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Acceptance and Commitment Therapy for depression following psychosis: An examination of clinically significant change

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ABSTRACT

Depression following psychosis is common and can impact negatively on individuals' quality of life. This study conducted post-hoc analyses on 14 participants with psychosis from a larger randomised controlled trial who presented with clinically important levels of depression at baseline. Eight of the participants received Acceptance and Commitment Therapy (ACT), whilst the remaining six individuals received treatment as usual (TAU). The focus was on investigating *clinically significant* change in outcome measures between baseline and 3-months post-baseline in the participants. Participants completed measures assessing depression and anxiety (HADS), psychosis symptoms (PANSS) and psychological inflexibility (AAQ-II) between baseline and at 3-month post-baseline assessments. Odds ratio analysis indicated that participants receiving ACT, compared to TAU, were 15 times more likely to achieve clinically significant decreases in depression scores (Fisher's Exact Test, $p=0.05$). Differences between the ACT and TAU groups in clinically significant changes in anxiety, psychological inflexibility, positive symptoms, negative symptoms and general level of psychopathology were not statistically significant. The study provides tentative support for the use of ACT to treat depression emerging in the context of psychosis.

1. Introduction

The experience of psychosis is associated with increased levels of depression (Birchwood, Iqbal, & Chadwick, 2000). Those who develop depression appraise psychosis as a humiliating threat to their future status that will lead to the loss of a sense of personally valued social roles and goals (Birchwood et al., 2006; Birchwood et al., 2000). Consistent with these threat appraisals, internalised stigma and shame are key features evident in depression occurring in the context of schizophrenia (Gumley, Braehler, Laithwaite, McBeth, & Gilbert, 2010). Prevalence studies show that several months after an acute episode of psychosis, rates of depression can be up to 50% of cases (Birchwood, 2003; Whitehead, Moss, Cardno, & Lewis, 2002). Depression has been identified as a major factor contributing to poor quality of life in individuals with psychosis (Meijer, Koeter, Sprangers, & Schene, 2009; Saarni et al., 2010).

There is limited evidence supporting the use of pharmacological and psychological interventions for depression in the context of schizophrenia (Whitehead et al., 2002; Wykes, Steel, Everitt, & Tarrier, 2008). Although effective at treating positive symptoms, Cognitive Behavioural Therapy for psychosis (CBTp) is less effective for treating emotional dysfunction associated with psychosis such as depression, hopelessness and suicide risk (Birchwood, 2003; Tarrier et al., 2006; Wykes et al., 2008). Whereas traditional CBTp tends to emphasize the importance of changing the content of these appraisals, increasing research attention is being directed toward the benefits of applying acceptance-based approaches to the psychological treatment of psychosis (Tai & Turkington, 2009). Acceptance-based approaches place less emphasis on altering the content of cognitions in favour of focusing on how individuals *relate* to these cognitions. One possibility that warrants research attention is whether these newer approaches provide alternative options for conceptualising and treating depression in the context of psychosis.

Acceptance and Commitment Therapy (ACT) conceptualises psychological suffering as being largely caused by experiential avoidance, cognitive entanglement, and associated psychological rigidity that impedes people's ability to take behavioural steps that are consistent with their core values (Hayes & Smith, 2005).

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Preliminary findings with non-psychotic populations provide evidence that ACT can reduce levels of depression (Petersen, 2007; Zettle & Hayes, 1986; Zettle & Raines, 1989) with medium to large effect sizes (Forman, Herbert, Moitra, Yeomans, & Geller, 2007; Lappalainen et al., 2007). In addition, Bohlmeijer, Fledderus, Rokx, and Pieterse (2011) found that an ACT-based early intervention for people with mild to moderate levels of depression (total $N=93$) was effective in reducing depressive symptomatology. The ACT intervention led to statistically significant reduction in depressive symptomatology (as assessed by the *Center for Epidemiologic Studies Depression Scale*; Radloff, 1977), which were maintained at the three-month post-baseline.

There is growing research interest in the application of ACT to difficulties faced by individuals experiencing psychosis. Randomised controlled trials (RCTs) have shown that individuals receiving ACT demonstrated significantly lower belief in positive symptoms compared to Treatment As Usual (TAU) (Bach & Hayes, 2002; Gaudiano & Herbert, 2006). Bach and Hayes (2002) also found that the ACT interventions were associated with significantly reduced rates of rehospitalization at follow-up compared to a TAU. In addition, a cross-sectional study of patients with psychotic-spectrum disorders conducted by Shawyer et al. (2007) reported that greater acceptance of voices was associated with lower depression, greater confidence in coping with command hallucinations, and greater subjective quality of life. Recently, we completed a feasibility randomised controlled trial which found that ACT reduced depression in individuals with psychosis to a significantly greater extent than did TAU (White et al., 2011).

