PANSS positive |
|---|---|---|---|---|---|
| **Self-esteem** | --- |  |  |  |  |
| **Self-compassion** | .57** | --- |  |  |  |
| **Recovery** | .65** | .38** | --- |  |  |
| **Depression** | -.55** | -.38** | -.59** | --- |  |
| **Positive symptoms** | -.32** | -.26* | -.41** | .56** | --- |

*\*\*significant at p<.01 \*significant at p<.05*

In order to examine whether SC was associated with recovery over and above that attributable to SE (at baseline), a two stage hierarchical regression analyses was conducted with the QPR as the dependent variable. In the first stage, SC was entered, in the second stage, SE, depression and positive symptoms. Due to non-normality in the data, bootstrapping with 1000 samples was also applied to the analyses. Results are presented in Table 8. The hierarchical regression analysis revealed that at stage one, SC contributed significantly to the model $F(1,84) = 15.51$, p=.000 and accounted for 15.6% of the variation in recovery. Introducing the other variables explained an additional 37.9% of the variation in recovery and the change in $R^2$ was significant $F(4,81) = 23.40$, p=.000. However, when these variables were added into the second model, SC and positive symptoms were no longer significant predictors. Results do not support the hypothesis that SC contributes unique variance in recovery over and above that attributable to SE (0.2% compared to 13.1%) and as such SE seems to be a stronger predictor of recovery from psychosis than SC.

**Table 8: Hierarchical regression analysis with QPR as the dependent variable (with bootstrapped confidence intervals; CI)**

| Variable | B | *T* | *R* | $R^2$ | adjusted$R^2$ | Bootstrap CI |
|---|---|---|---|---|---|---|
| Step 1 | | | *.36* | .16 | .15 | |
| Self-compassion | .40** | 3.94 | | | | .37-1.88 |
| Step 2 | | | *.73* | .54 | .51 | |
| Self-compassion | -.07 | -.67 | | | | -.81-.44 |
| Self-esteem | .51** | 4.78 | | | | .17-.40 |
| Depression | -.27* | -2.56 | | | | -1.53--.36 |
| Positive symptoms | -.14 | -1.55 | | | | -1.04-.18 |

*\*\*significant at p<.01 \*significant at p<.05*

The second set of analyses another two-stage hierarchical regression analysis was conducted with PANSS positive score as the dependent variable. In the first stage, SC was entered, in the second, SE, depression and recovery (as measured by the QPR). Due to non-normality in the data, bootstrapping with 1000 samples was applied to the analyses. Results are presented in Table 9. The hierarchical regression analysis revealed that at stage one, SC contributed significantly to the model $F(1,84) = 5.00$, p=.028 and accounted for 5.6% of the variation in recovery (as measured by PANSS positive scores). Introducing the other variables explained an additional 27.1% of the variation in recovery and this change in $R^2$ was significant $F(4, 81) = 9.84$, p=.000. However, when these variables were added into the second model, SC, SE and the QPR were not significant predictors. Results do not support the hypothesis that SC contributes unique variance as neither construct significantly contributed to the model (0.1% compared to 0.8%). Depression was the only significant predictor of PANSS positive scores (p=.000).

**Table 9: Hierarchical regression analysis with PANSS positive as the dependent variable (with bootstrapped CIs)**

| Variable | B | *T* | *R* | *R²* | adjusted*R²* | Bootstrap CI |
|---|---|---|---|---|---|---|
| Step 1 | | | *.24* | .06 | .04 | |
| Self-compassion | -.24* | -2.24 | | | | -.37- -.04 |
| Step 2 | | | *.57* | .33 | .29 | |
| Self-compassion | -.04 | -.37 | | | | -.22 - .16 |
| Self-esteem | .14 | .99 | | | | -.03 - .07 |
| Depression | .49** | 4.11 | | | | .23 - .77 |
| Recovery | -.20 | -1.5 | | | | -.14 - .02 |

***significant at p<.01 *significant at p<.05*

*Question 2: Does self-compassion predict recovery from psychosis over time, over and above the impact of self-esteem?* Nonparametric correlations for the variables of interest are presented in Table 10. The analysis indicates that SC at baseline was not significantly related to recovery at follow-up as measured by both the QPR and the PANSS positive subscale (although both SE and depression were). Therefore, no further analyses were conducted. This does not support the hypotheses that SC predicts recovery from psychosis, over and above the impact of SE over time.

**Table 10: Non-parametric correlations to investigate longitudinal analysis of the data**

|  | Self—Esteem | Self-compassion | Depression | Recovery (t2) | PANSS positive (t2) |
|---|---|---|---|---|---|
| **Self-esteem** | --- |  |  |  |  |
| **Self-compassion** | .57** | --- |  |  |  |
| **Depression** | -.55** | -.38** | --- |  |  |
| **Recovery (t2)** | .36** | .20 | -.42** | --- |  |
| **PANSS positive (t2)** | -.14 | -.07 | .31* | -.41** | --- |

*\*\*significant at p<.001 \*significant p<.05*

*Question 3: Are delusion and hallucination subgroups associated with self-compassion and self-esteem?* Coding of the content of delusions and hallucinations was conducted when a 'symptom summary sheet' was present, which were routinely completed as part of the Positive and Negative Syndrome Scale (PANSS; Kay et al., 1987) assessment procedure, if the experience of auditory hallucinations or delusional ideation was reported. A total of 93 symptom summary sheets were completed. Across all delusion subtypes, a subtype was only coded as present if a conviction rating of 50% or more was

given by the participant. This conviction rating was routinely elicited during the PANSS assessment. The assessment of hallucinations and delusions subtypes utilised a binary coding system (present versus absent), a system utilised in previous research of this nature, with a similar sample group (Hartley, Haddock, & Barrowclough, 2012).

Frequency of delusion subtypes and auditory hallucination subtypes/content is reported in Table 11. Where the frequency of the participants experiencing a particular subtype was endorsed by 25% or less of the sample, this subtype was dropped from further analyses.

**Table 11: Presence and absence of each delusion subtype**

| Delusion subtype | Number of cases | | % | |
|---|---|---|---|---|
| | **Present** | **Absent** | **Present** | **Absent** |
| Delusion of influence | 42 | 26 | 61.78 | 38.24 |
| Delusion of persecution | 20 | 48 | 29.41 | 70.59 |
| Delusion of grandeur* | 7 | 61 | 10.29 | 89.71 |
| Delusion of reference | 30 | 38 | 44.12 | 55.88 |
| Religious delusion* | 10 | 57 | 14.93 | 85.07 |
| Delusion of guilt* | 1 | 67 | 1.47 | 98.53 |
| Delusion of threat | 20 | 48 | 29.41 | 70.59 |
| Delusion of loss/failure* | 0 | 68 | 0 | 100 |
| **Hallucination subtype** | | | | |
| Commanding | 13 | 23 | 36.11 | 63.89 |
| Commenting | 23 | 13 | 63.89 | 36.11 |
| Threatening | 12 | 24 | 33.33 | 66.67 |

*subtype removed from further analyses due to low incidence rate

**Delusions analysis**

*Are levels of self-compassion and self-esteem associated with delusional severity and distress?* Sixty-eight participants (71.6% of the sample) scored three or above on the delusions scale of the PANSS (P1). There were 49 males and 19

females. The mean age of the sample was 35.43 years (SD= 10.54). Fifty-nine of the participants classed themselves as 'white' in ethnicity (86.8%), eight classed themselves as 'black and minority' ethnicity (13.2%). Delusion distress was calculated by combining scores for "amount of distress" and "intensity of distress" questions on the PSYRATS. The total score was not normally distributed and so non-parametric analyses was utilised. Delusion distress significantly correlated with SC ($r(58)$ = -.320, p= .014), SE ($r(58)$ = -.448, p= .000), PANSS positive score ($r(60)$= .342, p=.007) and depression ($r(60)$= .500, p=.000). No significant correlations were found for age, gender or ethnicity. However, a regression analyses utilizing bootstrapping with 1000 samples revealed that when all variables were included into the model, only PANSS positive score (p=.006, CI .343-1.855) and depression (p=.020, CI .33-.486) remained significantly associated with delusion distress ($F(4,51)$ = 8.30, p= .000). The overall fit for the model was $r^2$=.394 which suggests that there are a number of other factors involved in predicting delusional distress.

Delusion severity was calculated utilizing each participant's total score on the P1 positive symptoms subscale of the PANSS which measures delusional experiences. Delusion severity was not significantly correlated with SC but was significantly associated with SE ($r(89)$= -.235, p= .027), delusional distress ($r(60)$= .342, p=.007), depression ($r(91)$= .348, p=.001) and gender ($r(92)$= -.256, p=.014). A regression analysis revealed that when all significant variables were entered, only delusional distress (p=.035 CI .017-.192) remained significant ($F(4,53)$ = 3.49, p=.013). The overall fit for the model was $r^2$= .209, again suggesting that there are a number of other factors involved in the prediction of delusional severity.

From analysis of the coding forms, it was apparent that four key delusion subtypes were endorsed by more than 25% of the total sample (N=93) (influence, persecution, threat and reference) and so the data for these delusions was combined and analyses focused on the presence (of those four delusions) or absence of them. Frequencies showed that of the total sample (N=93), 54 (56.8%) endorsed one of the four delusions and 39 (41.1%) did not. Table 12 shows the mean and standard deviation scores of the SCS and SERS-SF when the delusions subtype was present or absent. A significance level of $p<.05$ was set due to the analysis being exploratory. In relation to SE and SC independent samples t-tests revealed no significant differences in levels of SE or SC between the delusion subtype groups (present or absent).

**Table 12: Mean (SD) of SCS and SERS-SF for delusion subgroup (present P/ absent/A)**

| Variable (n) | Delusions | |
|---|---|---|
| | **Present (p)** | **Absent (a)** |
| **Total self-compassion** (p= 51) (a=39) | 17.01 (4.40) | 17.51 (4.96) |
| **Self-kindness** (p= 51) (a=39) | 2.81 (1.04) | 2.76 (1.01) |
| **Self-judgement** (p= 52) ) (a=39) | 2.90(1.10) | 3.01 (1.08) |
| **Common-humanity** (p= 52) (a= 39) | 2.78 (1.04) | 2.89 (1.06) |
| **Isolation** (p= 51) (a=39) | 2.66 (.99) | 2.94 (1.03) |
| **Mindfulness** (p= 51) (a=39) | 3.10 (1.02) | 2.97 (1.12) |
| **Over-identified** (p= 52) (a=39) | 2.85 (.98) | 2.94 (1.02) |
| **Total self-esteem** (p= 50) (a=39) | 6.48 (26.13) | 13.22 (24.13) |
| **Positive self-esteem** (p= 50) (a=39) | 40.75 (14.24) | 44.23 (12.21) |
| **Negative self-esteem** (p= 50) (a=39) | 34.27 (14.55) | 31.01 (14.15) |
| | **Hallucinations** | |
| **Total self-compassion** (p= 51) (a=31) | 15.32 (4.22)* | 18.23 (4.56)* |
| **Self-kindness** (p= 51) (a=31) | 2.55 (1.01) | 2.91 (1.01) |
| **Self-judgement** (p= 52) ) (a=32) | 2.61 (1.09)* | 3.13 (1.05)* |
| **Common-humanity** (p= 52) (a= 32) | 2.44 (.96)* | 3.03 (1.05)* |
| **Isolation** (p= 51) (a=32) | 2.54 (.91) | 2.91 (1.05) |
| **Mindfulness** (p= 51) (a=31) | 2.66 (.99)* | 3.25 (1.04)* |
| **Over-identified** (p= 52) (a=32) | 2.70 (.93) | 2.99 (1.02) |
| **Total self-esteem** (p= 50) (a=30) | -3.31 (28.05)* | 15.92(21.34)* |
| **Positive self-esteem** (p= 50) (a=30) | 37.85 (13.87)* | 44.53(12.74)* |
| **Negative self-esteem** (p= 50) (a=30) | 41.16 (15.61)* | 28.61(11.75)* |

*An asterix * indicates significant differences*

**Hallucinations analysis**

*Are levels of self-compassion and self-esteem associated with hallucination severity and distress?* Forty-two participants (44.2% of the sample) scored three or above on the hallucinations scale of the PANSS (P3). There were 26 males and 16 females. The mean age of the sample was 35.90 years (SD=

10.03). Thirty-four of the participants classed themselves as 'white' in ethnicity (81%), five classed themselves as 'black and minority ethnicity' (11.9%) and three as 'mixed' ethnicity (7.1%).

Auditory hallucination distress was calculated by combining scores for "amount of distress" and "intensity of distress" questions on the PSYRATS. The total score was not normally distributed and so non-parametric analyses was utilised. Auditory hallucination distress significantly correlated with both SC ($r(34) = -.684$, p= .000) and SE ($r(34) = -.516$, p= .002), in addition to PANSS severity score for hallucinations ($r(35)= .533$, p=.001) and depression ($r(35)= .386$, p=.022). No significant correlations were found for age, gender or ethnicity. However, a regression analyses utilizing bootstrapping with 1000 samples revealed that when all variables were included into the model, only PANSS hallucination severity score (p=.004, CI .343-1.855) remained significantly associated with auditory hallucination distress ($F(4,28) = 8.12$, p= .000). The overall fit for the model was $r^2=.537$.

Auditory hallucination severity was calculated utilizing each participant's total score on the P3 hallucination subscale of the PANSS which measures hallucinatory experiences. Hallucination severity was significantly correlated with SC ($r(89)= -.288$, p= .006), SE ($r(88)= -.211$, p= .048), hallucinatory distress ($r(35)= .533$, p=.001), and depression ($r(91)= .415$, p=.000). No significant correlations were found for age, gender or ethnicity. A regression analysis revealed that when all significant variables were entered, only hallucinatory distress (p=.009, CI .046-.220) and SE (p= .010, CI .004-0.25) remained significant predictors of hallucination severity ($F(4,28) = 5.35$, p=.003), with SE accounting for 16.8% of the variance. The overall fit for the model was $r^2= .433$.

All three key hallucination subtypes were endorsed by more than 25% of the total sample (N=93). Therefore, the data for these hallucination subtypes was combined and analyses focused on the presence (of those three hallucinations) or absence of them. Frequencies showed that of the total sample (N=93), 32 (33.7%) endorsed one of the three hallucinations and 61 (64.2%) did not. Table 9 shoes the mean and standard deviation scores of the SCS and SERS-SF when hallucinations were present or absent.

There was significantly lower total SE in the presence of auditory hallucinations (t(87)= -3.61, p=.002). There was also significantly lower levels of positive SE and higher levels of negative SE in the presence of hallucinations (t(87) = -2.21, p=.032 and t(87)= 4.25, p= .000). There was significantly lower levels of total SC in the presence of auditory hallucinations (t(88)= -3.02, p=.004). Common humanity and mindfulness was also significantly lower in the presence of auditory hallucinations (t(89)= -2.67, p=.008, and t(88)= -2.58, p=.01). Finally, self-judgement scores were significantly higher in the absence of auditory hallucinations (t(89)= -2.24, p=0.29).

**Discussion**

**Key findings in relation to the previous literature**

Cross-sectional analyses revealed that SC and SE were significantly positively correlated with self-reported recovery in psychosis and significantly negatively correlated with positive symptoms. This supports previous research which has found similar relationships between SC and positive symptom scores (Eicher et al., 2013). However, SE was found to be a better predictor of recovery and contributed significantly more unique variance to recovery over and above that of SC. When utilizing PANSS positive symptoms scores as the dependent variable, only depression was found to be a significant predictor. When analysing

102

the longitudinal data in order to address question two, SE but not SC was found to be significantly positively correlated with recovery, but not with positive symptoms. No significant associations were found between SC scores and recovery or positive symptoms. No other studies that have utilised longitudinal methodology exploring SC and psychosis were found and so no comparisons can be made to other outcomes.

The outcome from the exploratory analysis supports work which suggests those who experience auditory hallucinations experience lower levels of SE (Barrowclough et al., 2003; Romm et al., 2011; Smith et al., 2006). Low levels of SE have been found to be a feature in those who experience auditory hallucinations (Smith et al., 2006) and in the development of hallucinations (Romm et al., 2011). Research suggests that people with psychosis, who experience more depression and lower SE, have greater severity of auditory hallucinations, with more negative content and distress (Smith et al., 2006). Barrowclough and colleagues also found a highly significant relationship between negative evaluations of the self and auditory hallucinations (Barrowclough et al., 2003).

Furthermore, the exploratory study also highlighted significant differences in levels of SC for those who experience auditory hallucinations and those who do not. Although research in the field of SC and psychosis is in its infancy and much of the data is limited to case reports, it has shown some encouraging trends (Davis et al., 2007; Eicher et al., 2013; Johnson et al., 2009; Laithwaite et al., 2009; Mayhew & Gilbert, 2008). SC scores were not found to predict recovery or psychotic symptoms. However the exploratory analyses did show some encouraging results and as such adds to the emerging evidence highlighting the relevance of SC in some psychotic experiences. However, this

analysis was exploratory and therefore no conclusive evidence can be stated. As such further research exploring these relationships is required to further understand this.

Results suggest that SE might be a more relevant construct than SC when exploring psychotic symptoms and recovery in psychosis. The results of the study add support to the relationship between SE and positive symptoms of psychosis. There is some evidence supporting the relationships between SE and psychosis (for a review see Taylor et al., 2014) and the data from this study adds to this evidence base. However, evidence in the field is inconclusive (Taylor et al., 2014). There is some evidence to suggest there is a relationship (Barrowclough et al., 2003; Drapalski et al., 2013; Humphreys & Barrowclough, 2006; Morrison et al., 2013; Pruessner, Iyer, Faridi, Joober, & Malla, 2011; Roe, 2003; Smith et al., 2006; Sorgaard et al., 2002; Weinberg et al., 2012). However other studies have found no such relationship (Holding, Tarrier, Gregg, & Barrowclough, 2013; Magaud, Marshall, Mancuso, & Addington, 2013; Rodrigues et al., 2013; Watson et al., 2006). These inconsistent results could be due to different measures of psychosis being utilised or as a result of heterogeneity in the type of experiences being measured (Taylor et al., 2014). Therefore, further studies exploring how specific symptoms relate to SE could be warranted.

However, because the evidence base is inconclusive and results seem to be dependent on what measures are utilised to measure SE and psychosis, and the sample groups involved (Taylor et al., 2014), it is important to discuss what other factors may be involved and contribute to the outcomes of the current study in relation to this. One potential reason for these findings may be related to the sample recruited. By nature of the recruitment process all participants were in a

stable phase of their psychosis rather than acutely unwell. When looking at positive PANSS scores for this sample in comparison to other psychosis samples, they seem to be much lower. For example, the mean positive score for this study was 12.79, which is low in comparison to 14.79 (Haddock et al., 2011), 18.75 (Morrison et al., 2012), 20.30 (Morrison et al., 2014) and 15.33 (Hutton, Morrison, Wardle, & Wells, 2014).

