Psychosocial Recovery and Mindfulness-based Cognitive Therapy for Psychosis

A thesis submitted to the University of Manchester for the degree of Doctor in Clinical Psychology (ClinPsyD) in the Faculty of Medical and Human Sciences.

Tirma Morera

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School of Psychological Sciences
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**Thesis Abstract**

Papers one and two have been prepared for submission to the journal *Psychology and Psychotherapy: Theory, Research and Practice*. Paper one provided a review of studies investigating staff views about psychosocial aspects of recovery in psychosis. Fifteen studies met the criteria for the review. The first eight studies investigated staff views about recovery in psychosis more broadly. The remaining studies were grouped together according to similarities of recovery themes being investigated. Each study was summarised and critiqued with regards to their findings and limitations. Limitations to the review are also considered. The overall literature is evaluated and discussed with regards to clinical implications and suggestions for future research.

Paper two investigated staff and service user views about mindfulness-based cognitive therapy groups for psychosis (MBCT). Q-methodology was used to explore participants’ beliefs about a range of views about MBCT for psychosis and to compare similarities and differences between views. Staff and service user data were analysed separately. Analysis resulted in a single consensus factor for staff views, and four factors for service user views about MBCT for psychosis. Overall, the staff sample strongly disagreed that mindfulness is harmful but were uncertain about its usefulness in the treatment of psychosis. The service user sample advocated the utility of mindfulness interventions for promoting wellbeing and reducing the symptomatic distress associated with psychosis.

Paper three provides a critical reflection of the systematic review (paper one), and the empirical paper (paper two). An appraisal of the research process as whole is provided, in addition to how findings from paper one and paper two relate to the wider context of theory, research and practice.
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.

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Acknowledgments

I would like to thank the following people for their support during the course of writing this thesis:

A special thank you to Dr Daniel Pratt, and Dr Sandra Bucci for all their expertise, understanding, support, patience and guidance throughout this process. I would like to thank Moya Barrett for her support as a field supervisor, and for all the teaching, encouragement and support she has shown. I am especially thankful to Chloe Randal for being such a great person to work with, and a good, reliable friend throughout.

I would also like to say a special thank you to my mum, and my family who have always provided me with such unconditional love and support, especially during the course of this doctorate which has taken up most of my time and attention over the last three years. I am forever grateful to have such an amazing family and hope to continue making you proud. Last but not least, a special thank you to my Fiancé, Daniel Hornshaw, for the love, patience and support he has shown over the course of my career. We have accomplished a lot during our time together, and I look forward to the future ahead.
Section 1: Systematic Review

Title

What are staff views about psychosocial aspects of recovery in psychosis? A systematic review of the literature

The following paper has been prepared for submission to Psychology and Psychotherapy: Theory, Research and Practice. The guidelines for authors can be found in Appendix 1

Word count:

Total: 10,004
(Including abstract, practitioner points, tables, figures and references)

Abstract: 203

Text: 6,272
(Excluding abstract, practitioner points, tables, figures and references)
Abstract

Purpose The aim of this study was to systematically review the literature examining staff views about psychosocial aspects of recovery in psychosis.

Method We systematically searched the PsycInfo, Embase, Medline, and CINAHL databases up to and including December 2013. Reference lists of reviewed papers were also examined for relevant literature. Of the 6,225 articles identified, 15 met inclusion criteria for the review. Studies that investigated staff views about psychosocial aspects of recovery more broadly were grouped together and reviewed. Other studies were grouped together under the following three headings: i) staff views on recovery processes in psychosis, ii) staff views about recovery interventions and services, and iii) cultural perspectives about staff views about recovery in psychosis.

Results The studies reviewed showed a relatively inconsistent picture: although there was evidence of staff endorsing psychosocial views of recovery, the majority of studies suggested staff endorsed biomedical models of recovery in psychosis, and emphasised the importance of pharmacological, over psychosocial, interventions.

Conclusion The reviewed studies showed that biomedical views about recovery prevail amongst mental health staff. However, there is a fundamental lack of research that appropriately investigates staff views about psychosocial aspect of recovery in psychosis. Clinical implications and suggestions for future research are discussed.
Practitioner points

- The psychosocial model of recovery has become widely accepted and now underpins most international recovery policies.
- Despite a dearth in research, existing studies indicate that mental health staff subscribe to biomedical models of recovery in psychosis, with more emphasis on pharmacological, over psychosocial, interventions.
- Robust research targeting staff views about recovery in psychosis is needed.
Introduction

In mental health, the term ‘recovery’ has been defined in various ways. Pilgrim (2008) outlined three broad approaches: i. recovery in the context of a biomedical, illness-based approach with a focus on symptom reduction; ii. the recovery from impairment approach, which focuses on outcomes of successful rehabilitation; and iii. recovery from a psychosocial, user-led approach, where the emphasis is placed on recovery of self-determination in lifestyle and choice. According to Pilgrim (2008), symptom reduction is fundamental to both the recovery from illness and impairment approaches. On the other hand, psychosocial factors, such as the individual impact of social exclusion and stigma, are fundamental features of the psychosocial approach to recovery.

Within the context of psychosis, recovery has traditionally been viewed in terms of the biomedical approach; however, Anthony (1993) highlighted the need for mental health services to be more orientated to psychosocial approaches to recovery. Bellack (2006) further argued that while it may be acceptable to define recovery from physical illness using the biomedical approach, this may not be helpful for psychiatric problems such as psychosis, which has an impact on personal dimensions beyond psychiatric symptoms including loss of self-esteem and social isolation. As such, approaches to recovery increasingly shifted away from the biomedical, illness-based concept to the psychosocial approach, which advocates changes in attitude, feelings, goals, skills, roles, values, and a way of living a satisfying hopeful and fulfilling life, even within the limitations associated with illness. Anthony (1993) argued that the psychosocial approach emphasised a personal process that involved recovery from the debilitating effects of stigma, unemployment, the iatrogenic effects of treatment settings, and limited opportunities
for self-determination. This definition and approach to recovery has become widely cited and now underpins most international recovery policies (Australian Health Ministers’ Advisory Council, 2003, Government of Ireland, 2006, Department of Health, 2001). However, incorporating a recovery-focused approach into routine mental health services largely depends on front-line clinicians implementing recovery-focused approaches to healthcare delivery.

Negative attitudes held by mental health professionals towards psychiatric patients (Walter, 1998), and people with psychosis in particular (Dickerson et al 2002), have been reported as stigmatising, discriminatory, and experienced as an impediment to recovery in treatment homes (Holmqvist, 2000) and secondary care mental health services (Corry, 2008). This is concerning because mental health services are often the main source of care accessed by people with complex mental health problems such as psychosis (McCrone, Craig, Power, & Garety, 2010). Repper and Perkins (2003) suggest that professionals who cannot foster hope in recovery, and have low expectations of service users, function as barriers to the recovery process itself. In contrast, a positive, therapeutic relationship between staff and service users have been linked to good outcomes (Martin, Garske, & Davis, 2000).

Staff views about recovery in mental health were explored to some extent by Bonney and Stickley (2008) who reviewed various ways that service organisations, staff, and service users view recovery. The authors maintain that nursing staff need to operate flexibly, and prioritise autonomy over a ‘defensive culture’ (p150) in order to facilitate a user-led, psychosocial approach to recovery. However, the review included attitudes of health-care professionals more generally, which limits the extent to which these findings can be generalised to staff views about recovery in psychosis.
As such, it is important to understand staff views about psychosocial aspects of recovery in psychosis and, to our knowledge, no such review has been published. Therefore, the aims of the current review are to i. provide a synthesis of studies investigating the views of clinical staff about psychosocial aspects of recovery in psychosis, ii. to examine the extent to which psychosocial aspects of recovery in psychosis are endorsed, and iii. to critically appraise the published literature.

Method

Search procedure

This review was conducted in line with the PRISMA (2009) statement, and a search was carried out using the electronic databases PsycInfo, Embase, Medline, and CINAHL. The search terms used with the instructions of ‘AND’ and ‘OR’ with an asterisk for related terms in some instances. The search terms entered into the databases were ‘Staff’ OR ‘Practitioner’ OR ‘Therapist’ OR ‘Psychologist’ OR ‘Community Mental Health Team’ OR ‘CMHT’ OR ‘Doctor’, OR ‘Psychiatrist’ OR ‘Nurse’ OR ‘Social Worker’ OR ‘Referrer’ OR ‘Multi-disciplinary team’ OR ‘MDT’ OR ‘Care coordinator’ OR ‘Key Worker’ OR ‘Mental Health Team’ OR ‘Mental Health Staff’ OR ‘Mental Health Worker’ OR ‘Health Care Staff’ OR ‘Health Care Personnel’. Terms used to identify views were: ‘View’ OR ‘Opinion’ OR ‘Belief’ OR ‘Attitude’ AND ‘Recover’ OR ‘Rehab’. Terms used to identify psychotic disorders comprised of: ‘Psycho’ OR ‘Schizo’ OR ‘Bipolar’ OR ‘Bi-polar’ OR ‘Hallucin’ OR ‘Voice hearer’ OR ‘Voice’ OR ‘Delusion’. Terms were entered for searching in the title, abstracts, contents and key concepts, with limits of ‘All journals’ and ‘English Language’.
Figure 1 shows the flow of studies through the different phases of the systematic search. The database searches produced 7,490 published articles. The reference manager software Endnote was used to remove duplicates and resulted in 6,183 articles. A further 42 articles were identified from the references of relevant journal articles. The remaining 6,225 titles were screened and 5,704 articles were excluded for not meeting at least one other point of the inclusion criteria set out below (in addition to criteria 1. of being in English). This resulted in 521 articles being shortlisted for abstract screening. Abstract screening led to the exclusion of 483 articles for having no indication that recovery, staff views, or views about psychosis were being investigated (criteria 2., 3., and 4). A total of 38 articles were therefore shortlisted for full-text examination. Full-text examination resulted in 23 articles being excluded for not meeting the full inclusion criteria (see below for inclusion criteria).
Identification

Articles identified through database searches:
Total = 7490

Additional articles identified through other sources
Total = 42

Articles after duplicates removed:
Total = 6183

Title screen:
Total = 6,225

Abstract screening:
Total = 521

Full text articles assessed for eligibility:
Total = 38

Articles included:
Total = 15

Articles excluded
Total = 5,704
Excluded for failing to meet inclusion criteria number two, three or four.

Articles excluded
Total = 483
Excluded for failing to meet inclusion criteria number two, three or four.

Articles excluded
Total = 23
Excluded for failing to meet full inclusion criteria.

Figure 1: Flow diagram of systematic search
Inclusion and exclusion Criteria

Studies were reviewed up to and including December 2013. Studies were included if they met all of the following criteria: 1. they were published in the English Language, 2. they investigated the concept of recovery within the text of the paper that met Anthony’s (1993) psychosocial definition of recovery, 3. staff views on recovery were explicitly investigated within the study, and 4. staff views examined were in the context of patients with a psychotic disorder.

In studies where both staff and patient views were investigated, only the data from staff were analysed and reported in this review. Where studies investigated the views of students, trainee psychiatrist samples were retained as they are typically on a rotation for 6-12 months, but studies focusing on medical students were excluded due to the high turnover of medical students working in services. Studies that appeared to subscribe more rigidly to biomedical or rehabilitative approaches to recovery were excluded from the review.

Of the 38 full text articles assessed for eligibility by the lead author, nine articles were identified as needing further assessment by the other two authors (DP and SB), due to uncertainty as to whether there was enough detail in the reports to judge them as meeting the full inclusion criteria. An examination and discussion of the nine articles took place between the three authors. All authors reached full consensus that five out of the nine studies met all the inclusion criteria for this review. All authors were in agreement that three articles were to be excluded for not explicitly investigating psychosis, and one article excluded for not adequately meeting Anthony’s (1993) definition of recovery. This review employed a mixed
studies approach, meaning that both qualitative and quantitative papers were included for review. Mixed studies reviews are relevant in public health research, particularly for understanding complex phenomena or constructs (Pluye, and Hong, 2014, Pope, Mays and Popay, 2007). As such, a mixed studies review was judged to be appropriate for investigating staff views about psychosocial recovery in psychosis.

Quality assessment

Studies were assessed for methodological quality to guide the interpretation of findings. An attempt was made to assess the quality of qualitative and quantitative studies separately, using the Effective Public Health Practice Project tool (EPHPP; Thomas, Ciliska, Dobbins, & Micucci, 2004) for quantitative studies, and the Walshe and Downe (2006) quality assessment tool for qualitative studies. However, the use of separate quality assessment tools led to skewed quality ratings in favour of the qualitative studies, compared to the quantitative papers, making it difficult to assess the overall quality of studies in a comparative manner. A tool that allowed for the concomitant assessment of quality across both qualitative and quantitative studies was therefore sought. The Mixed Methods Appraisal Tool (MMAT; Pluye et al., 2011) was chosen for quality assessment for the shortlisted studies because it is specifically designed to allow for the parallel assessment of qualitative and quantitative studies in systematic reviews (Appendix 2). The MMAT has been pilot tested, and shown to have high validity (Pluye, 2009) and reliability (Pace et al., 2012). Quality assessment was conducted by the first author and a portion of studies were rated by an independent colleague for inter-rater reliability. In the MMAT, quantitative studies were assessed according to four domains, which
included the sampling strategy used, sample representation, appropriate measurement and acceptable response rates for the chosen research tool (i.e., questionnaire). For qualitative studies, the four domains were: relevance of data source (i.e., archives, interviews, etc.), appropriateness of analytical process (i.e., suitable information about data collection and analysis method provided), if proper consideration is given to how findings relate to the context (i.e., setting), and if appropriate attention is given to how findings may be affected by the researcher’s influence (i.e., interaction with participants). Studies were awarded an overall quality score for how many domains were met, and scored using the following star ratings: Four* = 100%, Three* = 75%, Two* = 50%, One* = 25%, No stars X = 0%. The results of the MMAT quality assessment of each study on the four domains for qualitative and quantitative studies respectively are displayed in Tables 1 and 2.
Table 1: MMAT quality assessment summary: qualitative studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Are the sources of qualitative data (archives, documents, informants, observations) relevant to address the research question (objective)?</th>
<th>1.2. Is the process for analyzing qualitative data relevant to address the research question (objective)?</th>
<th>1.3. Is appropriate consideration given to how findings relate to the context, e.g., the setting, in which the data were collected?</th>
<th>1.4. Is appropriate consideration given to how findings relate to researchers’ influence, e.g., through their interactions with participants?</th>
<th>Overall rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaewprom et al (2011)</td>
<td>* * * x</td>
<td>x</td>
<td>x</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>Prytys et al (2011)</td>
<td>* * *</td>
<td>*</td>
<td>*</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Ng et al (2008)</td>
<td>* * *</td>
<td>*</td>
<td>*</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Engqvist et al (2007)</td>
<td>* * *</td>
<td>*</td>
<td>*</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Higgins et al (2007)</td>
<td>* * *</td>
<td>*</td>
<td>*</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Forchuk et al (2003)</td>
<td>* * x</td>
<td>x</td>
<td>x</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Meddings et al (2002)</td>
<td>* * x</td>
<td>x</td>
<td>x</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Torgalsboen et al (2001)</td>
<td>* x x x</td>
<td>x</td>
<td>x</td>
<td>25%</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: MMAT quality assessment summary table: quantitative studies:

<table>
<thead>
<tr>
<th>Study</th>
<th>Is the sampling strategy relevant to address the quantitative research question (quantitative aspect of the mixed methods question)?</th>
<th>Is the sample representative of the population understudy?</th>
<th>Are measurements appropriate (clear origin, or validity known, or standard instrument)?</th>
<th>Is there an acceptable response rate (60% or above)?</th>
<th>Overall Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridges et al (2011)</td>
<td>* x * x</td>
<td>*</td>
<td>x</td>
<td>x</td>
<td>50%</td>
</tr>
<tr>
<td>Morton et al (2010)</td>
<td>* * *</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>100%</td>
</tr>
<tr>
<td>Vendsborg et al (2013)</td>
<td>X x *</td>
<td>*</td>
<td>X</td>
<td>x</td>
<td>25%</td>
</tr>
<tr>
<td>Magliano et al (2004a)</td>
<td>* * *</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>100%</td>
</tr>
<tr>
<td>Magliano et al (2004b)</td>
<td>* * *</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>100%</td>
</tr>
<tr>
<td>Caldwell et al (2001)</td>
<td>* * X</td>
<td>*</td>
<td>X</td>
<td>*</td>
<td>75%</td>
</tr>
<tr>
<td>Hugo (2001) Australia</td>
<td>* * X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>50%</td>
</tr>
</tbody>
</table>
Results

Overview of studies

Table 3 provides an overview of studies reviewed. The studies were conducted across a number of countries: UK (N=3), Italy (N=2), Australia (N=2) and one study from each of the following other countries: Thailand, Hong Kong, Sweden, Canada, Germany, Denmark, Norway. One further study sampled participants from both China and India. There were eight qualitative studies and seven quantitative studies. Sample sizes within the qualitative studies ranged from 10 to 24 participants, with between 7 and 548 participants for quantitative studies. One study reported that they carried out repeated interviews with small groups of staff, with a total of 50 interviews; however, they did not report the total number of participants and the number of staff from each professional group (Forchuk et al., 2003).

Studies investigated views from a range of mental health professionals. Three studies focused on Nurse participants, and two on psychiatrists. Nine studies included a mixed sampling of staff groups, including Psychiatrists, Nurses, Clinical Psychologists, Occupational Therapists and Social Workers. One mixed sample study also included the views of auxiliary staff (Magliano et al., 2004b) and another included ‘lodging home operators’ (Forchuk et al., 2003), but the majority in both samples were professional mental health workers. One study specified a sample of ‘Doctors’ but did not clarify what type of doctor was sampled (e.g., Psychiatry; Vendsborg et al., 2013). Another study reported recruiting staff from an early intervention service. However, the authors did not report which professional disciplines were included in their sample (Morton et al., 2010).
<table>
<thead>
<tr>
<th>Author/s</th>
<th>Aim/objective</th>
<th>Design and data collection strategy</th>
<th>No. And type of staff participants</th>
<th>Type of analysis</th>
<th>Key Themes/ideas</th>
<th>MMAT Quality Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendsborg et al (2013) Denmark</td>
<td>To investigate stigmatizing attitudes towards patients with Schizophrenia amongst psychiatric staff.</td>
<td>Incidence or prevalence study Mental Illness: Clinicians' Attitudes scales.</td>
<td>N = 548 61 doctors and 487 other professionals. (reported as 35% nurses, 24% nurse aides, 14% admin staff, 11% OT, 6% Psychologists, and 6% Social workers.)</td>
<td>Descriptive stats and multiple regression analysis</td>
<td>Belief in the possibility of recovery. Endorsement of both biological and social factors for the aetiology of schizophrenia. A lower level of stigmatizing attitudes was found in contrast to previous literature.</td>
<td>25%</td>
</tr>
<tr>
<td>Bridges (2011) Germany</td>
<td>To estimate the concordance between patients and psychiatrists valuations of multiple goals for schizophrenia treatment.</td>
<td>Incidence or prevalence study Stated-preference instrument (specifically developed for this study)</td>
<td>160 Psychiatrists</td>
<td>Concordance rates Estimation (Spearman’s rank test) and analysis of variance (ANOVA) .</td>
<td>Psychiatrists rated symptomatic and behavioural outcomes higher. Focus on decreased psychotic symptoms and decreased mistrust/hostility. In contrast, patients prioritised functioning and living a 'normal life'.</td>
<td>75%</td>
</tr>
<tr>
<td>Kaewprom et al (2011) Thailand</td>
<td>Explored the perspectives of Thai nurses regarding schizophrenia and recovery.</td>
<td>Qualitative description. Semi-structured interviews</td>
<td>24 Psychiatric nurses.</td>
<td>Thematic analysis</td>
<td>Biomedical models of recovery prevalent amongst Thai mental health nurses.</td>
<td>75%</td>
</tr>
<tr>
<td>Author/s</td>
<td>Aim/objective</td>
<td>Design and data collection strategy</td>
<td>No. And type of staff participants</td>
<td>Type of analysis</td>
<td>Key Themes/ideas</td>
<td>MMAT Quality Rating</td>
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<td>------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Prytys et al (2011) UK</td>
<td>Investigated attitudinal factors amongst community mental health team (CMHT) staff affecting NICE guideline implementation of (CBT) and family intervention (FI) in the treatment of schizophrenia.</td>
<td>Qualitative description. Semi-structured interviews</td>
<td>20 Care-coordinators including: 11 nurses, 6 social workers, 3 occupational therapists</td>
<td>Thematic content analysis</td>
<td>Pessimistic views, with focus on chronicity and poor functioning. Recovery-orientated attitudes were expressed, but countered by negative attitudes from experiences. Strong emphasis on pharmacological treatment for symptomatic management.</td>
<td>100%</td>
</tr>
<tr>
<td>Morton et al, (2010) UK</td>
<td>Investigated if both staff and users perceive the service as promoting resilience and in turn, recovery in an Early Intervention (EI) Service.</td>
<td>Incidence/prevalence study (without control/comparison group). The Organizational Climate questionnaire component of Developing Recovery Enhancing Environments Measure (DREEM).</td>
<td>7 staff from EI service</td>
<td>Correlation (spearman’s Rho) and analysis of agreement (Mann – Whitney U).</td>
<td>Staff and patients rated strong agreement that the EI service promoted resilience and recovery. Staff differed from patients with less agreement about enough resources.</td>
<td>100%</td>
</tr>
<tr>
<td>Author/s</td>
<td>Aim/objective</td>
<td>Design and data collection strategy</td>
<td>No. And type of staff participants</td>
<td>Type of analysis</td>
<td>Key Themes/ideas</td>
<td>MMAT Quality Rating</td>
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<tr>
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<tr>
<td>Ng et al (2008)</td>
<td>Investigated the meaning of recovery in schizophrenia in a group of junior and senior trainee psychiatrists in Hong Kong.</td>
<td>Grounded Theory Two Focus groups</td>
<td>12 Psychiatrists</td>
<td>Grounded Theory analysis.</td>
<td>Biological emphasis Paternalistic and pessimistic about recovery. Needs and meaning are different between people and change at different stages of recovery. Recovery is complex Recovery Views tend to become more risk averse and relapse-focused over time.</td>
<td>100%</td>
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<tr>
<td>Engqvist et al (2007) Sweden</td>
<td>To explore strategies in caring for women with postpartum psychosis (PPP) used by nurses.</td>
<td>Qualitative description Semi- structured Interviews</td>
<td>10 Nurses</td>
<td>Content analysis.</td>
<td>Emphasis on patient-nurse relationship. Meeting basic needs sense of security, giving confirmation and hope, reconnecting the patient to reality, and psychoeducation for loved ones. A combination of general psychiatric nursing approaches for PPP.</td>
<td>100%</td>
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<tr>
<td>Author/s</td>
<td>Aim/objective</td>
<td>Design and data collection strategy</td>
<td>No. And type of staff participants</td>
<td>Type of analysis</td>
<td>Key Themes/ideas</td>
<td>MMAT Quality Rating</td>
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<tr>
<td>Higgins et al (2007)</td>
<td>China and India</td>
<td>Qualitative description Semi-structured Interviews</td>
<td>20 mental health nurses.</td>
<td>Content analysis.</td>
<td>Treatment methods included CBT, psycho-social interventions, and vocational training. Strong cultural and social influences including prominent family involvement and problems around stigma and gender inequality. Use of healers and traditional medicine also indicated. Dearth in clinical resources a significant issue. Chinese expressed more hope due to more governmental support and investment.</td>
<td>75%</td>
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<tr>
<td>Magliano et al (2004a)</td>
<td>Italy</td>
<td>Quantitative-descriptive Incidence or prevalence study. Questionnaire on the Opinions about Mental Illness.</td>
<td>N= 300: Nurses = 190 Psychiatrists = 110</td>
<td>Between group differences (Chi-square analysis, and Mann-Whitney U-tests), analysis of variance (Kruskal-Wallis analysis), and relationships of multiple variables on questionnaire answers (linear regression).</td>
<td>Psychiatrists and nurses attributed heredity, stress and family conflicts as causes of schizophrenia. Psychiatrists and nurses held positive views about ability to work compared to relatives.</td>
<td>100%</td>
</tr>
<tr>
<td>Author/s</td>
<td>Aim/objective</td>
<td>Design and data collection strategy</td>
<td>No. And type of staff participants</td>
<td>Type of analysis</td>
<td>Key Themes/ideas</td>
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<tr>
<td>Magliano et al (2004b) Italy</td>
<td>This study compared beliefs about the causes, treatments, and psychosocial consequences of schizophrenia in a sample of 714 lay respondents, 465 mental health professionals, and 709 key relatives of patients with this Questionnaire on the Opinions about Mental Illness diagnosis.</td>
<td>Quantitative-descriptive Incidence or prevalence study. Questionnaire on the Opinions about Mental Illness.</td>
<td>N = 465: Nurses = 43% Psychiatrists = 25% Psychologists and sociologists = 11% Social Workers = 9% Occupational Therapists = 7% Auxiliary and administrative personnel = 5%</td>
<td>Between group differences (Chi-square analysis, and Mann-Whitney U-tests), analysis of variance (Kruskal-Wallis analysis), and relationships of multiple variables on questionnaire answers (linear regression).</td>
<td>Biopsychosocial model favoured by professionals and general public. Optimism about recovery and stronger belief in the usefulness of pharmacology over non-pharmacological treatments amongst professionals.</td>
<td>100%</td>
</tr>
<tr>
<td>Forchuk et al (2003) Canada</td>
<td>Investigates the subjective experiences of staff from many interdisciplinary teams working with clients in the recovery process from psychosis.</td>
<td>Ethnographic Semi-structured interviews</td>
<td>N = Unreported. 50 separate interviews with at least 4 staff members including a staff nurse. Other staff included: nurse specialists; occupational therapists; psychologists; social workers; rehabilitation workers; recreation therapists; music therapists; psychiatrists; and lodging home operators.</td>
<td>Thematic Analysis.</td>
<td>Role changes as evolving throughout recovery process, and welcomed by staff. Roles include health teacher; advocate; counsellor; and support person.</td>
<td>50%</td>
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<tr>
<td>Author/s</td>
<td>Aim/objective</td>
<td>Design and data collection strategy</td>
<td>No. And type of staff participants</td>
<td>Type of analysis</td>
<td>Key Themes/ideas</td>
<td>MMAT Quality Rating</td>
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<td>Meddings et al (2002)</td>
<td>To explore in more detail the meaning attached to ‘getting better’ by staff and users, and what the associated desirable outcomes are.</td>
<td>Qualitative</td>
<td>N= 10 (2 psychiatrists, 2 Nurses, 2 psychologists 2 social workers and 2 occupational therapists).</td>
<td>Content Analysis</td>
<td>Recovery viewed as complex and multi-faceted by patients and staff. Both groups had views consistent with psychosocial approach. Emphasis on Improved mental state, wellbeing, relationships, empowerment, confidence and self worth.</td>
<td>50%</td>
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<tr>
<td>Caldwell et al, (2001) Australia</td>
<td>To explore mental health nurses’ beliefs about prognosis, long-term outcomes and discrimination in response to vignettes describing a person with either schizophrenia or depression.</td>
<td>Incidence or prevalence study</td>
<td>N= 1508: MH Nurses = 328 Psychiatrists = 535 Clinical Psychologists = 211 GPs = 434</td>
<td>Between – group difference analysis (Kruskal- Wallice H-Tests), and analysis of agreement (Mann-Whitney U- Tests).</td>
<td>Mental health nurses more negative about the long-term outcomes and prognosis, but more positive than other professional groups about prognosis after receiving help. All staff groups believed schizophrenia would experience more discrimination than depression.</td>
<td>75%</td>
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Table 3: *continued*

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<thead>
<tr>
<th>Author/s</th>
<th>Aim/objective</th>
<th>Design and data collection strategy</th>
<th>No. And type of staff participants</th>
<th>Type of analysis</th>
<th>Key Themes/ideas</th>
<th>MMAT Quality Rating</th>
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<tr>
<td>Hugo (2001)</td>
<td>To gain information about the attitudes of mental health professionals towards people who have experienced a mental illness.</td>
<td>Quantitative-descriptive Incidence or prevalence study. Depression and schizophrenia vignettes with self-completion postal survey.</td>
<td>N= 266: MH Nurses = 156  Medical Staff (medical officers, psychiatrists, and trainee psychiatrists) = 51  Allied Health Professionals (social workers, clinical psychologists, occupational therapists and activity supervisors) = 59</td>
<td>Between groups analysis (T-tests) and descriptive statistics.</td>
<td>Professional less optimistic about prognosis and long term outcomes for both depression and schizophrenia. The medical staff less optimistic about outcomes compared with other professional groups, Mental health nurses overall, more optimistic.</td>
<td>50%</td>
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<tr>
<td>Torgalsboen et al (2001)</td>
<td>To report ‘what fully recovered schizophrenics’ and staff thought were important factors that contributed to recovery.</td>
<td>Qualitative study  Semi-structured interviews</td>
<td>N= 12 (6 psychologists, 4 psychiatrists, 2 social workers).</td>
<td>Qualitative analysis, method unknown.</td>
<td>Therapists highlighted importance of working alliance, fostering hope, therapeutic relationship, and authentic humanistic attitudes.</td>
<td>25%</td>
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</table>
Summary of studies

General views and attitudes about recovery in psychosis

Eight studies investigated general views and attitudes towards recovery in psychosis from the perspective of meaning, stigmatising attitudes, prognosis and long term outcomes. Ng and colleagues (2008) examined the meaning of recovery from the perspective of trainee psychiatrists in Hong Kong. Two focus groups were conducted, the first consisted of six junior trainee psychiatrists with 1-2 years clinical experience, and the second with six trainee psychiatrists with between 5-6 years clinical experience. The categories that emerged from the content analysis included the possibility of full recovery, indefinite use of antipsychotics, recovery in the presence of symptoms, and risk to selves or others. The researchers concluded that overall, the trainee psychiatrists in both samples expressed paternalistic and pessimistic views about their expectations for recovery in schizophrenia, and that these views became more risk averse and relapse-focused with experience. This suggested that this sample of psychiatrists tended to hold biomedical views of recovery that were symptom-focused. A 100% score was achieved by the study on the MMAT quality rating scale, which suggests high quality with regards to study design and report. However, given that the sample consisted of trainee psychiatrists, findings may not be generalisable to the broader psychiatry profession, and views may change during the transition from trainee to consultant psychiatrist.