However, these preliminary treatment signals need further scrutiny in order to more precisely specify what additional benefit can be gained from ACT vs. standard treatment approaches. Gaudiano (2006) called for greater emphasis to be placed on examining the clinical significance of symptomatic outcome in trials of psychological interventions for psychosis. In line with this call, the authors of the current paper identified participants recruited to the White et al. (2011) RCT who had clinically important levels of depression at baseline assessment. Post-hoc analyses were performed to determine if there were clinically significant changes in depression, anxiety, symptoms of psychosis and psychological flexibility between baseline and three-month post-baseline assessments. Specifically, we were interested to compare whether the proportion of individuals achieving clinically significant changes in depression was greater for those randomised to ACT compared to those randomised to TAU.

2. Method

2.1. Design

A repeated measures design was employed. Participants were assessed at baseline and then again at a point 3-months post-baseline, which was intended to coincide with the end of the delivery of the intervention to those in the ACT arm of the study.

2.2. Participants

Participants in the current study were a subsample of participants recruited to a feasibility RCT of ACT for emotional dysfunction following psychosis (ACTp: White et al., 2011); please consult the White et al. (2011) paper for further details of the inclusions and exclusion criteria. None of the participants in the RCT were acutely unwell with psychosis (as defined by a score ≥ 5 on an item of the PANSS Positive Syndrome subscale). Participants were included in the current study on the basis that they were presenting with clinically important levels of depression at baseline assessment; defined as a score ≥ 8 on the Depression subscale of the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983). Fourteen of the 27 individuals recruited to the feasibility RCT met this criterion, eight were subsequently randomized to receive ACT and six to TAU; 8 of these individuals were subsequently randomized to receive ACT, whereas 6 were randomised to TAU. Case file reviews were used to ensure that all participants had an ICD-10 (WHO, 1992) diagnosis of a psychotic disorder (i.e., schizophrenia, schizoaffective disorder, schizophreniform disorder, delusional disorder, brief psychotic disorder, psychotic disorder NOS), bipolar disorder (with psychotic features), or depressive disorder with psychotic symptoms.

2.3. Measures

The *Hospital Anxiety and Depression Scale* (HADS; Zigmond & Snaith, 1983) is a widely used self-report instrument designed as a brief assessment tool of the distinct dimensions of anxiety and depression in non-psychiatric populations. Sellwood, Morrison, Beck, Heffernan, Law et al. (2013) have recently demonstrated that the internal consistency of the anxiety and depression sub-scales of the HADS in a sample of individuals diagnosed with schizophrenia were sufficiently high ($\alpha=0.86$ and 0.83 respectively).

The *Positive Scale of Positive and Negative Syndrome Scale* (PANSS; Kay, Flszbein, & Opfer, 1987): The PANSS is a 30-item observer rated scale used to assess the presence and severity of positive (e.g. delusions, hallucinatory behaviour) and negative (e.g. blunted affect, emotional with-drawl) symptoms. Psychometric studies have reported good inter-rater reliability and satisfactory internal consistency, construct validity, and concurrent validity in relation to other measures of psychopathology (Kay, Opler, & Lindenmayer, 1988; Kay, Opler, & Lindenmayer, 1989). Two research assistants who were blind to the randomisation procedures completed the PANSS (JMcT and LR). According to PANSS accuracy criteria (Kay et al., 1991; Lambert, 1996), the two raters achieved highly reliable ratings on PANSS assessments.

Acceptance and Action Questionnaire – II (AAQ-II; Bond, Hayes, Baer, Carpenter et al., 2011): The AAQ-II was developed specifically for assessing ACT outcomes. The total score provides an indication of psychological inflexibility. Example items include: *I worry about not being able to control my worries and feelings*, and *Emotions cause problems in my life*. The AAQ-II has been shown to demonstrate satisfactory structure, reliability and validity (Bond et al., 2011).

2.4. Procedure

The research procedures were approved by the West of Scotland NHS Research Ethics Committee No. 3 (ref: 09/S0701/74), and R&D approval (ref: PN09CP213) granted from NHS Greater Glasgow and Clyde NHS. Further details about recruitment of participants to the RCT is detailed by White et al. (2011). The ACT intervention was delivered by the lead author (RGW) and consisted of up to 10-sessions of individual therapy. The ACT sessions incorporated work focusing on the following themes: (1) distinguishing between different types of experience: internal experience vs. 5-sense experience; (2) recognising how we get caught up struggling to move away from suffering; (3) moving towards our values; (4) getting distance between us and our 'life stories'; (5) exploring how trying to control difficult mental experiences can be part of the problem rather than the solution; (6) noticing that we can notice: focusing on the context in which mental experiences occur rather on the content of these experiences; and (7) exploring worry thoughts associated with psychosis. All therapy sessions were recorded and competence and fidelity assessed by an expert in ACT (GM). All participants were also free to receive whatever drug treatments, case management, and/or additional