Similarly, when comparing QPR recovery scores from this sample to others, this sample scored higher than most, with a mean score of 53.59 compared to 48.83 (Morrison et al., 2012), 28.76 (Morrison et al., 2014) and 45.37 (Hutton et al., 2014). Only one study was found where baseline recovery QPR scores were higher with mean scores of 77 (Haddock et al., 2011). Furthermore, it is possible that when a person is feeling well, they do not need to draw on their feelings of SC, moreover, SC is more likely to be activated when a person is feeling unwell and struggling with psychotic experiences. This may suggest why although SC was associated with symptoms and recovery, it did not predict this over and above SE. Therefore, it may be that the self-compassion scale is a more useful tool to utilise when a person is more acutely unwell rather than stable.

Sample size may have impacted on the outcomes of the current study in a negative way. There is a large amount of shared variance between the constructs of SC and SE and the current study revealed significant and strong correlations. These are the expected levels of shared variance and have been shown in other studies utilizing general population samples (Neff & Vonk, 2009). Therefore, there may not have been the power to detect the subtle differences between SC and SE in the current study, particularly so when the sample under investigation was relatively well.

105

The exploratory analyses revealed some interesting results. The presence of key delusions was not significantly related to SE or SC. The presence of auditory hallucinations was found to be significantly related to lower levels of both SE and SC. In addition, there were significantly lower levels of common humanity (the recognition that suffering and personal inadequacy is part of the shared human experience) and mindfulness (a non-judgemental, receptive mind state in which one can observe feelings and thoughts as they are, without trying to get rid of them or deny them) in the presence of auditory hallucinations. Interestingly, there were significantly lower levels of self-judgment in the presence of auditory hallucinations, although the significance for this was not as strong as the other results.

**Limitations**

The use of the self-compassion scale with a psychosis population may have been a limitation of the study. The questionnaire requires that people are able to access and remember emotional responses to difficult situations. This might be difficult for people with psychosis who commonly experience high levels of dissociation (Ondrej, Petr, & Jiri, 2014; Spitzer, Haug, & Freyberger, 1997) and who externally attribute difficulties (Garety, Kuipers, Fowler, Freeman, & Bebbington, 2001; Kaney & Bentall, 1989). This could potentially inhibit the ability for an individual to be self-compassionate in relation to positive symptoms of psychosis. Furthermore, it might not be possible to reliably or accurately measure SC in a sample group whose early life experiences often mean their threat system is highly activated and their soothing system is usually much less activated (Gumley et al., 2010), meaning that they might not be able to answer the questions asked and so their responses may not be wholly valid.

Results of the study may have been impacted by the nature of the sample utilized. It has been suggested that people who enter themselves into psychological research may not necessarily represent the population as a whole (Hartley et al., 2012). They may be more likely to be open about their difficulties and are motivated to improve their mental health. As such, the results for the current study may not be generalizable outside this sample group.

Furthermore, the difficulties in conducting research with people who are experiencing paranoia have been discussed (MacKinnon, Newman-Taylor, & Stopa, 2011). People experiencing severe levels of persecutory delusions may prove to be a difficult sample to recruit into research, due to their concerns about other people's intentions and as such, the sample recruited may not truly represent a paranoid population.

With regards to the demographics of the sample, 80% of participants described their ethnicity as 'white'. Research has found Black African and Black Caribbean groups in the UK are thought to have the highest incidence of psychoses, with conservative estimates suggesting a risk between four- and six fold that of the White British population (Kirkbride et al., 2008). Therefore, the sample in the current study may not reflect a 'true' psychosis sample in terms of demographics and so may not be generalizable. This high number of 'white' participants may be due to chance. However it may also be due to difficulties in recruiting participants from BME communities due to the barriers to seeking help often displayed by South Asian or Black communities as a result of health beliefs surrounding mental health problems (RedbridgeCVS, 2008). People from different ethnic backgrounds have different responses and appraisals to psychosis (Upthegrove, Atulomah, Brunet, & Chawla, 2013) which may prevent some them from help-seeking. Research has found that people from black communities

are more likely to consider mental health problems as more stigmatizing than white people (Cinnirella & Loewenthal, 1999; Stone & Finlay, 2008). However more recent research has found that Black people experiencing first episode psychosis experience less shame, lack of control and entrapment than White or Asian participants (Upthegrove et al., 2013). Differences in appraisals of psychosis are important to be aware of when interpreting results from research. Future research of this nature should aim to recruit more participants from wider BME communities in order to obtain more generalizable results.

The results suggested that SE accounted for more variance than SC in recovery in psychosis. However, there was still a large proportion of the variance unaccounted for, probably measured by constructs which were not explored or measured within this study. Factors such as childhood trauma, attributional style, dissociation and deservedness (all factors which have found to be associated with psychosis) were not taken into account and measured in order to explore the distinctive roles that they may play in relation to recovery in psychosis, in addition to SC and SE.

The exploratory analyses conducted utilised a p value of p<.05 in order to be able to identify possible relationships between variables. The aim of this was to reduce type II error. However, it should be noted that in doing so, the possibility of causing type I errors was increased. This is a first in the field for this type of study and so initial exploratory analysis is useful, however the issues regarding type I error needs to be taken into consideration.

**Strengths**

In spite of the limitations addressed, the study presented has a number of strengths. Firstly, the use of both self-report and semi-structured interview methods meant the studies did not solely rely on self-report informantion. The

validity of using self-report measures has received some disapproval (Andrews &

Brown, 1993) and so the authors tried to overcome these problems by also

utilizing semi-structured assessment measure to assess psychotic symptoms. It

may however have also been useful to also include a semi-structured tool to

assess SE, such as the self-evaluations and social support interview for use with

people with a diagnosis of schizophrenia (SESS-sv) (Humphreys, Barrowclough,

& Andrews, 2001). In addition, both cross-sectional and longitudinal designs

were utilised. The use of only cross-sectional methodology can leave unanswered

questions as to the direction of relationships. In adding in a longitudinal analysis,

the authors were able to address some of these questions.

**Future research**

It could be that SC and SE are both mechanisms in understanding positive

symptoms and recovery. However other processes or constructs such as

childhood trauma, perceived deservedness of persecution, social cognition,

dissociation and attribution style may be important in helping to further clarify

the roles that SE and SC may play in relation to recovery in psychosis and need

to be taken into account in order to further aid in the understanding of positive

symptoms. Dissociation and external attribution are common mechanisms within

the psychosis population, which could potentially inhibit the ability for an

individual to be self-compassionate in relation to positive symptoms of

psychosis. Therefore, an alternative approach and an area for future research may

be the development of a more complex and sophisticated model, whereby SC and

of a number of other factors/ mechanisms (which may include dissociation and

external attribution) play a role alongside SE in the understanding of recovery

and the positive symptoms of psychosis.

Given some of the potential limitations of the self-compassion scale for use with the psychosis population, another topic for future research could be the development of a more appropriate tool to measure self-compassion in this clinical group.

Research exploring SC and psychosis is still in its infancy. Replication of this study in a larger sample, with a more generalizable psychosis population would be valuable. In addition, as these findings are preliminary, further study is imperative. Further research exploring the shared and different variance of SC and SE may also be useful. The current study highlighted the overlap between the two constructs, however it may be useful to explore the unique qualities of SE (which are not shared by SC) and understand why they may more likely to predict recovery in psychosis. It may also be useful to explore whether there are differences in specific delusions or hallucination subtypes in relation to levels of SC and SE.

**Implications for clinical practice and therapeutic interventions**

Although the findings for the current study are useful, the data is too preliminary to support widespread dissemination in terms of changing clinical practice. However, there are certain important findings which clinicians may want to keep in mind when working therapeutically with people experiencing psychosis. The findings highlight the importance of assessing levels of SE within the context of working with someone with a diagnosis of psychosis. When working within this field, the focus can often be placed on symptoms of psychosis, mainly hallucinations and delusions. It may be that in working to improve a person's SE, their experiences in relation to psychosis and their beliefs about their recovery may also improve. Whether low SE is a cause or a consequence of psychotic experiences remains unknown, however it appears that

SE is an important construct to address when working with a person on their psychosis recovery journey.

**Conclusions**

With regards to SC, the current study does not support the notion that SC plays a key role in recovery in psychosis over and above that of SE; however, as mentioned previously, research in this area is in its infancy. Exploratory analysis revealed those experiencing auditory hallucinations had lower levels of self-compassion; more specifically, lower levels of common humanity and mindfulness and higher levels of self-judgement. This may be important to take into account when working therapeutically with individuals experiencing auditory hallucinations, especially if utilizing mindfulness-based therapies such as mindfulness-based cognitive therapy, acceptance and commitment therapy or compassion focused therapy.

**References**

Addington, D., Addington, J., & Maticka-Tyndale, E. (1993). Assessing depression in schizophrenia: The Calgary Depression Scale. *The British Journal of Psychiatry, 163*(Suppl 22), 39-44.

Andrews, B., & Brown, G. W. (1993). Self-esteem and vulnerability to depression: the concurrent validity of interview and questionnaire measures. *Journal of Abnormal Psychology, 102*(4), 565-572.

Barrowclough, C., Tarrier, N., Humphreys, L., Ward, J., Gregg, L., & Andrews, B. (2003). Self-esteem in schizophrenia: Relationships between self-evaluation, family attitudes, and symptomatology. *Journal of Abnormal Psychology, 112*(1), 92-99. doi: 10.1037/0021-843X.112.1.92

Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does High Self-Esteem Cause Better Performance, Interpersonal Success,

Happiness, or Healthier Lifestyles? *Psychological Science in the Public Interest, 4*(1), 1-44.

Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: the dark side of high self-esteem. *Psychological review, 103*(1), 5-33.

Bentall, R. P., Corcoran, R., Howard, R., Blackwood, N., & Kinderman, P. (2001). Persecutory delusions: A review and theoretical integration. *Clinical Psychology Review, 21*(8), 1143-1192. doi: 10.1016/s0272-7358(01)00106-4

Bentall, R. P., & Kaney, S. (1989). Content-specific information processing and persecutory delusions: An investigation using the emotional Stroop test. *British Journal of Medical Psychology, 62*, 355-364.

Bentall, R. P., Kinderman, P., & Kaney, S. (1994). The self, attributional processes and abnormal beliefs: Towards a model of persecutory delusions. *Behaviour Research and Therapy, 32*(3), 331-341. doi: 10.1016/0005-7967(94)90131-7

Birchwood, M., Meaden, A., Trower, P., Gilbert, P., & Plaistow, J. (2000). The power and omnipotence of voices: subordination and entrapment by voices and significant others. *Psychological Medicine, 30*(02), 337-344.

Birchwood, M., Trower, P., Brunet, K., Gilbert, P., Iqbal, Z., & Jackson, C. (2007). Social anxiety and the shame of psychosis: A study in first episode psychosis. *Behaviour Research and Therapy, 45*(5), 1025-1037. doi: http://dx.doi.org/10.1016/j.brat.2006.07.011

Braehler, C., Gumley, A., Harper, J., Wallace, S., Norrie, J., & Gilbert, P. (2012). Exploring change processes in compassion focused therapy in psychosis: Results of a feasibility randomized controlled trial. *British Journal of Clinical Psychology*, n/a-n/a. doi: 10.1111/bjc.12009

Carter, S. (1998). Neuroendocrine persepctives on social attachment and love. *Psychoneuroendocrinology, 23*(8), 779-818. doi: 10.1016/s0306-4530(98)00055-9

Cinnirella, M., & Loewenthal, K. M. (1999). Religious and ethnic group influences on beliefs about mental illness: A qualitative interview study. *British Journal of Medical Psychology, 72*(4), 505-524. doi: 10.1348/000711299160202

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*: L. Erlbaum Associates.

Creemers, D. H. M., Scholte, R. H. J., Engels, R., Prinstein, M. J., & Wiers, R. W. (2012). Implicit and explicit self-esteem as concurrent predictors of suicidal ideation, depressive symptoms, and loneliness. [Article]. *Journal of Behavior Therapy and Experimental Psychiatry, 43*(1), 638-646. doi: 10.1016/j.jbtep.2011.09.006

Crocker, J., Moeller, S., & Burson, A. (2010). The Costly Pursuit of Self-Esteem *Handbook of Personality and Self-Regulation* (pp. 403-429): Wiley-Blackwell.

Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin, 130*, 392-414.

Davis, L. W., Strasburger, A. M., & Brown, L. F. (2007). Mindfulness: an intervention for anxiety in schizophrenia. *Journal of psychosocial nursing and mental health services, 45*(11), 23-29.

Davison, A. C., & Hinkley, D. V. (2006). *Bootstrap Methods and their Application*: Cambridge University Press.

Depue, R. A., & Morrone-Strupinsky, J. V. (2005). A neurobehavioral model of affiliative bonding. *Behavioral and Brain Sciences, 28*, 313–395.

Drake, R. J., Pickles, A., Bentall, R. P., Kinderman, P., Haddock, G., Tarrier, N., & Lewis, S. W. (2004). The evoluation of insight, paranoia and depression during early schizophrenia. *Psychological Medicine, 34*(2), 285-292. doi: 10.1017/S0033291703008821

Drapalski, A. L., Luckstead, A., Perrin, P. B., Aakre, J. M., Brown, C. H., DeForge, B. R., & Boyd, J. E. (2013). A Model of Internalized Stigma and Its Effects on People With Mental Illness. *Psychiatric Services, 64*(3), 265-269. doi: doi: 10.1176/appi.ps.001322012

Eicher, A. C., Davis, L. W., & Lysaker, P. H. (2013). Self-Compassion: A Novel Link With Symptoms in Schizophrenia? *The Journal of Nervous and Mental Disease, 201*(5).

Frame, L., & Morrison, A. P. (2001). Causes of posttraumatic stress disorder in psychotic patients. *Archives of General Psychiatry, 58*(3), 305-306.

Freeman, D., Garety, P., Fowler, D., Kuipers, E., Dunn, G., Bebbington, P., & Hadley, C. (1998). The London - East Anglia randomized controlled trial

of cognitive-behaviour therapy for psychosis IV: Self-esteem and persecutory delusions. *British Journal of Clinical Psychology, 37*(4), 415-430.

Freeman, D., Garety, P., & Phillips, M. L. (2000). An examination of hypervigilance for external threat in individuals with generalized anxiety disorder and individuals with persecutory delusions using visual scan paths. *Quarterly Journal of Experimental Psychology, 53*(2), 549-567.

Freeman, D., & Garety, P. A. (2003). Connecting neurosis and psychosis: the direct influence of emotion on delusions and hallucinations. *Behaviour Research and Therapy, 41*(8), 923-947. doi: 10.1016/s0005-7967(02)00104-3

Garety, P., & Freeman, D. (1999). Cognitive approaches to delusions: A critical review of theories and evidence. *British Journal of Clinical Psychology*.

Garety, P., Kuipers, E., Fowler, D., Freeman, D., & Bebbington, P. E. (2001). A cognitive model of the positive symptoms of psychosis. *Psychological Medicine, 31*(02), 189-195. doi: doi:10.1017/S0033291701003312

Gilbert, P., & Andrews, B. (1998). *Shame: Interpersonal Behavior, Psychopathology, and Culture*: Oxford University Press.

Gilbert, P., & Irons, C. (Eds.). (2005). *Therapies for shame and self-attacking, using cognitive, behavioural, emotional imagery and compassionate mind training*. London: Routledge.

Gilbert, P., McEwan, K., Mitra, R., Franks, L., Richter, A., & Rockliff, H. (2008). Feeling safe and content: A specific affect regulation system? Relationship to depression, anxiety, stress, and self-criticism. *The Journal of Positive Psychology, 3*(3), 182-191. doi: 10.1080/17439760801999461

Gumley, A., Braehler, C., Laithwaite, H., MacBeth, A., & Gilbert, P. (2010). A Compassion Focused Model of Recovery after Psychosis. *International Journal of Cognitive Therapy, 3*(2), 186-201. doi: 10.1521/ijct.2010.3.2.186

Gumley, A., White, C. A., & Power, K. (1999). An interacting cognitive subsystems model of relapse and the course of psychosis. [10.1002/(SICI)1099-0879(199910)6:4<261::AID-CPP211>3.0.CO;2-C]. *Clinical Psychology & Psychotherapy, 6*(4), 261-278.

Haddock, G., McCarron, J., Tarrier, N., & Faragher, E. B. (1999). Scales to measure dimensions of hallucinations and delusions: The psychotic symptom rating scales (PSYRATS). *Psychological Medicine: A journal of Research in Psychiatry and the Allied Sciences, 29*(4), 879-889. doi: 10.1017/s0033291799008661

Haddock, G., Wood, L., Watts, R., Dunn, G., Morrison, A. P., & Price, J. (2011). The Subjective Experiences of Psychosis Scale (SEPS): Psychometric evaluation of a scale to assess outcome in psychosis. *Schizophrenia Research, 133*(1), 244-249. doi: 10.1016/j.schres.2011.09.023.

Hartley, S., Haddock, G., & Barrowclough, C. (2012). Anxiety and depression and their links with delusions and hallucinations in people with a dual diagnosis of psychosis and substance misuse: A study using data from a randomised controlled trial. *Behaviour Research and Therapy, 50*(1), 65-71. doi: http://dx.doi.org/10.1016/j.brat.2011.10.007

Hartley, S., Thomas, N., & Haddock, G. (2009). Delusion and Auditory Hallucination Content Coding Manual (DAHC-MAN), Unpublished Coding Manual.

Holding, J. C., Tarrier, N., Gregg, L., & Barrowclough, C. (2013). Self-esteem and Relapse in Schizophrenia: A 5-Year Follow-up Study. *The Journal of Nervous and Mental Disease, 201*(8). doi: 10.1097/NMD.0b013e31829c4ffc.

Humphreys, L., & Barrowclough, C. (2006). Attributional style, defensive functioning and persecutory delusions: Symptom-specific or general coping strategy? *British Journal of Clinical Psychology, 45*(2), 231-246. doi: 10.1348/014466505X50509

Humphreys, L., Barrowclough, C., & Andrews, B. (2001). *The Self Evaluation and Social Support Interview: Schizophrenia Version (SESS-sv).* Academic Division of Clinical Psychology, University of Manchester.

Hutton, P., Morrison, A. P., Wardle, M., & Wells, A. (2014). Metacognitive Therapy in Treatment-Resistant Psychosis: A Multiple-Baseline Study. [10.1017/S1352465812001026]. *Behavioural and Cognitive Psychotherapy, 42*(02), 166-185.

Johnson, D. P., Penn, D. L., Fredrickson, B. L., Meyer, P. S., Kring, A. M., & Brantley, M. (2009). Loving-kindness meditation to enhance recovery

from negative symptoms of schizophrenia. *Journal of Clinical Psychology, 65*(5), 499-509. doi: 10.1002/jclp.20591

Johnson, W. B., Johnson, S. J., Sullivan, G. R., Bongar, B., Miller, L., & Sammons, M. T. (2011). Psychology in extremis: Preventing problems of professional competence in dangerous practice settings. *Professional Psychology: Research and Practice, 42*(1), 94-104. doi: 10.1037/a0022365

Jones, R. M., Hansen, L., Moskvina, V., Kingdon, D., & Turkington, D. (2010). The relationship between self-esteem and psychotic symptoms in schizophrenia: A longitudinal study. *Psychosis: Psychological, Social and Integrative Approaches, 2*(3), 218-226. doi: 10.1080/17522431003602430

Jordan, C. H., Spencer, S. J., Zanna, M. P., Hoshino-Browne, E., & Correll, J. (2003). Secure and defensive high self-esteem. *Journal of personality and social psychology, 85*(5), 969-978.