Meddings and colleagues (2002) investigated the meaning and outcomes associated with recovery from the perspective of 10 staff from a community outreach team and 20 patients from a variety of supported care and residential
settings. Semi-structured interviews were carried out with a cross-section of professionals from multi-disciplinary teams. Content analysis revealed both staff and patients have complex, multi-dimensional views about the meaning of recovery, which included improvement in mental state, wellbeing, relationships, empowerment, self-worth, greater engagement in work and activities, being able to cope with everyday life, having access to help and support, improved material well-being and improved physical health. Whilst the aim of this study was to explore staff views about the meaning of recovery, the context within which data were collected was not reported, such as examples of further questioning, interview length, and the location within which the interviews took place. Thus, it is difficult to assess the level of bias within data interpretation.

Bridges and colleagues (2011) investigated the degree of agreement between psychiatrists and service users’ appraisals of psychosis-related treatment goals. A Likert-scale was used to rank treatment goals on five domains: self-efficacy, social contacts, clear thinking, mood and psychosis. There was an overall significant moderate positive correlation between service users’ and psychiatrists’ ordering of treatment goals in rating ($q = 0.63; P = 0.002$) and ranking ($q = 0.51; P = 0.02$). However, psychiatrists rated symptomatic and behavioural outcomes highest, such as reduced symptoms, mistrust or hostility, whereas service users placed more emphasis on functioning and living a ‘normal life’. The results suggest that psychiatrists in this sample emphasised a biomedical approach to recovery, compared to psychosocial recovery goals prioritised by the service user sample. However, there were some limitations to the generalisability of the findings as the sample consisted of stable outpatients, the goals of whom may differ to those of acute inpatients. Furthermore, psychiatrists were involved in recruiting service users for participation, which may have resulted in recruitment biases.
An investigation by Vendsborg and colleagues (2013) utilised questionnaires to examine stigmatising attitudes towards patients with schizophrenia in a mixed psychiatric staff sample (N=548) from two psychiatric hospitals. The researchers found that all staff groups tended to believe in the possibility of recovery, with a small proportion associating schizophrenia with dangerousness. All staff groups endorsed a biopsychological explanation for schizophrenia, but placed more emphasis on biological over psychosocial causes. However, this study scored 25% on the MMAT for quality due to a lack of information on the inclusion criteria and how participants were recruited. Furthermore, although the study aimed to assess the views of psychiatric staff about schizophrenia, 14% of the sample consisted of administrative staff, and nearly 24% of respondents did not work with service users with schizophrenia. In addition, 11% of the staff sample was described as ‘doctors’, but researchers did not define what type (i.e., psychiatrists, or GPs). In addition, it was reported that focus groups were held with respondents in order to gather feedback about the results of the survey. However, results from this focus group were not reported in any detail and are only mentioned briefly in the conclusion to support suggestions from the discussion. Therefore, any feedback that may have been of value to the reader was unavailable for scrutiny. Finally, there was a general lack of reflexivity in the report, such as how the findings related to the context of a community outreach team setting and how the researcher may have influenced findings.

Magliano and colleagues carried out two studies. The first study (2004a) investigated beliefs about schizophrenia among nurses (N=190), psychiatrists (N=110) and patients’ relatives (N=709). The second study (2004b) investigated views of psychiatrists (25%), nurses (43%) and other mental health professionals
(32%; N=465). Relatives were asked to complete the questionnaire in reference to disorders experienced by their relative with schizophrenia, and professionals in reference to a vignette that described a service user who met diagnostic criteria for schizophrenia. The 2004a study showed that psychiatrists and nurses attributed heredity (75% and 74%), stress (66% and 53%), and family conflicts (46% and 48%) as causal explanations of schizophrenia, and their views about service users’ ability to work were similar to their views about people’s general ability to work. Nurses and relatives showed similar agreement that service users had equal political rights to others, but regarded service users as ‘unpredictable’. In the second study (2004b), the staff sample showed that the majority (87%) of professionals ‘partly’ believed that people can recover from schizophrenia, and 72% thought that it was ‘partly true’ that pharmacological treatment was useful, while 56% recorded ‘partly true’ that non-pharmaceutical treatments were useful. This study suggests that although staff had some optimism about the possibility of recovery, mixed views were evident with a tendency to agree with biopsychosocial factors in the development of schizophrenia, but with emphasis on pharmacological, over non-pharmacological treatments. Although both studies by Magliano and colleagues (2004a & 2004b) met the full MMAT quality criteria, the focus of the studies was to compare staff and relatives’ viewpoints rather than to examine either in more detail. As such, further conclusions in the context of this review about staff views about recovery in psychosis are limited. Although the mixed-staff sample in the 2004b study consisted of a majority of mental-health nurses and psychiatrists, general conclusions about multi-disciplinary staff views were made that may not represent the views of other members of the multi-disciplinary team.

Studies by Caldwell et al (2001) and Hugo et al (2001) assessed staff beliefs about prognosis and likelihood of recovery in schizophrenia by asking participants to
record their responses to vignettes describing a person with either schizophrenia or depression in a self-completion survey. Both studies sampled the views of mental health professionals (N= 1508 in Caldwell et al., 2001 & N= 266 in Hugo et al., 2001). This included mental health nurses (22% and 58% respectively), psychologists (14%, Caldwell et al, 2001; unspecified in Hugo et al., 2001), psychiatrists (35%, Caldwell et al, 2001; unspecified in Hugo et al., 2001) and occupational therapists (in Caldwell et al., 2001 only). Views of the general public were also collected from a national household survey of adults in Australia. The professional groups expressed less optimism about prognosis and long term outcomes for both the depression and schizophrenia vignettes, compared with the views of the general public. All staff groups believed there would be considerable discrimination for both people in the schizophrenia and depression vignettes, but more so for schizophrenia. Medical staff tended to be less optimistic, and mental health nurses more optimistic about outcomes for the schizophrenia vignette when compared with other professional groups. However, compared with the public, all staff groups were significantly (P=<0.01) more pessimistic and believed in a greater likelihood of negative outcomes for the schizophrenia vignette. Therefore, pessimistic views of recovery and hope in staff indicated a view that was inconsistent with the psychosocial recovery model. A limitation of both studies was that although the survey was used in a previous study (Jorm et al., 1997), the reliability or validity of the survey method was not reported. This limits the extent to which the study can be evaluated with regards to the validity and reliable of findings. Furthermore, Hugo and colleagues (2001) did not report response rates to the survey, which compromises judgement about the representativeness of their findings.
The remaining studies will be reviewed under the following three headings due to the similarity of recovery themes investigated: i. staff views on recovery processes, ii. staff views about recovery interventions or services, and iii. cultural perspectives about staff views about recovery in psychosis.

1) Staff views on recovery processes in psychosis

Three studies investigated staff experiences of caring for people with psychotic disorders to assess their views about the process of recovery. Engqvist and colleagues (2007) conducted qualitative interviews with 10 staff nurses who cared for women with postpartum psychosis (PPP) within psychiatric departments at three hospitals. Semi-structured interviews were carried out to explore the nurses’ strategies, experience and understanding of caring for service users with PPP. Two key themes emerged from the analysis. The first theme, to create a patient-nurse relationship, included sub-themes such as being continually present, forming a partnership, and connecting service users to the care team. The second theme was to apply nursing therapeutic interventions and included sub-themes around caring for basic needs, providing security, giving hope, reconnecting to reality, and psychoeducation for the service user and their relatives. Participants described their caring role in the recovery process as dynamic and responsive to service users’ changing needs at different stages in recovery. In particular, participants said that the more the patient advances in their recovery, the less emphasis there was on meeting basic needs such as personal care. In the latter stages of hospital stay, the emphasis was on supporting the service user and her relatives to build supportive links. Fostering hope was described as a constant theme of care throughout recovery. Whilst this study received a 100% rating on the quality assessment tool the findings are limited to service users with PPP.
Forchuk and colleagues (2003) examined the subjective experiences of clinical staff relating to how their role changed during the process of recovery following the start of medical treatment within a tertiary-care psychiatric hospital and a general hospital. Participants were interviewed at three-month intervals during a 12-month period, and consisted of multi-disciplinary staff working with 10 patients starting clozapine and risperidone treatment. Fifty interviews took place with an average of four staff per interview. Participants reported the necessity of shifting their roles in synchrony with the needs of clients as they moved through the recovery process. Staff described care needs in the early stages as primarily psychoeducation, support, and symptom-management, through to teacher, resource person, and counsellor as the service users’ concentration and focus on rehabilitative skills increased. Within the latter stages of recovery, goals around community re-integration and more personalised goals were the focus of treatment. This study achieved 50% on the MMAT due to limited reporting around the method of data collection, such as the interviewer, type of questions asked, or duration of interviews. Furthermore, although the authors’ reported the sample consisted of multi-disciplinary staff, the total number of participants was unreported and the number of staff from each discipline was not reported. Thus, there may have been insufficient representativeness of the multi-disciplinary staff in this sample.

Torgalsboen et al (2001) qualitatively investigated factors that contributed to recovery in schizophrenia by investigating the views of staff and service user participants. As these samples were investigated separately and were not compared, only staff data (N=12) were examined in this review. The staff sample consisted of six psychologists, four psychiatrists and two social workers. Staff members were interviewed about their care for the service user sample who had previously been hospitalised for schizophrenia, but were recovered at the time of
the investigation. In semi-structured interviews, staff members were asked their opinion about the most important elements of treatment. Staff highlighted the importance of forging a working alliance, fostering hope, developing the therapeutic relationship, and adopting genuine humanistic attitudes. As such, staff in this study held psychosocial views about recovery interventions for schizophrenia. A limitation of this study was the small sample size and reporting staff views collectively, despite the over-representation of psychologists. This study also achieved a low rating of 25% on the MMAT due to inadequate detail regarding research methodology such as the data collection strategy, interviewers, and the type of data analysis used. Thus, judgements about data reliability are limited.

2) Staff views about recovery treatments and services for psychosis

Two studies examined staff views about recovery services and treatments for psychosis. Prytys and colleagues (2011) investigated staff attitudes about implementing Cognitive Behaviour Therapy (CBT) and family interventions. Semi-structured interviews were carried out with 20 care-coordinators consisting of Nurses (55%), Social workers (30%) and Occupational therapists (15%). Views were elicited regarding attitudes to course of illness, functioning, wellbeing and recovery from psychosis. Resource problems such as large workloads, time, and the requirement of specialist staff were viewed as significant barriers to implementing CBT and family interventions. Although there was some optimism regarding the possibility of positive social and occupational outcomes for people with schizophrenia, pessimistic views were evident with focus on symptom persistence, and poor functioning. Emphasis on the role of medication for treating psychotic symptoms was evident, with psychological therapies seen as an adjunctive treatment. The authors suggested that negative attitudes towards service users’ potential for psychosocial recovery, in addition to preferences among staff for
biomedical approaches, were barriers to collaborative relationships between staff and service users and prevented referral to psychological intervention. Although the study achieved a 100% quality rating on the MMAT, a small sample size was used, in addition to a purposive sampling strategy, which may have biased the data with views that may not be representative of other staff members or generalisable to a wider population.

Morton and colleagues (2010) used questionnaires to investigate staff (N=7) and service user (N=28) views about an early intervention service for psychosis. Overall, staff and service users strongly agreed that the service promoted resilience and recovery ($r = 0.83, n = 12, P \leq 0.01$) on items such as satisfaction, promoting change, providing choice and opportunities, and promoting feelings of value and respect. However, staff views significantly differed from patients’ on ratings about resources such as staffing levels and skills mix (Mann–Whitney $U = 25.500, N1 = 20, N2 = 17, P \leq 0.05$). Thus, staff appeared to hold positive views about the psychosocial recovery approaches they delivered within the early intervention psychosis service. Although this study achieved 100% for quality on the MMAT, eligible service user participants were identified by care co-ordinators, which may have biased results in favour of participants who were more engaged with services, and skewed towards positive views. Furthermore, low participant numbers limits the generalizability of findings to similar services.

3) Cultural perspective of staff views about recovery in psychosis

Two studies investigated cultural perspectives about staff views of psychosocial aspects of recovery in psychosis. Firstly, Kaewprom and colleagues (2011) explored the perspectives of 24 nurses in two general and one psychiatric hospital in Thailand. Semi-structured interviews were conducted with participants about their
views of recovery in schizophrenia, and data were analysed using thematic analysis. A supportive environment and access to mental health services were identified as environmental factors that facilitated recovery, whereas stigma and fragmented mental health services were reported as barriers. Hope, illness acceptance and treatment adherence were identified as personal factors that were facilitative to recovery, while low self-responsibility and factors related to illness were identified as personal barriers. This suggests that staff in this study held predominantly biomedical approaches to recovery in psychosis. The authors further suggested that healthcare providers in Thailand regarded mental health services with lower priority than physical health care. This study achieved a 75% quality rating on the MMAT for design quality and report. However, limitations in recruitment to two general hospitals and one psychiatric hospital suggest results cannot be generalised to specialist psychiatric hospitals, where staff culture and resources may differ.

Secondly, Higgins and colleagues (2007) carried out qualitative, open-ended discussions with 20 mental health nurses in China and India to investigate cultural and social issues surrounding social rehabilitation in schizophrenia. The main models of therapy delivered by mental health nurses were CBT, psychosocial interventions, and vocational training. Results showed a strong cultural and social influence on the rehabilitation process in both countries, reflecting a prominent family involvement. Stigma and gender inequality were particularly problematic in this group. Participants in both countries highlighted a dearth in resources as a significant issue in the delivery of social rehabilitative programs and that more government investment was needed; however, the Chinese sample was more hopeful about future government support. This suggests that staff in China and India utilise a combination of approaches that are consistent with biopsychosocial
approaches, but resourcing problems and social stigma appear to be significant barriers to treatment access and implementation. This study achieved a strong rating on the MMAT for study design and reporting; however, findings may not be generalisable to other institutional settings or geographical locations, or generalisable to a wider population given the relatively small sample sizes.

Discussion

This review provided a synthesis of the research that examined staff views about recovery in psychosis. It also examined the extent to which psychosocial aspects of recovery were endorsed, and provided a critical appraisal of the available literature. Overall, studies varied in their findings about staff views about recovery in psychosis. When studies investigated general attitudes and views of staff, approaches to recovery tended to be biomedical orientated, with pessimistic views about service user outcomes more common. When staff views about recovery processes were investigated within the context of psychiatric hospital admission, a dynamic picture of recovery was described whereby views transitioned from a biomedical focus in the beginning stages, through to a rehabilitative focus in the middle stages, and then psychosocially orientated in the latter stages of hospital stay as service users approached discharge. When investigating views about recovery services and interventions, staff views varied in the two studies from pessimism over service user outcomes in psychosocial interventions, to positive views about psychosocial orientated values within their service. Finally, studies that investigated cultural differences in psychosocial approaches to recovery found a biomedical focus in psychiatric care in Thailand, and a dearth in resources that prioritised physical health, over mental health care. China and India were found in
the second study to have strong cultural and social influences of family involvement, an approach to psychosis that was biopsychosocially orientated, with resource problems and social stigma cited as common barriers to treatment access. These findings are consistent with literature suggesting that recovery in psychosis is complex and dynamic, which can occur in stage processes (Andresen, Oades & Caputi, 2003), and requires adaptive support from services (Australian Health Minister’s Advisory council, 2013). Furthermore, these findings are largely consistent with broader literature suggesting that mental health professionals tend to hold negative views about people with mental health problems and are generally pessimistic about outcomes (Wahl, & Aroesty-Cohen, 2010).

The current study highlighted problems with the design and reporting of the majority of the reviewed studies. Overall, study quality ranged from 25% to 100% for both qualitative and quantitative studies. For qualitative studies, a common methodological issue highlighted was that reflexivity in the studies was not adequately detailed. There was limited acknowledgement regarding the influence of the dynamic interplay between the researcher and participants and the way in which the researchers might unintentionally influence the process of data analysis and interpretation (Watt, 2007). Regarding quantitative studies, a common methodological issue highlighted by the quality assessment tool was that studies failed to report response rates to questionnaires and surveys, which made it difficult to judge the representativeness of study findings.
Limitations

A limitation of this review was the degree of subjectivity required by the authors in assessing whether studies met the criteria for meeting Anthony’s (1993) psychosocial approach to recovery, because many studies in the screening stages failed to recognise the different approaches to recovery, and thus did not clarify which approach to recovery they were investigating. Furthermore, the psychosocial model of recovery is a fluid concept that is closely connected with issues of discrimination and stigma. As such, the authors’ judgements about excluding studies based on the extent to which views of stigma were investigated, as opposed to recovery, may have led to the exclusion of studies that would otherwise have been included in this review. Although decisions about whether or not studies met the inclusion criteria for the review were jointly made by the research team in an attempt to minimise bias, the research team’s collective decisions were still subjective. This may have resulted in some studies being overlooked when judged against the review criteria.

Another limitation of the review was that the MMAT was designed for the concomitant quality assessment of qualitative and quantitative studies. Although this was beneficial in enabling a comparative assessment of quality between qualitative and quantitative studies, and an assessment of the quality of the studies overall; this may have been at the expense of using more detailed quality assessment criteria specifically designed for the assessment of either quantitative or qualitative studies, rather than for both. Future reviews may benefit from using separate, more detailed quality assessment tools for qualitative and quantitative studies, in order to produce a more comprehensive evaluation of study quality. However, doing so will limit the reliable comparison of quality between qualitative and quantitative studies.
Furthermore, a common problem identified by the MMAT was the absence or minimal detail and reporting of reflexivity by the authors in the qualitative studies. However, it has been suggested that a failure to report adequate detail about methodology does not necessarily mean that such methods were not undertaken in the study (Soars et al., 2004). As such, contacting researcher authors for more information may improve quality assessment in future reviews.

Clinical implications

People with psychosis place more importance on psychosocial models of recovery (Andresen, Oades, & Caputi, 2003). Despite a large body of literature suggesting services and staff should adopt psychosocial recovery approaches, and in light of the fact that such approaches have been adopted in mental health policies, the studies in this review showed a relatively inconsistent picture. Although there was some evidence of staff members endorsing psychosocial views about recovery in psychosis, the majority of studies suggested staff subscribed to biomedical models of recovery in psychosis, with more emphasis on pharmacological, over psychosocial, interventions. Davidson, O’Connell, Tondora, Styron, and Kangas, (2006) have argued that psychosocial recovery is a process that service users engage in to form a way to live with mental health difficulties; it is neither something providers can do to, nor for, service users. They further suggest that psychosocial recovery is something that cannot be encouraged separate to, or upon completion of treatment. Rather, Davidson et al (2006) argue that the adoption of recovery orientated services describes an overarching aim that cannot necessarily be regarded as an adjunct to existing treatments or services). There is some evidence that staff views about psychosocial recovery can improve with training (Crowe,
Deane, Oades, Caputi, & Morland, 2006; Meehan & Glover, 2009). Furthermore, there is an increasing number of service development tools and initiatives to promote the recovery orientation of services (Burgess, Pirkis, Coombs, and Rosen, 2010). In particular, the Scottish Recovery Indicator (SRI-2) has been shown to improve the recovery orientation of staff, by measuring the extent to which recovery orientated services are being delivered by collecting data from staff, service users, and carers, and providing a framework for devising action and development plans to improve the recovery orientation of services (Smith-Merry, Freeman, and Sturdy, 2010). Therefore, training initiatives and recovery development frameworks provided by tools such as the SRI-2, may be a useful consideration for services that aim to increase the recovery orientation of staff towards psychosocial models of recovery.

Future research

This review has shown that there is a surprising dearth in research regarding staff views about recovery in psychosis, and it is often unclear which model of recovery is being examined in studies. Future research would benefit from researchers being more explicit as to which model of recovery is being investigated. Furthermore, tools have been developed to directly measure staff views about psychosocial recovery (Burgess, Pirkis, Coombs, & Rosen, 2011) and the recovery-orientation of services (Williams et al., 2012). Such tools have been used in other studies to investigate broader staff views into serious mental illness (Cleary, & Dowling, 2009; Resnick, & Rosenheck, 2008). However, future studies would benefit from utilising such tools to investigate staff views about psychosocial recovery more specifically.
Another area for future research is to explore in more detail whether staff views about recovery match the type of services they work in (e.g., psychiatric hospital, residential/sheltered accommodation, outpatients and secondary care services). Furthermore, where existing studies have investigated the views of single professional groups about recovery in psychosis, they have tended to focus on the views of psychiatrists and nurses. Where other mental health staff were analysed, this was within a mixed sample of different professionals and allied health staff. Considering that most secondary and other specialist services are made up of multi-disciplinary teams consisting of a larger range of professions, future research may begin to investigate the views of various staffing groups in order to examine different perspectives about psychosocial recovery across the MDT.

Conclusion

Following a review of the literature, there is a fundamental lack of studies that systematically investigate staff views about psychosocial aspects of recovery in psychosis. Our findings show that biomedical views about recovery prevail amongst mental health staff. Psychosocial recovery has previously been regarded as a complex, multifaceted concept that is difficult to implement or measure. However, instruments to measure views about psychosocial recovery and recovery-orientation in treatment and services are developing, which may lead to more high quality research in this area.
References


Mental Health Commission. (1998). *Blueprint for mental health services in New Zealand: How things need to be.* New Zealand: Health and Disability Commissioner


Section 2: Empirical Paper

Title

Staff and service user views about mindfulness based cognitive therapy groups for psychosis: A Q-methodology study

The following paper has been prepared for submission to *Psychology and Psychotherapy: Theory, Research and Practice*. The guidelines for authors can be found in Appendix 1

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Ethical approval

Appropriate ethical approval was sought and approved for this study. Ethical Approval Letters are provided in the Appendices for Paper two as follows:

Appendix 3: University of Manchester letters of ethical approval

Appendix 4 – National Research Ethics Service Approval Letter

Appendix 5 – Local Research and Development Ethical Approval Letter
Abstract

Objectives There is a growing evidence base for mindfulness-based cognitive therapy (MBCT) for psychosis. Despite prevailing beliefs about the potential harmfulness of mindfulness for psychosis, there is a paucity of research into staff and service user views. Preliminary investigations have examined service user experiences following participation in MBCT for psychosis; however, no attempt has been made to examine staff and service user views more broadly.

Design Q-methodology was used to explore participants’ beliefs about a range of views about MBCT for psychosis and to compare similarities and differences between views.

Method Opportunistic sampling of staff from a secondary care service (N=14), and service users with psychosis, was used (N=17). Both samples were analysed separately.

Results Analysis resulted in a single staff consensus factor: mindfulness is helpful, and not harmful for mental health, but there is uncertainty about its usefulness for psychosis. Analysis of service user data resulted in four factors: 1. mindfulness helps with calming racing minds, relaxation, and is not harmful; 2. mindfulness helps with stress management, and is different to other forms of meditation; 3. mindfulness improves wellbeing, and does not alter the brain, reality beliefs, or cause madness; and 4. mindfulness helps with managing thoughts, fostering acceptance, and mindfulness groups are an acceptable treatment for people with psychosis.

Conclusions Staff strongly disagreed that mindfulness is harmful but were uncertain about its utility for psychosis. Service user views were consistent with previous research that has demonstrated MBCT can be useful to promote wellbeing and reduce symptomatic distress for individuals experiencing psychosis.
Practitioner points

• This paper sought to develop a consensus of staff and service user views about MBCT for psychosis.

• Although staff may not believe that MBCT is harmful, they may not be aware of the potential benefits of MBCT for psychosis.

• The views of service users in this sample were consistent with previous research that MBCT for psychosis is useful in managing symptomatic distress.
Introduction

Mindfulness has been defined as “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (Kabat-Zinn, 1994 p. 4). It was initially developed as a treatment for depression; however, a systematic review has demonstrated that mindfulness leads to reductions in a variety of conditions, including pain, stress, anxiety, depressive relapse and disordered eating (Baer, 2003). More recently, researchers have suggested that Mindfulness Based Cognitive Therapy (MBCT) groups can be adapted for people experiencing psychosis, with preliminary investigations indicating possible improvements in clinical functioning and symptom-related distress (Chadwick, Taylor, & Abba, 2005; Chadwick, Hughes, Russell, Russel, & Dagnan, 2009; Jacobson, Morris, Johns & Hodkinson, 2011; Langer, Cangas, Salcedo, & Fuentes, 2012; van de Valk, van de Waerdt, Meijer, & de Haan; 2013).