Kay, S. R., Fiszbein, A., & Opler, L. A. (1987). The Positive and Negative Syndrome Scale (PANSS) for Schizophrenia. *Schizophrenia Bulletin, 13*(2), 261-276. doi: 10.1093/schbul/13.2.261

Kay, S. R., Opler, L. A., & Lindenmayer, J.-P. (1988). Reliability and validity of the Positive and Negative Syndrome Scale for schizophrenics. *Psychiatry Research, 23*(1), 99-110. doi: 10.1016/0165-1781(88)90038-8

Kernis, M. H. (2003). Toward a Conceptualization of Optimal Self-Esteem. *Psychological Inquiry, 14*(1), 1-26. doi: 10.1207/s15327965pli1401_01

Kernis, M. H. (2005). Measuring Self-Esteem in Context: The Importance of Stability of Self-Esteem in Psychological Functioning. [10.1111/j.1467-6494.2005.00359.x]. *Journal of Personality, 73*(6), 1569-1605.

Kinderman, P. (1994). Attentional bias, persecutory delusions and the self-concept. *British Journal of Medical Psychology, 67*(1), 53-66. doi: 10.1111/j.2044-8341.1994.tb01770.x

Kirkbride, J. B., Barker, D., Cowden, F., Stamps, R., Yang, M., Jones, P. B., & Coid, J. W. (2008). Psychoses, ethnicity and socio-economic status. *The British Journal of Psychiatry, 193*(1), 18-24.

Krstev, H., Jackson, H., & Maude, D. (1999). An investigation of attributional style in first-episode psychosis. *British Journal of Clinical Psychology, 38*(2), 181-194.

Laithwaite, H., O'Hanlon, M., Collins, P., Doyle, P., Abraham, L., Porter, S., & Gumley, A. (2009). Recovery After Psychosis (RAP): A Compassion Focused Programme for Individuals Residing in High Security Settings. *Behavioural and Cognitive Psychotherapy, 37*(05), 511-526. doi: doi:10.1017/S1352465809990233

Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of personality and social psychology, 92*(5), 887-904. doi: 10.1037/0022-3514.92.5.887

Lecomte, T., Corbiere, M., & Laisne, F. (2006). Investigating self-esteem in individuals with schizophrenia: Relevance of the Self-Esteem Rating Scale-Short Form. *Psychiatry Research, 143*(1), 99-108. doi: 10.1016/j.psychres.2005.08.019

Liotti, G., & Gilbert, P. (2011). Mentalizing, motivation, and social mentalities: Theoretical considerations and implications for psychotherapy. *Psychology and Psychotherapy: Theory, Research and Practice, 84*(1), 9-25. doi: 10.1348/147608310x520094

MacBeth, A., & Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review, 32*(6), 545-552. doi: http://dx.doi.org/10.1016/j.cpr.2012.06.003

MacKinnon, K., Newman-Taylor, K., & Stopa, L. (2011). Persecutory delusions and the self: An investigation of implicit and explicit self-esteem. *Journal of Behavior Therapy and Experimental Psychiatry, 42*(1), 54-64. doi: 10.1016/j.jbtep.2010.05.003

Magaud, E., Marshall, C., Mancuso, E., & Addington, J. (2013). Use of the Self-Esteem Rating Scale—Short Form in a first episode of psychosis sample. *Schizophrenia Research, 143*(2), 399-400. doi: 10.1016/j.schres.2012.11.022

Mann, M., Hosman, C. M. H., Schaalma, H. P., & de Vries, N. K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. *Health Education Research, 19*(4), 357-372.

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*, 954-969.

Mayhew, S. L., & Gilbert, P. (2008). Compassionate mind training with people who hear malevolent voices: a case series report. *Clinical Psychology & Psychotherapy, 15*(2), 113-138. doi: 10.1002/cpp.566

Morrison, A. P., Hutton, P., Wardle, M., Spencer, H., Barratt, S., Brabban, A., . . . Turkington, D. (2012). Cognitive therapy for people with a schizophrenia spectrum diagnosis not taking antipsychotic medication: an exploratory trial. [10.1017/S0033291711001899]. *Psychological Medicine, 42*(05), 1049-1056.

Morrison, A. P., Shryane, N., Beck, R., Heffernan, S., Law, H., McCusker, M., & Bentall, R. P. (2013). Psychosocial and neuropsychiatric predictors of subjective recovery from psychosis. *Psychiatry Research, 208*(3), 203-209. doi: 10.1016/j.psychres.2013.05.008

Morrison, A. P., Turkington, D., Pyle, M., Spencer, H., Brabban, A., Dunn, G., . . . Hutton, P. (2014). Cognitive therapy for people with schizophrenia spectrum disorders not taking antipsychotic drugs: a single-blind randomised controlled trial. *The Lancet, 383*(9926), 1395-1403. doi: http://dx.doi.org/10.1016/S0140-6736(13)62246-1

Neff, K. D. (2003a). The Development and Validation of a Scale to Measure Self-Compassion. *Self and Identity, 2*(3), 223-250.

Neff, K. D. (2003b). Self-Compassion: An Alternative Conceptualization of a Healthy Attitude Toward Oneself. *Self and Identity, 2*(2), 85-101.

Neff, K. D. (2011). Self-Compassion, Self-Esteem, and Well-Being. *Social and Personality Psychology Compass, 5*(1), 1-12.

Neff, K. D., Kirkpatrick, K. L., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality, 41*(1), 139-154. doi: 10.1016/j.jrp.2006.03.004

Neff, K. D., & Vonk, R. (2009). Self-Compassion Versus Global Self-Esteem: Two Different Ways of Relating to Oneself. *Journal of Personality, 77*(1), 23-50. doi: 10.1111/j.1467-6494.2008.00537.x

Neil, S. T., Kilbride, M., Pitt, L., Nothard, S., Welford, M., Sellwood, W., & Morrison, A. P. (2009). The questionnaire about the process of recovery (QPR): A measurement tool developed in collaboration with service users. *Psychosis, 1*(2), 145-155. doi: 10.1080/17522430902913450

Palmier-Claus, J., Dunn, G., Drake, R., & Lewis, S. (2011). The negative and positive self: A longitudinal study examining self-esteem, paranoia and negative symptoms in individuals with first-episode psychosis. *Early Intervention in Psychiatry, 5*(2), 150-155.

Pitt, L., Kilbride, M., Nothard, S., Welford, M., & Morrison, A. P. (2007). Researching recovery from psychosis: a user-led project. *Psychiatric Bulletin, 31*(2), 55-60.

Pruessner, M., Iyer, S. N., Faridi, K., Joober, R., & Malla, A. K. (2011). Stress and protective factors in individuals at ultra-high risk for psychosis, first episode psychosis and healthy controls. *Schizophrenia Research, 129*(1), 29-35. doi: 10.1016/j.schres.2011.03.022

RedbridgeCVS. (2008). Barriers to seeking help: What stops ethnic minority groups in Redbridge accessing mental health services  Retrieved 20th May 2014, from http://www.redbridgecvs.net/index.php?nuc=documents&id=6&cat=11

Rodrigues, S., Serper, M., Novak, S., Corrigan, P., Hobart, M., Ziedonis, M., & Smelson, D. (2013). Self-Stigma, Self-Esteem, and Co-occurring Disorders. *Journal of Dual Diagnosis, 9*(2), 129-133. doi: 10.1080/15504263.2013.777988

Roe, D. (2003). A prospective study on the relationship between self-esteem and functioning during the first year after being hospitalized for psychosis. *Journal of Nervous and Mental Disease, 191*(1), 45-49. doi: 10.1097/00005053-200301000-00008

Romm, K., Rossberg, J., Hansen, C., Haug, E., Andreassen, O., & Melle, I. (2011). Self-esteem is associated with premorbid adjustment and positive psychotic symptoms in early psychosis. *BMC Psychiatry, 11*(1), 136. doi: 10.1186/1471-244X-11-136

Schore, A. N. (1994). *Affect regulation and the origin of the self: The neurobiology of emotional development*. Hillsdale, NJ: Lawrence Erlbaum.

Sedikides, C. (1993). Assessment, enhancement, and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychiatry, 65*(317-338).

Slade, M. (2009). *Personal Recovery and Mental Illness: A Guide for Mental Health Professionals*: Cambridge University Press.

Smith, B., Fowler, D. G., Freeman, D., Bebbington, P., Bashforth, H., Garety, P., . . . Kuipers, E. (2006). Emotion and psychosis: Links between depression, self-esteem, negative schematic beliefs and delusions and hallucinations. *Schizophrenia Research, 86*(1-3), 181-188. doi: 10.1016/j.schres.2006.06.018

Sorgaard, K. W., Heikkila, J., Hansson, L., Vinding, H. R., Bjarnason, O., Bengtson-Tops, A., . . . Middelboe, T. (2002). Self-esteem in persons with schizophrenia. A Nordic multicentre study. *Journal of Mental Health, 11*(4), 405-415. doi: 10.1080/09638230020023769

Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological Bulletin, 139*(1), 213-240. doi: 10.1037/a0028931

Stone, L., & Finlay, W. M. L. (2008). A Comparison of African-Caribbean and White European Young Adults' Conceptions of Schizophrenia Symptoms and the Diagnostic Label. *International Journal of Social Psychiatry, 54*(3), 242-261.

Taylor, H. E., Kelly, J., Welford, M., & Haddock, G. (2014). The relationships between self-esteem and positive psychotic symptoms: A systematic review (submitted). *Clinical Psychology Review*.

Thewissen, V., Bentall, R. P., Lecomte, T., van Os, J., & Myin-Germeys, I. (2008). Fluctuations in Self-Esteem and Paranoia in the Context of Daily Life. *Journal of Abnormal Psychology, 117*(1), 143-153. doi: 10.1037/0021-843X.117.1.143.

Thewissen, V., Bentall, R. P., Oorschot, M., à Campo, J., van Lierop, T., van Os, J., & Myin-Germeys, I. (2011). Emotions, self-esteem, and paranoid episodes: An experience sampling study. *British Journal of Clinical Psychology, 50*(2), 178-195. doi: 10.1348/014466510X508677

Upthegrove, R., Atulomah, O., Brunet, K., & Chawla, R. (2013). Cultural and social influences of negative illness appraisals in first-episode psychosis.

*Early Intervention in Psychiatry, 7*(4), 399-406. doi: 10.1111/j.1751-7893.2012.00389.x

Watson, P. W., Garety, P., Weinman, J., Dunn, G., Bebbington, P. E., Fowler, D., Kuipers, E. (2006). Emotional dysfunction in schizophrenia spectrum psychosis: the role of illness perceptions. *Psychological Medicine, 36*(6), 761-770. doi: 10.1017/S0033291706007458

Weinberg, D., Shahar, G., Noyman, G., Davidson, L., McGlashan, T. H., & Fennig, S. (2012). Role of the self in schizophrenia: A multidimensional examination of short-term outcomes. *Psychiatry(New York), 75*(3), 285-297. doi: 10.1521/psyc.2012.75.3.285.

Wood, L., Price, J., Morrison, A., & Haddock, G. (2010). Conceptualisation of recovery from psychosis: a service-user perspective. *The Psychiatrist, 34*(11), 465-470.

# Paper Three

Critical Appraisal

## Critical appraisal

The aim of this paper is to provide the reader with a critical appraisal of the whole review process. Further consideration of the strengths and limitations of the research presented will be discussed along with clinical implications and recommendations for future research. Alongside this, personal reflections will be discussed. For ease of reading, the paper will be split into two sections. The first section will discuss paper one and relate to the process of undertaking the systematic review. The second section will relate to the issues which arose when conducting the research for the empirical paper.

### Systematic review (Paper One)

The main aim of the systematic review was to examine the existing literature exploring the relationships between SE and the positive symptoms of psychosis. Although there was a plethora of research relating to SE within the field of psychosis, it had not yet been synthesised in a systematic way. As such, it important to conduct such a review in order to assess the clinical relevancy of SE when working with people experiencing psychosis. Thirty-four articles were identified and these articles were then reviewed (and their methodological quality rated). Their findings were then synthesised in order to develop an overall understanding of the importance of these relationships. The evidence was mixed and much of it inconclusive, although there was some support for the relationship between SE and delusions, in particular paranoia. The evidence for the relationship between SE and hallucinations was much less conclusive.

**Rationale for conducting a systematic review**

When faced with the task of reviewing the relevant literature for this thesis, it was decided that a systematic review would be the most appropriate review to conduct. A systematic review aims to identify, appraise and synthesize

all of the evidence that meets pre-specified eligibility criteria to answer a given

research question (Higgins & Green, 2011). This type of review was chosen over

other types such as a meta-analysis, or a traditional /narrative review. It was

decided that a meta-analysis was not appropriate because the literature in the

field is not homogenous enough for the results to be meaningful. As the amount

of literature in the area increases, the use of meta-analytical methods to

synthesise this effect and explore sources of clinical and statistical heterogeneity

may be used. Similarly, it was felt that there are disadvantages to conducting a

narrative review, including the fact that they can be extremely subjective and

lack a clear and objective methods section. This in turn can lead to

methodological flaws and can bias the author's conclusions (Murlow, 1987).

Conducting a systematic review has a number of advantages which

include the ability to identify large amounts of previous research within the topic

area, which can be clearly assimilated and synthesised in order to obtain a

thorough understanding of the evidence base. A systematic review also allows

the reader to take into account a range of relevant findings on a particular topic

(Garg, Hackam, & Tonelli, 2008). Other advantages of conducting a systematic

review include a reduction in author bias, as the process removes reviewer's

personal opinions and preferences. A further strength of the systematic review

process lies in the transparency of each phase of the review process. It allows the

reader to place their attention on the quality of each decision made in compiling

the information, rather than simply comparing one study to another which can

occur in other more narrative types of reviews (Garg et al., 2008). However,

there are some disadvantages of systematic reviews. The main disadvantage is

the swift advancement of research, which can often mean that many reviews are

outdated before they are published. Furthermore, although efforts are made to

reduce this, there is still the issue of selection bias whereby contradictory research can sometimes be discarded, however if proper procedures are followed the likelihood is this happening is minimal (Shuttleworth, 2009).

**Rationale for topic choice**

It was decided that the systematic review would focus on the relationships between SE and psychosis. Research in the field of SE and positive symptoms of psychosis is vast and a systematic review of the literature had not yet been published. Therefore, it was considered it would be useful to synthesise this evidence in order to enhance the opportunities for further work to be conducted examining the relationships between SC and SE in psychosis (see empirical paper). However, as the field of SE and psychosis is so vast, it was necessary to streamline the search process.

Originally, both positive and negative symptoms of psychosis were included in the topic selection as it was felt that these were both important areas to target. An initial search of the literature identified that substantially more research had been conducted focusing on the severity of positive symptoms of psychosis and SE. Within this, research also focused on appraisals in relation to positive symptoms and SE, and the impact of positive symptoms (such as distress and disruption to life) on SE. It has been argued that there are advantages to studying psychological experiences rather than diagnoses (Pearsons, 1986). Factor analysis has also shown that positive and negative symptoms, and disorganisation are three separate constructs (Toomey et al., 1997) and are thus worthy of individual focus. In exploring individual positive symptoms of psychosis, and the appraisals and impact they have in relation to SE, it was hoped that this may inform clinical practice and psychological intervention when working with people who experience a variety of psychotic symptoms. It was

125

hoped that this would in turn be more meaningful to both therapists and clients. Furthermore, it was felt that clinically, people experiencing positive or negative symptoms present very differently and as such this might impact on levels of SE. This is not to say that negative symptoms and SE are not meaningfully linked. The relationships between these two constructs do need to be explored. However, it was felt that this research question would be a separate subject area for review given the key differences between positive and negative symptoms.

A systematic review focusing on SC and psychosis would not have been feasible as there is very little research on this topic area. A meta-analysis had been recently published on the relationships between psychopathology and SC (MacBeth & Gumley, 2012) and so would not have been an appropriate choice of topic.

**Search term strategy and topic refinement**

The process of deciding specifically which search terms to utilise for the search was done through discussion with supervisors. Because the literature on SE and psychosis is so vast, it was decided to utilise general search terms for psychosis, including schizophrenia and schizoaffective disorder. In addition, because the focus was on positive symptoms of psychosis, hallucinations and delusions were also keywords that were utilised. It was decided not to include bipolar disorder into the search term strategy and it was considered to be a different diagnostic population with characteristics which may significantly differ from those within the 'schizophrenia spectrum'.

When conducting the initial searches it became very apparent that a large proportion of the identified articles which fell under the search criteria did not actually investigate the relationships between SE and positive symptoms of psychosis. Moreover, they reported levels of SE in psychosis populations and

compared them to other groups (most often non-clinical groups). It was felt that these studies did not answer the research questions which aimed to explore the relationships between the constructs and so were excluded. This meant that the relationships between appraisals of psychosis, and the impact of psychosis on SE could be explored. These considerations contributed to the final search terms which were used.

**Review procedure**

The initial search, conducted in January 2013, resulted in twenty-six identified articles meeting inclusion criteria. Identified articles were then synthesised and the review was put on hold for a year due to maternity leave. Returning from maternity leave a year later meant that a more recent search was necessary in order to ensure the review was up to date. The search was therefore conducted again, with a filter used to include studies from December 2012-March 2014. This highlighted a further eight articles which had been published in 2013 and 2014. This seemed to be a substantial increase of articles published in just over a year and suggests that this field of research is one that is thriving. As such conducting a review to synthesise this evidence was very timely.

However, it also brought about reflection on that fact that research in the field is very fast moving and that literature reviews could become outdated quickly. The review accomplished the key research aims by exploring the literature; however it was a surprise to find that the results were inconclusive, given the amount of research in this area. Therefore, the relationship between SE and positive symptoms remains equivocal. The review highlighted inconsistencies across studies due to differences in measurement of SE and psychosis and commented on the importance of a consistent approach to measurement in order to be able to make comparisons across studies.

**Quality Rating**

Although there are a number of benefits to conducting systematic reviews, it has been argued that the quality of the reporting within published systematic reviews is inconsistent (Moher, Tetzlaff, Tricco, Sampson, & Altman, 2007) as such it has been argued that researchers should assess the methodological quality of studies within the reviews (Alejandro et al., 2000). Consequently, the quality of papers identified for the review was assessed. However, when exploring which quality rating scale to utilise, it became apparent that many of the quality rating scales available to researchers were aimed at assessing the quality of intervention based studies or randomised controlled trials and as a result, were not appropriate to use for the articles identified which were empirical investigations into the mechanisms underlying positive symptoms of psychosis. Therefore, a more appropriate tool was searched for and the quality rating approach outlined by Gilbert (2009) and utilised by McKenna, Haddock & Fox (2014) was utilised. Gilbert (2009) developed the checklist for cross sectional studies based on the NICE checklists for cohort, case-control and qualitative studies (NICE, 2007) and this checklist was utilised alongside the NICE quality rating system (NICE, 2007).

However, as mentioned previously, this tool had not been widely utilised in previous research and as such is it not yet a standard tool employed by researchers which limits the extent to which the quality ratings are truly comparable across other reviews. This study is therefore the first to utilise this checklist in the area of SE and psychosis and it is hoped that future reviews would also include this as a measure of quality.