Chadwick and colleagues (2005) published the first study on MBCT for psychosis. This was an uncontrolled trail aimed at supporting participants to establish a mindful relationship with distressing voices, images and paranoid thoughts. The study showed no adverse effects from participation, an increase in mindfulness responses to distressing voices and thoughts, and improvements in clinical functioning upon completion of the group. In a subsequent study, Chadwick and colleagues (2009) conducted a randomised controlled trial comparing an MBCT intervention with a wait-list control group for people with psychosis. Participants in the MBCT group showed improvements in measures of overall functioning and mindfulness responses to distressing thoughts and images, compared with controls. These results were replicated by Langer et al. (2011) who found that participants receiving the MBCT intervention scored significantly higher than wait-list controls in their
ability to respond mindfully to stressful internal events. These early studies all suggest structured MBCT groups are a feasible and non-harmful treatment for individuals with psychosis.

Despite the growing evidence supporting MBCT interventions for psychosis, there have been no published investigations exploring staff views about MBCT for psychosis. Staff views are important because they are often gatekeepers to information for service users and provide access to treatment. Staff are also often responsible for referrals to psychological interventions (Thornicroft & Tansella, 2004). The successful dissemination and implementation of evidence based interventions requires a better understanding of staff views (Aarons, 2004) and, according to Chadwick (2014), progress with treatment and research into MBCT for psychosis has been slow in comparison to the rapid development and availability of MBCT in other areas of mental health. Chadwick (2014) attributes this delay to staff views, arguing that many clinicians believe MBCT interventions are potentially harmful for those with psychosis. A review by McHugh and Barlow (2010) suggested one of the barriers to the dissemination and implementation of evidence-based psychological treatments requires managing negative perceptions of innovative treatments among service staff, and improving knowledge about such interventions. Therefore, if staff do not feel knowledgeable about MBCT for psychosis or believe the intervention to be potentially harmful, then service user access to MBCT for psychosis will be compromised.

Service user views about interventions are equally important; they are at the heart of policies regarding improvement of adult mental health care (NICE, 2011) and have been shown to affect individuals’ decisions’ about whether they receive treatment (Vogel, Wester, Wei, & Boyston, 2005). The views of service users have
been explored, to some extent, in three qualitative studies investigating the experiences of people who had recently completed MBCT for psychosis. Abba and colleagues (2008) examined processes of change in semi-structured interviews with sixteen participants who had completed an MBCT for psychosis group. Grounded theory analysis was used to generate a theory about psychological processes, which included focused awareness of psychosis, relating differently to symptoms and regaining a sense of power through acceptance of the self and psychotic symptoms. Another qualitative study by Brown, Davis, LaRocco and Strasburger (2010) explored participants’ positive and negative views in interviews about their experience of mindfulness meditation training for anxiety in schizophrenia. The content analysis produced some negative themes, which included feelings of sadness, and self-compassion bringing up bad memories. Beneficial outcome themes included improved positive thinking, relaxation, focus on the present, reduction in levels of anxiety and depression, benefits of the group experience, and some reports of improved sleep, memory, and reductions in hallucinations and paranoia. Finally, Ashcroft, Barrow, Lee and MacKinnon (2012) conducted semi-structured interviews to investigate participants’ experiences of practicing mindfulness within an early intervention service. A grounded theory analysis showed participants reported benefits to mindfulness such as coping, feeling more in control of experiences, relating differently to people, increased insight and self-acceptance, and benefits of the group setting such as promoting acceptance and validation of experiences.

There is a growing evidence base that MBCT for psychosis is useful for helping individuals cope with distress associated with psychotic experiences. Qualitative studies into participants’ subjective experiences have provided a valuable dimension to this body of research with theoretical accounts of processes of change.
(Abba et al., 2009), perspectives on mindfulness training for anxiety in schizophrenia (Brown et al., 2010) and the early stages of psychotic experiences (Ashcroft et al., 2012). However, there is a paucity of research examining staff views about MBCT for psychosis. Furthermore, although there has been some investigation into service user views, these accounts have focused on the specific experiences of completing MBCT for psychosis. To date, there has been no attempt to examine the breadth of information about MBCT for psychosis in relation to broader attitudes and opinions held by staff and service users. The main objective for this paper therefore is to explore the staff and service user views about MBCT for psychosis. Q-methodology provides a robust method for this purpose. Developed by Stephenson (1935), Q-methodology integrates both qualitative and quantitative methodologies by exploring a large variety of material in relation to a particular topic, and asking participants to impose their subjective viewpoints on them by prioritising items in terms of how much they agree or disagree with each item in relation to one another (Donner, 2001). It enables a systematic and scientific approach to identifying similarities and differences between viewpoints, attitudes and opinions (Kielhofner, 2006), and reduces multiple individual viewpoints into a smaller number of distinct factors that reflect shared ways of thinking.

Q-methodology studies have previously been applied in psychosis research. Dudley, Siitarinen, James, and Dodgson (2009) used Q-methodology to collaboratively investigate service users’ views about what caused their psychosis, and found results consistent with the stress-vulnerability model of psychosis including traumatic experiences, and drug use. Wood, Price, Morrison, and Haddock (2012) investigated service user views about recovery from psychosis. They found common elements of recovery exist, such as the need for collaborative support and understanding, and regaining functional and occupational goals,
alongside idiosyncratic, self-focused change, all of which were recommended as important elements for consideration in service provision. Q-methodology therefore provides a useful method for the aim of this study, which is to investigate staff and service user views about MBCT for psychosis.

Method

Design

A two-phase procedure for Q-methodology outlined by Watts and Stenner (2012) was used. The first phase involved identifying a range of views people hold about a subject. There is no set way to gather these views, and a variety of sources such as academic literature, television, internet, interviews and focus groups can be used (Watts & Stenner, 2012). This information is then utilised to generate statements that are representative of a range of views, called the ‘Q-set’.

In the second phase, data on individual attitudes or views are generated by asking a range of participants to sort through the Q-set statements and categorise them in order of how much they agree or disagree with each, based on their own opinions or beliefs about the topic. This is completed with the aid of a fixed distribution set ranging from most disagree to most agree (Figure 1), hereafter referred to as the ‘Q-grid’. This provides a forced-choice response set from the participant, whilst allowing them to categorize responses relative to one another in the distribution. The end result is a ‘Q-sort’, which can be analysed using factor analysis, where groups of people are analysed instead of items in conventional factor analysis. This produces factors that relate to groups of people who share similar viewpoints about a topic.
Due to the inverted factor analytical nature of Q-methodology, the use of multiple Q-sorts from the same participant at multiple time points are a viable source of data (Prasad, 2001; Kielhofner, 2006). In this study, multiple Q-sorts from the same participant were therefore collected from service user data where possible. The resulting analysis produced ‘exemplar’ arrays of extracted factors or distinct viewpoints about the topic under study, which is computed from the Q-sort data.

**Development of the Q-Set**

Data for the Q-set were collected from literature searches using online newspapers, magazine articles, and social networking sites (e.g., Facebook). Searches of the academic literature were also carried out using the Google Scholar search engine, using the terms ‘Mindfulness’ OR ‘MBCT’ OR ‘meditation’, combined with ‘groups’ AND ‘mental health’ AND ‘psycho**”. The initial set of statements consisted of 124
items that were selected and organised into overarching themes such as ‘general benefits of Mindfulness’ and ‘service user views about Mindfulness’. Through an iterative process, all three authors scrutinised the items in order to reduce conceptually over-lapping themes, and eliminate repetitious items. The statements were further examined, re-worded and reduced until the authors were satisfied the initial list of statements and themes were appropriately represented and worded in the final Q-set, which resulted in the elimination of 72 statements, and a final set 52 statements. These statements were printed onto 52 separate pieces of card and placed into a random order of presentation to the participant.

Recruitment

The target sample was service users who have been diagnosed with a psychotic disorder, and staff members of secondary care mental health services. Prior knowledge of mindfulness was not assessed but was considered to vary across staff and service user samples. Recruitment included service users who had attended an MBCT for psychosis group, as well as those who were on the waiting list with little or no experience of MBCT for psychosis. Q-sorts were collected from participants before starting the group, and again upon completing the group where possible, in order to collate service user viewpoints from varying degrees of familiarity with mindfulness interventions.

Opportunistic recruitment was employed for staff participants from two secondary mental health care sites within an NHS service in the North-West of England. Staff participants were recruited through team meetings and emailing staff with information about the study. Inclusion criteria for staff participants were: (i) they
were currently working or training within a secondary care service; and (ii) they held their own caseload. Opportunistic recruitment was also used for service user participants. Recruitment took place within a secondary care mental health service in a local NHS Trust that routinely ran MBCT groups for anxiety and depression. At the time of recruiting participants to this study, the service had also agreed to trial MBCT groups for people experiencing psychosis. All participants were contacted by a member of the research team, and only those who provided informed consent participated in the study. Inclusion criteria for service user participants were: (i) aged 18 years and above; (ii) formally diagnosed with a psychotic disorder (identified using clinical notes and confirmation from care co-ordinators); and (iii) enrolled in a secondary care mental health service. Exclusion criteria included (i) not having the capacity to complete or understand the Q-sort task, such as having significant reading, writing, and/or concentration difficulties (as assessed by their care-coordinator); and (ii) posing a risk to themselves or other people as identified by the referrer and/or service users’ most recent risk assessment.

Procedure

Participants were informed that the Q-set was developed by looking at various sources of information, such as the internet, media and academic literature. The Q-grid was then presented on a table adjacent to the participant (see Figure 1). Participants were given 52 shuffled statement cards (the Q-set), and were asked to read each statement and ask questions where needed. They were instructed to organise the Q-set into three piles: agree, disagree and neutral. Next, participants were asked to start with either the agree or disagree pile, and to fill in spaces on the Q-grid with the cards according to how much they agreed, or disagreed with the statements. If starting with the agree pile, participants were asked to begin filling the
outer agree (+) spaces, and if starting with the disagree pile, to start with the outer disagree spaces (-) of the Q-grid. Participants were then asked to continue filling the spaces towards the centre of the Q-grid, until they were out of cards. The process was repeated with the second pile of cards, and the neutral statements were attended to last, until the entire Q-grid was filled. Upon completion, participants were given an opportunity to look over their distribution, and move statements until they were satisfied. Participants were then asked for feedback about any additional opinions they had about mindfulness, and reasons for sorting their highest and lowest rated items.

Data analysis

Q-methodology analysis involves grouping people together into factors, rather than variables as in traditional factor analysis. Staff and service user data in this study were analysed using a Q-methodology software package (PQMethod, version 2.35, Schmolck, 2014). The data were subjected to principle component analysis, followed by varimax rotation in order to sort factors in a manner that accounted for the maximum amount of variance.

Results

In total, 31 participants participated in the study (N=14 staff; N=17 service users). Staff and service user data were analysed separately. Information on staff and service user demographics are presented in Tables 1 and 2.
<table>
<thead>
<tr>
<th>Table 1: Staff participant demographics</th>
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<tbody>
<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Range</td>
</tr>
<tr>
<td>Standard deviation</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
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<tr>
<td>Male:Female</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
</tr>
<tr>
<td>White British</td>
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<tr>
<td>White Other</td>
</tr>
<tr>
<td>Asian British</td>
</tr>
<tr>
<td><strong>Job Title</strong></td>
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<tr>
<td>Clinical Psychologist</td>
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<td>Community Psychiatric Nurse (CPN)</td>
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<td>Social Worker</td>
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<tr>
<td>CBT Therapist</td>
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<tr>
<td>Counsellor</td>
</tr>
<tr>
<td>Trainee Clinical Psychologist</td>
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<tr>
<td>Cognitive Analytic Therapist (CAT)</td>
</tr>
<tr>
<td>Trainee</td>
</tr>
<tr>
<td>Trainee Social Worker</td>
</tr>
<tr>
<td><strong>Years in Job title</strong></td>
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<tr>
<td>Mean</td>
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<tr>
<td>Range</td>
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<tr>
<td><strong>Previous Mindfulness Training</strong></td>
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<tr>
<td>None</td>
</tr>
<tr>
<td>Brief Mindfulness Training (1 day or less)</td>
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<tr>
<td>MBCT staff participant</td>
</tr>
<tr>
<td>Experience of 1:1 MBCT</td>
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<tr>
<td>Qualified MBCT Practitioner</td>
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<tr>
<td>Previously co-facilitated group</td>
</tr>
<tr>
<td><strong>Informal reading on Mindfulness</strong></td>
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<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
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<tr>
<td><strong>Accredited qualification in a psychological therapy (at least certificate level)</strong></td>
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<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td><strong>Table 2: Service user participant demographics</strong></td>
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<tr>
<td>-----------------------------------------------</td>
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<tr>
<td><strong>Age</strong></td>
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<td></td>
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<td></td>
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<td><strong>Sex</strong></td>
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<td><strong>Marital Status</strong></td>
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<tr>
<td><strong>Ethnicity</strong></td>
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<tr>
<td><strong>Religion</strong></td>
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<tr>
<td><strong>Employment status</strong></td>
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<td></td>
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<tr>
<td><strong>Primary Diagnosis</strong></td>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Length of time with Diagnosis</strong></td>
</tr>
<tr>
<td>(years)</td>
</tr>
<tr>
<td><strong>Previous psychological therapy/groups/interventions</strong></td>
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<td></td>
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</tbody>
</table>
Staff participant data

The mean age of the staff sample was 43 years (range: 30-60). The majority of staff participants (79%) were white-British, female (86%) and consisted of Clinical Psychologists (21%), Community Psychiatric Nurses (21%) or Social Workers (14%). Five staff participants reported no previous mindfulness training, three had received brief mindfulness training (one day or less training), three had completed MBCT groups as staff participants, one staff member had experience of one-to-one MBCT, one staff participant was a qualified MBCT practitioner and one had previously co-facilitated a MBCT group. Eleven staff participants said they had informally read some mindfulness literature.

Analysis of the unrotated factors for staff data indicated that only one factor had an eigenvalue >1, (factor 1= 9.90), which explained 71% of the variance in data from the staff sample. Attempts at varimax rotation led to factors with strong correlations (between 0.75 to 0.93), and 44/52 of the statements were found to be ‘consensus statements’ meaning that the staff sample ranked these 44 items similarly in their Q-Sorts. Collectively, this suggested one dominant factor represented a shared consensus among the staff sample regarding their views about MBCT for psychosis. Q-sort factor loadings from the 14 staff participants varied between 0.77 and 0.93. The consensus factor array for staff data are examined in detail below, and presented in Table 3.
<table>
<thead>
<tr>
<th>Statement</th>
<th>Statement number</th>
<th>Q-grid statement ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mindfulness involves paying attention to what is happening right now</td>
<td>1</td>
<td>+4</td>
</tr>
<tr>
<td>Mindfulness helps to improve wellbeing.</td>
<td>25</td>
<td>+4</td>
</tr>
<tr>
<td>Mindfulness helps people notice things they would normally take for granted</td>
<td>51</td>
<td>+4</td>
</tr>
<tr>
<td>Mindfulness groups in the NHS are a useful addition to the choice of psychological therapies on offer.</td>
<td>29</td>
<td>+3</td>
</tr>
<tr>
<td>Mindfulness helps people become more accepting of life.</td>
<td>8</td>
<td>+3</td>
</tr>
<tr>
<td>Mindfulness makes people more aware of their unhelpful ways of thinking</td>
<td>21</td>
<td>+3</td>
</tr>
<tr>
<td>Mindfulness is a helpful way of managing stress.</td>
<td>31</td>
<td>+3</td>
</tr>
<tr>
<td>Mindfulness makes people better at managing their feelings.</td>
<td>40</td>
<td>+2</td>
</tr>
<tr>
<td>Mindfulness helps reduce the impact of unwanted thoughts.</td>
<td>5</td>
<td>+2</td>
</tr>
<tr>
<td>Mindfulness helps people accept difficult feelings.</td>
<td>50</td>
<td>+2</td>
</tr>
<tr>
<td>Mindfulness helps people be more accepting of themselves.</td>
<td>13</td>
<td>+2</td>
</tr>
<tr>
<td>Mindfulness encourages people to take each day as it comes.</td>
<td>24</td>
<td>+2</td>
</tr>
<tr>
<td>Mindfulness is useful in calming a racing mind</td>
<td>45</td>
<td>+2</td>
</tr>
<tr>
<td>Mindfulness groups are worth the time and effort for service users</td>
<td>43</td>
<td>+1</td>
</tr>
<tr>
<td>Mindfulness helps people with mental health problems.</td>
<td>36</td>
<td>+1</td>
</tr>
<tr>
<td>Mindfulness helps people know themselves better.</td>
<td>20</td>
<td>+1</td>
</tr>
<tr>
<td>Mindfulness helps to take control of unhelpful thoughts.</td>
<td>7</td>
<td>+1</td>
</tr>
<tr>
<td>Mindfulness gives people a better outlook on life.</td>
<td>33</td>
<td>+1</td>
</tr>
<tr>
<td>Mindfulness is a useful relaxation technique.</td>
<td>6</td>
<td>+1</td>
</tr>
<tr>
<td>Mindfulness helps people to stop pointless battles with themselves.</td>
<td>16</td>
<td>+1</td>
</tr>
<tr>
<td>Mindfulness helps with thinking clearly.</td>
<td>34</td>
<td>+1</td>
</tr>
<tr>
<td>Mindfulness groups are a useful treatment option for people with psychosis</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>Mindfulness practice is different from other forms of meditation.</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>Mindfulness practice can help to improve sleep.</td>
<td>44</td>
<td>0</td>
</tr>
<tr>
<td>Mindfulness helps people to be more accepting of their voices.</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Statement</td>
<td>No.</td>
<td>Q-grid statement ranking.</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-----</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Mindfulness causes changes in the brain.</td>
<td>52</td>
<td>0</td>
</tr>
<tr>
<td>Mindfulness can help people recover from psychosis.</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Mindfulness groups help patients get better.</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td>Staff do not feel they know enough about mindfulness to discuss it with patients</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Staff members are keen to refer patients to Mindfulness groups</td>
<td>41</td>
<td>0</td>
</tr>
<tr>
<td>Mindfulness helps people to accept bad experiences from the past.</td>
<td>22</td>
<td>-1</td>
</tr>
<tr>
<td>People with psychosis don’t like to attend groups.</td>
<td>12</td>
<td>-1</td>
</tr>
<tr>
<td>Staff members are too busy to refer patients to mindfulness groups</td>
<td>30</td>
<td>-1</td>
</tr>
<tr>
<td>Mindfulness interferes with the way people deal with their thoughts</td>
<td>48</td>
<td>-1</td>
</tr>
<tr>
<td>Mindfulness makes people more emotional.</td>
<td>15</td>
<td>-1</td>
</tr>
<tr>
<td>Mindfulness makes voices worse.</td>
<td>39</td>
<td>-1</td>
</tr>
<tr>
<td>Mindfulness groups cost too much to run.</td>
<td>37</td>
<td>-1</td>
</tr>
<tr>
<td>Mindfulness makes voices harder to cope with</td>
<td>19</td>
<td>-2</td>
</tr>
<tr>
<td>Only rational people can benefit from mindfulness.</td>
<td>49</td>
<td>-2</td>
</tr>
<tr>
<td>You need to be emotionally stable to benefit from mindfulness.</td>
<td>27</td>
<td>-2</td>
</tr>
<tr>
<td>Mindfulness makes painful emotions worse.</td>
<td>47</td>
<td>-2</td>
</tr>
<tr>
<td>Mindfulness cuts people off from their feelings.</td>
<td>2</td>
<td>-2</td>
</tr>
<tr>
<td>You can’t practice mindfulness if you’re psychotic.</td>
<td>9</td>
<td>-2</td>
</tr>
<tr>
<td>Practicing mindfulness can destabilise the mind.</td>
<td>38</td>
<td>-3</td>
</tr>
<tr>
<td>Mindfulness jumbles people’s thoughts.</td>
<td>17</td>
<td>-3</td>
</tr>
<tr>
<td>Mindfulness causes people to believe in things that aren’t real.</td>
<td>26</td>
<td>-3</td>
</tr>
<tr>
<td>Practicing mindfulness can cause a nervous breakdown.</td>
<td>3</td>
<td>-3</td>
</tr>
<tr>
<td>Practicing mindfulness too much can make people crazy.</td>
<td>35</td>
<td>-4</td>
</tr>
<tr>
<td>Mindfulness is only meant for spiritual people e.g., monks and nuns.</td>
<td>18</td>
<td>-4</td>
</tr>
<tr>
<td>Mindfulness should not be considered as a treatment for mental health difficulties.</td>
<td>42</td>
<td>-4</td>
</tr>
</tbody>
</table>
Consensus factor 1: Mindfulness is helpful, and not harmful for mental health, but uncertainty prevails about its usefulness for psychosis

All 14 staff participants loaded onto the consensus factor. The factor was characterised by the view that mindfulness helps with mental health problems and improves wellbeing through awareness and acceptance. This was conveyed through the most highly ranked statements as follows: ‘mindfulness helps to improve wellbeing’ (+4), ‘mindfulness involves paying attention to what is happening right now’ (+4), and ‘mindfulness helps people notice things they would normally take for granted’ (+4). The role of mindfulness in enhancing awareness of unhelpful ways of thinking was also highly ranked: ‘mindfulness makes people more aware of their unhelpful ways of thinking’ (+3).

The consensus factor held strong disagreement with the idea that mindfulness can exacerbate or harm people with mental health problems with the negative ranking of statements such as: ‘practicing mindfulness too much can make people crazy’ (-4) and ‘mindfulness should not be considered as a treatment for mental health difficulties’ (-4). The role of acceptance in mindfulness was captured in the relatively high rankings for the statements ‘mindfulness helps people become more accepting of life (+3), and mindfulness helps people accept difficult feelings’ (+3).

Staff strongly disagreed with ‘mindfulness is only meant for spiritual people e.g., monks and nuns’ (-4), which suggests staff believe in the accessibility of mindfulness, and its usefulness as a treatment option. This view is further illustrated with the following participant supporting statement:
“I think MBCT would be so useful to be able to offer to service users in secondary care” (participant 8).

Regarding mindfulness for the specific treatment of psychosis, staff held relatively strong disagreement for the statements ‘you can’t practice mindfulness if you’re psychotic’ (-3), and ‘mindfulness causes people to believe in things that aren’t real’ (-3). Similarly, the statement ‘mindfulness makes voices harder to cope with’ was ranked at -2, thus suggesting that staff felt that mindfulness is accessible to people with psychosis and does not exacerbate symptoms. However, staff conviction became weaker with specific claims about the effect of mindfulness on psychotic symptoms: ‘mindfulness helps people to be more accepting of their voices’ (+1), and slight disagreement that ‘mindfulness makes voices worse’ (-1). The neutral ratings for ‘mindfulness can help people recover from psychosis’ (0), and ‘mindfulness makes voices less upsetting’ (-1) suggest staff may have been more confident in the usefulness of MBCT for general mental health problems, but unsure about its specific effectiveness for psychosis. This is illustrated by the following supporting statement:

“I thought about the complexity of secondary care psychosis and found it hard to judge whether the intervention would be of use” (participant 3).

Although staff strongly believed that ‘mindfulness is a useful addition to available treatments’ (+3), there was some minor disagreement with ‘staff members are keen to refer patients to mindfulness groups’ (-1), and ‘staff members are too busy to refer patients to mindfulness’ (-1). A neutral ranking was also given to ‘staff do not feel they know enough about mindfulness to discuss it with patients’ (0). This suggests that staff lack certainty about their colleague’s availability, keenness to
refer, and whether or not other staff members are sufficiently informed about mindfulness. A potential impact is that if staff are too busy, or do not know much about MBCT for psychosis, they may be reluctant to refer their clients, and therefore lead to reduced access to this treatment. This view is illustrated with the following staff quotes:

“I think people [staff] can be cynical [about Mindfulness] because they see things come in and out of fashion... I wasn’t sure about staff members not referring but thought if they didn’t, it could be about knowledge” (participant 9)

“MBCT is relatively new and like CBT it takes time for staff to build confidence in it” (participant 10).

Two further supporting statements commented on the evidence base for mindfulness treatments:

“... I know there is a good evidence base” (participant 10).

“I don’t know if mindfulness makes voices worse... I didn’t disagree with [this statement] too strongly as I know the evidence is yet to develop” (participant 4).

This may indicate that although staff were familiar with the literature about the general benefits of MBCT for mental health, they were uncertain about the evidence base for the specific treatment of psychosis.
Service user participant data

A total of 17 service user participants consented to the study, 12 of whom completed Q-sorts both before and after participating in an MBCT group (24 Q-sorts). A further four service user participants completed a single Q-sort before an MBCT group and one completed a single Q-sort upon completing a group. This resulted in a total of 29 Q-sorts for analysis. Service user participant characteristics are presented in Table 2. The mean age of service user participants was 36 years (range: 24-63), and the majority were male (82%), single (82%), white British (88%) and unemployed (76%). The majority of service users had received a primary diagnosis of schizophrenia (65%) and had received a psychological intervention in the past (77%), consisting of either cognitive behaviour therapy (CBT) or another model of therapy.

Analysis of the Q-sort data produced five factors with eigenvalues greater than one. However, one factor was excluded from further inspection because it consisted of only one significantly loading Q-sort that did not provide additional information over and above the other factors (Watts & Stenner, 2012). The remaining four factors were found to collectively explain 68% of the variance. Significant Q-sort loadings for each factor are displayed in Table 4. Correlations between factors were moderate to high, ranging between: \( r=0.52 \) to \( r=0.74 \), suggesting overlapping views between factors. The four factor arrays are displayed in Table 5, and the distinguishing features and similarities of each factor are described below.
### Table 4: Q-sort loadings for service user data, factors 1 to 4

<table>
<thead>
<tr>
<th>QSORT</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.1825</td>
<td>0.2772</td>
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<tr>
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<tr>
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<td>0.3946</td>
<td>0.2348</td>
<td>0.6521*</td>
</tr>
</tbody>
</table>

% expl. Var. 20 19 16 13

*significantly loading Q Sorts
### Table 5: Service user data factor arrays for each statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Factor arrays</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1</td>
</tr>
<tr>
<td>Mindfulness involves paying attention to what is happening right now.</td>
<td>1</td>
</tr>
<tr>
<td>Mindfulness cuts people off from their feelings.</td>
<td>2</td>
</tr>
<tr>
<td>Practicing mindfulness can cause a nervous breakdown.</td>
<td>3</td>
</tr>
<tr>
<td>Practicing mindfulness improves the way people get along with others.</td>
<td>4</td>
</tr>
<tr>
<td>Mindfulness helps reduce the impact of unwanted thoughts.</td>
<td>5</td>
</tr>
<tr>
<td>Mindfulness is a useful relaxation technique.</td>
<td>6</td>
</tr>
<tr>
<td>Mindfulness helps to take control of unhelpful thoughts.</td>
<td>7</td>
</tr>
<tr>
<td>Mindfulness helps people become more accepting of life.</td>
<td>8</td>
</tr>
<tr>
<td>You can’t practice mindfulness if you’re psychotic.</td>
<td>9</td>
</tr>
<tr>
<td>Staff do not feel they know enough about mindfulness to discuss it with patients.</td>
<td>10</td>
</tr>
<tr>
<td>Mindfulness makes voices less upsetting.</td>
<td>11</td>
</tr>
<tr>
<td>People with psychosis don’t like to attend groups.</td>
<td>12</td>
</tr>
<tr>
<td>Mindfulness helps people be more accepting of themselves.</td>
<td>13</td>
</tr>
<tr>
<td>Mindfulness can help people recover from psychosis.</td>
<td>14</td>
</tr>
<tr>
<td>Mindfulness makes people more emotional.</td>
<td>15</td>
</tr>
<tr>
<td>Mindfulness helps people to stop pointless battles with themselves.</td>
<td>16</td>
</tr>
<tr>
<td>Mindfulness jumbles people’s thoughts</td>
<td>17</td>
</tr>
<tr>
<td>Mindfulness is only meant for spiritual people (e.g., monks and nuns).</td>
<td>18</td>
</tr>
<tr>
<td>Mindfulness makes voices harder to cope with</td>
<td>19</td>
</tr>
<tr>
<td>Mindfulness helps people know themselves better.</td>
<td>20</td>
</tr>
<tr>
<td>Mindfulness makes people more aware of their unhelpful ways of thinking.</td>
<td>21</td>
</tr>
<tr>
<td>Mindfulness helps people to accept bad experiences from the past.</td>
<td>22</td>
</tr>
<tr>
<td>Mindfulness practice is different from other forms of meditation.</td>
<td>23</td>
</tr>
<tr>
<td>Mindfulness encourages people to take each day as it comes.</td>
<td>24</td>
</tr>
<tr>
<td>Mindfulness helps to improve wellbeing.</td>
<td>25</td>
</tr>
<tr>
<td>Mindfulness causes people to believe in things that aren’t real.</td>
<td>26</td>
</tr>
<tr>
<td>You need to be emotionally stable to benefit from mindfulness.</td>
<td>27</td>
</tr>
<tr>
<td>Statement</td>
<td>No.</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Mindfulness groups help patients get better.</td>
<td>28</td>
</tr>
<tr>
<td>Mindfulness groups in the NHS are a useful addition to the</td>
<td>29</td>
</tr>
<tr>
<td>choice of psychological therapies on offer.</td>
<td></td>
</tr>
<tr>
<td>Staff members are too busy to refer patients to mindfulness</td>
<td>30</td>
</tr>
<tr>
<td>groups.</td>
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</tr>
<tr>
<td>Mindfulness is a helpful way of managing stress</td>
<td>31</td>
</tr>
<tr>
<td>Mindfulness groups are a useful treatment option for people with</td>
<td>32</td>
</tr>
<tr>
<td>psychosis.</td>
<td></td>
</tr>
<tr>
<td>Mindfulness gives people a better outlook on life.</td>
<td>33</td>
</tr>
<tr>
<td>Mindfulness helps with thinking clearly.</td>
<td>34</td>
</tr>
<tr>
<td>Practicing mindfulness too much can make people crazy.</td>
<td>35</td>
</tr>
<tr>
<td>Mindfulness helps people with mental health problems.</td>
<td>36</td>
</tr>
<tr>
<td>Mindfulness groups cost too much to run</td>
<td>37</td>
</tr>
<tr>
<td>Practicing mindfulness can destabilise the mind.</td>
<td>38</td>
</tr>
<tr>
<td>Mindfulness makes voices worse.</td>
<td>39</td>
</tr>
<tr>
<td>Mindfulness makes people better at managing their feelings.</td>
<td>40</td>
</tr>
<tr>
<td>Staff members are keen to refer patients to Mindfulness groups for</td>
<td>41</td>
</tr>
<tr>
<td>psychosis.</td>
<td></td>
</tr>
<tr>
<td>Mindfulness should not be considered as a treatment for mental health</td>
<td>42</td>
</tr>
<tr>
<td>difficulties.</td>
<td></td>
</tr>
<tr>
<td>Mindfulness groups are worth the time and effort for service users.</td>
<td>43</td>
</tr>
<tr>
<td>Mindfulness practice can help to improve sleep.</td>
<td>44</td>
</tr>
<tr>
<td>Mindfulness is useful in calming a racing mind</td>
<td>45</td>
</tr>
<tr>
<td>Mindfulness helps people to be more accepting of their voices.</td>
<td>46</td>
</tr>
<tr>
<td>Mindfulness makes painful emotions worse.</td>
<td>47</td>
</tr>
<tr>
<td>Mindfulness interferes with the way people deal with their</td>
<td>48</td>
</tr>
<tr>
<td>thoughts.</td>
<td></td>
</tr>
<tr>
<td>Only rational people can benefit from mindfulness.</td>
<td>49</td>
</tr>
<tr>
<td>Mindfulness helps people accept difficult feelings.</td>
<td>50</td>
</tr>
<tr>
<td>Mindfulness helps people notice things they would normally take for</td>
<td>51</td>
</tr>
<tr>
<td>granted.</td>
<td></td>
</tr>
<tr>
<td>Mindfulness causes changes in the brain</td>
<td>52</td>
</tr>
</tbody>
</table>
Factor 1: Mindfulness helps with calming a racing mind and relaxation, and does not cause mental breakdown.

Factor 1 explained 20% of the total variance, and consisted of four males and three females. All were white British and four filled in their Q-sorts before attending the MBCT group for psychosis, and three completed Q-sorts after having finishing the group. The average age was 28 years (range 25-38 years).

Factor 1 participants held strong agreement for ‘mindfulness is a useful relaxation technique’ (+4), and ‘mindfulness is useful in calming a racing mind’ (+4), suggesting relaxing and slowing racing thoughts are important functions of mindfulness practice for participants. Relatively strong agreement ratings were given for ‘mindfulness helps with thinking clearly’ (+3), which supports the idea that mindfulness helps with managing thoughts. High agreement ratings were also allocated to ‘mindfulness involves paying attention to what is happening right now’ (+4), ‘mindfulness helps people with mental health problems’ (+3) and ‘mindfulness helps to improve wellbeing’ (+3), which suggests an emphasis is placed on the way mindfulness helps individuals ground their attention to the present moment.

Participants within factor 1 rated strong disagreement that mindfulness is harmful, or likely to exacerbate psychotic symptoms, as illustrated with the disagreement ratings for the following: ‘You can’t practice mindfulness if you’re psychotic’ (-4), ‘practicing mindfulness can cause a nervous breakdown’ (-4), ‘only rational people can benefit from mindfulness’ (-3), and ‘practicing mindfulness too much can make people crazy’ (-3). Factor 1 also shared strong disagreement with factor 2 for ‘mindfulness is only meant for spiritual people e.g., monks and nuns’ (-4).
Collectively, this suggests that participants who loaded onto factor 1 held strong views that those with psychosis can practice mindfulness, that mindfulness interventions should be made available to service users, and that mindfulness can be practiced by all; it is not just for the spiritual or rational. In sum, factor 1 is characterised by a strong view that mindfulness helps with managing thoughts and relaxation, and that people with psychosis and other mental health problems can benefit from this intervention.

*Factor 2: Mindfulness helps with stress management, and is different to other forms of meditation*

Factor 2 explained 19% of the variance, and consisted of five males. The average age was 34 (range 28-55), all were white British and three filled in their Q-sorts before attending the MBCT group for psychosis, and two completed Q-sorts after having finishing the group. Factor 2 had a strong correlation to factor 1 ($r=0.74$), meaning factor 1 and factor 2 participants shared similar viewpoints. This is evident with the shared rating of -4 for ‘mindfulness is only meant for spiritual people e.g., monks and nuns’, and shared disagreement for ‘you can’t practice mindfulness if you’re psychotic’ (-3 & -4 for factors 2 and 1 respectively). Participants within factor 2 further disagreed with statements about the dangerousness of mindfulness practice, and disagreed with statements suggesting mindfulness cannot be practiced by the ‘mentally unwell’. Therefore, factors 1 and 2 shared strong views that those with mental health problems, such as psychosis, can practice mindfulness and that mindfulness is not harmful to one’s mental health. One statement that distinguished factor 2 from the other factors was a statistically significant rating ($p=0.05$) of $+4$ for ‘mindfulness is a helpful way of managing stress’, this contrasted with the unanimously low agreement rating of $+1$ by the
other factors. Another statistically significant rating ($p<=0.01$) was the firm support expressed by participants in factor 2 for ‘mindfulness practice is different from other forms of meditation’ (+3). This indicated that participants in factor 2 placed emphasis on the view that mindfulness is a unique type of meditation that helps to manage stress.

*Factor 3: Mindfulness improves wellbeing, and does not alter the brain, beliefs about reality, or cause madness.*

Factor 3 explained 16% of the total variance, and consisted of three males and one female. Three were white British and one participant was black British. Three participants had filled in their Q-sorts before attending the MBCT group for psychosis, and one completed Q-sorts after having finishing the group. The average age was 37 years (range 24-43). Relative to other factors, a statistically significant distinguishing statement for factor 3 was the strong disagreement rating for ‘mindfulness causes changes in the brain’ (-4). Strong disagreement was also rated for ‘mindfulness causes people to believe in things that aren’t real’ (-4), ‘practicing mindfulness too much can make people crazy’ (-3), and ‘mindfulness should not be considered as a treatment for mental health’ (-4). This suggests that participants who loaded onto factor 3 shared similar views to factors 1 and 4 with regards to the non-harmfulness of mindfulness practice on mental health. However, participants in factor 3 were more specific, and expressed strong disagreement that mindfulness does not change the brain or people’s beliefs about reality, does not cause madness, and in fact should be considered as a treatment for mental health difficulties. Similar to other factors, participants who loaded onto factor 3 allocated strong agreement ratings to statements about mindfulness focusing on the present (+4), improving thought clarity (+4), reducing inner conflicts (+3), and improving
management of difficult feelings (+3) and wellbeing (+4).

*Factor 4: Mindfulness helps with managing thoughts, fostering acceptance, and people with psychosis do like to attend groups.*

Factor 4 explained 13% of the total variance and consisted of three males. All were white British, the average age was 32 years (range 25-37 years), and all had completed the Q-sorts after finishing the MBCT for psychosis group. A statistically significant (p<0.05) distinguishing view for participants in factor 4 was the strong disagreement with ‘people with psychosis don’t like to attend groups’ (-4), suggesting this was an important viewpoint within factor 4. Strong agreement was rated for rating: ‘mindfulness helps to take control of unhelpful thoughts’ (+4), which was further supported by strong positive ratings for statements about helping with thought clarity (+4) and awareness of unhelpful thought patterns (+3). There was also an emphasis on the importance of acceptance in mindfulness, with strong agreement with ‘mindfulness helps people be more accepting of themselves’ (+4). This suggests that participants in factor 4 held strong views that people with psychosis do like to attend groups, and that mindfulness helps with managing thoughts, promotes acceptance. This view was further supplemented by additional feedback from one participant:

*P22 (post-group): I agree that mindfulness makes people better at managing feelings because Mindfulness helps you become more aware, which is helpful especially in the group setting.*
Discussion

The aim of the study was to investigate staff and service user views about MBCT for psychosis using Q-methodology. Analysis of staff data resulted in a single consensus factor where the dominant view was that mindfulness helps with mental health problems, is not harmful for mental health, and improves wellbeing through awareness and acceptance. This view reflects the broader literature, which has shown that mindfulness is efficacious for a wide range of mental health problems (Baer et al, 2003).

Counter to Chadwick’s (2014) suggestion that clinicians’ hold enduring beliefs about the harmfulness of mindfulness for psychosis, staff in this sample held strong views that mindfulness can be practiced by those with psychosis without detriment. One possible explanation is that staff members in the current study were particularly knowledgeable about mindfulness interventions, whereas staff with comparatively less knowledge or awareness about this intervention may endorse views about the potential harmfulness of mindfulness for psychosis. However, contrary to findings that showed mindfulness could help with distress related to voice-hearing (Chadwick et al 2005, Chadwick et al., 2009; Abba et al., 2008; & Langer et al, 2011), staff in this sample expressed ambivalence towards this viewpoint and were unsure if mindfulness could make a beneficial contribution to a person’s recovery from psychosis. This finding suggests that the benefits of mindfulness for psychosis beyond symptom reduction are not widely understood, or valued, by staff in secondary care mental health. Indeed, the staff sample expressed relative uncertainty about whether or not staff are knowledgeable about mindfulness groups, or are motivated to refer to mindfulness groups. Feedback from staff indicated that
they were familiar with literature about the general benefits of MBCT for mental health, but were not so familiar about the evidence base for the specific treatment of psychosis.

The view that mindfulness is not detrimental for people with psychosis was also shared by the service user sample across all factors, and was the main emphasis reported in factor 1. This idea was further elaborated in factor 3, which expressed strong views that mindfulness does not alter the brain, beliefs about reality, or cause madness. This view is consistent with the literature suggesting that mindfulness practice does not cause harm to mental health (Chadwick et al., 2005; Chadwick et al., 2009; Jacobson et al., 2008; Langer et al., 2011). Similar to staff, service users also held strong views that mindfulness helps with relaxation (factor 1), stress management (factor 2), wellbeing, (factor 3) and thought management (factor 4), which supports previous literature that demonstrates the utility of mindfulness interventions for anxiety and depression (Baer, 2003) and serious mental illness (Davis & Kurzban, 2012). Service users in factor 4 endorsed the view that mindfulness helps with managing thoughts, fostering acceptance, and that people with psychosis liked attending groups. These finding are also consistent with previous research on service user views about the usefulness of MBCT for psychosis in improving the ability to cope with symptom-related distress (Abba et al, 2008; Brown et al., 2010; Ashcroft et al., 2012). They are also consistent with the literature suggesting that group interventions are de-stigmatising and therapeutic for people with psychosis (Ashcroft et al., 2012 and Ruddle, Mason, & Wykes, 2011). Unlike findings by Brown and colleagues (2010), participants did not endorse views that mindfulness produced feelings of sadness or bad memories, despite the availability of such statements in the Q-set (statements 15, 22, and 47, table 5).
Notably, an even number of Q-sorts from service users before the group, and after the group were found across all four factors, which suggests there were no distinctive views between these two perspectives. One possibility is that Q-sorts were obtained from participants who had already accepted this intervention, and were therefore more likely to hold positive views about mindfulness treatments than service users who had been offered, but declined this intervention. Therefore, negative views among the latter group may exist, but were not captured by the sample of service users in this study.

**Strengths and limitations**

One of the strengths of Q-methodology is that it allows for a rich yet quantifiable description of staff and service user views of MBCT for psychosis that allowed for comparison between views. Thus, the four-factor-solution for the service user sample revealed a shared viewpoint across factors regarding the usefulness of mindfulness for mental health problems. At the same time, variations as to why service users believed mindfulness is an effective treatment and how mindfulness was not believed to cause harm to mental health were highlighted. Although data from the staff sample revealed a single consensus factor, the corresponding factor array provided a complex and revealing account that regarded mindfulness as a useful and effective treatment, but with relative uncertainty about the specific utility of this intervention for service users with psychosis. This suggests that although staff can identify the general advantages of mindfulness on mental health, it may not be enough to identify these benefits for people with psychosis.

Another strength of this study was the amount of variance explained by the factor solutions for staff and service user samples. In factor analysis and Q-methodology,
the greater the amount of total variance explained, the better the factor solution, and variances within the region of 35-40% are normally regarded as sound solutions (Watts & Stenner, 2012). Thus, the four factors extracted for the service user data, and the single consensus factor for staff data both provided strong accounts, with explained variances of 68% and 71% respectively. Therefore, although Q-methodology is not aimed at generalising views of wider populations, the relatively high amount of variance explained in this study suggests that most views were accounted for within the staff and service user samples.

The outcome of a single consensus factor in Q-methodology may indicate a problem with the wording of Q-sets, such as extreme statements which lend themselves to bias or consensus (P. Schmolk, Personal Communication, 2014). During the development of the Q-set in this study, three of the study authors (TM, DP, and SB) scrutinised the wording of statements to ensure that they did not elicit confusion or lead to any obvious bias from the reader. Furthermore, participants were given the opportunity to ask for clarification of any of the statements during the Q-sort task, and were asked for feedback upon completion. No confusion or gaps in the Q-set were reported from participants. Nonetheless, future studies may seek further validation of their Q-set by trialling them with independent clinicians, researchers, and the service user group to gain feedback prior to the finalisation of the Q-set.

One of the limitations of Q-methodological research is that findings are not generalisable. Although large numbers of Q-sorts are not required in Q-methodology 15 staff, and 29 service user Q-sorts may not be representative of staff and service user views more generally. For example, the staff sample were found to be particularly knowledgeable and experienced in mindfulness, with 11 out of 14
staff having some experience of mindfulness-based work, training, or engaged in informal reading on mindfulness. Therefore, the heightened level of interest in mindfulness within this staff sample may have been a result of volunteer bias, and therefore un-representative of clinicians working in a mental health setting. An alternative method of Q-sort administration would be the use of Q-sort computer software. This may have reduced volunteer bias by enabling greater accessibility and participation of a wider range of staff, with varying levels of knowledge or views about mindfulness. Such changes in design may have allowed for a greater variation of staff views to be captured, thus resulting in more than one factor.

Another limitation was that service users recruited into the study were either on a waiting list to attend, or had completed an MBCT for psychosis group. As such participants recruited into the current study were likely to have had a common interest in mindfulness interventions, and may have shared similar viewpoints, which is indicated by the medium-high correlation between the four factors (ranging from $r=0.52$ to $r=0.74$). The current findings therefore may not represent the actual breadth of views held by the population of service users with psychosis in secondary care services. For example, the views of service users that may have declined a referral to the MBCT for psychosis group may have provided valuable insight that could influence future recruitment initiatives.

Although steps were undertaken to minimise participant response bias (such as instructing participants that the study is interested in their opinions and that there are no correct responses), the first author’s input in co-facilitating one of the MBCT for psychosis groups, as well as administering the Q sorts with service user participants, may have affected service users’ responses to the Q-sort. The use of Q-sort administration computer software may be useful in minimising response bias
Using Q-sorts from participants before starting the group, and again upon completing the group, was an efficient method for maximising the amount of data collection from participants. This data also provided service user viewpoints from varying degrees of familiarity with mindfulness interventions. Although this method of data collection is viable due to the inverted factor-analytic nature of Q-methodology (Prasad, 2001; Kielhofner, 2006), Q-methodology currently remains a relatively unfamiliar research methodology for traditional researchers (Watts & Stenner, 2012), who may find the use of multiple Q-sorts from the same participants confusing. Therefore, the use of Q-sorts collected from separate subjects may be of benefit for in future research to improve the dissemination of findings from such studies.

**Clinical implications**

The results suggest that, for this sample of service users, mindfulness is viewed as a useful intervention for a broad range of psychiatric symptoms; it is non-detrimental and should be available for people with psychosis. Such views were shared by the staff sample; however, staff results also suggested that the benefits of mindfulness for psychosis beyond symptomatic reduction were not understood or prioritised, and that the potential benefits of MBCT for psychosis could be more effectively promoted. An important principle of MBCT is that the reduction or elimination of psychiatric symptoms is not the primary aim; rather, the assumption is that even when symptoms persist, people can learn to respond differently, resulting in less distress and disablement (Chadwick, 2014). Thus, supporting staff to effectively promote MBCT for psychosis, and emphasising MBCT principles around responding
differently to distressing symptoms, rather than the elimination of them, may address gaps in staff knowledge and confidence about MBCT for psychosis. Basic training and didactic workshops are insufficient for creating sustainable shifts in staff practices (McHugh and Barlow, 2010), and therefore may not be adequate to address the needs raised around improving staff knowledge and confidence in referring service users for MBCT for psychosis. As such, staff training that involves discussion and coaching on how to effectively promote this intervention to service users, in addition to didactic training and up-to-date information about the evidence base, may be required for services that are considering the introduction of MBCT for psychosis. Furthermore, teaching and taster sessions that emphasises the benefits associated with reducing the distress associated with psychosis and other psychiatric symptoms may be of benefit to staff, and for patients considering a referral. Such training may enhance staff knowledge and confidence in promoting MBCT for psychosis to service users, improve referral rates, and promote knowledge about the potential benefits of treatment to service users, thereby improving overall access to treatment. Such dynamic solutions beyond didactic training, have been recommended in order to produce sustainable shifts in staff practices (McHugh and Barlow, 2010). Service user involvement in training has been found to be well received by trainees in mental health, and has been recommended in policy guidelines (Simpson, 2002; Kinderman & Tai, 2009). Therefore, involvement of service users who have completed MBCT for psychosis groups may be useful in staff training and taster sessions for service users.

*Future research*

The use of Q-methodology is a suitable method for studies looking to further investigate staff and service user views for psychosis. However, while the current
study examined the views of service users who had little or no experience of MBCT for psychosis, these participants had already accepted a referral for this intervention. As such, it would be useful to explore more diverse views of individuals with psychosis, such as those who have been offered, but declined mindfulness interventions. Examination of more diverse staff views (e.g., views of other members of the multi-disciplinary team such as psychiatrists and occupational therapists), and staff with little knowledge of mindfulness-based interventions, would also be a useful focus for future research. The use of Q-sort computer software in future studies may improve accessibility and therefore enable a wider range of participation from such staff of more diverse professional backgrounds, and staff and service users with varying knowledge and experience of MBCT for psychosis. Q-sort computer software may also minimise response bias for both staff and service user participants. Future research may also employ Q-sort data from separate subjects in order to avoid confusion from readers in traditional R-methodology, and therefore improve the dissemination of findings. Such research could provide more information for improving the way in which information about mindfulness interventions are disseminated within services and improve referral and implementation rates, should MBCT groups become more widely available in the treatment of psychotic disorders.
References


Section 3: Critical Reflection

Critical Reflection

Word count:

Text:  6,133
(Including references)

Text:  4,881
(Excluding references)
Introduction

This critical reflection describes the author’s experience of carrying out the systematic review of staff views about psychosocial aspects of recovery in psychosis (paper one), and research into staff and service user views about Mindfulness Based Cognitive Therapy (MBCT) for psychosis (paper two). Throughout, the author critically appraises the work as a whole, and how findings from paper one and paper two relate to the wider context of theory, research and practice. This report will begin by exploring the author’s interest in staff views, which is a connecting theme between paper one and paper two, and an interest that predated clinical training. The author will then critically reflect on the process of the systematic review, particularly that of deciding and refining the review topic, and the challenges this presented within the complex construct of recovery in mental health. The author will then critically reflect the research process for the paper two. Of particular interest during the preliminary stages of research was the existing view that mindfulness could be harmful for people with psychosis, which is discussed in more detail below. The process of data analysis and the associated challenges to the author is then examined, particularly within the context of a research methodology that was previously unfamiliar to the author. An evaluation of the decided solutions and alternative methods of investigation are finally considered.

Staff views: a connecting theme between paper one and paper two

According to Praill and Baldwin (1988), service patterns are predetermined more by political and economic factors, rather than from planned development or from policies around care provision. They further argued that ‘predetermined service
patterns induce reliance by staff on maintenance of the status quo’ (p. 3). Thus, in reflection on teaching, the author’s experiences on placement, and the context of large scale NHS changes, the author felt it was as significant as ever to engage with staff views and experiences. As the deliverers of healthcare, and important in their own right, the author regards the experiences and views of staff to be of inherent importance. Staff views are also significant with regards to the broader picture of understanding organisational change, impact on service user experiences of health care services, and with regards to the positioning of the Clinical Psychology profession within mental health services (Cate, 2013).

The author’s interest in staff views developed prior to clinical training, and is an area of interest that is consistently returned to. Previous employment within the first wave of IAPT ‘low intensity’ recruits led to observations that there was resistance among staff towards adapting and changing to different ways of working. This was the case even within the context of a pilot site, which by definition was meant to trial and evaluate innovations in clinical practice. Negative predictions were rife amongst staff regarding trials to introduce new assessment procedures, even after formal and informal evaluations showed that such predictions (around increased difficulty in assessment and service user attendance rates) did not come into fruition. This resulted in the author collaborating with colleagues with a similar interest in this observation to carry out a qualitative evaluations of the pilot runs, which was later sent for publication (Jones, Bale, & Morera, 2013).

During training, the author’s small scale evaluation/research project (SSERP) was another example of pursuing research into staff views about service issues. In the case of the SSERP, what started out as an evaluation of service user feedback forms turned into a focus group study on why staff thought there was such a dearth
in responses. The rationale for this change of focus was that staff were charged with the responsibility for distributing service user feedback forms, yet only 25 forms were returned by service users in the previous two years, despite a turnover of about 600 service users in that service. Therefore, for the large scale research project it felt natural to continue investigating staff views, this time focusing on psychosocial aspects of recovery for the literature review paper (paper one) and an investigation of staff views in Mindfulness Based Cognitive Therapy (MBCT) groups for psychosis in the empirical paper (paper two).

Critical Reflection on Paper 1: Literature review

Psychosocial recovery

The term “recovery” has been used within the context of mental health and illness for over 200 years (McCranie, 2010). However, the recovery movement gained momentum in the 1960s and 1970s due to deinstitutionalisation of mental health services towards community support systems (Anthony, 1993) and a growing human rights movement with users of mental health care desiring more self-determination (Stroman, 2003).

There has been considerable debate about the definition of recovery (Bellack, 2006) and the compatibility of the psychosocial recovery model with evidence based practice (Tanenbaum, 2006). Nonetheless, psychosocial recovery remains at the heart of mental health policies around the world (Australian Health Ministers' Advisory Council, 2003, Government of Ireland, 2006, Department of Health, 2001). However, criticisms persist about services failing to provide psychosocially orientated approaches to recovery, and service user experiences being marred by
negativity and stigma (Corry, 2008). Staff views are important because negative views about psychosocially orientated approaches to recovery can be a potential barrier to recovery-orientated services (Davidson, O'Connell, Tondora, Styron, & Kangas, 2006). However, staff views have been a significant, but often neglected perspective within this debate. As such, the systematic review appeared to be the first of its kind.

*Serious Mental Illness and psychosis*

Another important decision that was made within the process of deciding on a systematic review question was whether to focus on serious mental illness (SMI) more broadly, or whether to focus more specifically on recovery within psychosis. SMI include diagnoses such as psychotic disorders, severe mood problems and personality disorder (Dieterich, Irving, Park, Marshall, 2010). These mental health problems may be regarded as similar with regards to the degree of severity and disability they can cause people. However, it felt important to focus on psychosis more specifically as research suggests that people with psychotic experiences are particularly stigmatised and discriminated in a manner that is relatively consistent across cultures (Chen, Zhang, & Zhang, 2009). Furthermore, distinct medical and psychological treatments are recommended for psychotic disorders, which is reflected in the literature and in clinical guidelines (Kendall, Pilling, Tyrer, Duggan, Burbeck, Meader, & Taylor, 2009; NICE, 2014; NICE, 2006).
Difficulty with inclusion criteria – a lack of explicit reference to recovery approaches and the need for subjective decision making

One of the main difficulties within the literature review process was refining the inclusion criteria. An earlier draft included the criteria that studies must address recovery in psychosis. However, it became apparent that although there were a large number of studies investigating recovery in psychosis, recovery was understood from different perspectives that were not always made explicit by the researchers. Pilgrim (2008) summarised the different models of recovery and described three approaches: i. the biomedical approach to recovery (i.e., symptom reduction), the rehabilitative approach (i.e., increased social and occupational functioning) and psychosocial approaches (move towards psychological, social and personal goals).