**Personal reflections**

Overall, the process of conducting and writing the systematic review was a challenging but valuable learning experience. It felt difficult at times, synthesising such a vast area of research, some of which was unfamiliar. However, spending the time to absorb the research in such a way resulted in a greater understanding of the literature, and greatly aided the writing of the empirical paper. The use of regular supervision and giving attention to issues which arose throughout the process resulted in what is felt to be an informative and useful review of the literature.

## Empirical Paper (Paper Two)

The empirical study presented in paper two was carried out to improve knowledge of the relationships between SE, SC and recovery in psychosis and to assess whether SC was a unique predictor of recovery in psychosis, over and above the impact of SE. At baseline, the results indicated that although SC and recovery were related, SC did not contribute unique variance in recovery from psychosis over and above that attributable to SE. Longitudinally, SC at baseline was not related to recovery at follow up. With regards to the exploratory study, levels of SE and SC were significantly different in groups in relation to the presence or absence of hallucinations respectively, but not delusions, and results suggested that participants who were experiencing auditory hallucinations had lower levels of overall SE and SC.

**Rationale for topic choice**

SC has emerged as an important construct in studies of psychopathology (MacBeth & Gumley, 2012) and although the evidence base within this area is developing quickly, mostly within non-clinical samples, there was very little research within the field of psychosis. The research that had been conducted in

relation to psychosis had shown promising trends (Davis, Strasburger, & Brown, 2007; Eicher, Davis, & Lysaker, 2013; Johnson et al., 2009; Mayhew & Gilbert, 2008), although the majority of these studies were limited to case-reports. At the time, only one study had explored the relationships between SC and clinical symptoms (Eicher et al., 2013) which highlighted a need within this area for further research with clinical psychosis populations. Other recent research had explored the relationships between SC and SE (Neff, 2011; Neff & Vonk, 2009), which suggests that SC may be a healthier way of relating to oneself when compared to SE. However, this study utilised a non-clinical sample and again, this has not been explored in a psychosis population. Research has shown that although SC and SE are moderately correlated, SC may predict more stable feelings of self-worth than SE and is less contingent on particular outcomes (Neff & Vonk, 2009).

Compassion focused therapy (Gilbert, 2009) has been introduced as a way of helping people to develop and work with experiences of safeness and soothing through the ability to be compassionate to others and to be self-compassionate (Gilbert, 2009). It has been suggested that compassion focused therapy is a beneficial way of working therapeutically with people experiencing psychosis and for recovery in psychosis (Gumley, Braehler, Laithwaite, MacBeth, & Gilbert, 2010; Johnson et al., 2011; Laithwaite et al., 2009). Therefore, exploring the benefits of SC over and above the impact of SE (on psychotic symptoms and recovery) seemed to be a judicious piece of research to conduct.

**Methodological reflections**

Recruitment for the research proved to be extremely fruitful. It was fortuitous that data from a large research trial was able to be utilised as the

130

sample group for paper two, which meant more data was available than would have been had this study not been part of a larger trial. When thinking about the sample group utilised in the study, the difficulties of conducting research with people who are experiencing paranoia were reflected on, and this has also been discussed in research (MacKinnon, Newman-Taylor, & Stopa, 2011). People who experience high levels of paranoia may prove to be a challenge to recruit into research due to their concerns about others' intentions. Furthermore it might be possible that even if people experiencing paranoia are recruited into research, it might be plausible to assume that they could withhold information because of such concerns. This therefore could affect the validity of the data and should be taken into account when interpreting the results of the study and the systematic review.

In addition to this, data was collected for the studies as part of a research trial, utilizing data from baseline and 9-month follow-up. The questionnaires utilised in the current study were part of a battery of measures given out to participants. There were large number of questionnaires within the battery and this may have impacted on participants in terms of respondent fatigue. Respondent fatigue is a phenomenon that occurs when participants become tired of completing a survey (for example a questionnaire) and the quality of the data they provide begins to worsen (Lavrakas, 2008). This might have had an impact on the validity of the measures and also the emotional impact this might have on participants, who were already struggling with difficult experiences. As such, participants were able to take breaks as often as they needed to and also to end the session at any time should they require.

**Implications of the results and theoretical reflections**

The results of the study were not as predicted. This encouraged reflection on why within the psychosis population SE seemed to be a better predictor of recovery over and above the impact of SC. A number of these reflections were discussed in paper two; however it felt important to further explore these issues and the differences between SE and SC within the critical reflections paper. When reflecting on the questionnaires utilised to measure SC and SE a number of questions and issues were raised.

Firstly, the SCS has not yet been validated in a psychosis population, and most validation studies have used non-clinical student samples (Neff, 2003; Raes, Pommier, Neff, & Van Gucht, 2011). As this is the only measure in the literature for SC, it had to be used, however on reflection it felt as though this might not have been the most appropriate way to measure SC in this sample group for a number of reasons. The questionnaire requires that people are able to access and remember emotional responses to difficult situations. This might be difficult for people with psychosis who commonly experience high levels of dissociation (Ondrej, Petr, & Jiri, 2014; Spitzer, Haug, & Freyberger, 1997) and who externally attribute difficulties (Garety, Kuipers, Fowler, Freeman, & Bebbington, 2001; Kaney & Bentall, 1989). This could potentially inhibit the ability for an individual to be self-compassionate in relation to positive symptoms of psychosis. Furthermore, it might not be possible to reliably or accurately measure SC in a sample group whose early life experiences often mean their threat system is highly activated and their soothing system is usually much less activated (Gumley et al., 2010), meaning that they might not be able to answer the questions asked and so their responses may not be wholly valid.

Additionally, in relation to the two questionnaires measuring SE and SC, there is very different task demands placed on the participants. Questions on the SE measures (SERS-SF) are very concrete and easy to relate to. Questions such as "I feel that I have a good sense of humour" and "I feel inferior to other people" (taken from the SER-SF) are both very concrete questions which do not involve the participant having to retrospectively think about difficult times/situations. On the other hand, the SCS includes a number of questions which require the participant to think in a more abstract way and retrospectively, than for the SERS-SF. Questions such as "when times are really difficult, I tend to be tough on myself" and "I try to be loving towards myself when I am feeling emotional pain" (taken from the SCS) may be difficult for the participant to answer because of the task load this involves. It also might be difficult for participants to retrospectively think about situations if they are prone to dissociating in distressing situations and externalising their problems. As such, questions on the SCS pertaining to emotional reactions in relation to difficult experiences may not be easily understood or processed. It may be therefore; that the SCS is not an appropriate tool for investigating SC in this group, in order to answer the research questions put forward. Or, other measures which assess dissociation and external attributions be included and explored in relation to SC in future research with this population.

It felt as though the SER-SF is more of a cognitive questionnaire and the SCS taps into more emotional experiences, a more 'felt sense'. Therefore, comparing the outcomes of these measures may not be clinically meaningful. Future research needs to think about utilizing methodologies to help address this problem. Experimental studies which induce SC experimentally may be a more useful methodology to use, and have proved successful in previous research

(Leary, Tate, Adams, Batts Allen, & Hancock, 2007). In this study, participants were asked to remember a life event that had made them feel negatively towards themselves. It was found that participants who were put in an experimentally induced self-compassionate mood took greater personal responsibility for the event and reported fewer negative emotions than those receiving an experimentally induced boost in SE or a control group (Neff & Vonk, 2009).

Finally, as discussed briefly in the discussion section of paper two. The predictive relationship between SC and recovery in psychosis may not have been apparent because the sample was a 'well' sample group whose recovery scores at baseline were higher than sample groups in most other studies who have utilised this measure with a psychosis population. If a person is well, it may be that they do not need to draw on SC because they do not feel it necessary. Research with a more unwell sample group may prove fruitful in exploring this issue further.

**Personal reflections**

The challenge of needing to observe and adhere to the boundaries of the role of a researcher rather than a clinician was an important learning experience. At times, some participants were distressed about their experiences. In a clinical role, skills such as normalising in order to help reduce distress in relation to psychotic would have been utilised however this was not possible when collecting the data as a researcher. An awareness of the importance of needing to adhere to the role of a researcher and drawing on skills learnt previously as a research assistant was needed however, at times, this felt like a very difficult role to be in.

In addition to this, conducting and writing up this research helped raised an awareness of the difficulties and challenges that clinical psychologists face in a rapidly changing NHS where they are expected to carry out audit and research

with very little dedicated time to do so. Balancing the competing demands of being a trainee and researcher, and new mother proved challenging at times. However, this challenge provided an invaluable learning experience, which greatly enhanced knowledge of the subject area, and research skills.

### Implications of the research on clinical practice

As highlighted in paper two, because this topic of research has not been conducted before, the data is too preliminary to support widespread dissemination in terms of changing clinical practice. However, the findings did highlight the importance of assessing and potentially working therapeutically on levels of SE within the context of working with someone with a diagnosis of psychosis. The importance and benefit of this has also been highlighted in previous research (Hall & Tarrier, 2003). It still remains unknown as to whether low SE is a cause or a consequence of psychotic experiences. However it does appear that SE is an important construct to address when working with a person on their psychosis recovery journey.

### Suggestions for further research

The systematic review highlighted the importance of future research which could explore and review the literature in relation to the relationships between negative symptoms of psychosis and SE. With regards to the research implications which have arisen from paper two, a number of issues could be addressed. Given that research within the field of SC and psychosis is in its infancy, further research is necessary within this area in order to be able to draw more firm conclusions regarding the relationships involved between the two constructs. However, in view of the issues risen pertaining to the possible difficulties of measurement of SC in a psychosis population, it may also be important to further explore this and investigate the use of more momentary

assessment (such as experience sampling methodology) for use in research with people experiencing psychosis. Furthermore, the development of a more suitable and valid tool for the measurement of SC would be an appropriate topic for future research.

Given the issues raised concerning the measure of SC, in hindsight, a number of changes could have been made to the study including utilising a more appropriate measure of self-compassion. For example, it may have been more appropriate to discuss this measure with participants in a pilot study, in order to ascertain their understanding of the measure and whether it was a relevant tool to utilise in this client group.

It could be that SC and SE are both mechanisms in understanding positive symptoms; however other processes or mechanisms may also need to be taken into account in order to further aid in the understanding of positive symptoms. As mentioned previously, dissociation and external attribution are common mechanisms within the psychosis population, which could potentially inhibit the ability for an individual to be self-compassionate in relation to positive symptoms of psychosis. Therefore, an alternative approach and an idea for future research may be about developing and understanding a more complex and sophisticated model, whereby SC and of a number of other factors/ mechanisms (which may include dissociation, deservedness, trauma and external attribution) play a role alongside SE in the understanding of recovery and the positive symptoms of psychosis.

## Dissemination

Paper one will be submitted to Clinical Psychology Review for publication. Paper Two will be submitted for review for the Journal of Clinical

and Consulting Psychology. Furthermore, the presentation of this information at psychology and inter-disciplinary research seminars may be of value.

## Summary

To summarise, this thesis aimed to improve and further our understanding of SE, SC and psychosis. The aims were to 1) to identify and synthesise the literature within the field of SE and positive symptoms of psychosis and 2) to build on this evidence base by exploring this relationship further by investigating the constructs of both SE and SC, in relation to positive symptoms and recovery in psychosis. Results from the systematic review add to the evidence base by highlighting the lack of consistency across studies in terms of measurement of both SE and psychosis. Results were mostly inconclusive although most evidence was found in relation to the inverse relationship between paranoia and SE. Results from the empirical paper suggested that SE to be a better predictor of both recovery in psychosis and positive symptoms of psychosis, over and above the impact of SC. This adds to a newly emerging evidence base exploring the impact of SC and psychosis. Limitations of the research methodology were discussed in both papers, along with ideas for future research and the clinical implications of the findings. Although these pieces of work were at times a challenge, it was felt that the process of conducting this work has been an invaluable learning opportunity, and is thought to represent a judicious and important contribution to the literature.

# References

Alejandro, R. J., Michael, M., George, P. B., Lynda, B., Christopher, S., Mario, F., & Robert, S. (2000). Systematic reviews and meta-analyses on treatment of asthma: critical evaluation. *BMJ, 320*.

Arcelus, J., Haslam, M., Farrow, C., & Meyer, C. (2012). The role of interpersonal functioning in the maintenance of eating psychopathology: A systematic review and testable model. *Clin Psychol Rev, 33*(1), 156-167. doi: 10.1016/j.cpr.2012.10.009

Davis, L. W., Strasburger, A. M., & Brown, L. F. (2007). Mindfulness: an intervention for anxiety in schizophrenia. *Journal of psychosocial nursing and mental health services, 45*(11), 23-29.

Eicher, A. C., Davis, L. W., & Lysaker, P. H. (2013). Self-Compassion: A Novel Link With Symptoms in Schizophrenia? *The Journal of Nervous and Mental Disease, 201*(5).

Garety, P., Kuipers, E., Fowler, D., Freeman, D., & Bebbington, P. E. (2001). A cognitive model of the positive symptoms of psychosis. *Psychological Medicine, 31*(02), 189-195. doi: doi:10.1017/S0033291701003312

Garg, A. X., Hackam, D., & Tonelli, M. (2008). Systematic Review and Meta-analysis: When One Study Is Just not Enough. *Clinical Journal of the American Society of Nephrology, 3*(1), 253-260.

Gilbert, P. (2009). Introducing compassion-focused therapy. *Advances in Psychiatric Treatment, 15*(3), 199-208.

Gumley, A., Braehler, C., Laithwaite, H., MacBeth, A., & Gilbert, P. (2010). A Compassion Focused Model of Recovery after Psychosis. *International Journal of Cognitive Therapy, 3*(2), 186-201. doi: 10.1521/ijct.2010.3.2.186

Hall, P. L., & Tarrier, N. (2003). The cognitive-behavioural treatment of low self-esteem in psychotic patients: a pilot study. *Behaviour Research and Therapy, 41*(3), 317-332. doi: 10.1016/S0005-7967(02)00013-X

Higgins J.P.T., & Green, S (editors) (2011). *Cochrane Handbook for Systematic Reviews of Interventions* Version 5.1.0 [updated March 2011]. The Cochrane Collaboration.

Johnson, D. P., Penn, D. L., Fredrickson, B. L., Meyer, P. S., Kring, A. M., & Brantley, M. (2009). Loving-kindness meditation to enhance recovery from negative symptoms of schizophrenia. *Journal of Clinical Psychology, 65*(5), 499-509. doi: 10.1002/jclp.20591

Johnson, W. B., Johnson, S. J., Sullivan, G. R., Bongar, B., Miller, L., & Sammons, M. T. (2011). Psychology in extremis: Preventing problems of professional competence in dangerous practice settings. *Professional Psychology: Research and Practice, 42*(1), 94-104. doi: 10.1037/a0022365

Kaney, S., & Bentall, R. P. (1989). Persecutory delusions and attributional style. *British Journal of Medical Psychology, 62*(2), 191-198. doi: 10.1111/j.2044-8341.1989.tb02826.x

Laithwaite, H., O'Hanlon, M., Collins, P., Doyle, P., Abraham, L., Porter, S., & Gumley, A. (2009). Recovery After Psychosis (RAP): A Compassion Focused Programme for Individuals Residing in High Security Settings. *Behavioural and Cognitive Psychotherapy, 37*(05), 511-526. doi: doi:10.1017/S1352465809990233

Lavrakas, P. J. (2008). *Encyclopedia of Survey Research Methods: A-M*: Sage.

Leary, M. R., Tate, E. B., Adams, C. E., Batts Allen, A., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The

implications of treating oneself kindly. *Journal of personality and social psychology, 92*(5), 887-904. doi: 10.1037/0022-3514.92.5.887

MacBeth, A., & Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review, 32*(6), 545-552. doi: http://dx.doi.org/10.1016/j.cpr.2012.06.003

MacKinnon, K., Newman-Taylor, K., & Stopa, L. (2011). Persecutory delusions and the self: An investigation of implicit and explicit self-esteem. *Journal of Behavior Therapy and Experimental Psychiatry, 42*(1), 54-64. doi: 10.1016/j.jbtep.2010.05.003

Mayhew, S. L., & Gilbert, P. (2008). Compassionate mind training with people who hear malevolent voices: a case series report. *Clinical Psychology & Psychotherapy, 15*(2), 113-138. doi: 10.1002/cpp.566

Mckenna, G., Haddock, G., & Fox, J. (2014). The nature of decision-making in eating disordered populations: A systematic review *Clinical Psychology Review (in submission)*.

Moher, D., Tetzlaff, J., Tricco, A. C., Sampson, M., & Altman, D. G. (2007). Epidemiology and Reporting Characteristics of Systematic Reviews. *PLoS Med, 4*(3), e78. doi: 10.1371/journal.pmed.0040078

Neff, K. D. (2003). The Development and Validation of a Scale to Measure Self-Compassion. *Self and Identity, 2*(3), 223-250.

Neff, K. D. (2011). Self-Compassion, Self-Esteem, and Well-Being. *Social and Personality Psychology Compass, 5*(1), 1-12.

Neff, K. D., & Vonk, R. (2009). Self-Compassion Versus Global Self-Esteem: Two Different Ways of Relating to Oneself. *Journal of Personality, 77*(1), 23-50. doi: 10.1111/j.1467-6494.2008.00537.x

Ondrej, P., Petr, B., & Jiri, P. (2014). Dissociation in schizophrenia and

borderline personality disorder. *Neuropsychiatric Disease and Treatment, 10*, 487-491. doi: 10.2147/NDT.S57627

Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and

factorial validation of a short form of the Self-Compassion Scale. *Clinical Psychology & Psychotherapy, 18*(3), 250-255. doi: 10.1002/cpp.702

Shuttleworth, M. (2009). Systematic Reviews  Retrieved 19th June, 2014, from

https://explorable.com/systematic-reviews

Spitzer, C., Haug, H. J., & Freyberger, H. J. (1997). Dissociative Symptoms in

Schizophrenic Patients with Positive and Negative Symptoms. *Psychopathology, 30*(2), 67-75.

Toomey, R., Kremen, W. S., Simpson, J. C., Samson, J. A., Seidman, L. J.,

Lyons, M. J., Tsuang, M. T. (1997). Revisiting the factor structure for positive and negative symptoms: Evidence from a large heterogeneous group of psychiatric patients. *The American Journal of Psychiatry, 154*(3), 371-377.

Appendix A:  Author Guidelines for Clinical Psychology Review

-  Author information pack

---

---

-  Before You Begin

- **Ethics in publishing**

  For information on Ethics in publishing and Ethical guidelines for journal publication see http://www.elsevier.com/publishingethics and http://www.elsevier.com/journal-authors/ethics.

- **Conflict of interest**

  All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three years of beginning the submitted work that could inappropriately influence, or be perceived to influence, their work. See also http://www.elsevier.com/conflictsofinterest. Further information and an example of a Conflict of Interest form can be found at: http://help.elsevier.com/app/answers/detail/a_id/286/p/7923.

- **Submission declaration**

  Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see http://www.elsevier.com/postingpolicy), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere including electronically in the same form, in English or in any other language, without the written consent of the copyright-holder.