During the shortlisting process, a large proportion of the literature lacked clarity with regards to which recovery models were being subscribed to. This problem was resolved by the lead author and her supervisors by examining studies in detail, and reaching agreement though discussion about which studies met Anthony’s (1993) widely accepted definition of psychosocial recovery:

“Recovery is described as a deeply personal, unique process of changing one’s attitudes, values, feelings, goals, skills, and/or roles. It is a way of living a satisfying, hopeful, and contributing life even with limitations caused by illness. Recovery involves the development of new meaning and purpose in one’s life as one grows beyond the catastrophic effects of mental illness…Recovery from mental illness involves much more than recovery from the illness itself. People with mental illness may have to recover from
the stigma they have incorporated into their very being; from the iatrogenic effects of treatment settings; from lack of recent opportunities for self-determination; from the negative side effects of unemployment; and from crushed dreams. Recovery is often a complex, time-consuming process.” (p.527).

This solution was a method of triangulation that is normally used in qualitative research to increase validity and minimise bias for subjective decision making processes (Cohen & Manion, 2000; Flick, 2004). Difficulties were encountered during this procedure, such as making decisions about how much of Anthony’s (1993) definition above must be met for studies to meet inclusion criteria. On such occasions the team would check which sections of the above definition they felt were met by studies (such as the extent to which recovery concepts around values, goals, and hope were addressed), and compared results. Studies that were judged to omit significant conceptual components of Anthony’s (1993) definition were excluded from the review.

Stigma and recovery

A further difficulty with the shortlisting process was that the very concept of psychosocial recovery is fluid and closely connected with issues of discrimination and stigma, as illustrated by Anthony’s (1993) definition above. Experiences of stigma and discrimination in society, employment, from mental health care services, and the consequent effects of isolation, diminished autonomy, and decimation of hope - all have adverse effects on people experiencing mental health problems and require addressing during the recovery process (Pitt, Kilbride, Nothard, Welford, &
Morrison, 2007; Wahl, 2012). Therefore, there was a lot of overlap in literature that addressed stigma, and those that addressed recovery. This issue was resolved by only including studies that investigated stigma in the context of staff views about recovery in psychosis. However, this meant that further reliance on the subjective judgement of the author and her supervisors were necessary, with efforts to utilise methods of triangulation in the decision making process (Foss & Ellefsen, 2002). Despite these preliminary methodological challenges in the review, the systematic examination of the literature identified 15 studies that investigated staff views about recovery in psychosis. The main finding was that the majority of studies suggested staff subscribed to biomedical models of recovery in psychosis, with more emphasis on pharmacological, over psychosocial, interventions.

The necessity of subjective decision-making during the shortlisting process also highlighted the fundamental lack of studies that appropriately investigated staff views about recovery in psychosis. Thus, preliminary suggestions to address methodological issues for future research were recommended, such as explicit references as to which model of recovery was being investigated. A further suggestion was that future studies make use of existing tools that directly measure staff views about psychosocial recovery and the recovery-orientation of services (Burgess, Pirkis, Coombs, & Rosen, 2011; Williams et al, 2012). Such tools have been employed in the broader recovery literature (Cleary, & Dowling, 2009; Resnick, & Rosenheck, 2008), but not within the reviewed studies about staff views about psychosocial aspects of recovery in psychosis.
Critical Reflection of Paper two: Empirical Paper

Legacy of research from the 1970s on harmfulness of medication for psychosis

Developing the Q-set in Q-methodology involved reviewing existing discourse for mindfulness for psychosis, and mindfulness more broadly. Of particular interest from clinical experience and liaison with staff involved with mindfulness groups, was the view that meditation could be harmful for people with psychosis. The literature review revealed a number of studies dating back to 1979, which indicated meditation could be harmful or even induce psychotic episodes (Walsh & Roche 1979; Garcia-Trujillo, Monterrey & Gonzalez de Riviera, 1992; Chan-ob & Boonyanaruthee, 1999; Yorston, 2001; Sethi & Subhash, 2003 and Kuijpers, van de Heijden, and Tuinier, Verhoeven, 2007). However, a recent literature review on mindfulness for psychosis by Shonin, Van Gordon, and Griffiths (2013) highlighted that these studies had a number of significant design limitations, including the fact that studies employed small numbers, were uncontrolled, and provided inadequate information regarding the meditation techniques involved. Furthermore, most participants who had a psychiatric history had been exposed to intensive meditation practice of up to 18 hours per day with extensive periods of fasting, and participants had attended meditation retreats rather than engaging in structured meditation within a clinical framework. In light of these contextual factors, it was evident that such negative views about mindfulness still prevailed and such views may even be holding back the development of MBCT for psychosis as discussed by Chadwick (2014) today.

In reflection of experiences of informal liaison with staff in the recruitment sites, staff were generally positive about MBCT for psychosis. However, some individuals
shared that the service users they were care-coordinating were not ‘stable’ enough to participate in the MBCT for psychosis groups, and described multiple problems with housing and relationship problems. Furthermore, there was an encounter with a member of staff who questioned whether MBCT for psychosis was ‘safe’ for people with psychosis, and fed back that although he was unsure of the source, it is something he had previously heard about this type of intervention. Unfortunately this staff member did not volunteer to participate in the study and said that they could not spare the time.

The results from the empirical paper showed no evidence that the staff sample believed MBCT groups were harmful for people with psychosis. It was interesting that although staff held strong views about the usefulness of mindfulness interventions for other problems such as stress, anxiety and self-critical thoughts, there were some reservations as to how useful mindfulness could be for treating psychotic symptoms. In contrast to staff views about mindfulness for psychosis, service user participants reported a stronger view that mindfulness does not make voices worse, harder to cope with, or make people ‘crazy’, and that people with psychosis can attend groups, find them useful, and help with recovery. One possibility described in the empirical paper was that although staff felt knowledgeable about the evidence base for the effectiveness of MBCT interventions for other mental health problems, they were unfamiliar with the evidence base for MCBT for psychosis from a psychosocial-recovery standpoint. In contrast, the service user sample had direct, personal experiences of psychotic symptoms, and therefore may have felt more confident in making judgements based on personal experiences, rather than from familiarity with the literature.
Homogeneity of staff and service user samples

As discussed in the empirical paper, a limitation of the study was the relative homogeneity of the staff and service user samples. This was likely to be one of the main reasons that a single consensus factor resulted from staff data analysis, and for medium-high correlations between the four factors of the service user data. Ideally, the sample would have consisted of participants with a greater diversity of views, such as staff that did not believe in the benefits of MBCT for psychosis. However, they may have been reluctant to share such views with the researcher who was actively co-facilitating one of the pilot groups taking place in that service, and therefore unwilling to participate. The use of Q-sort computer software may have enabled accessibility for this sub-section of staff, and reduced volunteer bias. However, the use of computer software would have excluded the possibility of gaining additional qualitative feedback.

Regarding the service user sample, although this study differed to previous investigations by including Qsorts from participants who had not attended an MBCT for psychosis group; our sample consisted of service users who had already accepted a referral to such a group. Therefore, a greater diversity of views may have been captured by service users who had been offered, but declined, a referral, or those who had dropped out of the group prior to completion. The problem of recruiting ‘hard to engage’ clients is known to affect most mental health treatment and research (Sainsbury Centre for Mental Health, 1998). If a greater diversity within both staff and service user samples had been achieved, negative views or misconceptions about MBCT for psychosis may have emerged, such as the potential dangerousness towards psychosis, or assumptions that mindfulness is just for Buddhists.
Other research designs that could have been utilised were the use of Likert scales, which are similar with regards collecting agreement or disagreement ratings with items pertaining to a particular topic. They have the advantages of being quicker to administer and enable quantitative analysis. Such a design may have allowed for a greater number of people to participate in the study, with a greater diversity of views, and allow for a level of generalisations to be made from the data (Norman, 2010). However, Q-methodology has an advantage over Likert scales due to the activity of Q-sorting which allows statements to be sorted in relation to other statements in the Q-set. Thus, participants can interpret statements from their own unique, subjective viewpoint, without the restriction of a scale or measure (Donner, 2001). Alternatively, semi-structured interviews could have been used. This may have enabled greater exploration of novel views within the dynamic interaction between researcher and interviewee, allowed participants to their express views in their own language, and elaborate on meanings (Rubin, 2011). However, research of this kind is open to biased interpretation by the researcher within the process of analysis and categorisation of qualitative data (Pope, Ziebland & Mays, 2000). In contrast, although in Q-methodology some judgement by the researcher is required in factor interpretation, a systematic consideration of each statement’s ranking is carried out, and interpretation must be consistent with the whole factor array in Q-methodology (Brown, 1980; Watts & Stenner, 2012).

As such, Q-methodology allows for the systematic and robust scientific approach to data collection, uses statistical methods to guide interpretation, whilst enabling for a richer set of data gathering that would normally be associated with qualitative methodologies (Watts & Stenner, 2012). Therefore, in this study, Q-methodology allowed for the identification of similarities and differences between the viewpoints
of staff and service users about MBCT for psychosis, and reduced multiple individual viewpoints into a smaller number of distinct factors that reflect shared ways of thinking.

There is no uniform way of carrying out a Q-methodological study

From the development of the Q-set, to the type of data analysis, there is no uniform or ‘ideal’ strategy for carrying out a Q-methodological study and there are numerous options to choose from. For this reason, Q-methodology can be very daunting to a novice researcher when designing a Q-study (Watts & Stenner, 2012). For the author who had no previous involvement with Q-methodological studies outside of lectures, the experience was indeed a daunting one, but it was also a unique and rewarding experience. In particular, the author was fascinated with the assertion by Brown (1993) that in Q-methodology, the role of mathematics and statistical analysis primarily serves to prepare the data set to ‘reveal’ its’ composition, meaning, and enable the discovery of connections that could otherwise be passed over with unaided observation. During the process of analysing patient data, Brown’s (1993) assertion became alive for the author, because regardless of how many factors were rotated, the data remained more or less very similar with regards to high correlations between factors and similar variances explained.

It is the task of a Q-methodological researcher to select a method of analysis that maximised the utility of data in a theoretical, as well as a mathematical, sense. For the current study, the ‘Kaiser-Guttman criterion’ meant that only factors in the unrotated matrix with eigenvalues above one were to be taken forward for varimax rotation, as well as factors that had more than one significant loading (Watts & Stenner, 2012). Due to the unrotated matrix showing five factors with eigenvalues
above one (Appendix 1), the final method settled on was using a principle components analysis with a five-factor varimax rotation, resulting in a four-factor-solution. Interestingly, the four-factor-solution included a moderate to high correlation between factors (range: $r=0.52$ to $r=0.74$), which can be problematic in Q-methodology when the viewpoints of the factors are not conceptually distinct. However, upon examining the data, the four-factor-solution did make theoretical sense. Participants appeared to share the ultimate belief that mindfulness was a useful treatment for mental health problems and should be available for people with psychosis, but there were significant conceptual differences in the reasons why participants thought mindfulness is a useful treatment (e.g., factor 1 attributed the usefulness of MBCT groups for psychosis to thinking clearly; factor 2 for managing stress). These similarities and distinctions were therefore captured by the four theoretically distinct factors.

**Staff results: Single consensus factor**

Brown’s (1993) assertion that statistical analysis in Q-methodology serves to direct attention to patterns of meaning in the data were also apparent for the staff data, which became very frustrating due to various, unsuccessful attempts at moving away from a one-factor solution. The one-factor-solution was initially perplexing because one of the purposes of Q-methodology is to extract a variety of shared viewpoints about a particular subject matter (Watts & Stenner, 2012). Furthermore, the process of developing the Q-set illustrated the diversity of views that can be found about MBCT for psychosis. Therefore, the emergence of only one viewpoint or factor from the data led to the author becoming initially preoccupied and concerned that mistakes had been made in her analysis, or with her execution of the methodology.
However, despite multiple attempts at analysis, the data appeared to unremittingly produce a single, consensus factor. This was evident by observation of the unrotated factors, with only one factor showing an eigenvalue of above one (Appendix 2). A number of different analysis were attempted using PQMethod in order to see if more than one factor could be extracted from the data that made conceptual sense, but such efforts were made to no avail due to a combination of high correlations between factors, unacceptably high number of consensus statements (and therefore less conceptual distinction between factors) and/or an unacceptably low number of significantly loading Q-sorts (Appendix 3). When the author eventually exhausted these attempts and finally accepted the one-factor-solution, an explanation was sought for why the data produced a single, consensus factor. The author further examined the Q-methodology literature and found that one-factor-solutions are by no means unusual (Brown, 1981; Ramlo & McConnel, 2008; Westbrook, McIntosh, Sheldrick, Surr, & Hare, 2013; & Kreider, 2009). On such occasions, attempts are normally made to extract and analyse ‘specificity factors’. Specificity factors are generated from Q-sorts that have a high loading on the consensus factor, but also a lower but statistically significant correlation with another factor. Such Q-sorts are normally excluded from analysis as confounders (Watts & Stenner, 2012). However, in one-factor studies, the presence of further significant Q-sort loadings on separate factors can signify views that are embraced by some participants that are complementary to their loading on the consensus factor. Therefore, an attempt to find such specificity factors were carried out for the staff data. Once again, these attempts were made to no avail as the output showed that four out of six of the specificity factors found were populated by a single Q-sort and had unacceptably high correlations of up to $r=.81$. There were also unacceptably high numbers of consensus statements (31 out of 52) and there were
no distinguishing statements for factors 2-6 (Appendix 4). Collectively, this strongly suggested that such specificity factors in this study had little or no conceptual value.

*Immersion into Q-methodology networks*

At this point the researcher corresponded with Q-methodology internet forums, and exchanged a number of personal and public communications with two renowned Q-methodologists, Peter Schmolck (designer of the PQMethod, the widely available free-to-use Q-methodology statistical software, and regular spokesperson for Q-methodology conventions) and Professor Steven Brown (renowned writer, Q-methodology spokesperson, and researcher specialising in Q-methodology and political subjectivity). Firstly, there appeared to be consensus in the forum that the one-factor-solution for staff data appeared to the most evident and sound solution (Appendix 5). Secondly, the researcher’s decision to abandon attempts to extract specificity factors was supported due to the apparent lack of conceptual meaning of the data (Appendix 5). These discussions led to the resurgence of a controversial and persistent debate among Q-methodologists about one-factor solutions. One view holds that one-factor solutions are evident of apparent ‘failures in method and procedure’, whereas other views are that one-factor solutions are by their very nature, true representations of a consensus view within a particular sample (Appendix 5). Peter Schmolck held the former view that one-factor solutions are products of ‘failures’ in methodology, which are located in the type of information and language used within the statements of the Q-set. Peter Schmolck argued that difficulties arise when items for the Q-set are selected are: i. selected in an ‘arbitrary’ manner without cross-classification, and ii. statements are constructed in
a manner that lead to consensus for logical or semantic reasons, rather than from conceptual reasoning.

In reflection of Peter Schmolck’s views, and observation of the Q-set used in the empirical paper; the Q-set statements did not have the appearance of being arbitrarily selected. Rather, the Q-set was generated from existing discourse in academic and popular literature about mindfulness. Furthermore, care was taken to ensure that the Q-set was broadly representative of existing opinions about mindfulness for psychosis and mindfulness more generally. An effort was made by the research team to scrutinise each item, ensure that each made its own unique contribution to the Q-set, and that each one was positioned within the Q-set without obvious conceptual gaps or theoretical overlaps. Furthermore, the Q-set was examined to ensure that there was no overt bias towards a particular view, value or opinion.

Other methods used for Q-set construction in previous Q-methodology studies could have been employed, such as the use of prior interviews or focus groups with the target sample (Dudley, Siitarinen, James, & Dodgson, 2009; Absalom-Hornby, Hare, Gooding, & Tarrier, 2012; Wood, Price, Morrison, & Haddock, 2012). However, development of the Q-set in this study was not arbitrarily conducted. Rather, the Q-set was constructed by use of an iterative process by the research team and cross-referenced by a mindfulness-practitioner who was employed by one of the target sites regularly ran mindfulness groups.

Furthermore, although the staff sample led to a single consensus factor, the same Q-set also led to the outcome of four distinct factors for the service-user data. This adds further supports that the Q-set was unlikely to have been a chief issue in the
outcome of a single consensus factor for the staff sample in this study. Thus, as discussed in the empirical paper, the main assumption was that the consensus factor represented a genuine consensus of views amongst a sample of staff that were uniquely similar with regard to a comparable interest, and a relatively high level of knowledge and experience in mindfulness.

*Balancing the desire to deliver an exhaustive report, with the wish to publish findings to reach a wider, clinical audience*

The target journal for the empirical paper was *Psychology and Psychotherapy: Theory, Research and Practice*, which is a peer reviewed journal with a focus on psychological aspects of mental health, and psychological treatments. It had a history of publications on research into mindfulness interventions, treatments for psychosis, and had previously published two Q-methodology studies. It therefore felt like an appropriate journal to target for publication. However, the limit of 6,000 words was a challenge with regards to the researcher's desire to maximise the interpretation of entire factor arrays in Q-methodology, with the wish to deliver findings to a wider, relevant, clinical audience. This tension was acknowledged by Watts and Stenner (2012):

> “Factor arrays and factor interpretations may well be alien concepts [to a wider audience]. Such ideas have to be clarified and communicated quickly and effectively, often under the pressure of an intruding word count”


Observations from the analysis that had to be omitted in order to meet the objectives of the target journal included the disagreement that mindfulness makes
voices less upsetting (statement 11, -2), but slight agreement that it can help with acceptance of voices (statement 46, +1) for service user participants in factor 4. This suggested a number of possibilities, such as the view that although mindfulness does not stop voices from being upsetting, it may help with acceptance of upsetting voices. Alternatively, it could have indicated a view that mindfulness increases acceptance of voices to some extent, but does not change how upsetting they can be.

However, for the purpose of the report, the author addressed this tension by following the common-sense recommendations by Watts and Stenner (2012), which was to focus on the most salient points conveyed by the factor arrays, with comparisons and contrasts to existing literature.

Conclusion

As mentioned at the start of this critical reflection, the author’s interest in staff views in mental health guided her to the topics chosen for both the literature review and empirical paper. Against a backdrop of literature advocating the theory and practice of psychosocial approaches to the treatment of psychosis in services, and the growing evidence base for the usefulness of MBCT for psychosis; staff views were relatively neglected in existing research. There is an increasing emphasis on the role of Clinical Psychologists to provide service consultation, as illustrated by the British Psychological society’s document on working in teams:

*Psychologists have important roles to play in achieving improved outcomes from team-working. These include helping to achieve optimal team design*
and operation, effective individual service planning, peer consultation processes, reflective practice, the effective involvement of users and carers, teaching, training, research, evaluation and development.

(Onyet, 2007, p. 3)

As such, the author feels an obligation to continue dedicating her clinical and academic endeavours to fulfilling this aim, and ensuring that staff views are heard, and evaluated within the context of mental health care.
References


Perkins, R (14th January 2008) Can mental health services as we know them really support recovery? Last Retrieved 20/05/2014 from URL: http://www.scottishrecovery.net/Latest-News/can-mental-health-services-as-we-know-them-really-support-recovery.html


Appendices for Paper 1 – Systematic Review

Appendix 1: Author Instructions for Psychology and Psychotherapy: Theory, Research and Practice

Appendix 2: Mixed Methods Appraisal Tool (Pluye et al., 2011)
Appendix 1: Author Instructions for Psychology and Psychotherapy: Theory, Research and Practice

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Edited By: Andrew Gumley and Matthias Schwannauer

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Author Guidelines

Psychology and Psychotherapy: Theory Research and Practice (formerly The British Journal of Medical Psychology) is an international scientific journal with a focus on the psychological aspects of mental health difficulties and well-being; and psychological problems and their psychological treatments. We welcome submissions from mental health professionals and researchers from all relevant professional backgrounds. The Journal welcomes submissions of original high quality empirical research and rigorous theoretical papers of any theoretical provenance provided they have a bearing upon vulnerability to, adjustment to, assessment of, and recovery (assisted or otherwise) from psychological disorders. Submission of systematic reviews and other research reports which support evidence-based practice are also welcomed, as are relevant high quality analogue studies. The Journal thus aims to promote theoretical and research developments in the understanding of cognitive and emotional factors in psychological disorders, interpersonal attitudes, behaviour and relationships, and psychological therapies (including both process and outcome research) where mental health is concerned. Clinical or case studies will not normally be considered except where they illustrate particularly unusual forms of psychopathology or innovative forms of therapy and meet scientific criteria through appropriate use of single case experimental designs.
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These should be limited to 1000 words and may include research studies and theoretical, critical or review comments whose essential contribution can be made briefly. A summary of not more than 50 words should be provided.

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• In normal circumstances, effect size should be incorporated.

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Further information about the process of peer review and production can be found in this document. What happens to my paper?
Appendix 2: Mixed Methods Appraisal Tool

McGill

Mixed Methods Appraisal Tool (MMAT) – Version 2011

For dissemination, application, and feedback: Please contact dieerelle.voyer@mcmillan.ca, Department of Family Medicine, McGill University, Canada.

The MMAT is comprised of two parts (see below): criteria (Part I) and tutorial (Part II). While the content validity and the reliability of the pilot version of the MMAT have been examined, this critical appraisal tool is still under development. Thus, the MMAT must be used with caution, and users’ feedback is appreciated. Cite the present version as follows:


Purpose: The MMAT has been designed for the appraisal stage of complex systematic literature reviews that include qualitative, quantitative, and mixed methods studies (mixed studies reviews). The MMAT permits a comprehensive appraisal and describes the methodological quality for three methodological domains: mixed, qualitative, and quantitative (subdivided into three sub-domains: randomized controlled, non-randomized, and descriptive). Therefore, using the MMAT requires experience or training in these domains. E.g., MMAT users may be helped by a colleague with specific expertise when needed. The MMAT allows the assessment of most common types of study methodology and design. For assessing a qualitative study, use section 1 of the MMAT. For a quantitative study, use section 2 or 3 or 4, for randomized controlled, non-randomized, and descriptive studies, respectively. For a mixed methods study, use section 1 for appraising the qualitative component, the appropriate section for the quantitative component (2 or 3), and section 5 for the mixed methods component. For each relevant study selected for a systematic mixed studies review, the methodological quality can then be described using the corresponding criteria. This may lead to studies with lowest quality from the systematic, or to consider the quality of studies for contrasting their results (e.g., low quality vs. high).

Scoring matrix: For each selected study, an overall quality score may be calculated (in comparison to a descriptive summary using MMAT criteria), but might be calculated using the MMAT. Since there are only a few criteria for each domain, the score can be presented using descriptive categories such as: *, **, and ***. For qualitative and quantitative studies, this score can be the number of criteria met divided by four (scores varying from 25% (*) to 100% (***)). For mixed-methods research studies, the premise is that the overall quality of a combination cannot exceed the quality of its weakest component. Thus, the overall quality score is the lowest score of the study components. The score is 25% (*) when \( QUAL = 1 \) or \( QUAN = 1 \) or \( MA = 0 \); it is 50% (**) when \( QUAL = 2 \) or \( QUAN = 2 \) or \( MA = 1 \); it is 75% (***) when \( QUAL = 3 \) or \( QUAN = 3 \) or \( MA = 2 \); and it is 100% (****) when \( QUAL = 4 \) and \( QUAN = 4 \) and \( MA = 3 \). (QUAL being the score of the qualitative component; QUAN the score of the quantitative component; and MA the score of the mixed methods component).

Rationale: There are general criteria for planning, designing, and reporting mixed methods research (Creswell and Plano Clark, 2010), but there is no consensus on key specific criteria for appraising the methodological quality of mixed methods studies (O’Cathain, Murphy, and Nicklin, 2009). Based on a critical examination of 17 health-related systematic mixed studies reviews, an initial 15-criteria version of MMAT was proposed (Pluye, Gagnon, Griffiths, and Johnson-Lafleur, 2009). This version was tested in 2009. Two reviews assessed 29 studies using the pilot MMAT criteria and tutorial (Page, Pluye, Masiak, et al., 2010). Based on this pilot exercise, it is anticipated that applying MMAT may take on average 15 minutes per study (hence efficient), and that the Inter-Class correlation might be around 0.8 (hence reliable). The present 2011 version is based on feedback from four workshops, and a comprehensive framework for assessing the quality of mixed methods research (O’Cathain, 2010).

Conclusion: The MMAT has been designed to appraise the methodological quality of the studies retained for a systematic mixed studies review, not the quality of their reporting (writing). This distinction is important, as good research may not be well reported. If reviewers want to genuinely assess the former, comparison papers and research reports should be collected when some criteria are not met. Authors of the corresponding publications should be contacted for additional information. Collecting additional data is usually necessary to appraise qualitative research and mixed methods studies, as there are no uniform standards for reporting study characteristics in this domain (www.consort-statement.org), in contrast, e.g., to the CONSORT statement for reporting randomized controlled trials (www.consort-statement.org).


Acknowledgments: 1. Department of Family Medicine, McGill University, Canada. 2. Faculté de médecine de l’Université de Montréal, Canada. 3. Warwick Medical School, University of Warwick, UK. 4. Faculty of Pharmacy, McGill University, Canada. 5. Centre de recherche du CHUM, Université de Montréal, Canada. 6. School of Health Sciences, University of South Australia, Australia. 7. Medical Care Research Unit, SfHARR, University of Sheffield, UK. 8. INSERM Inserm Amazone Franche-Comté, Laval, Canada.
### PART I. MMAT criteria & on-page templates (to be included in appraisal form)

<table>
<thead>
<tr>
<th>Type of mixed methods: study components or primary studies</th>
<th>Methodological quality criteria (with tutorial for definitions and examples)</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening questions (for all types)</td>
<td>* Are there clear qualitative and quantitative research questions (or objectives)?, or a clear mixed methods question (or objective)?&lt;br&gt; * Do the collected data allow address the research question (objective)? E.g., consider whether the follow-up period is long enough for the outcome to occur (for longitudinal studies or study components)?</td>
<td>Yes No Can't tell Comments</td>
</tr>
</tbody>
</table>

Further appraisal may be not feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.

#### 1. Qualitative

1.1. Are the sources of qualitative data (archives, documents, interviews, observations) relevant to address the research question (objective)?

1.2. Is the process for analyzing qualitative data relevant to address the research question (objective)?

1.3. Is appropriate consideration given to how findings relate to the context, e.g., the setting, in which the data were collected?

1.4. Is appropriate consideration given to how findings relate to researchers' influence, e.g., through their interactions with participants?

#### 2. Quantitative randomized controlled (trials)

2.1. Is there a clear description of the randomization (or an appropriate sequence generation)?

2.2. Is there a clear description of the allocation concealment (or blinding when applicable)?

2.3. Are there complete outcome data (80% or above)?

2.4. Is there low withdrawal/drop-out (below 20%)?

#### 3. Quantitative non-randomized

3.1. Are participants (organizations) recruited in a way that minimizes selection bias?

3.2. Are measurements appropriate (clear origin, or validity known, or standard instrument; and absence of contamination between groups when appropriate) regarding the exposure intervention and outcomes?

3.3. In the groups being compared (exposed vs. non-exposed, with intervention vs. without, cases vs. controls), are the participants comparable, or do researchers take into account (control for) the difference between these groups?

3.4. Are there complete outcome data (80% or above), and, when applicable, an acceptable response rate (60% or above), or an acceptable follow-up rate for cohort studies (depending on the duration of follow-up)?

#### 4. Quantitative descriptive

4.1. Is the sampling strategy relevant to address the quantitative research question (quantitative aspect of the mixed methods question)?

4.2. Is the sample representative of the population under study?

4.3. Are measurements appropriate (clear origin, or validity known, or standard instrument)?

4.4. Is there an acceptable response rate (60% or above)?

#### 5. Mixed methods

5.1. Is the mixed methods research design relevant to address the qualitative and quantitative research questions (or objectives), or the qualitative and quantitative aspects of the mixed methods question (or objective)?