143

- **Changes to authorship**

  This policy concerns the addition, deletion, or rearrangement of author names in the authorship of accepted manuscripts:
  *Before the accepted manuscript is published in an online issue*: Requests to add or remove an author, or to rearrange the author names, must be sent to the Journal Manager from the corresponding author of the accepted manuscript and must include: (a) the reason the name should be added or removed, or the author names rearranged and (b) written confirmation (e-mail, fax, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. Requests that are not sent by the corresponding author will be forwarded by the Journal Manager to the corresponding author, who must follow the procedure as described above. Note that: (1) Journal Managers will inform the Journal Editors of any such requests and (2) publication of the accepted manuscript in an online issue is suspended until authorship has been agreed.
  *After the accepted manuscript is published in an online issue*: Any requests to add, delete, or rearrange author names in an article published in an online issue will follow the same policies as noted above and result in a corrigendum.

- **Copyright**

  This journal offers authors a choice in publishing their research: Open Access and Subscription.

- *For Subscription articles*
  Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (for more information on this and copyright, see http://www.elsevier.com/copyright). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.
  Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations (please consult http://www.elsevier.com/permissions). If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases: please consult http://www.elsevier.com/permissions.

- *For Open Access articles*
  Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (for more information see http://www.elsevier.com/OAauthoragreement). Permitted reuse of open access articles is determined by the author's choice of user license (see http://www.elsevier.com/openaccesslicenses).

- *Retained author rights*
  As an author you (or your employer or institution) retain certain rights. For more information on author rights for:
  Subscription articles please see http://www.elsevier.com/journal-authors/author-rights-and-responsibilities.
  Open access articles please see http://www.elsevier.com/OAauthoragreement.

- **Role of the funding source**

  You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in

the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

- **Funding body agreements and policies**

  Elsevier has established agreements and developed policies to allow authors whose articles appear in journals published by Elsevier, to comply with potential manuscript archiving requirements as specified as conditions of their grant awards. To learn more about existing agreements and policies please visit http://www.elsevier.com/fundingbodies.

- **Open access**

  This journal offers authors a choice in publishing their research:

- **Open Access**
  • Articles are freely available to both subscribers and the wider public with permitted reuse
  • An Open Access publication fee is payable by authors or their research funder
  **Subscription**
  • Articles are made available to subscribers as well as developing countries and patient groups through our access programs (http://www.elsevier.com/access)
  • No Open Access publication fee

- All articles published Open Access will be immediately and permanently free for everyone to read and download. Permitted reuse is defined by your choice of one of the following Creative Commons user licenses:
  **Creative Commons Attribution (CC BY)**: lets others distribute and copy the article, to create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), to include in a collective work (such as an anthology), to text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.
  **Creative Commons Attribution-NonCommercial-ShareAlike (CC BY-NC-SA)**: for non-commercial purposes, lets others distribute and copy the article, to create extracts, abstracts and other revised versions, adaptations or derivative works of or from an article (such as a translation), to include in a collective work (such as an anthology), to text and data mine the article, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, do not modify the article in such a way as to damage the author's honor or reputation, and license their new adaptations or creations under identical terms (CC BY-NC-SA).
  **Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)**: for non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

- To provide Open Access, this journal has a publication fee which needs to be met by the authors or their research funders for each article published Open Access.
  Your publication choice will have no effect on the peer review process or acceptance of submitted articles.

  The publication fee for this journal is **$1800**, excluding taxes. Learn more about Elsevier's pricing policy: http://www.elsevier.com/openaccesspricing.

- **Language (usage and editing services)**

  Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require

145

editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's WebShop (http://webshop.elsevier.com/languageediting/) or visit our customer support site (http://support.elsevier.com) for more information.

- **Submission**

  Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts source files to a single PDF file of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF files at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail removing the need for a paper trail.

- ![Preparation icon] **Preparation**

- **Use of word processing software**

  It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier: http://www.elsevier.com/guidepublication). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.
  To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

- **Article structure**

  Manuscripts should be prepared according to the guidelines set forth in the Publication Manual of the American Psychological Association (6th ed., 2009). Of note, section headings should not be numbered.

- Manuscripts should ordinarily not exceed 50 pages, *including* references and tabular material. Exceptions may be made with prior approval of the Editor in Chief. Manuscript length can often be managed through the judicious use of appendices. In general the References section should be limited to citations actually discussed in the text. References to articles solely included in meta-analyses should be included in an appendix, which will appear in the on line version of the paper but not in the print copy. Similarly, extensive Tables describing study characteristics, containing material published elsewhere, or presenting formulas and other technical material should also be included in an appendix. Authors can direct readers to the appendices in appropriate places in the text.

- It is authors' responsibility to ensure their reviews are comprehensive and as up to date as possible (at least through the prior calendar year) so the data are still current at the time of publication. Authors are referred to the PRISMA Guidelines (http://www.prisma-statement.org/statement.htm) for guidance in conducting reviews and preparing manuscripts. Adherence to the Guidelines is not required, but is recommended to enhance quality of submissions and impact of published papers on the field.

- *Appendices*

  If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

- **Essential title page information**

- *Title.* Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible. **Note: The title page should be the first page of the manuscript document indicating the author's names and affiliations and the corresponding author's complete contact information.**

- *Author names and affiliations.* Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author within the cover letter.

- *Corresponding author.* Clearly indicate who is willing to handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address.**

- *Present/permanent address.* If an author has moved since the work described in the article was done, or was visiting at the time, a "Present address"' (or "Permanent address") may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

- 

- *Abstract*

- A concise and factual abstract is required (not exceeding 200 words). This should be typed on a separate page following the title page. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separate from the article, so it must be able to stand alone. References should therefore be avoided, but if essential, they must be cited in full, without reference to the reference list.

- **Graphical abstract**

  A Graphical abstract is optional and should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership online. Authors must provide images that clearly represent the work described in the article. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. See http://www.elsevier.com/graphicalabstracts for examples.
  Authors can make use of Elsevier's Illustration and Enhancement service to ensure the best presentation of their images also in accordance with all technical requirements: Illustration Service.

- **Highlights**

  Highlights are mandatory for this journal. They consist of a short collection of bullet points

147

that convey the core findings of the article and should be submitted in a separate file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point). See http://www.elsevier.com/highlights for examples.

- **Keywords**

  Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

- **Abbreviations**

  Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

- **Acknowledgements**

  Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

- **Footnotes**

  Footnotes should be used sparingly. Number them consecutively throughout the article, using superscript Arabic numbers. Many wordprocessors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.
  *Table footnotes*
  Indicate each footnote in a table with a superscript lowercase letter.

- ***Electronic artwork***
  *General points*
  • Make sure you use uniform lettering and sizing of your original artwork.
  • Embed the used fonts if the application provides that option.
  • Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
  • Number the illustrations according to their sequence in the text.
  • Use a logical naming convention for your artwork files.
  • Provide captions to illustrations separately.
  • Size the illustrations close to the desired dimensions of the printed version.
  • Submit each illustration as a separate file.
  A detailed guide on electronic artwork is available on our website:
  http://www.elsevier.com/artworkinstructions
  **You are urged to visit this site; some excerpts from the detailed information are given here.**
  *Formats*
  If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.
  Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
  EPS (or PDF): Vector drawings, embed all used fonts.

TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.

TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.

TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

**Please do not:**

• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;

• Supply files that are too low in resolution;

• Submit graphics that are disproportionately large for the content.

- *Color artwork*
  Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color on the Web (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article**. Please indicate your preference for color: in print or on the Web only. For further information on the preparation of electronic artwork, please see http://www.elsevier.com/artworkinstructions. Please note: Because of technical complications which can arise by converting color figures to 'gray scale' (for the printed version should you not opt for color in print) please submit in addition usable black and white versions of all the color illustrations.

- *Figure captions*
  Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

- **Tables**

  Number tables consecutively in accordance with their appearance in the text. Place footnotes to tables below the table body and indicate them with superscript lowercase letters. Avoid vertical rules. Be sparing in the use of tables and ensure that the data presented in tables do not duplicate results described elsewhere in the article.

- *References*

- Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 1-4338-0559-6, copies of which may be ordered from http://books.apa.org/books.cfm?id=4200067 or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3E 8LU, UK. Details concerning this referencing style can also be found at http://humanities.byu.edu/linguistics/Henrichsen/APA/APA01.html

- *Citation in text*
  Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

- *Web references*
  As a minimum, the full URL should be given and the date when the reference was last

149

accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

- *References in a special issue*
  Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

- *Reference management software*
  This journal has standard templates available in key reference management packages EndNote (http://www.endnote.com/support/enstyles.asp) and Reference Manager (http://refman.com/support/rmstyles.asp). Using plug-ins to wordprocessing packages, authors only need to select the appropriate journal template when preparing their article and the list of references and citations to these will be formatted according to the journal style which is described below.

- **Reference style**

- References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication. **References should be formatted with a hanging indent (i.e., the first line of each reference is flush left while the subsequent lines are indented).**

- *Examples:* Reference to a journal publication: Van der Geer, J., Hanraads, J. A. J., & Lupton R. A. (2000). The art of writing a scientific article. *Journal of Scientific Communications,* 163, 51-59.

- Reference to a book: Strunk, W., Jr., &White, E. B. (1979). *The elements of style.* (3rd ed.). New York: Macmillan, (Chapter 4).

- Reference to a chapter in an edited book: Mettam, G. R., & Adams, L. B. (1994). How to prepare an electronic version of your article. In B.S. Jones, & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281-304). New York: E-Publishing Inc.

- **Video data**

  Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the files in one of our recommended file formats with a preferred maximum size of 50 MB. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect: http://www.sciencedirect.com. Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages at http://www.elsevier.com/artworkinstructions. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

- **AudioSlides**

  The journal encourages authors to create an AudioSlides presentation with their published article. AudioSlides are brief, webinar-style presentations that are shown next

to the online article on ScienceDirect. This gives authors the opportunity to summarize their research in their own words and to help readers understand what the paper is about. More information and examples are available at http://www.elsevier.com/audioslides. Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

- **Supplementary data**

Elsevier accepts electronic supplementary material to support and enhance your scientific research. Supplementary files offer the author additional possibilities to publish supporting applications, high-resolution images, background datasets, sound clips and more. Supplementary files supplied will be published online alongside the electronic version of your article in Elsevier Web products, including ScienceDirect: http://www.sciencedirect.com. In order to ensure that your submitted material is directly usable, please provide the data in one of our recommended file formats. Authors should submit the material in electronic format together with the article and supply a concise and descriptive caption for each file. For more detailed instructions please visit our artwork instruction pages at http://www.elsevier.com/artworkinstructions.

- **3D neuroimaging**

You can enrich your online articles by providing 3D neuroimaging data in NIfTI format. This will be visualized for readers using the interactive viewer embedded within your article, and will enable them to: browse through available neuroimaging datasets; zoom, rotate and pan the 3D brain reconstruction; cut through the volume; change opacity and color mapping; switch between 3D and 2D projected views; and download the data. The viewer supports both single (.nii) and dual (.hdr and .img) NIfTI file formats. Recommended size of a single uncompressed dataset is 100 MB or less. Multiple datasets can be submitted. Each dataset will have to be zipped and uploaded to the online submission system via the '3D neuroimaging data' submission category. Please provide a short informative description for each dataset by filling in the 'Description' field when uploading a dataset. Note: all datasets will be available for downloading from the online article on ScienceDirect. If you have concerns about your data being downloadable, please provide a video instead. For more information see: http://www.elsevier.com/3DNeuroimaging.

- **Submission checklist**

The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.
**Ensure that the following items are present:**
One author has been designated as the corresponding author with contact details:
• E-mail address
• Full postal address
• Phone numbers
All necessary files have been uploaded, and contain:
• Keywords
• All figure captions
• All tables (including title, description, footnotes)
Further considerations
• Manuscript has been 'spell-checked' and 'grammar-checked'
• References are in the correct format for this journal
• All references mentioned in the Reference list are cited in the text, and vice versa
• Permission has been obtained for use of copyrighted material from other sources (including the Web)
• Color figures are clearly marked as being intended for color reproduction on the Web (free of charge) and in print, or to be reproduced in color on the Web (free of charge) and in black-and-white in print
• If only color on the Web is required, black-and-white versions of the figures are also

supplied for printing purposes
For any further information please visit our customer support site at
http://support.elsevier.com.

- **After Acceptance**

- **Use of the Digital Object Identifier**

  The Digital Object Identifier (DOI) may be used to cite and link to electronic documents. The DOI consists of a unique alpha-numeric character string which is assigned to a document by the publisher upon the initial electronic publication. The assigned DOI never changes. Therefore, it is an ideal medium for citing a document, particularly 'Articles in press' because they have not yet received their full bibliographic information. Example of a correctly given DOI (in URL format; here an article in the journal *Physics Letters B*): http://dx.doi.org/10.1016/j.physletb.2010.09.059
  When you use a DOI to create links to documents on the web, the DOIs are guaranteed never to change.

- **Online proof correction**

  Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.
  If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.
  We will do everything possible to get your article published quickly and accurately - please upload all of your corrections within 48 hours. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility. Note that Elsevier may proceed with the publication of your article if no response is received.

- **Offprints**

  The corresponding author, at no cost, will be provided with a PDF file of the article via e-mail (the PDF file is a watermarked version of the published article and includes a cover sheet with the journal cover image and a disclaimer outlining the terms and conditions of use). For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's WebShop (http://webshop.elsevier.com/myarticleservices/offprints). Authors requiring printed copies of multiple articles may use Elsevier WebShop's 'Create Your Own Book' service to collate multiple articles within a single cover (http://webshop.elsevier.com/myarticleservices/offprints/myarticlesservices/booklets).

- **Author Inquiries**

  For inquiries relating to the submission of articles (including electronic submission) please visit this journal's homepage. For detailed instructions on the preparation of electronic artwork, please visit http://www.elsevier.com/artworkinstructions. Contact details for questions arising after acceptance of an article, especially those relating to proofs, will be provided by the publisher. You can track accepted articles at http://www.elsevier.com/trackarticle.

152

Appendix B: Quality Rating Tool

Table 1: Checklist for rating the methodological quality of identified articles

| Section 1: internal validity | | In this study the criterion is: |
|---|---|---|
| 1.1 The study addresses an appropriate and clearly focused question | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| | | |
| *Selection of subjects* | | |
| 1.2 Recruitment is appropriate to the aims of the research | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| 1.3 Representative cases from relevant population | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| 1.4 The study indicates how many people asked to take part did so | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| 1.5 Comparison is made between participants and non-participants to establish their similarities or differences | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| 1.6 Inclusion criteria made explicit and sample characteristics sufficiently described | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| 1.7 Were subjects recruited over the same period of time? | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| | | |
| *Data collection* | | |
| 1.8 Confidence in the quality of individual responses (e.g. telephone questionnaires might produce better quality answers than postal | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| 1.9 Outcome is measured in an objective, standard, valid and reliable way | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| 1.10 Reliance on current info rather than recall/hypothetical scenarios | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| | | |
| *Confounding* | | |
| | Well covered | Not addressed |
| 1.11 The main potential confounders are identified and taken into account in the design and analysis | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| 1.12 Minimization of bias- participant bias, observer bias, halo effects | Well covered | Not addressed |
| | Adequately addressed | Not reported |
| | Poorly addressed | Not applicable |
| | | |
| *Statistical analysis* | | |
| 1.13 Appropriate use of statistical analysis? | | Appropriate |
| | | Not appropriate |
| | | Not clear |
| 1.14 Actual p values reported (e.g. 0.037 rather than <0.05) for the main outcome, except when the p value is <0.001 | | Yes |
| | | No |
| | | |
| **Section 2** | | |
| 2.1 How well does the study minimize the risk of bias or confounding, and meet its aims? | | ++ |
| | | + |

| | - |
|---|---|
| 2.2 Taking into account clinical durations, your evaluation of the methodology used and the statistical power of the study, are you certain that the findings could be replicated? | Yes |
| | No |

# Appendix C: NICE guidance Quality Rating System

| | |
|---|---|
| ++ | All or most of the criteria have been fulfilled, the conclusions of the study or review are thought very unlikely to alter |
| + | Some of the criteria have been fulfilled. Those criteria which have not been fulfilled or not adequately described are thought unlikely to alter the conclusions |
| - | Few or no criteria have been fulfilled. The conclusions of the study are thought likely or very likely to alter |

Appendix D: Author Guidelines for Journal of Consulting

Psychology and Clinical Psychology

**Submission**

Prior to submission, please review the submission guidelines detailed below. Starting in 2011, the completion of a Manuscript Submission Checklist (PDF, 35KB) that signifies that authors have read this material and agree to adhere to the guidelines is now required. The checklist should follow the cover letter as part of the submission.

Please submit manuscripts electronically, either using Microsoft Word (.doc) or Rich Text Format (.rtf) via the Manuscript Submission Portal.

Submission
Portal Entrance

If you encounter difficulties with submission, please email Katie Einhorn or call 202-216-7622.

General correspondence may be directed to the Editorial Office via email.

**Masked Review**

This journal uses a masked reviewing system for all submissions. The first page of the manuscript should omit the authors' names and affiliations but should include the title of the manuscript and the date it is submitted.

Footnotes containing information pertaining to the authors' identities or affiliations should not be included in the manuscript, but may be provided after a manuscript is accepted.

Make every effort to see that the manuscript itself contains no clues to the authors' identities.

Please ensure that the final version for production includes a byline and full author note for typesetting.

Keep a copy of the manuscript to guard against loss.

**Cover Letter**

The cover letter accompanying the manuscript submission must include all authors' names and affiliations to avoid potential conflicts of interest in the review process. Addresses and phone numbers, as well as electronic mail addresses and fax numbers, if available, should be provided for all authors for possible use by the editorial office and later by the production office.

**Length and Style of Manuscripts**

Full-length manuscripts should not exceed 35 pages total (including cover page, abstract, text, references, tables, and figures), with margins of at least 1 inch on all sides and a standard font (e.g., Times New Roman) of 12 points (no smaller). The entire paper (text, references, tables, etc.) must be double spaced. Instructions on preparing tables, figures, references, metrics, and abstracts appear in the *Publication Manual of the American Psychological Association* (6th edition).

Authors submitting manuscripts that report new data collection, especially randomized clinical trials (RCTs), should comply with the newly developed APA Journal Article Reporting Standards (PDF, 98KB) (JARS; see *American Psychologist*, 2008, *63*, 839–851 or Appendix in the *APA Publication Manual*). For papers that exceed 35 pages, authors must justify the extended length in their cover letter (e.g., reporting of multiple studies), and in no case should the paper

exceed 45 pages total. Papers that do not conform to these guidelines may be returned without review.

The References section should immediately follow a page break.


## Brief Reports

In addition to full-length manuscripts, the *JCCP* will consider Brief Reports of research studies in clinical psychology. The Brief Report format may be appropriate for empirically sound studies that are limited in scope, contain novel or provocative findings that need further replication, or represent replications and extensions of prior published work.

Brief Reports are intended to permit the publication of soundly designed studies of specialized interest that cannot be accepted as regular articles because of lack of space.

Brief Reports must be prepared according to the following specifications: Use 12-point Times New Roman type and 1-inch (2.54-cm) margins, and do not exceed 265 lines of text including references. These limits do not include the title page, abstract, author note, footnotes, tables, or figures.

An author who submits a Brief Report must agree not to submit the full report to another journal of general circulation. The Brief Report should give a clear, condensed summary of the procedure of the study and as full an account of the results as space permits.


## Commentaries

*JCCP* now publishes papers that are commentaries of previously published articles in this journal. Two types of commentaries will be considered:


## Brief Comment

A Brief Comment would be written in response to a single article previously published in *JCCP*. The primary purpose would be to provide a meaningful insight, concern, alternative interpretation, clarification, or critical analysis. It is not intended to be pedestrian in nature (e.g., simply highlighting that a given study is statistically underpowered). Rather, its publication would provide for a richer and more comprehensive understanding of a methodological, conceptual, or professional issue that significantly adds to the literature.

Similar to a Brief Report, Brief Comments should not exceed 265 lines of text including references. This limit does not include the title page, abstract, or author notes. The title of a Brief Comment should include a subtitle reflecting the actual title and year of publication of the article that engendered the comment. For example — "The Importance of Focusing on External Validity: A Brief Comment on *Testing the Efficacy of Two Differing Types of Stress Management Interventions for the Treatment of Essential Hypertension* (Jones & Smith, 2012)."

Brief Comments should be submitted in a timely manner, no later than 9 months after publication of the original article. Upon acceptance of a Brief Comment, the author(s) of the original paper would be invited to submit a response, whereupon,

if acceptable, both the Brief Comment and Response would be published together. Such Responses to a Brief Comment should also not exceed 265 lines of text including references.

## Extended Comment

The purpose of this type of article is essentially similar to that of a Brief Comment (i.e., to provide a meaningful insight, concern, alternative interpretation, clarification, or critical analysis), but would be written in response to a series of articles previously published in *JCCP* or that involves a more extensive and far-reaching conceptual or methodological issue. An example might include describing and analyzing the limitations of a particular statistical or methodological procedure used in several studies previously published in *JCCP*, provided along with meaningful recommendations.

This type of article should not exceed approximately one half the length of the original paper (note that 1 journal page equals approximately 3–3.5 manuscript pages). Unless permission from the editor is received, no Extended Comment should exceed 20 manuscript pages inclusive of all references, tables, and figures.

Similar to a Brief Comment, where and when appropriate, if such a paper is accepted, the author(s) of the original article(s) will be contacted to write a response, whereupon, if acceptable, both the Extended Comment and Response would be published together. This Invited Response should not exceed approximately one half the length of the Extended Comment.

The title of this type of article need not include a subtitle representing the original article(s). One important review criteria involves the timeliness of the topic and its potential contribution to the scientific literature base relevant to the scope of *JCCP* content.

## Conceptual/Theoretical Papers

Whereas the majority of papers published in *JCCP* will involve descriptions of quantitatively-based investigations, this journal also considers conceptual articles on topics of broad theoretical, methodological, or practical interest that advance the field of clinical psychology. Examples might include describing a new methodological or statistical procedure, delineating methods of enhancing dissemination of research findings from the lab to real-world settings, or advocating the need to increase the profession's research efforts regarding a traditionally underserved population.

Similar formatting guidelines for submitting a full length research article would apply for these types of papers.

## Title of Manuscript

The title of a manuscript should be accurate, fully explanatory, and preferably no longer then 12 words. The title should reflect the content and population studied (e.g., "treatment of generalized anxiety disorders in adults").

If the paper reports a randomized clinical trial (RCT), this should be indicated in the title. Note that JARS criteria must be used for reporting purposes.

## Abstract and Keywords

Starting in 2010, all manuscripts published in the *Journal of Consulting and Clinical Psychology* will include a structured abstract of up to 250 words. For studies that report randomized clinical trials or meta-analyses, the abstract also must be consistent with the guidelines set forth by JARS or MARS (Meta-Analysis Reporting Standards) guidelines, respectively. Thus, in preparing a manuscript, please ensure that it is consistent with the guidelines stated below. Please include an Abstract of up to 250 words, presented in paragraph form. The Abstract should be typed on a separate page (page 2 of the manuscript), and must include each of the following sections:

- **Objective:** A brief statement of the purpose of the study

- **Method:** A detailed summary of the participants (*N*, age, gender, ethnicity) as well as descriptions of the study design, measures (including names of measures), and procedures

- **Results:** A detailed summary of the primary findings that clearly articulate comparison groups (if relevant), and that indicate significance or confidence intervals for the main findings

- **Conclusions:** A description of the research and clinical implications of the findings

After the abstract, please supply up to five keywords or short phrases.

## Participants: Description and Informed Consent

The Method section of each empirical report must contain a detailed description of the study participants, including (but not limited to) the following: age, gender, ethnicity, SES, clinical diagnoses and comorbidities (as appropriate), and any other relevant demographics.
In the Discussion section of the manuscript, authors should discuss the diversity of their study samples and the generalizability of their findings.
The Method section also must include a statement describing how informed consent was obtained from the participants (or their parents/guardians) and indicate that the study was conducted in compliance with an appropriate Internal Review Board.

## Measures

The Method section of empirical reports must contain a sufficiently detailed description of the measures used so that the reader understands the item content, scoring procedures, and total scores or subscales. Evidence of reliability and validity with similar populations should be provided.

## Statistical Reporting of Clinical Significance

*JCCP* requires the statistical reporting of measures that convey clinical significance. Authors should report means and standard deviations for all continuous study variables and the effect sizes for the primary study findings. (If effect sizes are not available for a particular test, authors should convey this in their cover letter at the time of submission.)

*JCCP* also requires authors to report confidence intervals for any effect sizes involving principal outcomes (see Fidler et al., *Journal of Consulting and Clinical Psychology*, 2005, pp. 136–143 and Odgaard & Fowler, *Journal of Consulting and Clinical Psychology*, 2010, pp.287–297).

In addition, when reporting the results of interventions, authors should include indicators of clinically significant change. Authors may use one of several approaches that have been recommended for capturing clinical significance, including (but not limited to) the reliable change index (i.e., whether the amount of change displayed by a treated individual is large enough to be meaningful; see Jacobson et al., *Journal of Consulting and Clinical Psychology*, 1999), the extent to which dysfunctional individuals show movement into the functional distribution (see Jacobson & Truax, *Journal of Consulting and Clinical Psychology*, 1991), or other normative comparisons (see Kendall et al., *Journal of Consulting and Clinical Psychology*, 1999).

The special section of *JCCP* on "Clinical Significance" (*Journal of Consulting and Clinical Psychology*, 1999, pp. 283–339) contains detailed discussions of clinical significance and its measurement and should be a useful resource (see also Atkins et al., *Journal of Consulting and Clinical Psychology*, 2005, pp. 982–989).

## Discussion of Clinical Implications

Articles must include a discussion of the clinical implications of the study findings or analytic review. The Discussion section should contain a clear statement of the extent of clinical application of the current assessment, prevention, or treatment methods. The extent of application to clinical practice may range from suggestions that the data are too preliminary to support widespread dissemination to descriptions of existing manuals available from the authors or archived materials that would allow full implementation at present.

## Randomized Clinical Trials: Use of JARS Guidelines

*JCCP* requires the use of JARS guidelines for randomized clinical trials, consistent with the recommendations and policies established by the Publications and Communications Board of the American Psychological Association. JARS offers a standard way to improve the quality of such reports, and to ensure that readers have the information necessary to evaluate the quality of a clinical trial. Manuscripts that report randomized clinical trials are required to include a flow diagram of the progress through the phases of the trial. When a study is not fully consistent with JARS guidelines, the limitations should be acknowledged and discussed in the text of the manuscript.

For follow-up studies of previously published clinical trials, authors should submit a flow diagram of the progress through the phases of the trial and follow-up. The above checklist information should be completed to the extent possible, especially for the Results and Discussion sections of the manuscript.

Authors of RCTs should also describe procedures to assess for treatment fidelity (also known as treatment integrity), including both therapist adherence and competence. Where possible, results should be reported regarding the relationship between fidelity and outcome found in the investigation.

- [View the JARS guidelines (PDF, 98KB)](#)

## Meta-Analyses of Randomized Clinical Trials: Use of MARS Guidelines

*JCCP* requires the use of the APA MARS guidelines for meta-analyses of randomized clinical trials. MARS offers a standard way to improve the quality of such reports, and to ensure that readers have the information necessary to evaluate the quality of a meta-analysis.

Manuscripts that report meta-analyses of randomized clinical trials are required to include a flow diagram of the progress through the stages of the meta-analysis. When a study is not fully consistent with MARS, the limitations should be acknowledged and discussed in the text of the manuscript.

MARS guidelines are included in the [JARS guidelines (PDF, 98KB)](#)

## Nonrandomized Trials

For nonrandomized designs that often are used in public health and mental-health interventions, *JCCP* requires compliance with JARS.

Failure to comply with JARS or MARS can result in the return of manuscripts without review.

## Manuscript Preparation

Prepare manuscripts according to the *[Publication Manual of the American Psychological Association](#)* ([6th edition](#)). Manuscripts may be copyedited for bias-free language (see Chapter 3 of the *Publication Manual*).

Review APA's [Checklist for Manuscript Submission](#) before submitting your article.

Double-space all copy. Other formatting instructions, as well as instructions on preparing tables, figures, references, metrics, and abstracts, appear in the *Manual*.

Below are additional instructions regarding the preparation of display equations, computer code, and tables.

**Display Equations**

We strongly encourage you to use MathType (third-party software) or Equation Editor 3.0 (built into pre-2007 versions of Word) to construct your equations, rather than the equation support that is built into Word 2007 and Word 2010. Equations composed with the built-in Word 2007/Word 2010 equation support

are converted to low-resolution graphics when they enter the production process and must be rekeyed by the typesetter, which may introduce errors.
To construct your equations with MathType or Equation Editor 3.0:

- Go to the Text section of the Insert tab and select Object.

- Select MathType or Equation Editor 3.0 in the drop-down menu.

If you have an equation that has already been produced using Microsoft Word 2007 or 2010 and you have access to the full version of MathType 6.5 or later, you can convert this equation to MathType by clicking on MathType Insert Equation. Copy the equation from Microsoft Word and paste it into the MathType box. Verify that your equation is correct, click File, and then click Update. Your equation has now been inserted into your Word file as a MathType Equation.
Use Equation Editor 3.0 or MathType only for equations or for formulas that cannot be produced as Word text using the Times or Symbol font.

**Computer Code**

Because altering computer code in any way (e.g., indents, line spacing, line breaks, page breaks) during the typesetting process could alter its meaning, we treat computer code differently from the rest of your article in our production process. To that end, we request separate files for computer code.

**In Online Supplemental Material**
We request that runnable source code be included as supplemental material to the article. For more information, visit Supplementing Your Article With Online Material.

**In the Text of the Article**
If you would like to include code in the text of your published manuscript, please submit a separate file with your code exactly as you want it to appear, using Courier New font with a type size of 8 points. We will make an image of each segment of code in your article that exceeds 40 characters in length. (Shorter snippets of code that appear in text will be typeset in Courier New and run in with the rest of the text.) If an appendix contains a mix of code and explanatory text, please submit a file that contains the entire appendix, with the code keyed in 8-point Courier New.

**Tables**

Use Word's Insert Table function when you create tables. Using spaces or tabs in your table will create problems when the table is typeset and may result in errors.

**Submitting Supplemental Materials**

APA can place supplemental materials online, available via the published article in the PsycARTICLES® database. Please see Supplementing Your Article With Online Material for more details.

**References**

List references in alphabetical order. Each listed reference should be cited in text, and each text citation should be listed in the References section.

Examples of basic reference formats:

- **Journal Article:**
  Hughes, G., Desantis, A., & Waszak, F. (2013). Mechanisms of intentional binding and sensory attenuation: The role of temporal prediction, temporal control, identity prediction, and motor prediction. *Psychological Bulletin, 139,* 133–151. http://dx.doi.org/10.1037/a0028566

- **Authored Book:**
  Rogers, T. T., & McClelland, J. L. (2004). *Semantic cognition: A parallel distributed processing approach.*Cambridge, MA: MIT Press.

- **Chapter in an Edited Book:**
  Gill, M. J., & Sypher, B. D. (2009). Workplace incivility and organizational trust. In P. Lutgen-Sandvik & B. D. Sypher (Eds.), *Destructive organizational communication: Processes, consequences, and constructive ways of organizing*(pp. 53–73). New York, NY: Taylor & Francis.

## Figures

Graphics files are welcome if supplied as Tiff or EPS files. Multipanel figures (i.e., figures with parts labeled a, b, c, d, etc.) should be assembled into one file. The minimum line weight for line art is 0.5 point for optimal printing.
For more information about acceptable resolutions, fonts, sizing, and other figure issues, please see the general guidelines.
When possible, please place symbol legends below the figure instead of to the side.
APA offers authors the option to publish their figures online in color without the costs associated with print publication of color figures.
For authors who prefer their figures to be published in color both in print and online, original color figures can be printed in color at the editor's and publisher's discretion provided the author agrees to pay:

- $900 for one figure

- An additional $600 for the second figure

- An additional $450 for each subsequent figure

## Permissions

Authors of accepted papers must obtain and provide to the editor on final acceptance all necessary permissions to reproduce in print and electronic form any copyrighted work, including test materials (or portions thereof), photographs, and other graphic images (including those used as stimuli in experiments).
On advice of counsel, APA may decline to publish any image whose copyright status is unknown.

- Download Permissions Alert Form (PDF, 13KB)

**Publication Policies**

APA policy prohibits an author from submitting the same manuscript for concurrent consideration by two or more publications.
See also APA Journals® Internet Posting Guidelines.
APA requires authors to reveal any possible conflict of interest in the conduct and reporting of research (e.g., financial interests in a test or procedure, funding by pharmaceutical companies for drug research).

- Download Disclosure of Interests Form (PDF, 38KB)

Authors of accepted manuscripts are required to transfer the copyright to APA.

- For manuscripts **not** funded by the Wellcome Trust or the Research Councils UK
  Publication Rights (Copyright Transfer) Form (PDF, 83KB)

- For manuscripts funded by the Wellcome Trust or the Research Councils UK
  Wellcome Trust or Research Councils UK Publication Rights Form (PDF, 34KB)

**Ethical Principles**

It is a violation of APA Ethical Principles to publish "as original data, data that have been previously published" (Standard 8.13).
In addition, APA Ethical Principles specify that "after research results are published, psychologists do not withhold the data on which their conclusions are based from other competent professionals who seek to verify the substantive claims through reanalysis and who intend to use such data only for that purpose, provided that the confidentiality of the participants can be protected and unless legal rights concerning proprietary data preclude their release" (Standard 8.14).
APA expects authors to adhere to these standards. Specifically, APA expects authors to have their data available throughout the editorial review process and for at least 5 years after the date of publication.
Authors are required to state in writing that they have complied with APA ethical standards in the treatment of their sample, human or animal, or to describe the details of treatment.

- Download Certification of Compliance With APA Ethical Principles Form (PDF, 26KB)

The APA Ethics Office provides the full Ethical Principles of Psychologists and Code of Conduct electronically on its website in HTML, PDF, and Word format. You may also request a copy by emailing or calling the APA Ethics Office (202-336-5930). You may also read "Ethical Principles," December 1992, *American Psychologist*, Vol. 47, pp. 1597–1611.

Appendix E: Participant Information Sheet

# Participant Information Sheet

**Study Title:  Self-help Therapy and Recovery Trial (STAR-T)**

You are being invited to take part in a research study. Before you decide whether to take part it is important you understand why the research is being done and what it will involve. Please take time to read the following information carefully. We can go over it in more detail when we meet if you like. You can also discuss it with others if you wish. Ask us if there is anything that is not clear or you would like more information about. Take time to decide whether or not you wish to take part.

## Why is the study being done?

The study aims to look at the benefits of a new Recovery Guide+Support for people with psychosis. We would also like to find out about processes involved in recovery from psychosis.

## Who will be taking part?

We are hoping for 120 people to take part in this study.  Participants will all have experience of psychosis, and will need to be aged 18-65, live in the North West of England, and be in contact with mental health services.

## Why have I been asked to take part?

We are inviting you to take part because you have experience of psychosis.  Your keyworker has agreed for us to approach you, or we have spoken to you at a voluntary group.

## Do I have to take part?

It is up to you whether or not you decide to take part.  If you do decide to take part you will be given a copy of this information sheet and be asked to sign a consent form.  If you decide to take part you can leave the study at any time without giving a reason.  If you decide to leave at any time, or not to take part, this will not affect any of the treatment you usually receive or the standard of care.

Greater Manchester West NHS

Appendix F: Consent Form

# CONSENT FORM

**Client Identification Number for this study**:          ……….

**Title of Project**: **Self-Help Therapy and Recovery Trial (STAR-T)**

**Name of Researcher:**

**Name of Participant:**

**Please initial box**

1. I confirm that I have read and understood the information sheet dated 02/11/10 (version 4) for the above study and have had at least 24 hours to consider it and been given the opportunity to ask questions.

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

3. I agree to take part in the study.

4. I give my consent for assessment sessions to be audio-recorded.

5. I give my consent for therapy sessions to be audio-recorded.

6. I give my consent for my GP and other appropriate professionals to be informed about my participation in the study.

7. I give my consent for my medical notes to be reviewed by a researcher in the study

8. I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from the University of Manchester, 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.

9. I give my consent to be asked to participate in an interview about my experiences in the project. If I agree to participate in the interview, I give my permission for this to be audio-recorded and direct quotes from the interview to be published.

10. I give my consent for my name to be passed on to other projects in the Recovery Programme for possible participation in other studies, and for information to be shared across projects if I do take part.

_____        _____        _____
Name of Service user                     Date                           Signature

_____        _____        _____
Name of Person taking consent        Date                           Signature

_____        _____        _____
Name of Researcher                       Date                           Signature        170

Greater Manchester West **NHS**
Mental Health NHS Foundation Trust

Appendix G: The Delusion and Auditory Hallucination Content

Coding Manual (Hartley et al., 2009)

# Delusion and auditory hallucination content coding manual (DAHC-MAN)

**Hartley, Samantha**

**Haddock, Gillian**

**Thomas, Nia**

**2009**

**University of Manchester**

# Contents

A) Development of the Manual

       i.       A note on the original purpose of this manual

       ii.      Coding structure: Delusions

       iii.     Coding structure: Auditory Hallucinations

B) Coding procedure

C) Caveats

D) Delusion coding form

E) Auditory Hallucination coding form

F) References

## A) Development of the Manual

### i.      A note on the original purpose of this manual

This coding manual was originally developed to facilitate the coding of data relevant to the content of hallucinations and delusions that was collected as part of baseline assessments from the MIDAS (Motivational interventions for drug and alcohol use in schizophrenia) Trial.  Information relevant to the coding was taken from 'symptom summary sheets', which were routinely completed as part of the PANSS assessment procedure. When complete, these forms included information on the actual content of the voice or delusion, the type of hallucination (e.g. auditory, visual etc.), the number of voices, the sex of the voice, the form of the voice (pronoun use), the origin of the voice as appraised by the participant, along with a conviction rating regarding this origin, and whether the content of the voice was positive or negative. A blank version of the symptom summary sheet can be seen in appendix 5. The reader will notice that the symptom summary sheet for delusions has delusion subtypes labelled within it. These labels were used as a guide for questioning, and their application did not follow a specific protocol, thus these labels were not relied on in the current study, which followed the procedure outlined in the following pages. Assessment of the content of the delusions or hallucinations only proceeded if the symptom summary sheet was present.