5.2. Is the integration of qualitative and quantitative data (or results) relevant to address the research question (objective)?

5.3. Is appropriate consideration given to the limitations associated with this integration, e.g., the divergence of qualitative and quantitative data (or results) in a triangulation design?

Criteria for the qualitative component (1.1 to 1.4), and appropriate criteria for the quantitative component (2.1 to 2.4, or 3.1 to 3.4, or 4.1 to 4.4), must be also applied.

*These two items are not considered to double-harvest items since in mixed methods research, (1) there may be research questions (quantitative research) or research objectives (qualitative research), and (2) data may be integrated, and/or qualitative findings and quantitative results can be integrated.*
**PART II. MMAT tutorial**

<table>
<thead>
<tr>
<th>Types of mixed methods: study components</th>
<th>Methodological quality criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Qualitative</strong></td>
<td>1.1. Are the sources of qualitative data (archives, documents, informants, observations) relevant to address the research question (objective)?</td>
</tr>
<tr>
<td>Common types of qualitative research methodology include:</td>
<td>Ex. consider whether (a) the selection of the participants is clear, and appropriate to collect relevant and rich data, and (b) reasons why certain potential participants chose not to participate are explained.</td>
</tr>
<tr>
<td>A. Ethnography</td>
<td>1.3. Is the process for analyzing qualitative data relevant to address the research question (objective)?</td>
</tr>
<tr>
<td>The aim of the study is to describe and interpret the shared cultural behavior of a group of individuals.</td>
<td>Ex. consider whether (a) the method of data collection is clear (in depth interviews and/or group interviews, and/or observations and/or documentary sources); (b) the form of the data is clear (tape recording, video material, and/or field notes for instance); (c) changes are explained when methods are altered during the study; and (d) the qualitative data analysis addresses the question.</td>
</tr>
<tr>
<td>B. Phenomenology</td>
<td>1.5. Is appropriate consideration given to how findings relate to the context, e.g., the setting, in which the data were collected?</td>
</tr>
<tr>
<td>The study focuses on the subjective experiences and interpretations of a phenomenon encountered by individuals.</td>
<td>Ex. consider whether the study context and how findings relate to the context or characteristics of the context are explained (how findings are influenced by or influence the context). “For example, a researcher wishing to observe care in an acute hospital around the clock may not be able to study more than one hospital. (...) Here, it is essential to take care to describe the context and particularities of the case [the hospitals] and to flag up for the reader the similarities and differences between the case and other settings of the same type” (Mays &amp; Pope, 1995).</td>
</tr>
<tr>
<td>C. Narrative</td>
<td>1.4. Is appropriate consideration given to how findings relate to researchers’ influence, e.g., through their interactions with participant?</td>
</tr>
<tr>
<td>The study analyses life experiences of an individual or a group.</td>
<td>Ex. consider whether researchers critically explain how findings relate to their perspective, role, and interactions with participants (how the research process is influenced by or influences the researcher); (b) researcher’s role is influential at all stages (formulation of a research question, data collection, data analysis and interpretation of findings); and (c) researchers explain their reaction to critical events that occurred during the study.</td>
</tr>
<tr>
<td>D. Grounded theory</td>
<td>The notion of context may be conceived in different ways depending on the approach (methodology) tradition.</td>
</tr>
<tr>
<td>Generation of theory from data in the process of conducting research (data collection occurs first).</td>
<td>Ex. consider whether the study context and how findings relate to the context or characteristics of the context are explained (how findings are influenced by or influence the context). “For example, a researcher wishing to observe care in an acute hospital around the clock may not be able to study more than one hospital. (...) Here, it is essential to take care to describe the context and particularities of the case [the hospitals] and to flag up for the reader the similarities and differences between the case and other settings of the same type” (Mays &amp; Pope, 1995). The notion of context may be conceived in different ways depending on the approach (methodology) tradition.</td>
</tr>
<tr>
<td>E. Case study</td>
<td>1.6. Are the sources of qualitative data (archives, documents, informants, observations) relevant to address the research question (objective)?</td>
</tr>
<tr>
<td>In-depth exploration and/or explanation of issues unique to a particular case. A case can be anything from a decision-making process, to a person, an organization, or a country.</td>
<td>Ex. consider whether (a) the selection of the participants is clear, and appropriate to collect relevant and rich data, and (b) reasons why certain potential participants chose not to participate are explained.</td>
</tr>
<tr>
<td>F. Qualitative description</td>
<td>1.7. Is the process for analyzing qualitative data relevant to address the research question (objective)?</td>
</tr>
<tr>
<td>There is no specific methodology, but a qualitative data collection and analysis, e.g., in-depth interviews of focus groups, and hybrid thematic analysis (inductive and deductive).</td>
<td>Ex. consider whether (a) the method of data collection is clear (in depth interviews and/or group interviews, and/or observations and/or documentary sources); (b) the form of the data is clear (tape recording, video material, and/or field notes for instance); (c) changes are explained when methods are altered during the study; and (d) the qualitative data analysis addresses the question.</td>
</tr>
</tbody>
</table>

Key references: Creswell, 1998; Schwandt, 2001; Sandelowski, 2010.

*See suggestion on the MMAT wiki homepage (under 2011 version). Independent reviewers can establish a common understanding of these two items prior to beginning the critical appraisal.*
<table>
<thead>
<tr>
<th>Types of mixed methods: study components: or primary studies</th>
<th>Methodological quality criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Quantitative randomized controlled (trials)</td>
<td></td>
</tr>
<tr>
<td>Randomized controlled clinical trial: A clinical study in which individual participants are allocated to intervention or control groups by randomization (intervention assigned by researchers).</td>
<td>2.1. Is there a clear description of the randomization (or an appropriate sequence generation)?</td>
</tr>
<tr>
<td></td>
<td>In a randomized controlled trial, the allocation of a participant (or a data collection unit, e.g., a school) into the intervention or control group is based solely on chance, and researchers describe how the randomization schedule is generated. A simple statement such as “we randomly allocated” or “using a randomized design” is insufficient.</td>
</tr>
<tr>
<td></td>
<td>Simple randomization: Allocation of participants to groups by chance by following a predetermined plan/sequence. “Usually it is achieved by referring to a published list of random numbers, or to a list of random assignments generated by a computer”</td>
</tr>
<tr>
<td></td>
<td>Sequence generation: “The rule for allocating interventions to participants must be specified, based on some chance (random) process”. Researchers provide sufficient detail to allow a reader’s appraisal of whether it produces comparable groups. E.g., blocked randomization (to ensure particular allocation ratios to the intervention groups), or stratified randomization (randomization performed separately within strata), or minimization (to make small groups closely similar with respect to several characteristics)</td>
</tr>
<tr>
<td></td>
<td>2.2. Is there a clear description of the allocation concealment (or blinding where applicable)?</td>
</tr>
<tr>
<td></td>
<td>The allocation concealment protects assignment sequence until allocation. E.g., researchers and participants are unaware of the assignment sequence up to the point of allocation. E.g., group assignment is concealed in opaque envelops until allocation.</td>
</tr>
<tr>
<td></td>
<td>The blinding protects assignment sequence after allocation. E.g., researchers and/or participants are unaware of the group a participant is allocated to during the course of the study.</td>
</tr>
<tr>
<td></td>
<td>2.3. Are there complete outcome data (80% or above)?</td>
</tr>
<tr>
<td></td>
<td>E.g., almost all the participants contributed to almost all measures.</td>
</tr>
<tr>
<td></td>
<td>2.4. Is there low withdrawal drop-out (below 20%)?</td>
</tr>
<tr>
<td></td>
<td>E.g., almost all the participants completed the study.</td>
</tr>
<tr>
<td>Types of mixed methods study component: or primary studies</td>
<td>Methodological quality criteria</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>3. Quantitative non-randomized</td>
<td>3.1. Are participants (organizations) recruited in a way that minimizes selection bias?</td>
</tr>
<tr>
<td>A. Non-randomized controlled trials</td>
<td>At recruitment stage:</td>
</tr>
<tr>
<td>The intervention is assigned by researchers, but there is no randomization, e.g., a pseudo-randomization. A non-random method of allocation is not reliable in producing similar groups.</td>
<td></td>
</tr>
<tr>
<td>B. Cohort study</td>
<td>For cohort studies, e.g., consider whether the exposed (or with intervention) and non-exposed (or without intervention) groups are recruited from the same population.</td>
</tr>
<tr>
<td>Subsets of a defined population are assessed as exposed, not exposed, or exposed at different degrees to factors of interest. Participants are followed over time to determine if an outcome occurs (prospective longitudinal).</td>
<td></td>
</tr>
<tr>
<td>C. Case-control study</td>
<td>For case-control studies, e.g., consider whether similar inclusion and exclusion criteria were applied to cases and controls, and whether recruitment was done independently of the intervention or exposure status.</td>
</tr>
<tr>
<td>Cases, e.g., patients, associated with a certain outcome are selected, along with a corresponding group of controls. Data is collected from whether cases and controls were exposed to the factor under study (retrospective).</td>
<td></td>
</tr>
<tr>
<td>D. Cross-sectional analytic study</td>
<td>For cross-sectional analytic studies, e.g., consider whether the sample is representative of the population.</td>
</tr>
<tr>
<td>At one particular time, the relationship between health-related characteristics (outcome) and other factors (intervention/exposure) is examined. E.g., the frequency of outcomes is compared in different population subgroups according to the presence-absence or level of the intervention/exposure.</td>
<td></td>
</tr>
</tbody>
</table>

Key references for observational analytic studies: Higgins & Green, 2008; Wells, Shea, O'Connell, Peterson, et al., 2009.
<table>
<thead>
<tr>
<th>Types of mixed methods study components: or primary studies</th>
<th>Methodological quality criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Quantitative descriptive studies:</td>
<td></td>
</tr>
<tr>
<td>Common types of design include single-group studies:</td>
<td></td>
</tr>
<tr>
<td>A. Incidence or prevalence study without comparison group</td>
<td></td>
</tr>
<tr>
<td>In a defined population at one particular time, what is happening in a population, e.g., frequency of factors (importance of problems), is described (portrayed).</td>
<td></td>
</tr>
<tr>
<td>B. Case series:</td>
<td></td>
</tr>
<tr>
<td>A collection of individuals with similar characteristics are used to describe an outcome.</td>
<td></td>
</tr>
<tr>
<td>C. Case report:</td>
<td></td>
</tr>
<tr>
<td>An individual or a group with a unique unusual outcome is described in detail.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Methodological quality criteria</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1. Is the sampling strategy relevant to address the quantitative research question (quantitative aspect of the mixed methods question)?</td>
<td>E.g., consider whether (a) the source of sample is relevant to the population under study; (b) when appropriate, there is a standard procedure for sampling, and the sample size is justified (using power calculation for instance).</td>
</tr>
<tr>
<td>4.2. Is the sample representative of the population understudy?</td>
<td>E.g., consider whether (a) inclusion and exclusion criteria are explained; and (b) reasons why certain eligible individuals chose not to participate are explained.</td>
</tr>
<tr>
<td>4.3. Are measurements appropriate (clear origin, or validity known, or standard instrument)?</td>
<td>E.g., consider whether (a) the variables are clearly defined and accurately measured; (b) measurements are justified and appropriate for answering the research question; and (c) the measurements reflect what they are supposed to measure.</td>
</tr>
<tr>
<td>4.4. Is there an acceptable response rate (60% or above)?</td>
<td>The response rate is not pertinent for case series and case report. E.g., there is no expectation that a case series would include all patients in a similar situation.</td>
</tr>
<tr>
<td>Types of mixed methods study component:</td>
<td>Methodological quality criteria</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>---------------------------------</td>
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<tr>
<td>or primary studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Mixed methods:</td>
</tr>
<tr>
<td></td>
<td>Common types of design include:</td>
</tr>
</tbody>
</table>
|                                       | A. Sequential explanatory design:
|                                       | The quantitative component is followed by the qualitative. The purpose is to explain quantitative results using qualitative findings. E.g., the quantitative results guide the selection of qualitative data sources and data collection, and the qualitative findings contribute to the interpretation of quantitative results. |
|                                       | B. Sequential explanatory design:
|                                       | The qualitative component is followed by the quantitative. The purpose is to explore, develop and test an instrument (or taxonomy), or a conceptual framework (or theoretical model). E.g., the qualitative findings inform the qualitative data collection, and the quantitative results allow a generalization of the qualitative findings. |
|                                       | C. Triangulation design:
|                                       | The qualitative and quantitative components are concurrent. The purpose is to examine the same phenomenon by interpreting qualitative and quantitative results (bringing data analysis together at the interpretation stage), or by integrating qualitative and quantitative datasets (e.g., data on same cases), or by transforming data (e.g., quantification of qualitative data). |
|                                       | D. Embedded design:
|                                       | The qualitative and quantitative components are concurrent. The purpose is to support a qualitative study with a quantitative sub-study (measures), or to better understand a specific issue of a quantitative study using a qualitative sub-study (e.g., the efficacy of the implementation of an intervention based on the views of participants). |
|                                       | 5.1. Is the mixed methods research design relevant to address the qualitative and quantitative research questions (or objectives), or the qualitative and quantitative aspects of the mixed methods question (or objective)?
|                                       | E.g., the rationale for integrating qualitative and quantitative methods to answer the research question is explained. |
|                                       | 5.2. Is the integration of qualitative and quantitative data (or results) relevant to address the research question (objective)?
|                                       | E.g., there is evidence that data gathered by both research methods was brought together to form a complete picture, and answer the research question; authors explain when integration occurred (during the data collection-analysis or and during the interpretation of qualitative and quantitative results); they explain how integration occurred and who participated in this integration. |
|                                       | 5.3. Is appropriate consideration given to the limitations associated with this integration, e.g., the divergence of qualitative and quantitative data (or results)? |

Key references: Creswell & Plano Clark, 2007; O'Cahern, 2010.
Reference:

Appendices for Paper 2 – Empirical Paper

Appendix 1: Author Instructions for Psychology and Psychotherapy: Theory, Research and Practice.

Appendix 2: Final Q-set statements (presented in randomized order).

Appendix 3: University of Manchester letters of ethical approval

Appendix 4: National Research Ethics Service Approval Letter

Appendix 5: Local Research and Development Ethical Approval Letter

Appendix 6: Staff Participation Information Sheet

Appendix 7: Staff Participant Consent Form

Appendix 8: Service User Participation Information Sheet

Appendix 9: Service User Consent Form
Appendix 1: Author Instructions for Psychology and Psychotherapy: Theory, Research and Practice.

Psychology and Psychotherapy: Theory, Research and Practice

© The British Psychological Society

Edited By: Andrew Gumley and Matthias Schwannauer

Impact Factor: 1.69

ISI Journal Citation Reports © Ranking: 2012: 44/75 (Psychology); 56/114 (Psychology Clinical); 58/121 (Psychiatry (Social Science)); 79/135 (Psychiatry)

Online ISSN: 2044-8341

Author Guidelines

Psychology and Psychotherapy: Theory Research and Practice (formerly The British Journal of Medical Psychology) is an international scientific journal with a focus on the psychological aspects of mental health difficulties and well-being; and psychological problems and their psychological treatments. We welcome submissions from mental health professionals and researchers from all relevant professional backgrounds. The Journal welcomes submissions of original high quality empirical research and rigorous theoretical papers of any theoretical provenance provided they have a bearing upon vulnerability to, adjustment to, assessment of, and recovery (assisted or otherwise) from psychological disorders. Submission of systematic reviews and other research reports which support evidence-based practice are also welcomed, as are relevant high quality analogue studies. The Journal thus aims to promote theoretical and research developments in the understanding of cognitive and emotional factors in psychological disorders,
interpersonal attitudes, behaviour and relationships, and psychological therapies
(including both process and outcome research) where mental health is concerned. Clinical or case studies will not normally be considered except where they illustrate particularly unusual forms of psychopathology or innovative forms of therapy and meet scientific criteria through appropriate use of single case experimental designs.

1. Circulation

The circulation of the Journal is worldwide. Papers are invited and encouraged from authors throughout the world.

2. Length

All articles submitted to PAPT must adhere to the stated word limit for the particular article type. The journal operates a policy of returning any papers that are over this word limit to the authors. The word limit does not include the abstract, reference list, figures and tables. Appendices however, are included in the word limit. The Editors retain discretion to publish papers beyond this length in cases where the clear and concise expression of the scientific content requires greater length (e.g., a new theory or a new method). The authors should contact the Editors first in such a case.

Word limits for specific article types are as follows:

- Research articles: 5000 words
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- Review papers: 6000 words
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3. Brief reports

These should be limited to 1000 words and may include research studies and theoretical, critical or review comments whose essential contribution can be made briefly. A summary of not more than 50 words should be provided.

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All manuscripts must be submitted via http://www.editorialmanager.com/paptrap/. The Journal operates a policy of anonymous peer review. Before submitting, please read the terms and conditions of submission and the declaration of competing interests.

5. Manuscript requirements

- Contributions must be typed in double spacing with wide margins. All sheets must be numbered.

- Manuscripts should be preceded by a title page which includes a full list of authors and their affiliations, as well as the corresponding author's contact details. A template can be downloaded here.

- Tables should be typed in double spacing, each on a separate page with a self-explanatory title. Tables should be comprehensible without reference to the text. They should be placed at the end of the manuscript with their approximate locations indicated in the text.
• Figures can be included at the end of the document or attached as separate files, carefully labelled in initial capital/lower case lettering with symbols in a form consistent with text use. Unnecessary background patterns, lines and shading should be avoided. Captions should be listed on a separate sheet. The resolution of digital images must be at least 300 dpi.

• For articles containing original scientific research, a structured abstract of up to 250 words should be included with the headings: Objectives, Design, Methods, Results, Conclusions. Review articles should use these headings: Purpose, Methods, Results, Conclusions.

• All Articles must include Practitioner Points – these are 2-4 bullet points, in addition to the abstract, with the heading ‘Practitioner Points’. These should briefly and clearly outline the relevance of your research to professional practice.

• For reference citations, please use APA style. Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full and provide DOI numbers where possible for journal articles.

• SI units must be used for all measurements, rounded off to practical values if appropriate, with the imperial equivalent in parentheses.

• In normal circumstances, effect size should be incorporated.

• Authors are requested to avoid the use of sexist language.

• Authors are responsible for acquiring written permission to publish lengthy quotations, illustrations, etc. for which they do not own copyright.

• Manuscripts describing clinical trials must be submitted in accordance with the CONSORT statement on reporting randomised controlled trials (http://www.consort-statement.org).

• Manuscripts describing systematic reviews and meta-analyses must be submitted in accordance with the PRISMA statement on reporting systematic reviews and meta-analyses (http://www.prisma-statement.org).

For guidelines on editorial style, please consult the APA Publication Manual published by the American Psychological Association.

6. Multiple or Linked submissions

Authors considering submitting two or more linked submissions should discuss this with the Editors in the first instance.

7. Supporting Information

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Further information about the process of peer review and production can be found in this document. What happens to my paper?
**Appendix 2: Final Q-set statements (presented in randomized order).**

| 19. Mindfulness makes voices harder to cope with | 34. Mindfulness helps with thinking clearly | 25. Mindfulness helps to improve wellbeing |
| 48. Mindfulness interferes with the way people deal with their thoughts | 4. Practicing mindfulness improves the way people get along with others | 24. Mindfulness encourages people to take each day as it comes |
| 5. Mindfulness helps reduce the impact of unwanted thoughts | 44. Mindfulness practice can help to improve sleep | 1. Mindfulness involves paying attention to what is happening right now |
| 45. Mindfulness is useful in calming a racing mind | 20. Mindfulness helps people know themselves better | 23. Mindfulness practice is different from other forms of meditation |
| 7. Mindfulness helps to take control of unhelpful thoughts | 6. Mindfulness is a useful relaxation technique | 51. Mindfulness helps people notice things they would normally take for granted |
| 21. Mindfulness makes people more aware of their unhelpful ways of thinking | 33. Mindfulness gives people a better outlook on life |
| 22. Mindfulness helps people to accept bad experiences from the past. |
| 11. Mindfulness makes voices less upsetting. |
| 15. Mindfulness makes people more emotional. |

| 50. Mindfulness helps people accept difficult feelings. |
| 46. Mindfulness helps people to be more accepting of their voices. |
| 2. Mindfulness cuts people off from their feelings. |

| 13. Mindfulness helps people be more accepting of themselves. |
| 40. Mindfulness makes people better at managing their feelings. |
| 38. Practicing mindfulness can destabilise the mind. |

| 16. Mindfulness helps people to stop pointless battles with themselves. |
| 36. Mindfulness helps people with mental health problems. |
| 3. Practicing mindfulness can cause a nervous breakdown. |

| 8. Mindfulness helps people become more accepting of life. |
| 31. Mindfulness is a helpful way of managing stress. |
| 52. Mindfulness causes changes in the brain. |

<p>| 14. Mindfulness can help people recover from psychosis. |
| 47. Mindfulness makes painful emotions worse. |
| 27. You need to be emotionally stable to benefit from mindfulness. |</p>
<table>
<thead>
<tr>
<th>9. You can't practice mindfulness if you're psychotic.</th>
<th>10. Staff do not feel they know enough about mindfulness to discuss it with patients.</th>
<th>41. Staff members are keen to refer patients to Mindfulness groups for psychosis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>49. Only rational people can benefit from mindfulness.</td>
<td>37. Mindfulness groups cost too much to run</td>
<td>29. Mindfulness groups in the NHS are a useful addition to the choice of psychological therapies on offer.</td>
</tr>
<tr>
<td>35. Practicing mindfulness too much can make people crazy.</td>
<td>30. Staff members are too busy to refer patients to mindfulness groups.</td>
<td>32. Mindfulness groups are a useful treatment option for people with psychosis.</td>
</tr>
<tr>
<td>39. Mindfulness makes voices worse.</td>
<td>12. People with psychosis don't like to attend groups.</td>
<td>42. Mindfulness should not be considered as a treatment for mental health difficulties.</td>
</tr>
<tr>
<td>26. Mindfulness causes people to believe in things that aren't real.</td>
<td>43. Mindfulness groups are worth the time and effort for service users.</td>
<td>18. Mindfulness is only meant for spiritual people (e.g. monks and nuns).</td>
</tr>
<tr>
<td>17. Mindfulness jumbles people's thoughts</td>
<td>28. Mindfulness groups help patients get better.</td>
<td></td>
</tr>
</tbody>
</table>
Dear Chloe & Tirma

Re: Feedback from Research Sub-committee - 19th November 2012

Thank you for your revised research proposal which was considered by the Research Sub-Committee Meeting on 19th November 2012. The committee were satisfied that the revisions made were appropriate and in accordance with the feedback from the meeting of 15th October 2012. You may now proceed with the research project as set out in your final proposal.

For the purposes of ethical scrutiny by relevant NHS and/or University bodies, this letter may be taken as confirmation that your research proposal has been independently reviewed and that it is considered to meet necessary scientific and methodological standards.

On behalf of the Research Subcommittee, we wish you good luck with your research work.

Yours sincerely

[Signature]

Dr Dougal Hare
Senior Lecturer in Clinical Psychology
Panel A Chair, Research Sub-Committee
Cc Dan Pratt, Sandra Bucc, Anja Wittkowski and Moya Barrett
Appendix 4 – National Research Ethics Service Approval Letter

NRES Committee North West - Greater Manchester East
3rd Floor, Barlow House
4 Minshull Street
Manchester
M1 3DZ

16 May 2013

Dr Daniel Pratt, Trainee Clinical Psychologist
University of Manchester School of Psychological Sciences
2nd Floor, Zochonis Building, Oxford Road
Manchester
M13 9PL

Dear Dr Pratt

Study title: Mindfulness Based Cognitive Therapy for Psychosis: A Feasibility and Acceptability study
REC reference: 13/NW/0268
IRAS project ID: 122537

Thank you for your letter of 08 May 2013, responding to the Committee’s request for further information on the above research and submitting revised documentation. The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator, Elaine Hutchings, nrescommittee.northwest-gmsouth@nhs.net.

Confirmation of ethical opinion

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

Ethical review of research sites

NHS sites

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

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

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

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

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

Additional condition

The section referring to benefits in the referee information sheet has not been toned down as requested. Please amend the section, following the wording in the participant information sheet, and provide a copy of the revised document.

Please notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.

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

Approved documents

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

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence of insurance or indemnity</td>
<td>Insurance assessment form</td>
<td>27 February 2013</td>
</tr>
<tr>
<td>GP/Consultant Information Sheets</td>
<td>1.0</td>
<td>19 January 2013</td>
</tr>
<tr>
<td>Investigator CV</td>
<td>Dr Daniel Pratt</td>
<td></td>
</tr>
<tr>
<td>Investigator CV</td>
<td>Dr Sandra Bucci</td>
<td>18 February 2013</td>
</tr>
<tr>
<td>Date</td>
<td>Document Name</td>
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<tr>
<td>06 February 2013</td>
<td>Investigator CV Tirma Morera</td>
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<tr>
<td>10 February 2013</td>
<td>Investigator CV Chloe Randal</td>
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<td>Other: Pan-Manchester R&amp;D notification form</td>
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<td>25 April 2013</td>
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<td>Other: Referrer information sheet</td>
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<td>19 January 2013</td>
<td>Other: Lone worker policy Pennine Care v4</td>
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<td>25 March 2013</td>
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<td>24 April 2013</td>
<td>Participant Consent Form: Staff</td>
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<td>Participant Information Sheet: Service user</td>
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<td>Participant Information Sheet: Staff</td>
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<tr>
<td>19 January 2013</td>
<td>Protocol 1.0</td>
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<tr>
<td>07 February 2013</td>
<td>Questionnaire: Blank Q-sort</td>
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<td>08 May 2013</td>
<td>Questionnaire: Five facet mindfulness questionnaire</td>
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<td>Questionnaire: CORE outcome measure</td>
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<td>Questionnaire: Psychotic symptom rating scales</td>
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<td>Questionnaire: Brief Core Schema scales</td>
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<td>Questionnaire: BAVO-R</td>
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<td>Questionnaire: Process of Recovery questionnaire</td>
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<td>Questionnaire: Weekly questionnaire</td>
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<td>Questionnaire REC application 3.5</td>
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<td></td>
<td>Referees or other scientific critique report 07 February 2013</td>
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<td></td>
<td>Response to Request for Further Information 1 08 May 2013</td>
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**Statement of compliance**

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

**After ethical review**

**Reporting requirements**

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

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study
The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

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

Further information is available at National Research Ethics Service website > After Review

13/NW/0268 Please quote this number on all correspondence

We are pleased to welcome researchers and R & D staff at our NRES committee members’ training days – see details at http://www.hra.nhs.uk/hra-training/

With the Committee’s best wishes for the success of this project.

Yours sincerely

[Signature]

Mr Francis Chan
Chair

Email: nrescommittee.northwest-gmsouth@nhs.net

Enclosures: “After ethical review – guidance for researchers”

Copy to: Ms Lynne MacRae, R&D, University of Manchester

Ms Reagan Blyth, Pennine Care NHS Foundation trust
Appendix 5 – Local Research and Development Ethical Approval Letter

Research and Development Department

Dr D Pratt
Trainee Clinical Psychologist
University of Manchester
2nd Floor, Zachonis Building, School of Psychological Sciences
Oxford Road
Manchester
M13 9PL

Dear Dr Pratt,

Research and Development approval letter
Re: Mindfulness Based Cognitive Therapy for Psychosis: A Feasibility and Acceptability study

Thank you for submitting your research project for consideration by the Research and Development (R&D) Department. The project was reviewed by the R&D Panel in line with the 'Research Governance Framework for Health and Social Care' and in regards to its impact on resources for the Trust and its suitability within our research portfolio.