### ii.      Coding structure: Delusions

In order to construct a list of delusion subtypes, the author sought relevant prior literature in this area. Kimhy et al (2005) conducted a factor analysis on the delusions of 83 antipsychotic-free individuals with DSM-IV diagnoses of schizophrenia or schizoaffective disorder. This analysis revealed the presence of three factors: the 'Delusions of influence' factor was comprised by delusions of being controlled, thought withdrawal, thought broadcasting, thought insertion, and mind reading; the 'Self-Significance Delusions' factor comprised delusions of grandeur, reference, religious, and delusions of guilt/sin; the 'Delusions of Persecution' factor was comprised solely by persecutory delusions. The delusions of influence and delusions of persecution factors were used in the current study. This reduced the total number of delusions that need to be coded and helped to ensure that each group has a sufficient number of participants for analysis. The delusions of self-significance factor was not used, as it was seen as quite heterogeneous in terms of its potential connection to anxiety and depression, and thus warranting individual analysis of the component subtypes. Kimhy et al used the SAPS (Scale for the Assessment of Positive Symptoms, Andreasen, 1984) in order to measure delusions in their population; thus, descriptions from the SAPS were used to inform the coding of delusion subtypes in the current study. Descriptions of individual delusion subtypes, taken form the SAPS can be seen in Appendix 6.

In addition to this, the coding of persecutory delusions was informed by detailed criteria given by Freeman and Garety (2000), which require that two criteria be met:

1) The individual believes that harm is occurring, or is going to occur, to him or her.

2) The individual believes that the persecutor has the intention to cause harm.

Additional caveats expressed by Freeman and Garety and adhered to in the current study include:

1) Harm concerns any action that leads to the individual experiencing distress.

2) Harm only to friends or relatives does not count as a persecutory belief, unless the persecutor also intends this to have a negative effect upon the individual.

3) The individual must believe that the persecutor at present or in the future will attempt to harm him or her.

174

4) Delusions of reference do not count within the category of persecutory beliefs.

A depression-relevant delusion was coded as present if the content included reference to loss (of things/ capacities/ abilities/ people) or to failure. An anxiety-relevant delusion was coded as present if the content included reference to a physical or other threat towards participants' themselves or any associated person. The main distinguishing feature between a delusion of threat and one of persecution as defined in the current study is that threat concerns an anticipated event- it is necessarily future-oriented, whereas persecution can refer to a current occurrence of harm.

Across all the delusion subtypes, a subtype was only coded as present if the conviction rating expressed by the participant was greater than or equal to 50%. This level of conviction was the same as that needed to complete the PSYRATS assessment procedure for delusions. The conviction rating was routinely elicited from the participant during the PANSS assessment procedure and typically involved the following question, 'If you could say how sure you are [of the delusional belief] on a scale of 0-100, 0 being not sure at all, 100 being completely sure, what would you say?'. For the delusions of influence factor (which consists of several delusion subtypes), the highest conviction rating was used for the purposes of coding.

In addition to the broad subtypes of delusions discussed previously, the content of each participant's delusions was also coded on the basis of its thematic content or focus. This assessment concerned the subject matter of the delusional idea, rather than the nature of the idea itself. The themes selected for coding were chosen based on preliminary observations of the symptom summary sheet data and also informed by cross-cultural investigations which have sought to compare delusional themes across nationalities (e.g. Kim et al., 1993). In addition to this, there was an opportunity for contents to be detailed on the coding sheet if it did not fit in one of these categories but was deemed to be a prominent theme. This procedure was included to permit the creation of a new subtype of delusion subject matter, should the same theme arise on a large number of occasions. The author noted that, during a search of the literature in this area, the data on these specific themes of delusion content seemed lacking, and thus would highlight the importance of a larger-scale, more standardised inspection of delusional subject matter. A full list of the delusional subject matter that was coded can be seen in figure 1.

**Figure 1:  Delusional content**

**Religious/spiritual:** include any reference to God/Jesus/the Devil/any other religious icon, specific religions (Islam, Christianity), religious beings- angels, religious practices (e.g. prayer)

**Government/other agency:** include any reference to the government, MI5, the police, or other large national/international body

**Family/friends:** any reference to family, friends

**Sexual content:** any reference to sex, sexual acts or fantasies, sexual deviation, sexual crimes (e.g. rape)

**Paranormal/supernatural content:** any references to ghosts, aliens, witchcraft, psychic/spiritual healing, mediums, ESP, demons, psychokinesis etc

**Celebrities/ royalty:** any reference to celebrities or members of the royal family

**Health/ illness/ hypocondriacal:** references to illness, death, changes to parts of the body

**World issues:** references to word issues including environmental issues such as global warming, natural disasters, war

Hallucinations were coded based on the major subcategories of hallucinations (commanding and commenting) and various subtypes within these. Commanding voices are those which 'order particular acts… and instruct the patient to act in a certain manner' (Hellerstein et al., 1987). Commenting voices are those which make comments about the individual, 'commenting on behaviour, personality [or] actions' (1974) or 'commenting on thoughts or actions' (Oulis et al., 2007 p.338). These were subdivided as described in the hypotheses section, on the basis of discussion with learned colleagues. The various subtypes and examples can be seen in figure 2.

---

**Figure 2: Subtypes of commanding and commenting voices**

**Commanding voices**

**Benign:**  Voice has no negative content. This can include everyday task such as 'have a bath' or 'go to the shop'.

**Violent other:** Voice commands client to perform a violent act which is not directed toward themselves or other people. For example, this can include vandalism e.g. 'break a window'.

**Harm/kill self:** Voice instructs client to harm them self in some way or to attempt or commit suicide.

**Harm/kill other:** Voice instructs client to harm or to kill other people (not themselves).

**Negative commanding other:** Negative commands not meeting other criteria

---

Threatening hallucinations were coded as those which make individuals think that they or someone else might be killed or injured. Coding of threatening voices took the form of a two-stage process. The PSYRATS rating for item 7 was first consulted. This item concerns 'Degree of negative content' and is rated by the scale administrator on the basis of discussion with the participant. If this was a score of 4, which represents 'Personal threats to self e.g. threats to harm self or family, extreme instructions or

177

commands to harm self or others and personal verbal abuse', then the actual content of the hallucination was inspected by the rater and judged to be of a threatening content, or not, given the definition prescribed. Thus, a threatening voice was only coded as present if both the participant rated it so, and the rater deemed the content to be of a threatening nature.

Benign voices were coded as those which lacked malevolence- i.e. those which were appraised as either neutral, or positive. Voices were coded as benign from both a rater- and participant- perspective, each in a two-stage process. For the rater-perspective, PSYRATS item 7 was initially consulted. This item was rated by the PSYRATS administrator and required them to rate the degree of negative content in the voices. A score of 0 on the item, which indicates 'no unpleasant or negative content', was first established. If the score was indeed 0, the hallucination rater then assessed the information regarding the voice content detailed in the symptom summary sheet and made an independent judgement on the benign quality of the voice. A benign voice was coded as present if both the score on PSYRATS item 7 was 0 and if the rater judged the content of the voice to be either neutral or positive in content.

For the client-perspective, PSYRATS item 6 was initially consulted. This item includes the following questions:

1) Do your voices say unpleasant things or negative things?

2) Can you give me some examples of what the voices say? (record these examples)

3) How much of the time do the voices say these types of unpleasant or negative items?

A rating is given on the basis of the participant's response. A score of 0, which indicates 'no unpleasant content' was first established. If the score was indeed 0, then the hallucination rater looked to the rating of content given by the client on the symptom summary sheet, which is either positive or negative, or sometimes stated as neutral. If a score of 0 and neutral or positive content was established, then a benign voice as according to the client was coded as present.

A distinction between client-rated and observer-rated benignity was deemed highly important, given the potentially delusional and unpredictable interpretation of speech-content often evident in people with psychosis. For example, a statement such as 'Go

to the shop' may be deemed to be a benign command when viewed from a rater's perspective. Conversely, someone with psychosis may interpret this negatively; a command to go to the shop may imply that the target of the command is disorganized, lazy, or unwelcome in their current residence. A dual-rating system for benign content was used in an attempt to overcome this issue, and also provide an opportunity to explore the potential discrepancies between observer-rated and participant-rated benignity in terms of their relationship with anxiety and depression.

**B) Coding procedure**

For the assessment of both hallucination and delusion subtypes, the coding followed a presence versus absence binary system. Thus, each delusion or hallucination subtype was coded as either present or absent and each individual participant could be coded as experiencing multiple subtypes. Therefore, the aim, and indeed the procedure, did not involve categorising or classifying the predominant delusional or hallucinatory experience of each participant in general. This method was utilised because preliminary observations indicated that most participants exhibited numerous types of delusions and hallucinations and thus attempts to categorise this would amount to ignoring the potentially confounding influence of other symptom subtypes and thus invalidate the results.

Coding was conducted by three trained raters, two of whom also took part in the development of the coding procedure. The inter-rater reliability of the coders was assessed using a randomly-selected proportion of the eligible cases, with 10 from the delusion group and 10 from the hallucination group.

In the event of unclear descriptions, or indecision as to which delusion or hallucination subtype a description might correspond to, external verification was sought. This took the form of consultation during raters' supervision meetings, where a consensus was reached, and additional caveats developed in order to avoid future instances of uncertainty.

**C) Caveats**

Additional caveats for coding delusion and hallucination subtypes included:

**1. Delusions of Reference** (participant believes that insignificant remarks or events refer to him/her or have special meaning)

179

- In this definition, 'insignificant' does not refer to the scale or impact of the event, but to the tenuous association to the individual/ special meaning. For example, plane crashes that indicate a message from God about travelling on certain days, are not insignificant *per se* (a plane crash is a highly significant event), but the association to God and inferred condemnation of travel on certain days is tenuous/ insignificant/ delusional.

**2. Religious/spiritual content** [include any reference to God/Jesus/the Devil/any other religious icon, specific religions (e.g. Islam, Christianity), religious beings (e.g. angels), and religious practices (e.g. prayer)]

- If a reference is ambiguous in its connection to religion, e.g. 'spirit' (which could be either paranormal or religious), the rater is advised to look to the content as a whole and assess whether there is a general religious theme. If there is not, such a reference would be coded as 'paranormal' in content.

**3. Paranormal/supernatural content** (any references to ghosts, aliens, witchcraft, psychic/spiritual healing, mediums, ESP, demons, psychokinesis etc.)

- Paranormal does not include mind reading, telepathy, or being controlled by an outside force, as these are coded as delusions of influence.

- Reference to 'Voodoo' in the colloquial sense (sticking needles into doll-like representations of real people in order to inflict harm) would be coded as paranormal, whereas references to 'Voodoo' in the religious sense (Haitian Voodoo originating from the Caribbean) would be coded as religious content.

**4.** Command hallucinations to harm/ kill self should not be coded as threatening voices, as the conversion from this command into a physical threat is deemed to be in the control of the participant themselves, rather than some outside agent/ force.

**5.** Auditory hallucinations containing the statement 'I'm going to kill you' are classed as $2^{nd}$ person in pronoun if the origin is cited as external, as the pronoun 'you' is then viewed as referring to the participant, rather than the statement referring to the participants own desire ('I'm') to kill someone else ('you').

**D) Delusion coding form**

Participant: [        ]    Rater: [      ]   Date rated: [          ]

**Procedure for coding delusions-** Coding will only use assessments administered at the baseline measurement stage.

1) Does the case have

    i.  A completed PANSS assessment?    Yes [ ] No [ ]

    ii.  A completed PSYRATS assessment?  Yes [ ] No [ ]

    iii.  A completed symptom content sheet?  Yes [ ] No [ ]

→ If 'No' to any of the above, do not continue.

2) Does the case score 3 or above on the P1 (Delusions) scale of the PANSS?

    Yes [ ] Score= _____      No [ ] Score= _____

    → Continue coding         → Do not code this case

3) What is the PSYRATS delusion distress score? Amount (4): [ ]   Intensity (5): [ ]

4) Review the **whole** of the symptom content sheet (not just those sections that you expect to contain descriptions of certain subtypes) and note (by ticking the box) the presence of any of the delusion subtypes.  N.B more than one delusion type may be present, if this is the case, both are coded as present (give the highest conviction rating if there are more than one within a category)

**\*\*a delusion can only be coded as present if it has a 50% or above conviction rating\*\***

**Delusions of being controlled**: participant believes that his/her feelings or actions are controlled by some outside force

181

Present (tick) ☐      conviction= ☐

**Thought withdrawal:** participant believes that thoughts were taken away by some outside force

Present (tick) ☐      conviction= ☐

**Thought broadcasting:** participant believes that his/her thoughts are broadcast so that he himself or others can hear

Present (tick) ☐      conviction= ☐

**Thought insertion**: participant believes that thoughts that are not his/her own have been inserted into his/her mind

Present (tick) ☐      conviction= ☐

**Mind reading:** participant feels that people can read his/her mind or know his/her thoughts

Present (tick) ☐      conviction= ☐

**Delusions of Persecution** (Freeman and Garety 2000)= Criteria A and B must be met:

A. The individual believes that harm is occurring, or is going to occur, to him or her.

B. The individual believes that the persecutor has the intention to cause harm.

There are a number of points of clarification:

- Harm concerns any action that leads to the individual experiencing distress.

- Harm only to friends or relatives does not count as a persecutory belief, unless the persecutor also intends this to have a negative effect upon the individual.

- The individual must believe that the persecutor at present or in the future will attempt to harm him or her.

- Delusions of reference do not count within the category of persecutory beliefs.

Present (tick) ☐      conviction= ☐

**Delusions of Grandeur=** participant believes that he/she has special powers or abilities

Present (tick) ☐ conviction= ☐

**Delusions of Reference**= participant believes that insignificant remarks or events refer to him/her or have special meaning

Present (tick) ☐ conviction= ☐

**Religious Delusions=** participant is preoccupied with a false belief of a religious nature

Present (tick) ☐ conviction= ☐

**Delusions of Guilt/Sin=** participant believes that he has committed some terrible sin or done something unforgivable

Present (tick) ☐ conviction= ☐

**5) Review the whole of the symptom content sheet again- are there any delusions which come under the following categories?**

Delusions relating to **threat** (physical or other threat towards participants' themselves or any associated person):

Present (tick) ☐ conviction= ☐

Delusions relating to **loss** (of things/capacities/abilities/people etc) /failure:

Present (tick) ☐ conviction= ☐

5) Does the delusions description include reference to any of the following themes? (please tick)

☐ **Religious/spiritual→** include any reference to God/Jesus/the Devil/any other religious icon, specific religions (Islam, Christianity), religious beings- angels, religious practices (e.g. prayer)

☐ **Government/other agency→** include any reference to the government, MI5, the police, or other large national/international body

☐ **Family/friends→** any reference to family, friends

☐ **Sexual content→** any reference to sex, sexual acts or fantasies, sexual deviation, sexual crimes (e.g. rape)

☐ **Paranormal/supernatural content→** any references to ghosts, aliens, witchcraft, psychic/spiritual healing, mediums, ESP, demons, psychokinesis etc

☐ **Celebrities/ royalty→** any reference to celebrities or members of the royal family

☐ **Health/ illness/ hypocondriacal→** references to illness, death, changes to parts of the body

☐ **World issues→** references to word issues including environmental issues such as global warming, natural disasters, war

☐ **Technology/ the internet/ television→** references to the mass media, technological devices such as televisions, music players, and the internet

☐ **Love/ relationships→** references to real or imagined relationships, love (of other, or of self by other people), marriage, divorce, boyfriends/girlfriends

☐ **Money/wealth→** references to finances, wealth/poverty

☐ **Other→ please specify** _____

_____

6) Cross-check the presence of delusion by referring to scores on the relevant scales of the PANSS (i.e. grandeur, suspiciousness)

     i.  If a case scores 5 or above on P5 <u>Grandiosity</u>, they should score for delusions of grandeur

Score for Grandiosity: ☐

If 5 or above→Grandiose delusions coded as present? (tick if yes): ☐

If score for P5 is 5 or above but delusions of grandeur are not described, seek advice in supervision

    ii.  If a case scores 6 or above on P6 <u>Suspiciousness/persecution,</u> they should also score for delusions of persecution

Score for Suspiciousness/persecution: ☐

If 6 or above→Delusions of persecution coded as present? (tick if yes): ☐

If score for P6 is 6 or above but delusions of persecution are not described, seek advice in supervision

6) In the event of unclear descriptions, or indecision as to which delusion subtype the description corresponds to, seek external verification. In the first instance, this will take the form of consultation during supervision, where a consensus will be reached. If this is not successful then a final resort strategy would be to consult the original audio recording of the interview (if this available).

**E) Auditory Hallucination coding form**

185

**Participant:** ☐  **Rater:** ☐ **Date rated:** ☐

**Procedure for coding hallucinations-** Coding will only use assessments administered at the baseline measurement stage.

1)Does the case have

    iii.   A completed PANSS assessment?    Yes ☐ No ☐

    iv.   A completed PSYRATS assessment?  Yes ☐ No ☐

    v.   A completed symptom content sheet?  Yes ☐ No ☐

→ If 'No' to any of the above, do not continue.

2)   Does the case score 3 or above on the P3 (Hallucinations) scale of the PANSS?

Yes ☐ Score= _____       No ☐ Score= _____

→ Continue coding       → Do not code this case

3) Does the case have Auditory Hallucinations recorded on the symptom content sheet?

Yes ☐ Score= _____       No ☐ Score= _____

→ Continue coding       → Do not code this case

**1) Commanding Voices**

Commanding voices in this instance are *"Auditory Hallucinations that order particular acts …[and] instruct a patient to act in a certain manner – ranging from making a gesture or grimace to committing suicidal or homicidal acts."* (Hellerstein et al, 1987).

**1a)  Does the client experience <u>commanding voices</u>?**

**Yes  ☐        No ☐**

**1b)  If yes, please indicate which of the following. Tick all that apply.**

☐  **<u>Benign</u>**

 Voice has no negative content. This can include everyday task such as 'have a bath' or 'go to the shop'.

☐ **<u>Violent other</u>**

Voice commands client to perform a violent act which is not directed toward themselves or other people. For example, this can include vandalism e.g. 'break a window'.

☐ **<u>Harm/kill self</u>**

Voice instructs client to harm them self in some way or to attempt or commit suicide.

☐ **<u>Harm/kill other</u>**

 Voice instructs client to harm or to kill other people (not themselves).

☐ **<u>Negative commanding other</u>**

 Negative commands not meeting other criteria

 If other, please specify………………………………………………………………………………

**1c) If yes, what is the form of the commanding voice?**

☐ 1st

☐ 2nd

☐ 3rd

☐ No pronouns

**2) Commenting Voices**

**1a) Does the client experience voices which comment on the individual's personality, behaviour, actions, thoughts or personal characteristics?**

☐ **No commenting voices**

☐ **Yes- Benign commenting**

Include *positive or neutral* commenting on the individual's personality, behaviour, actions, thoughts or personal characteristics only.

☐ **Yes- malevolent commenting**

Include *negative* commenting on the individual's personality, behaviour, actions, thoughts or personal characteristics only..

**1b) If yes, what is the form of the commenting voice? Tick all that apply.**

☐ 1st

☐ 2nd

☐ 3rd

☐ No pronouns

**3) Benign Voices – global rating**

**3a) Is there a score of 0 on PSYRATS item 7?**

**Yes ☐      No ☐**

188

**3b) Is the <u>actual</u> content of the voice perceived as <u>benign</u> by the rater?**

Benign voices in this instance to include voices which the rater believes to be positive and/or neutral.