We have also verified the relevant documentation and approvals from all necessary regulatory agencies. These may include, but are not limited to, the National Research Ethics Service (NRES), the Medicines and Healthcare products Regulatory Agency (MHRA), and the Administration of Radioactive Substances Advisory Committee (ARSAC).

On this basis, we are now able to grant approval for your project at Pennine Care NHS Foundation Trust, subject to the terms and conditions listed below.

- The currently approved protocol is Version 2.0 dated 1st May, 2013 and the approved documents, including the Participant Information Sheet and Informed Consent Form, are those listed in the Research Ethics Committee's favourable opinion letter for this project dated 16th June, 2013. These must be the only versions in use.
- In the event of any amendment (substantial or minor) to the protocol or documentation, approval must be sought from the necessary regulatory agencies. Approval for the amendment must also be obtained from the Research and Development Department before implementation.
- Any significant deviation from the approved protocol or documentation must be notified to the R&D Department as soon as the issue is discovered.
- The Chief Investigator, local Principal Investigator and all other researchers working on the project must abide by and adhere to their specific responsibilities as detailed in the 'Research Governance Framework for Health and Social Care'. They must also meet all UK statutory requirements, with particular significance, where applicable, to the 'Data Protection Act 1998', 'The Medicines for Human Use (Clinical Trials) Regulations 2004', the 'Mental Health Act 2007', the 'Human Tissue Act 2004' and all subsequent amendments to these.
- The only researchers approved to perform the research activities for this project at any Pennine Care site or involving any staff, service users or other persons under our duty of care are those listed on the ethics form and/or delegation log for Pennine Care.

continued on page 2...
Research and Development Department

continued from page 1...

- All personnel listed on the SSI form and/or delegation log for Pennine Care must undertake and provide evidence of Good Clinical Practice (GCP) training at least once every two years.
- Recruitment figures for Pennine Care participants in relation to this project must be sent to the R&D Department on a minimum of a six monthly basis.
- If applicable, the Sponsor or Chief investigator must notify the R&D Department of any Serious Adverse Events (SAEs) that occur during the conduct of the trial.
- The R&D Department must be notified about any suspension and upon completion of the project, and must be sent a copy of any final report and/or findings.
- Pennine Care reserves the right to suspend or terminate approval for this project with immediate effect if any of these conditions are breached or in any other circumstances it deems necessary.
- Any further project specific conditions as detailed below:

This letter must be countersigned by the Sponsor’s Representative, Chief Investigator and Principal Investigator or Local Collaborator as proof of their agreement to the terms and conditions described above.

Thank you again for submitting your project to Pennine Care. We wish you good luck with recruitment and with the progress of your project. If you need any further assistance, then please feel free to contact the R&D Department via the contact details at the top of this letter.

Research Approval Granted:
Mindfulness Based Cognitive Therapy for Psychosis: A Feasibility and Acceptability study

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<td>Reegan Elyth</td>
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| Role: Associate Director of Quality Assurance and Research, Pennine Care NHS Foundation Trust

We, the undersigned, hereby agree to all of the terms and conditions as specified by the approval letter above.

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*delete as applicable

Please return one original signed copy of this letter to the R&D Department immediately and retain the other copy for your own project file.
Appendix 6 – Staff Participation Information Sheet

Participant Information Sheet Version 1.0

Mindfulness-based cognitive therapy group for psychosis:
Feasibility and acceptability study

Staff Participant Information Sheet

You are invited to take part in a study which is investigating the feasibility and acceptability of mindfulness-based cognitive therapy (MBCT) for patients with psychosis. The study will be looking at both the views of staff and patients.

Before you decide to take part, please take time to read this information sheet in order to know what the study will involve. If you do decide to participate in this study, please contact Tirma Morera on the details below so that a meeting can be arranged.

What is the purpose of the study?
Mindfulness involves paying attention to what is happening right now rather than thinking about the past or future. It involves noticing thoughts, sensations and feelings without dwelling on them. Research suggests that mindfulness-based therapies can be helpful for people with problems such as anxiety and depression. There is also some evidence that they may help people who experience psychosis.

The study will run a mindfulness-based cognitive therapy group for people who experience psychosis. The researchers will be visiting MDTs within the trust in order to inform clinicians about the MBCT treatment on offer by the study, how to refer patients, and to invite staff to take part in the study themselves.
Q-methodology will be used to gather qualitative information about the acceptability and feasibility of the mindfulness groups from different staff perspectives. Staff will be asked to complete a 'Q-sort' which involves ranking a set of statements about MBCT groups, in order of how much they agree or disagree with them.

Why have I been chosen?
You have been chosen because this study is seeking to elucidate the acceptability and feasibility of MBCT groups from the perspective of staff.

Do I have to take part in the study?
It is your decision whether to take part or not and you do not have to. If you decide to take part you can stop at any time.

What will happen if I agree to take part?
If you decide to take part in the study, please contact the researcher using the details below. You will then be offered an appointment to meet one of the researchers, who will also provide you with more information and the consent form for the study. Another meeting will then be arranged for you to complete the Q-sort itself.

What will happen to the information I provide?
If you consent, the completed Q-sort data will be used for research in order to evaluate the acceptability and feasibility of MBCT groups from a staff perspective.

All data will be anonymised - your personal details such as name, contact details etc. will be removed.

What are the possible benefits of taking part?
Not only will your participation be a valued contribution to treatment development, but sometimes people find it useful to reflect on their experiences and opinions.

Contact for further information.
If you would like further information about this study, please contact one of the group leaders: Maya Barrett, Chloe Randel or Tirma Moreno at the Psychological Therapies Service (0161 604 3555).
Appendix 7 – Staff Participant Consent Form

CONSENT FORM - STAFF

Title of Project: Mindfulness Based Cognitive Therapy for Psychosis: Feasibility and acceptability study

Name of Researchers: Timma Morera & Chloe Randal

Please initial the boxes below:

1. I confirm I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions of a member of the research team and have had those answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to change my mind and withdraw at any time without giving any reason.

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

4. I agree to take part in the above named study.

5. I would like to be informed of the results of the research study
If yes, please provide contact details here (Postal or email address):

Participant name: ___________________________ Date: ___________ Signature: ___________

Researcher name: ___________________________ Date: ___________ Signature: ___________
Appendix 8 – Service User Participation Information Sheet

Participant Information Sheet Version 2.0 24/04/2013

Mindfulness-based cognitive therapy group for psychosis:
Feasibility and acceptability study

Service User Participant Information Sheet
You are invited to take part in a study into a mindfulness-based cognitive therapy (MBCT) group for people who experience psychosis. Before you decide to take part it is important to understand what it will involve. Please read the following information carefully and discuss it with others if you wish. Please then decide whether you wish to take part and discuss a referral to the group with your therapist / care co-ordinator.

What is the purpose of the study?
Mindfulness involves paying attention to what is happening right now rather than thinking about the past or future. It involves noticing thoughts, sensations and feelings without dwelling on them. Research suggests that mindfulness-based therapies can be helpful for people with problems such as anxiety and depression. There is also some evidence that they may help people who experience psychosis.

The study will run a mindfulness-based cognitive therapy group with people who experience psychosis. The aim of the group is to reduce distress related to people’s experience of psychosis. The group leaders plan to run and evaluate the group as part of a research project with The University of Manchester. This will be done using questionnaires and interviews. The methods used will explore people’s opinions of their selves, others and their experience, and can be used to see if these change. People’s views about the group will also be explored.

Why have I been chosen?
You have been chosen because your therapist or care co-ordinator thinks that you may benefit from additional training in a mindfulness-based approach and may be interested in taking part in the study.
Do I have to take part in the study/come to the group?
Taking part in the study means you will have the opportunity to attend the mindfulness-based cognitive therapy group. However, it is your decision whether to take part or not and you do not have to. If you decide to take part you can stop at any time and do not have to give a reason. A decision to stop or not take part in the study will not affect future treatment that you receive from mental health services.

What will happen if I agree to take part?
If you decide to take part in the study, tell your therapist/core co-ordinator and they will, if appropriate, make a referral to the study. You will be offered an appointment to meet with one of the study researchers who will provide you with more information about the group and to answer any questions you have about it.

What next?
- After meeting one of the researchers to find out a bit more about the study, you will be asked to attend two assessment sessions.
- In the first assessment session one of the researchers will meet with you and will ask you to complete six questionnaires about mindfulness, mood, your beliefs and symptoms. You will be offered help to complete these if needed. You will also be asked to take part in an interview in which you will be asked about your opinions of yourself, other people and your experience of psychosis. The session will last about 1 hour 40 minutes with a break if you need it.
- At the second assessment session one of the researchers will ask you for your views on mindfulness groups. You will be required to look through a set of statements and opinions about the group and put them in order of how much you agree or disagree with them. This will take up to 45 minutes to complete. You will also be asked to complete the six questionnaires about mindfulness, mood, and symptoms for a second time. This session will last about 1 hour 30 minutes with a break if you need it.
- Following completion of the assessments, you will then be invited to attend a mindfulness group, which has been adapted specifically for people with psychosis. The group will meet on a weekly basis for eight weeks at a venue in Tameside. The group will last for two hours each week with a 15 minute coffee break half way through.
Participant Information Sheet Version 2.0 24/04/2013

- The group will be run by a trained mindfulness practitioner and two trainee clinical psychologists (researchers) working on this study.

- You will be encouraged to practice mindfulness exercises at home on a daily basis for at least the duration of the 8-week group.

- Each week that you come to the group, you will be asked to complete a 2-page questionnaire, which is expected to take about 5 minutes to do.

- Following the eight week programme the researchers will invite you to attend two follow up sessions, in which you will be asked to do the same tasks you did in the assessments.

- Like you did in the first assessment session, in the first follow up session one of the researchers will meet with you and ask you to complete the 6 questionnaires about mindfulness, mood, your beliefs and symptoms. You will also be asked to take part in an interview in which you will be asked about your opinions of yourself, other people and your experience of psychosis. The session will last about 1 hour 40 minutes.

- Like you did in the second assessment session, in the second follow up session one of the researchers will ask you for your views on the mindfulness group. You will be required to sort a set of statements and opinions about the group in order of how much you agree or disagree with them. This will take up to 45 minutes to complete. You will also be asked to complete the 6 questionnaires about mindfulness, mood, and symptoms. This session will last about 1 hour 30 minutes.

You will receive £12 after completing the two assessment sessions and £12 after completing the two follow up sessions; this is to reimburse you for your time, participation and travel expenses.

What will happen to the information I provide?
If you consent, information you provide from questionnaires and interviews will be used for research purposes to evaluate the group and to see if there have been any changes in peoples’ experiences of psychosis. This project is part of the trainee clinical psychologists’ Doctorate of Clinical Psychology training at the University of Manchester. With your consent, data from this project will be used for their thesis and the results of the study will be published in journal articles. **All data**
will be anonymized i.e. your personal details such as name, contact details etc. will be removed. You will be asked if you would like to receive a summary of the results.

With your consent, your GP will be informed that you are taking part in the study. Information you provide throughout the course of the study will be kept confidential; however, if it is deemed that you or another person is at risk then the researchers may have to inform others e.g. your GP.

What do I have to do?
If you think you would be interested in the study, please discuss this with your therapist or care co-ordinator, who will then complete the relevant form. Once we receive this form we will offer an appointment to meet with you and discuss the study further.

Where will the assessments and group take place?
The initial meeting will take place in clinic at Haughton Mews (see address above). At this meeting the researchers will discuss with you whether you prefer to complete the assessment and follow up sessions in clinic or at home. The 8-week group will be held at a venue in Tameside.

What are the possible disadvantages and risks of taking part?
The researchers are aware that the assessment and follow up sessions will take up some of your time; they hope to help by being flexible and doing these either in clinic or at your home and will offer breaks when needed. Some people do not like attending groups and prefer individual therapy. If at any point during your participation in the study you feel distressed, support will be made available for you e.g. your care co-ordinator, therapist, crisis team.

What are the possible benefits of taking part?
The main benefit of taking part in the study is that you will have the opportunity to attend the 8-week mindfulness-based cognitive therapy. For some people, participation in mindfulness groups has a positive impact on their health and well-being, and allows people to reflect on their experiences. Participation in research may also contribute to future treatment development.
Contact for further information.
If you would like further information about this study, please contact one of the group leaders: Moya Barrett, Chloe Randal or Tirma Morera at the Psychological Therapies Service (0161 716 3555).

Research team
Trainee Clinical Psychologists & group facilitators: Chloe Randal & Tirma Morera (0161 716 3555).
Field supervisor & group leader: Moya Barrett (0161 716 3555).
Academic supervisor: Dr. Daniel Pratt & Dr. Sandra Bucci (University of Manchester- 0161 306 0402)

This research study has been reviewed by National Research Ethics Service Committee North West – Greater Manchester East, and has received ethical approval.

Complaints
If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions. If they are unable to resolve your concern or you wish to make a complaint regarding the study, please contact a University Research Practice and Governance Co-ordinator on 0161 275 7583 or 0161 275 8093 or by email to Research.Complaints@manchester.ac.uk. You can also contact the trust’s Patient Advice and Liaison Services (PALS) on 0161 716 3178.
Appendix 9 – Service User Consent Form

CONSENT FORM

Title of Project: Mindfulness Based Cognitive Therapy for Psychosis: Feasibility and acceptability study
Name of Researchers: Chloe Randal & Tirma Morera

Please initial the boxes below:

1. I confirm I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions of a member of the research team and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to change my mind & withdraw at any time without giving any reason. This will not affect future treatment.

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

4. I agree to take part in the above named study.

5. I will allow the named researchers to contact my GP to let them know that I am taking part in this study.

6. I would like to be informed of the results of the research study
   If yes, please provide contact details here (Postal or email address):

Participant name: __________________ Date: __________ Signature: __________

Researcher name: __________________ Date: __________ Signature: __________
Appendices for Paper 3 – Critical Reflection

Appendix 1: Unrotated Factor Matrix for service user data

Appendix 2: Unrotated Factor Matrix of staff data

Appendix 3: Staff data PQMethod Analysis Attempts

Appendix 4: Attempt at a consensus factor with additional specificity factors.

Appendix 5: Q-methodology Forum Communication
## Appendix 1: Unrotated Factor Matrix for service user data

### Factors

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**Eigenvalues**

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*Eigenvalue >1

**% expl.Var.**

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*Eigenvalue >1
### Appendix 2 - Unrotated Factor Matrix of staff data

<table>
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<tr>
<th>Factors</th>
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</thead>
<tbody>
<tr>
<td>MCPNT</td>
<td>0.9299</td>
<td>0.0193</td>
<td>-0.0649</td>
<td>-0.0754</td>
<td>-0.0509</td>
<td>-0.1647</td>
<td>0.0353</td>
<td>-0.2102</td>
</tr>
<tr>
<td>FCounBry</td>
<td>0.7718</td>
<td>-0.4053</td>
<td>-0.2927</td>
<td>0.0524</td>
<td>-0.2548</td>
<td>0.1345</td>
<td>-0.0201</td>
<td>-0.1093</td>
</tr>
<tr>
<td>FTrSWT</td>
<td>0.7464</td>
<td>0.3618</td>
<td>-0.3148</td>
<td>-0.1988</td>
<td>-0.2831</td>
<td>0.0964</td>
<td>-0.1510</td>
<td>0.2324</td>
</tr>
<tr>
<td>FCBTT</td>
<td>0.9114</td>
<td>-0.1199</td>
<td>0.0703</td>
<td>0.0065</td>
<td>-0.0489</td>
<td>0.0426</td>
<td>-0.0578</td>
<td>-0.1679</td>
</tr>
<tr>
<td>FCPB</td>
<td>0.8185</td>
<td>0.0791</td>
<td>-0.1493</td>
<td>0.3901</td>
<td>0.0033</td>
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<tr>
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</table>

| Eigenvalues | 9.9040 | 0.6867 | 0.6149 | 0.4950 | 0.4338 | 0.3444 | 0.3028 | 0.2980 |
| % expl.Var.  | 71     | 5      | 4      | 4      | 3      | 2      | 2      | 2      |

*Only one factor with eigenvalue >1.*
### Appendix 3: Staff data PQMethod Analysis Attempts

#### Varimax of 4 Factors
- 2 factors extracted at significance level $p = 0.05$
- 49% variance explained
- 6/14 sig. loading Q-sorts.
- Correlations Between Factor Scores = **0.7385**.

#### Varimax of 5 Factors
- 3 Extracted factors at significance level $p = 0.5$
- 57% variance explained
- 9/14 sig. loading Q-sorts

#### Correlations Between Factor Scores

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<tr>
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<td><strong>0.7386</strong></td>
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<tr>
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<td><strong>0.7922</strong></td>
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<tr>
<td>4</td>
<td>0.8083</td>
<td>0.7386</td>
<td>0.7922</td>
<td>1.0000</td>
</tr>
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</table>

#### Varimax Rotation of 6 Factors
- 4 factors extracted at significance level $p = 0.5$
- 69% total variance explained.
- 10/14 sig. loading Q-sorts

#### Correlations Between Factor Scores

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<th>4</th>
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<td>1</td>
<td>1.0000</td>
<td>0.6625</td>
<td><strong>0.7522</strong></td>
<td><strong>0.8083</strong></td>
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<tr>
<td>2</td>
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<tr>
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<td><strong>0.7922</strong></td>
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<tr>
<td>4</td>
<td>0.8083</td>
<td>0.7386</td>
<td>0.7922</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

#### Varimax Rotation of 7 Factors
- 3 factors extracted at significance level $p = 0.5$
- 48% total variance explained.
- 9/14 sig. loading Q-sorts

#### Correlations Between Factor Scores

<table>
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<td>1</td>
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#### Varimax Rotation of 8 Factors
- 4 factors extracted at significance level $p = 0.5$
- 8% variance explained
- 8/14 sig. Factor loadings (2 on each factor).

#### Other Flagging Criteria Attempted
1. *Humphreys rule significance value calculated at 0.5 $\geq r = 0.36$*,
2. $r = 0.5$ plus 0.2

Both resulted in too few significant loadings (i.e., as little as 4/14).
Appendix 4 - Attempt at a consensus factor with additional specificity factors.

<table>
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<tr>
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<td>-0.0524</td>
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<td>3 FTrSWT</td>
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</table>

% expl.Var.   71  5  5  4  4  4

Correlations Between Factor Scores

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<tr>
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</table>

Significant Flags = 14
Variance explained = 93%
Consensus statements = 31

Note = Solution disregarded Unacceptably high correlations (range: r=54 to r=.81). Unacceptably high number of consensus statements (31 out of 52 statements), and no distinguishing statements for factors 2-6.
Dear Q-Methodologists,

I am a final year Clinical Psychology Doctorate trainee, and I am a complete novice with Q-methodology (and am very poor statistical knowledge compared to my peers) and learning as I go along. I am currently investigating staff views about a group intervention in a secondary care mental health service, and have tried analyzing the 14 Q-sorts (52 statements) I have managed to collect via PQMethod.

My unrotated matrix from the PCA shows the first factor to have an eigenvalue (EV) of 9.90, and subsequent factors with EV of <1 at 0.69, 0.61, 0.43, 0.34 and so on. I attempted Varimax rotation anyway, using 2, 3, 4, 5 factors, however, as might be expected from the unrotated matrix, the correlations between factors are high at between 0.75 and 0.83. Additionally, a whopping 44 out of my 52 statements were found by PQMethod to be consensus statements. This all suggests to me that a one factor solution would be the most useful.

I have seen a published paper with similarly high correlations between factors. However, in that instance, they had eigenvalues of >1 in their unrotated matrix for another 2 factors, and probably a much smaller proportion of consensus statements. They interpreted their data as indicating that all respondents held the a highly similar view, with some respondents also holding unique perceptions (also had sig. loadings on another factor) that supplemented their agreement to the first factor. Their solution was to use the unrotated matrix to interpret one 'single consensus' factor, with an additional description of a 'specificity factor', within which two participants had also loaded on to.

As mentioned, in the case of my data, I have only one factor with an eigenvalue >1, correlations of between 0.75-0.83 when I attempt varimax rotation and 44 consensus statements. I have also tried progressively more conservative significance criterion for factor loadings, however, this resulted in too few Q-sorts to meaningfully analyze.

My question therefore is If I do go with a one factor solution, how do I go about this on PQMethod? Can I use PCA, and a one factor Varimax rotation to compute an exemplar Q-sort to describe in my analysis of the common viewpoint held by all 14 participants, and complexities within that? Would a PCM with one factor varimax rotation make mathematical sense, as I have only heard of Varimax rotations of over 1.

Thank you in advance for your patience and advice.
Tia.
Dear Tia,

yes, regrettably, this is another case of a single factor solution. The eigenvalue > 1 criterion is pretty useless, especially for Q studies, but the other evidence you presented is clear enough. If there is only factor to keep (that is, no 1 of the unrotated factors), there is no sense with rotation. So you select 5 - QROTATE, answer with 'not a continuation' and then you could answer keep 1 factor only, and automatic pre-flagging (F6) would be OK in this case, save the factor, etc. I would recommend, though, to choose 2 factors to load into PQROT and to look at the plot (F4). OK, in your case the 2nd factor explains 0.69/14 = 4.9% of the variance only, you would not see much discrimination of sorts into three possible groupings, but just in case and for other interested readers of my posting, the respective regions are: (a) On top, and somewhat below either on the (b) right hand side or (c) on the left hand side of the F1 axis. Sorts (a) are then the best definers for the common, the 'general' factor, and (b) and (c) define two opposite versions of this factor. For getting the corresponding factor prototype sorts (factor scores), unrotated bipolar factor 2 must be split into two with a trick of the trade as explained somewhere else already....

Peter

---

I agree with Peter Schmolck for the most part, but would recommend the expedient of flagging all loadings on both factor 1 and factor 2 (and factor 3 if it seems justified). This will produce factor scores that are correlated virtually 0.00. Is there any chance that Tia Morera might post the factor loadings so that we might see them, and perhaps the statements as well (or at least a few of them)? We might be able to proffer better advice were we to have a better sense of the study.

---

Thank you very much Steven and Peter for your replies regarding my factors which were highly correlated, produced 41/52 consensus statements, and few distinguishing statements when subjected to various PCA with varimax rotation attempts.

In response to your request for more details about my study and the data, i am investigating
staff views about Mindfulness groups for psychosis. I had 14 participants/Q-sorts and 52 statements. The unrotated matrix was as follows:

Unrotated Factor Matrix

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<td>-0.0201</td>
<td>-0.1093</td>
</tr>
<tr>
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<td>0.7464</td>
<td>0.3618</td>
<td>-0.3148</td>
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<td>-0.2831</td>
<td>0.0964</td>
<td>-0.1510</td>
<td>0.2324</td>
</tr>
<tr>
<td>4</td>
<td>0.9114</td>
<td>-0.1199</td>
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<td>-0.0087</td>
</tr>
<tr>
<td>9</td>
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<td>-0.0213</td>
<td>0.4723</td>
<td>0.1339</td>
<td>-0.1088</td>
<td>0.0496</td>
<td>-0.0847</td>
<td>0.1222</td>
</tr>
<tr>
<td>10</td>
<td>0.8637</td>
<td>-0.2002</td>
<td>0.2290</td>
<td>0.0869</td>
<td>-0.1150</td>
<td>-0.1247</td>
<td>-0.1711</td>
<td>0.1528</td>
</tr>
<tr>
<td>11</td>
<td>0.8860</td>
<td>-0.0366</td>
<td>0.1094</td>
<td>-0.1131</td>
<td>-0.1794</td>
<td>-0.1309</td>
<td>0.2321</td>
<td>-0.0383</td>
</tr>
<tr>
<td>12</td>
<td>0.8893</td>
<td>0.0628</td>
<td>-0.1475</td>
<td>-0.0145</td>
<td>0.1089</td>
<td>-0.1829</td>
<td>-0.1035</td>
<td>-0.1471</td>
</tr>
<tr>
<td>13</td>
<td>0.8331</td>
<td>-0.0231</td>
<td>0.1675</td>
<td>-0.1868</td>
<td>0.0694</td>
<td>0.3978</td>
<td>0.1824</td>
<td>-0.0491</td>
</tr>
<tr>
<td>14</td>
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<td>0.0623</td>
<td>0.0750</td>
<td>-0.3913</td>
<td>0.1773</td>
<td>-0.1779</td>
<td>0.0980</td>
<td>0.1144</td>
</tr>
</tbody>
</table>

Eigenvalues: 9.9040 0.6867 0.6149 0.4950 0.4338 0.3444 0.3028
% explained variance: 71.5 4.4 3.2 2.2

Following some of advice you both gave (and the advice of one of my tutors who advised me that I am a trainee clinical psychologist, not a Q-methodology experimentalist and therefore advised not to complicate analysis I have focused on the unrotated factors, and have since tried manually flagging any factors that were above 0.36 (0.05 criterion) on other factors. The results were as follows:

Loadings

<table>
<thead>
<tr>
<th>QSORT</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.9299</td>
<td>0.0193</td>
<td>-0.0649</td>
<td>-0.0754</td>
</tr>
<tr>
<td>2</td>
<td>0.7718</td>
<td>-0.4053</td>
<td>-0.2927</td>
<td>0.0524</td>
</tr>
<tr>
<td>3</td>
<td>0.7464</td>
<td>0.3618</td>
<td>-0.3148</td>
<td>-0.1988</td>
</tr>
<tr>
<td>4</td>
<td>0.9114</td>
<td>-0.1199</td>
<td>0.0703</td>
<td>0.0065</td>
</tr>
<tr>
<td>5</td>
<td>0.8185</td>
<td>0.0791</td>
<td>-0.1493</td>
<td>0.3901</td>
</tr>
<tr>
<td>6</td>
<td>0.8273</td>
<td>-0.2191</td>
<td>-0.2300</td>
<td>0.0823</td>
</tr>
<tr>
<td>7</td>
<td>0.7602</td>
<td>0.5190</td>
<td>0.0500</td>
<td>0.2480</td>
</tr>
<tr>
<td>8</td>
<td>0.8741</td>
<td>-0.0552</td>
<td>-0.0182</td>
<td>0.0071</td>
</tr>
<tr>
<td>9</td>
<td>0.8092</td>
<td>-0.0213</td>
<td>0.4723</td>
<td>0.1339</td>
</tr>
<tr>
<td>10</td>
<td>0.8637</td>
<td>-0.2002</td>
<td>0.2290</td>
<td>0.0869</td>
</tr>
<tr>
<td>11</td>
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<td>-0.0366</td>
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<td>-0.1131</td>
</tr>
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<tr>
<td>14</td>
<td>0.8298</td>
<td>0.0623</td>
<td>0.0750</td>
<td>-0.3913</td>
</tr>
</tbody>
</table>

As you can see, bipolar loadings were revealed for factor 2 and 4. I therefore proceeded to split those factors which led to the following factors:
Loadings
QSORT 1 2 (2A) 3 (2B) 4 (3) 5 (4A) 6 (4B)
1 0.9299X 0.0193 -0.0193 -0.0649 -0.0754 0.0754
2 0.7718 -0.4053 0.4053X -0.2927 0.0524 -0.0524
3 0.7464 0.3618X -0.3618 -0.3148 -0.1988 0.1988
4 0.9114X -0.1199 0.1199 0.0703 0.0065 -0.0065
5 0.8185 0.0791 -0.0791 -0.1493 0.3901X -0.3901
6 0.8273X -0.2191 0.2191 -0.2300 0.0823 -0.0823
7 0.7602 0.5190X -0.5190 0.0500 0.2480 -0.2480
8 0.8741X -0.0552 0.0552 -0.0182 0.0071 -0.0071
9 0.8092 -0.0213 0.0213 0.4723X 0.1339 -0.1339
10 0.8637X -0.2002 0.2002 0.2290 0.0869 -0.0869
11 0.8860X -0.0366 0.0366 0.1094 -0.1131 0.1131
12 0.8893X 0.0628 -0.0628 -0.1475 -0.0145 0.0145
13 0.8331X 0.0231 -0.0231 0.1675 -0.1868 0.1868
14 0.8298 0.0623 -0.0623 0.0750 -0.3913 0.3913X
% expl.Var. 71 5 5 4 4 4

Having a look at the output, there are no distinguishing statements for factor 2(2a) 4(3) or 5(4A). Also I confused myself with the bipolar loadings as I know that theoretically they show opposing views about a particular viewpoint, however, a visual scan of the factor array did not reveal any obvious disagreement, only more agreement on one statement, or less disagreement about another. A sample of the factor array is cut and pasted below.