**Yes (must have answered 'yes' to question 3a) ☐        No- Malevolent ☐**

**3c) Is there a score of 0 on PSYRATS item 6?**

**Yes ☐        No ☐**

**3d) Is the content of the voice perceived as <u>benign</u> by the client?**

See SSS 'client's perception of content'. Benign voices to include Positive and Neutral voices, as rated by the client. Malevolent voices to include Negative voices only as rated by the client.

**Yes (must have answered 'yes' to question 3c) ☐        No- Malevolent ☐**

**4) <u>Threatening voices</u>**

**4a) Is there a score of 4 on PSYRATS item 7?**

**Yes ☐        No ☐**

**4b) Is the actual content of the voice threatening according to the rater?**

Threatening voices are those which make individuals think that that they or someone else might be killed or injured.

**Yes** (must have answered 'yes' to question 4a) ☐        **No ☐**

**4c) If yes, what is the form of the threatening voice? Tick all that apply.**

☐ 1st

☐ 2nd

☐ 3rd

☐ No pronouns

Appendix H: Symptom Summary Sheet

| PANSS/PSYRATS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Present?**<br><br>Yes/no | **Number of Voices** | **Form of voices**<br><br>1 = 1$^{st}$ person (I)<br><br>2 = 2$^{nd}$ person (you)<br><br>3 = 3$^{rd}$ person (s/he)<br><br>4 = no pronouns | **Sex of Voices**<br><br>M = male<br><br>F = female<br><br>N = neither | **Actual Content of Voices**<br><br>ie 'you are ugly'<br><br>'She is a good cook' | **Clients Perception of Content**<br><br>P = positive<br><br>N = negative | **Origin of Voices**<br><br>I = internal<br><br>E = external<br><br>Describe external origin ie aliens / God | **Conviction in Belief   %** |
| **Auditory** | | | **Voice 1** | **Voice 1** | **Voice 1** | **Voice 1** | **Voice 1** | **Voice 1** |
| | | | **Voice 2** | **Voice 2** | **Voice 2** | **Voice 2** | **Voice 2** | **Voice 2** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | Voice 3 | Voice 3 | Voice 3 | Voice 3 | Voice 3 | Voice 3 |
| | | | Voice 4 | Voice 4 | Voice 4 | Voice 4 | Voice 4 | Voice 4 |
| | | | Voice 5 | Voice 5 | Voice 5 | Voice 5 | Voice 5 | Voice 5 |

| | | | If > 5 voices or voices are indistinguishable rate overall | > 5 voices | > 5 voices | > 5 voices | > 5 voices | > 5 voices |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

**PANSS/PSYRATS**

**HALLUCINATIONS IN OTHER MODALITIES**

| Type | Present? yes / no | Number | Actual Content of Hallucination ie vision of an angel smell of rotting wood | Clients Perception of Content P = positive N = negative | Origin of Hallucination I = internal E = external Describe external origin ie God | Conviction in Belief % |
|---|---|---|---|---|---|---|
| Visual | | | vision 1 = vision 2 = vision 3 = > 3 (rate overall) | vision 1 = vision 2 = vision 3 = > 3 | vision 1 = vision 2 = vision 3 = > 3 | vision 1 = vision 2 = vision |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | 3 =<br><br>> 3 |
| Olfactory | | | smell 1 =<br><br>smell 2 =<br><br>smell 3 =<br><br>> 3 (rate overall) | smell 1 =<br><br>smell 2 =<br><br>smell 3 =<br><br>> 3 | smell 1 =<br><br>smell 2 =<br><br>smell 3 =<br><br>> 3 | smell 1 =<br><br>smell 2 =<br><br>smell 3 =<br><br>> 3 |
| Tactile | | | touch 1 =<br><br>touch 2 =<br><br>touch 3 =<br><br>> 3 (rate overall) | touch 1 =<br><br>touch 2 =<br><br>touch 3 =<br><br>> 3 | touch 1 =<br><br>touch 2 =<br><br>touch 3 =<br><br>> 3 | touch 1 =<br><br>touch 2 =<br><br>touch 3 =<br><br>> 3 |
| Somatic | | | feeling 1 = | feeling 1 = | feeling 1 = | feeling 1 = |

|  |  |  | feeling 2 =<br><br>feeling 3 =<br><br>> 3 (rate overall) | feeling 2 =<br><br>feeling 3 =<br><br>> 3 | feeling 2 =<br><br>feeling 3 =<br><br>> 3 | feeling 2 =<br><br>feeling 3 =<br><br>> 3 |
|---|---|---|---|---|---|---|
| **Gustatory** |  |  | taste 1 =<br><br>taste 2 =<br><br>taste 3 =<br><br>> 3 (rate overall) | taste 1 =<br><br>taste 2 =<br><br>taste 3 =<br><br>> 3 | taste 1 =<br><br>taste 2 =<br><br>taste 3 =<br><br>> 3 | taste 1 =<br><br>taste 2 =<br><br>taste 3 =<br><br>> 3 |

| **PANSS/PSYRATS** |  |  |  |
|---|---|---|---|
| **DELUSIONS** |  |  |  |
| TYPE | **Present?**<br><br>yes/no | **Content of Belief**<br><br>(record for each belief) | **Conviction %** |

| D1: Interference with thinking | | 1 = <br><br> 2 = <br><br> 3 = <br><br> > 3 (rate overall) | 1 = <br><br> 2 = <br><br> 3 = <br><br> > 3 |
|---|---|---|---|
| D2: Thought Insertion | | 1 = <br><br> 2 = <br><br> 3 = <br><br> > 3 (rate overall) | 1 = <br><br> 2 = <br><br> 3 = <br><br> > 3 |
| D3: Thought Broadcast | | 1 = <br><br> 2 = <br><br> 3 = <br><br> > 3 (rate overall) | 1 = <br><br> 2 = <br><br> 3 = <br><br> > 3 |
| D4: Thought Echo or Commentary | | 1 = <br><br> 2 = <br><br> 3 = | 1 = <br><br> 2 = <br><br> 3 = |

| | | | |
|---|---|---|---|
| | | > 3 (rate overall) | > 3 |
| **D5: Thought Block** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |
| **D6: Thought Withdrawal** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 = |
| **D7: Delusions of Thoughts being Read** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |
| **D8: Delusions of Control** | | 1 =<br><br>2 = | 1 =<br><br>2 = |

| | | | |
|---|---|---|---|
| | | 3 =<br><br>> 3 (rate overall) | 3 =<br><br>> 3 |
| **D9: Delusions of Reference** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |
| **D10: Delusional Misinterpretation and Misidentification** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |
| **D11: Delusions of Persecution** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |

| | | | |
|---|---|---|---|
| **D12: Delusions of Assistance** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |
| **D13: Delusions of Grandiose Abilities** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |
| **D14: Delusions of Grandiose Identity** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |
| **D15: Religious Delusions** | | 1 =<br><br>2 =<br><br>3 = | 1 =<br><br>2 =<br><br>3 = |

| | | | |
|---|---|---|---|
| | | > 3 (rate overall) | > 3 |
| **D16: Delusional Explanations** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |
| **D17: Delusions Concerning Appearance** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |
| **D18: Delusions of Depersonalisation** | | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 (rate overall) | 1 =<br><br>2 =<br><br>3 =<br><br>> 3 |

Appendix I: Questionnaire about the Process of Recovery (Neil et al.,

2009)

**The Process of Recovery Questionnaire (QPR)**

We developed this questionnaire in order to understand more about the process of recovery; what's helpful and what's not so helpful.
Everyone is different and there will be differences for everyone. The items on this questionnaire were developed through a process of interviewing service users about their recovery journeys. We hope that by filing in this questionnaire you will help us find out information that is important to you and your own recovery. Not all factors will be important to you, since everyone is different. This questionnaire is not intended to be used to impose anything against your wishes.

If you would like to fill in the questionnaire, please take a moment to consider and sum up how things stand for you at the present time, in particular over the last 7 days, with regards to your mental health and recovery. Please respond to the following statements by putting a tick in the box which best describes your experience.

| | | Disagree strongly | Disagree | Neither agree nor disagree | Agree | Agree Strongly |
|---|---|---|---|---|---|---|
| 1. | I feel better about myself | | | | | |
| 2. | I feel able to take chances in life | | | | | |
| 3. | I am able to develop positive relationships with other people | | | | | |
| 4. | I feel part of society rather than isolated | | | | | |
| 5. | I am able to assert myself | | | | | |
| 6. | I feel that my life has a purpose | | | | | |
| 7. | My experiences have changed me for the better | | | | | |
| 8. | I have been able to come to terms with things that have happened to me in the past and move on with my life | | | | | |
| 9. | I am basically strongly motivated to get better | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 10. | I can recognise the positive things I have done | | | | 203 | |
| 11. | I am able to understand myself better | | | | | |
| 12. | I can take charge of my life | | | | | |
| 13. | I am able to access independent support | | | | | |
| 14. | I can weigh up the pros and cons of psychiatric treatment | | | | | |
| 15. | I feel my experiences have made me more sensitive towards others | | | | | |
| 16. | Meeting people who have had similar experiences makes me feel better | | | | | |
| 17. | My recovery has helped challenge other peoples views about getting better | | | | | |
| 18. | I am able to make sense of my distressing experiences | | | | | |
| 19. | I can actively engage with life | | | | | |
| 20. | I realise that the views of some mental health professionals is not the only way of looking at things | | | | | |
| 21. | I can take control of aspects of my life | | | | | |
| 22. | I can find the time to do the things I enjoy | | | | | |

Appendix J: The Self Compassion Scale (Neff, 2003)

**The Self-Compassion Scale (SCS)**

**HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES**

Please read each statement carefully before answering. To the right of each item, indicate how often you behave in the stated manner, using the following scale:

**Almost**

**never**

**Almost**

**always**

**1**　　　　**2**　　　　**3**　　　　**4**　　　　**5**

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | I'm disapproving and judgmental about my own flaws and inadequacies. | 1 | 2 | 3 | 4 | 5 |
| 2 | When I'm feeling down I tend to obsess and fixate on everything that's wrong. | 1 | 2 | 3 | 4 | 5 |
| 3 | When things are going badly for me, I see the difficulties as part of life that everyone goes through. | 1 | 2 | 3 | 4 | 5 |
| 4 | When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world. | 1 | 2 | 3 | 4 | 5 |
| 5 | I try to be loving towards myself when I'm feeling emotional pain. | 1 | 2 | 3 | 4 | 5 |
| 6 | When I fail at something important to me I become consumed by feelings of inadequacy. | 1 | 2 | 3 | 4 | 5 |
| 7 | When I'm down, I remind myself that there are lots of other people in the world feeling like I am. | 1 | 2 | 3 | 4 | 5 |
| 8 | When times are really difficult, I tend to be tough on myself. | 1 | 2 | 3 | 4 | 5 |
| 9 | When something upsets me I try to keep my emotions in balance. | 1 | 2 | 3 | 4 | 5 |
| 10 | When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people. | 1 | 2 | 3 | 4 | 5 |
| 11 | I'm intolerant and impatient towards those aspects of my personality I don't like. | 1 | 2 | 3 | 4 | 5 |
| 12 | When I'm going through a very hard time, I give myself the caring and tenderness I need. | 1 | 2 | 3 | 4 | 5 |
| 13 | When I'm feeling down, I tend to feel like most other people are probably happier than I am. | 1 | 2 | 3 | 4 | 5 |

| | | Almost Never 1 | 2 | 3 | 4 | Almost Always 5 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 | When something painful happens I try to take a balanced view of the situation. | 1 | 2 | 3 | 4 | 5 |
| 15 | I try to see my failings as part of the human condition | 1 | 2 | 3 | 4 | 5 |
| 16 | When I see aspects of myself that I don't like, I get down on myself. | 1 | 2 | 3 | 4 | 5 |
| 17 | When I fail at something important to me I try to keep things in perspective. | 1 | 2 | 3 | 4 | 5 |
| 18 | When I'm really struggling, I tend to feel like other people must be having an easier time of it. | 1 | 2 | 3 | 4 | 5 |
| 19 | I'm kind to myself when I'm experiencing suffering. | 1 | 2 | 3 | 4 | 5 |
| 20 | When something upsets me I get carried away with my feelings. | 1 | 2 | 3 | 4 | 5 |
| 21 | I can be a bit cold-hearted towards myself when I'm experiencing suffering. | 1 | 2 | 3 | 4 | 5 |
| 22 | When I'm feeling down I try to approach my feelings with curiosity and openness. | 1 | 2 | 3 | 4 | 5 |
| 23 | I'm tolerant of my own flaws and inadequacies. | 1 | 2 | 3 | 4 | 5 |
| 24 | When something painful happens I tend to blow the incident out of proportion. | 1 | 2 | 3 | 4 | 5 |
| 25 | When I fail at something that's important to me, I tend to feel alone in my failure. | 1 | 2 | 3 | 4 | 5 |
| 26 | I try to be understanding and patient towards those aspects of my personality I don't like. | 1 | 2 | 3 | 4 | 5 |

Appendix K: The Self-esteem Rating Scale- Short Form

(Lecomte et al., 2006)

**SELF ESTEEM RATING SCALE**. This questionnaire is designed to measure how you feel about yourself. It is not a test- there are no right or wrong answers. Please answer each item carefully and accurately as you can by using the following scale:

**1 = Never**

**2 = Rarely**

**3 = A little of the time**

**4 = Some of the time**

**5 = A good part of the time**

**6 = Most of the time**

**7 = Always**

1. I feel that others do things much better than I do. ☐

2. I feel confident in my ability to deal with people. ☐

3. I feel that I am likely to fail at things I do. ☐

4. I feel that people really like to talk with me. ☐

5. I feel that I am a very competent person. ☐

6. When I am with other people, I feel that they are glad I am with them. ☐

7.  I feel that I make a good impression on others. ☐

8. I feel confident that I can begin new relationships if I want to. ☐

9. I feel ashamed about myself. ☐

10. I feel inferior to other people. ☐

11. I feel that my friends find me interesting. ☐

12. I feel that I have a good sense of humor. ☐

13. I get angry at myself over the way I am. ☐

14. My friends value me a lot. ☐

15. I am afraid I will appear stupid to others. ☐

16. I wish I could just disappear when I am around other people. ☐

17. I feel that if I could be more like other people then I would feel better about ☐
myself.

18. I feel that I get pushed around more than others. ☐

19. I feel that people have a good time when they are with me. ☐

20. I wish that I were someone else. ☐

Appendix L:  The Calgary Depression Scale (Addington et al., 1993)

Interviewer: Ask the first question as written. Use follow up probes or qualifiers at your discretion. Time frame refers to last two weeks unless stipulated. N.B. The last item, #9, is based on observations of the entire interview.

**1. DEPRESSION:** How would you describe your mood over the last two weeks? Do you keep reasonably cheerful or have you been very depressed or low spirited recently? In the last two weeks how often have you (own words) every day? All day?

| | |
|---|---|
| 0. Absent | |
| 1. Mild | Expresses some sadness or discouragement on questioning. |
| 2. Moderate | Distinct depressed mood persisting up to half the time over last 2 weeks: present daily. |
| 3. Severe | Markedly depressed mood persisting daily over half the time interfering with normal motor and social functioning. |

**2. HOPELESSNESS:** How do you see the future for yourself? Can you see any future? - or has life seemed quite hopeless? Have you given up or does there still seem some reason for trying?

| | |
|---|---|
| 0. Absent | |
| 1. Mild | Has at times felt hopeless over the last two weeks but still has some degree of hope for the future. |
| 2. Moderate | Persistent, moderate sense of hopelessness over last week. Can be persuaded to acknowledge possibility of things being better. |
| 3. Severe | Persisting and distressing sense of hopelessness. |

**3. SELF DEPRECIATION:** What is your opinion of your self compared to other people? Do you feel better, not as good, or about the same as others? Do you feel inferior or even worthless?

| | |
|---|---|
| 0. Absent | |
| 1. Mild | Some inferiority; not amounting to feeling of worthlessness. |
| 2. Moderate | Subject feels worthless, but less than 50% of the time. |
| 3. Severe | Subject feels worthless more than 50% of the time. May be challenged to acknowledge otherwise. |

**4. GUILTY IDEAS OF REFERENCE:** Do you have the feeling that you are being blamed for something or even wrongly accused? What about? (Do not include justifiable blame or accusation. Exclude delusions of guilt.)

| | |
|---|---|
| 0. Absent | |
| 1. Mild | Subject feels blamed but not accused less than 50% of the time. |
| 2. Moderate | Persisting sense of being blamed, and/or occasional sense of being accused. |
| 3. Severe | Persistent sense of being accused. When challenged, acknowledges that it is not so. |

**5. PATHOLOGICAL GUILT:** Do you tend to blame yourself for little things you may have done in the past? Do you think that you deserve to be so concerned about this?

| | |
|---|---|
| 0. Absent | |
| 1. Mild | Subject sometimes feels over guilty about some minor peccadillo, but less than 50% of time. |
| 2. Moderate | Subject usually (over 50% of time) feels guilty about past actions the significance of which he exaggerates. |
| 3. Severe | Subject usually feels s/he is to blame for everything that has gone wrong, even when not his/her fault. |

**6. MORNING DEPRESSION:** When you have felt depressed over the last 2 weeks have you noticed the depression being worse at any particular time of day?

| | |
|---|---|
| 0. Absent | No depression. |
| 1. Mild | Depression present but no diurnal variation. |
| 2. Moderate | Depression spontaneously mentioned to be worse in a.m. |
| 3. Severe | Depression markedly worse in a.m., with impaired functioning which improves in p.m. |

**7. EARLY WAKENING:** Do you wake earlier in the morning than is normal for you? How many times a week does this happen?

| | |
|---|---|
| 0. Absent | No early wakening. |
| 1. Mild | Occasionally wakes (up to twice weekly) 1 hour or more before normal time to wake or alarm time. |
| 2. Moderate | Often wakes early (up to 5 times weekly) 1 hour or more before normal time to wake or alarm. |
| 3. Severe | Daily wakes 1 hour or more before normal time. |

**8. SUICIDE:** Have you felt that life wasn't worth living? Did you ever feel like ending it all? What did you think you might do? Did you actually try?

| | |
|---|---|
| 0. Absent | |
| 1. Mild | Frequent thoughts of being better off dead, or occasional thoughts of suicide. |
| 2. Moderate | Deliberately considered suicide with a plan, but made no attempt. |
| 3. Severe | Suicidal attempt apparently designed to end in death (i.e.: accidental discovery or inefficient means). |

**9. OBSERVED DEPRESSION:** Based on interviewer's observations during the entire interview. The question "Do you feel like crying?" used at appropriate points in the interview, may elicit information useful to this observation.

| | |
|---|---|
| 0. Absent | |
| 1. Mild | Subject appears sad and mournful even during parts of the interview, involving affectively neutral discussion. |
| 2. Moderate | Subject appears sad and mournful throughout the interview, with gloomy monotonous voice and is tearful or close to tears at times. |
| 3. Severe | Subject chokes on distressing topics, frequently sighs deeply and cries openly, or is persistently in a state of frozen misery if examiner is sure that this is present. |