Factor Arrays

No. Statement No. 1 2(2a) 3(2b) 4(3) 5(4a)6(4b)
1 Mindfulness involves paying attention to what is happening r 1 4 4 3 4 4 4
2 Mindfulness cuts people off from their feelings. 2 -2 -3 -1 -1 -2
3 Practicing mindfulness can cause a nervous breakdown. 3 -3 -4 -3 -4 -2
4 Practicing mindfulness improves the way people get along with 4 0 1 -2 -1 -1 0
5 Mindfulness helps reduce the impact of unwanted thoughts. 5 2 4 1 0 2 2
6 Mindfulness is a useful relaxation technique. 6 0 4 -2 1 3 1
7 Mindfulness helps to take control of unhelpful thoughts. 7 1 2 3 0 0 -2
8 Mindfulness helps people become more accepting of life. 8 3 1 2 1 2 3
9 You can’t practice mindfulness if you’re psychotic. 9 -3 -1 -1 -3 -4 -1
10 Staff do not feel they know enough about mindfulness to disc 10 0 0 2 2 1 0
11 Mindfulness makes voices less upsetting. 11 -1 -1 0 0 -1 0
12 People with psychosis don’t like to attend groups. 12 -1 2 1 -4 1 -3
13 Mindfulness helps people be more accepting of themselves. 13 2 0 4 1 -1 3
14 Mindfulness can help people recover from psychosis. 14 0 0 -1 2 1 0
15 Mindfulness makes people more emotional. 15 -1 -1 -1 -1 -1 -4
16 Mindfulness helps people to stop pointless battles with them 16 1 1 3 0 0 1
17 Mindfulness jumbles people’s thoughts 17 -2 -2 -3 -1 -4 -4
18 Mindfulness is only meant for spiritual people (e.g. monks a 18 -4 -3 -4 -3 -2 -1
19 Mindfulness makes voices harder to cope with 19 -2 -2 -2 -4 -1 -1
My consensus factor was very revealing, and revealed a complexity of nuances, coupled with supporting statements from the participants that I think will provide for a rich description about staff views about mindfulness for psychosis. And in reflection, a lot of the staff participants who did volunteer did tend to be very interested and supportive of mindfulness groups, which may have accounted for a lot of consensus or similarity of views. I am also aware that in retrospect, I may have been able to phrase my Q-statements differently.

However, after 2 weeks of various painstaking attempts (for a novice Q-methodologist like myself), I am therefore tempted to stay with a one/consenus factor, that I can describe in detail, rather than what feels like squeezing blood out of a stone with the addition of ‘specificity’ factors. Furthermore I also have Q-data on patient views about mindfulness for psychosis (which although highly correlated, have thrown up less problems for analysis) so I already have plenty of data to report. I am, however, unable to find any references for the use of a one factor solution for a Q-study, or publications of studies that resulted in a one-factor solution. I found in the archives 2 reference Dr Brown made (Brown 1981, and Brown & Kil, 2002), however, they were one factor solutions that were split due to bipolar loadings, thus resulting in a 2-factor description.

I’d be grateful to hear your thoughts about my analysis attempts, and any references you may have for studies that have settled for one factor solutions.

With thanks,
Tia.

Hi Tirma,

I see that you did not follow Steven Brown’s suggestion to flag all sorts of two or more unrotated factors. Steven might further comment on that possibility the reasoning of which is not clear to me, in fact.

In my own message I certainly did not want to raise your hope for finding a plurality of distinct views. Two variants of the same factor or account at best. If nearly all sorts correlate between .80 and as high as .93 with one and the same general factor, any combination of sorts aggregated into a ‘factor’ score necessarily must correlate higher than .80 with that factor, and all such ‘factors’ must be highly intercorrelated. This leaves little leeway for not consenting between ‘factors’ on many statements.

Your split factors 4A and 4B both are defined by a single sort only, that is, these ‘factors’ are identical with sorts #5 and #14, respectively. Therefore these ‘factors’ correlate .83 and .82 with factor 1, and in comparison to that their opposite loadings of +.39 and -.39 can be neglected. These two persons quite expectedly differ in their responses in nuances only (if not just by random error).

It’s fine that you are content with your 1-factor solution. You need not read the rest. ;)

Members of this list are probably aware that I’m concerned about the too frequent occurrence of single factor situations. Different from Steven Brown and others I doubt that this reflects an often occurring ‘real’ thing, but see it likely to represent regrettable failures, and a demand in improving methods and instructions. People start with their Q project because they are keen to see how views on an issue differ, and what types of distinct views can be discerned. If one intends to prove that there exists consensus, that is, a single common view only on a certain issue, Q methodology is not the method of choice, because it’s made for detecting, and maybe even for substantiating, the existence of distinct views, but it cannot provide evidence for the non-existence of additional, unknown views.
Hello Peter,

Thank you very much for your message and your advice regarding my data. I actually did try Steven Brown's suggestion of flagging all factors, and indeed the correlations were lower. However, because I did not understand the rationale for doing this, and have not seen it done before in other published Q-studies I have looked at, I decided not to pursue. Does anyone have any references for published Q-studies that went with a one factor solution, please? I'd be very grateful for any.

Indeed I am aware from your previous posts that I have seen in the archive that you are concerned about the too frequent occurrence of single factor solutions. You mentioned that it is likely to represent 1) regrettable failures and 2) a demand in improving methods and instructions. For the benefit of myself and members on this list, what regrettable failures do you think may contribute to the result of one factor solutions? I have read a suggestion by someone else on this forum to phrase all statements positively, rather than having a mix of positive and negative statements, but I'm not sure how much of a difference this would make, and I suppose it would also depend on the topic and content of statements.

Regarding the need to improve methods and instructions, I'd be keen for your thoughts on how this could improve too. I followed the instructions suggested by Watts and Stenner (2010) and Van Exel (2005), and looked at methods used by other published journal studies, and theses at my uni (which did not vary too greatly). However, perhaps we are better looking at other texts, or being more thorough and diverse in our reading? I know the Q-method community is a very proactive and lively one with regular conferences, and the ISSS journal. Do you have any references or literature about the 'problem' of one factor solutions? And if not, then perhaps this could be the subject of an investigation in its own right, or for an editorial at some point, due to the common occurrence of one factor outcomes?

My own condition of instruction to participants was that the study was interested in their opinions about mindfulness treatment for psychosis, and how much they agreed, disagreed or had no opinion either way for each of the opinions printed on the 52 cards (and whether they feel they know much about mindfulness treatments or not, it is their opinion we are interested in). It may be relevant for me to add here that I used the same Q-set for service user participants, and although highly correlated (range 0.52 – 0.74), the data produced 4 factors, with theoretically distinct viewpoints about the subject matter.

In reflection of my use of Q-methodology for my topic, and your suggestion that "People start with their Q project because they are keen to see how views on an issue differ, and what types of distinct views can be discerned. If one intends to prove that there exists consensus, that is, a single common view only on a certain issue, Q methodology is not the method of choice, because it's made for detecting, and maybe even for substantiating, the existence of distinct views, but it cannot provide evidence for the non-existence of additional, unknown views."

I have to say from my own position, I was indeed keen to see how views on the subject of mindfulness for psychosis differed among staff, as from my own experience I have seen and heard different opinions and views that I hoped to capture with Q-methodology. Additionally, some mindfulness practitioners I know from both trainee placements, previous experience, and my field work frequently comment on 'regular referrers' and 'non-referrers' to different psychological treatments. This is an irk for psychological therapists more generally, as there appears to be a feeling that the type of treatments a patient will be referred to will depend on
lot on what staff member a patient or service user might have. As a ‘scientist-practitioner’ you can appreciate how this would be of concern as treatment availability to patients should be based on a combination of the evidence-base, clinical guidelines, and professional judgement. Therefore, I was hoping, if not expecting, a variety of distinct views or factors.

I think the main issue, for my study at least, goes back to one of the basic recommendation in the Q-method texts which instructs that as much as possible, to purposefully select participants with a diverse range of opinions. Looking at my staff sample, they were not as diverse as I wanted. In fact, I struggled to recruit due to the time and workload pressures of secondary care mental health staff (due to news coverage i needn’t elaborate the cutbacks and pressures the NHS is currently experiencing). My ideal sample would have included more of a mix, including those that i knew were critical and dubious about this treatment (i know these staff exist due to the challenging statements and questions about the treatment when i was recruiting at staff meetings, but in the end did not volunteer !). In the end the people who tended to volunteer were staff who had were particularly supportive and interested in mindfulness, and had more experience and knowledge about the treatment than most of their colleagues due to proactively reading and attending training in this area. Looking at my patient sample, I think more diversity could have been achieved (most were female, and all were patients who had been referred to a mindfulness group and accepted this treatment), however, due to having 4 distinct factors, there was enough diversity for these to emerge (there was a good age range of 24-65 years, range of time with diagnosis of a psychotic-related disorder of between 6-months and 20 years, and previous experience of psychological treatment from none previous, to >5 years of different types of treatments). From the little i have seen, it is evident that 1-factor solutions are perplexing and controversial within the Q-method community, and the debate arises time and time again. Indeed if this forum enabled ‘stickys’ i’m sure this topic would have one of the highest hits. I gather that there have been conferences and lively discussions, and if there isn’t already a publication about this issue, i think Q-methodologists would greatly like to see one. From my own study I can only conclude that even with the best of intentions, robust enough concourse and execution of method, you are nevertheless dependent on your resources and ability to obtain data from your target sample. I was able to recruit a diverse (enough) sample for my patient data, but clearly not enough for my staff data. I would never suggest that this sample had the ‘same’ view, and can recognise between them exist still finer ranges diversities and nuances within this viewpoint, but perhaps not enough for the statistical analysis to pick on (or my statistical analysis was not sensitive enough to pick up on) for multiple factors.

Nonetheless i would not go so far as to say that i am disappointed with my one factor solution. Perhaps this is due to my novice Q-methodologist status? The jury is out for this i guess. But from my critical appraisal part of my thesis I am able to say that delving into the depths of my one factor solution actually provided me with a rich, almost narrative understanding of this apparent consensus perspective. what appeared from a first-look to be contradiction in opinion, turned out to be rich nuances and qualifications within this perspective. Additionally, contrasting the staff consensus factor with patient perspectives was very revealing.

Anyway, i’d be keen to see that editorial/investigative piece about one factor solutions, as I have already been thinking about plans for my next Q-methodology study and would like to improve on my design (once this doctorate is out of the way and secure a job after graduation, that is!).

With thanks, appreciation and kind regards to Peter, Steven, and to the rest of the lively Q-methodologists in this forum,

Tirma

p.s. Again, if anyone has any, i’d be grateful for references of studies that published a one-factor solution.
Hello,
I used a one-factor solution in a study about Faculty Reading Circles which showed that among the almost all participants there were similar views about their experiences - further substantiated with their written comments. There was only one person who had a negative view but that was one out a fairly good sized group of faculty and she was unique in that she was the only faculty person who had not fully participated in the circles and had not kept up with readings...
Available at - https://uakron.academia.edu/SusanRamlo.

My student Emma Eaton Miller is about to have a one factor solution published. I can try to contact her (via FB) to ask her to send you a copy of the paper she has sent for review. We looked at the significant differences between sorts (by using the equation in political subjectivity) and discussed the variations of those and how it might represent a subjugated voice - in this case it was trainee (rather than qualified) obstetricians on what makes a good birth.
Helen Combes
Staffordshire University

Thank you every one for your helpful references and advice,

bw,

Tirma

[Personal correspondence by email]
Hi Tirma,
I'm preparing a response to your long and concise contribution yesterday which is going to take some more time ...

Just for curiosity: Did you also run an analysis with both of your samples combined? In your case I have no special expectation about possible enlightenments this approach could provide. My interest is of a more general nature. I observed that people who run their q-sort in several more or less similar or distinct participant samples, do not select the same strategy, separate analyses or one analysis for the combined total sample, more often separate than combined, I believe. I do not see any good reasons for _not_ combining the samples, and suspect that the idea of possibly quite distinct causal structures for, e.g., males and females in the R context, does not apply to Q.

If you did not yet run a combined analysis, what would you expect being well acquainted with the results from the separate analyses?

Peter

---

From: Tirma Morera
Sent: 20 May 2014 13:17
To: Peter Schmolck
Subject: RE: Data suggesting one factor solution

Hello Peter,

Thank you for your email and further consideration of my study.

Forgive me but i think i understand that you are saying that in your experience, people who run their q-sorts with distinct population samples in their study do not show a preference for either combining or analysing samples separately although perhaps separately more often. However, I'm not sure if i correctly understand what you mean by the idea of 'possibly quite distinct causal structures not applying to Q'. I think you were emphasising that Q-methodology is not necessarily geared to, or aimed at finding distinct views between different groups of people, but would be grateful if you could correct me if read that incorrectly.

In answer to your question about a combined analysis, i suppose i would have expected distinct factors with at least one factor expressing doubts about this intervention's effectiveness for psychosis (from my literature review and examination of the Q-concourse). I think i would have been less confident in predicting if staff and patients would load onto separate factors or mixed within factors, but if they did, i think staff would have been more likely than patients to have loaded onto the factor that expressed doubt.

I actually initially suggested running staff and patient data together for my study, but in discussion with my research team, we felt we should keep the samples distinct and analyse separately. However, I did in the early stages try running the analysis of both staff and patient data together out of curiosity (PCM followed by 6 factor varimax rotation). As it happened the output led to 5 distinct factors (one factor excluded due to only one loading), with correlations varying from 0.44 to 0.76. However, I did not pursue this as only 21 out of the total 43 Q-sorts were flagged, and therefore used in this analysis as opposed to a 33 Q-sorts in the separate analysis (19+14).

Now over a month later into my analysis, and a month more of immersion into Q-methodology - in addition to the headache of my staff data and the controversy of one-factor solutions – I am starting to feel that perhaps combining data would have been more viable than i thought. However, a quick glance of the data and i can see that staff and patient data are fairly representative within all 5 factors. Within my separate analyses however, I was able to find a subtle but important difference in views – staff were able to
strongly assert their view that mindfulness is helpful for mental health problems (outer limits of distribution grid), however, were more undecided about the specific effect of mindfulness for psychosis (ratings around the middle of the distribution grid). The patient factors on the other hand were able to assert that mindfulness is helpful for all mental health problems, including psychosis, that people with psychosis can attend groups, find them useful, and help with recovery. Further elaboration was revealed within the patient factors that although mindfulness can help with acceptance of voices, it does not make voices less upsetting. Furthermore, although mindfulness helps with increasing clarity of thoughts, taking control of unhelpful thoughts, and increasing awareness of them, it doesn’t necessary reduce the impact unwanted thoughts have when they do arise.

Sorry for my long-winded responses – I am currently 5 weeks to deadline, and unfortunately my life is currently revolving around my thesis which includes this empirical paper! I have found these discussions very useful though, and I will incorporate them into my 3rd paper which is the critical appraisal piece, and may come up in my viva.

I look forward to reading your response.

With thanks,
Tirma

From: Peter Schmolck [p41bsmk@unibw-muenchen.de]
Sent: 20 May 2014 16:41
To: Tirma Morera
Subject: Re: Data suggesting one factor solution

On 20.05.2014 14:17, Tirma Morera wrote:
> Hello Peter,
> 
> Thank you for your email and further consideration of my study.

Thank you, Tirma, for your response!

> Forgive me but i think i understand that you are saying that in your experience, people who run their q-rots with distinct population samples in their study do not show a preference for either combining or analysing samples separately although perhaps separately more often.

What I wanted to express is that there doesn't seem to exist consensus among researchers which strategy is the right one. And I wonder if those who do not combine samples have reasons for that which are tenable.

> However, I'm not sure if i correctly understand what you mean by the idea of 'possibly quite distinct causal structures not applying to Q'. I think you were emphasising that Q-methodology is not necessarily geared to, or aimed at finding distinct views between different groups of people, but would be grateful if you could correct me if read that incorrectly.

No, sorry, my explanation was not clear enough (and I also finished a sentence different from what I planned). I try again: I suspect that Q people erroneously believe that the structure of beliefs, the specific configurations of factors 'belong' to the respective population. Like,
e.g., neuroticism or assertiveness could be rather different in males and females. Or, what is said to be detected recently only, that heart attack proneness in females has been left undetected long due to the erroneous assumption that it is the same as it is for males for whom most data were collected.

In Q, now taking your case, you could be convinced that your general factor of the staff sample could not be validly used to describe a patient's view, and vice versa. Now, thought experiment, assume a staff q-sort happened to be inserted in the patient data file. If this sort loads strongly on one of the patient factors, is it correct to describe, interpret, explain this person's view with reference to the patient factor? This question is a little bit trickier than as it appears. Staff and patients could use terms in your q sample differently, as if they speak different languages. Now, extrapolate the thought experiment: your q sample is translated into different languages; would it be OK to combine q-sort data of different language samples? On the other hand, if two persons sort the statements in the same way, although they speak and read the statements in different languages, could that really happen by chance and not because of same understanding. I mean something like: mapping configuration can prove mapping understanding.

> In answer to your question about a combined analysis, i suppose i would
> have expected distinct factors with at least one factor expressing
> doubts about this intervention's effectiveness for psychosis (from my
> literature review and examination of the Q-concourse). I think i would
> have been less confident in predicting if staff and patients would load
> onto separate factors or mixed within factors, but if they did, i think
> staff would have been more likely than patients to have loaded onto the
> factor that expressed doubt.

My prognosis is, given the extremely high loadings on the 1st staff factor, it seems impossible that, in a combined analysis, staff would not keep together on one factor but disperse a lot across factors. But, the few staff persons with somewhat smaller loadings on the 1st factor, could find a suitable place on a patient factor.

> I did in the early stages try running the analysis of both staff and patient
> data together out of curiosity (PCM followed by 6 factor varimax
> rotation). As it happened the output led to 5 distinct factors (one
> factor excluded due to only one loading), with correlations varying from
> 0.44 to 0.76. However, I did not pursue this as only 21 out of the total
> 43 Q-sorts were flagged, and therefore used in this analysis as opposed
> to a 33 Q-sorts in the separate analysis (19+14).
>
> > I am aware that the numbers of Q-sorts flagged and used in the analysis
> > is not theoretically important to Q-methodology, which is one of its
> > strengths (in that you do not need large numbers of participants as in
> > R-methodology), however, in discussion with 2 other students in my cohort
> > conducting Q-studies, we felt that it was a 'waste' of data, and
> > ethically unsound (in respect to putting participants through this
> > process and then purposefully excluding data 'unnecessarily' - which i
> > know is debatable as actually we could have still commented on these
> > Q-sorts).

I do not know your flagging strategy, but I assume that your comparison really means that the selected solution contains definitely more sorts that can clearly accounted for by one factor only, then this solution is
more clear-cut and I confirm your decision. I don't have a statistical explanation, though. Interesting case for further clarifications, for the time after you have finished your thesis. ;)

> Now over a month later into my analysis, and a month more of immersion
> into Q-methodology - in addition to the headache of my staff data and
> the controversy of one-factor solutions – I am starting to feel that
> perhaps combining data would have been more viable than I thought.
> However, a quick glance of the data and I can see that staff and patient
data are fairly representative within all 5 factors.
could you expand on this?

> Within my separate
> analyses however, I was able to find a subtle but important difference
> in views – staff were able to strongly assert their view that
> mindfulness is helpful for mental health problems (outer limits of
> distribution grid), however, were more undecided about the specific
> effect of mindfulness for psychosis (ratings around the middle of the
> distribution grid). The patient factors on the other hand were able to
> assert that mindfulness is helpful for all mental health problems,
> including psychosis, that people with psychosis can attend groups, find
> them useful, and help with recovery. Further elaboration was revealed
> within the patient factors that although mindfulness can help with
> acceptance of voices, it does not make voices less upsetting.
> Furthermore, although mindfulness helps with increasing clarity of
> thoughts, taking control of unhelpful thoughts, and increasing awareness
> of them, it doesn’t necessarily reduce the impact unwanted thoughts have
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>
> Sorry for my long-winded responses – I am currently 5 weeks to deadline,
> and unfortunately my life is currently revolving around my thesis which
> includes this empirical paper! I have found these discussions very
> useful though, and I will incorporate them into my 3rd paper which is
> the critical appraisal piece, and may come up in my viva.
>
> I look forward to reading your response.

Intriguing conversation, thank you. You certainly have noticed that I inserted my comments before reading all. My excuse for that.
Good luck for your next 5 weeks, let's keep contact at least after that,
Peter

From: Steven Brown [sbrown@kent.edu]
Sent: 21 May 2014 00:59
To: Tirma Morera
Subject: Re: Data suggesting one factor solution

Tirma,

The attached 1981 chapter (pp. 629-634) is based on one overwhelming factor, plus a couple of minor factors. Likewise, the attached doctoral dissertation is also based on a single large factor. I hope that these help. Let us know how your research turns out.

Steven
Dear Tirma,

thank you for your well elaborated contribution to the discussion about the single factor problem! You leave no doubt that you wanted and expected to find several different views. Though you put some blame yourself on the composition of the available participant sample, you could imagine that this isn’t the complete explanation. I don’t think that the planning of the p-set selection would deserve more attention than is commonly applied. In cases like yours, the researcher has little choice whom to recruit. Besides, I feel that it’s the p sample that is routinely regarded as the sole reason for finding consensus only. At least in responses here in the discussion list. Results, even unexpectedly sparse results, are too often taken at face value without questioning the method, in this case, details of the _q sample. Can be also a matter of politeness vis-à-vis the person who asks for advice with data that seem to boil down to one big consensus factor, whom members on this list wouldn’t like to blame for method deficiencies. But in the effect, lack of attention to possible shortcomings in the method of statement selection, statement phrasing, and ???, is perpetuated. Tirma, I must insert here, in brackets so to say: your careful deliberations of your study preparations and your reasons for welcoming what you can learn from the composition of what came as a single consensus factor are understood and well received. With my contribution here I wish to stimulate a discussion and proposals that help for your and others future studies to avoid unnecessary instances of single factor situations.

> You mentioned that it is likely to represent
> 1) regrettable failures and 2) a demand in improving methods and
> instructions. For the benefit of myself and members on this list,
> what regrettable failures do you think may contribute to the result
> of one factor solutions?

With ‘regrettable failure’ I did not think of reasons for but just of the result of not finding different views where they exist (and sometimes there in fact exists independent evidence for great differences in views), especially as rectification when the possibility of failure is denied. Instead of ‘instructions’ I should better have said ‘teaching Q’ to address what I meant. At the risk of receiving critique from Steven Brown, let’s speak about best practice specifications, not in the sense as binding rules but as signposts only.

A prominent feature of the technicalities in Q methodology is the structured q set, that is the collecting or selecting of statements according to a 2- or more dimensional sampling scheme. A good method for securing breadth and heterogeneity of the statement sample. In addition, it assists in clarification of the research question which necessarily is tied to the definition of the concourse. Application of this method is found in a minority of published Q studies only, as far I have observed. The usual selection scheme, if such a formal scheme is applied at all, most often consists in a more or less arbitrary set of sub-topics of the investigated issue without cross-classifications. In a former exchange Steven Brown asserted that constructing a structured q set is quite easy. But why then is it not more commonly in use? Steven, we know, is so much more fluent in theory language than most other people that he possibly cannot figure their difficulties in finding classification dimensions suitable for their concourse.

Proposal: Would it be possible to create a collection of exemplary or, horribile dictu: ;) ready to use, sets of classification schemes?
What I believe, is quite regularly done for preventing adverse surprises in the study consists in pretesting. In addition to checking understandability, best choice of the response distribution and balance (do some people experience difficulties in filling both sides of the distribution?), for reducing single-factor risk, one should have an eye on statements that do not elicit controversies among the pretest participants.

I wish Q methodology would provide a toolkit similar to that of psychometric test construction for assisting in the process of item pre-screening. I know of course that most of the principles underlying psychometric measurement are not applicable in Q. For instance, regarding the most interesting criterion that one might wish to assess in advance, maximal ability to differentiate between Q factors, is quite unreal because the factors aren’t known in advance. The closest proxy to between-factor discrimination is item variance, which is the delimiting factor for any discrimination. No variance, no discrimination. But if we would successfully discard zero variance items in advance, we would rule out the possibility to find consensus were consensus between factors exists. But perhaps one should differentiate here: Unexpected instances of consensus is what Q as a method of discovery is after. Foreseeable unanimous assent or foreseeable unanimous dissent is not what Q strives to deliver evidence for. For instance, items with content and wording so extreme that one cannot expect any earnest respondent to agree, need not and should not be kept in the final version of the q set. Another case of unsurprising consensus refers to a situation where one side of the response continuum is ruled out a priori by definition. Teachers, when asked to judge behaviors from what they most like to most dislike in their students, will certainly differ in their relative rankings of virtues like attentiveness, diligence, creativity, politeness, etc., but they would likely display 100% consensus on all these behaviors that they are (more or less) likeable virtues and not dislikeable faults. If, under a like vs. dislike condition of instruction, most of the items are unquestionably either virtues or faults, all the intercorrelations between sorts and their loadings on the 1st factor can get boosted to a degree that prevents differential ranking orders /within/ virtues and faults, respectively, to show up in separate factors. In fact, the sorts of two teachers with diametrically opposite views regarding both their likes and their dislikes correlate /positively/ as long as they do not mix up virtues and faults in their rankings. This is a case of the well-known Simpson’s Paradox (see, for instance, http://vudlab.com/simpsons/). The above problem can be avoided, for instance, by moving the evaluative dimension from the condition of instruction (agree - disagree or important - unimportant instead of like - dislike) into the statements themselves. And in the semantically appropriate way, that is, calling virtues desirable and faults undesirable. I guess, nobody would just for the sake of ‘balancing’ create statements like ‘It’s the laziest of all my students I like the most’ or ‘Students shouldn’t be so polite all the time.’

My bottom line here is: For avoiding unnecessary single factor results one should check the statements for foreseeable consensus due to trivial reasons. This refers also to cases where participants in fact can be expected to differ in their placements of the statement, but only on one side of the continuum while the other side can be ruled out for logical or semantical reasons.

Peter