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A pilot trial of cognitive behavioural therapy for interpersonal sensitivity in individuals with persecutory delusions

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ABSTRACT

Background: Advances in understanding delusions may be used to improve clinical interventions. Interpersonal sensitivity – feeling vulnerable in the presence of others due to the expectation of criticism or rejection – has been identified as a potential causal factor in the occurrence of persecutory delusions. The purpose of this study was to examine the potential impact on persecutory delusions of a (newly devised) cognitive behavioural intervention targeting interpersonal sensitivity (CBT-IPS).
Methods: CBT-IPS was tested in an uncontrolled pilot study with eleven patients with persistent persecutory delusions in the context of a psychotic disorder. Patients had two baseline assessments over a fortnight period to establish the stability of the delusions, which was followed by six sessions of CBT-IPS, a post-therapy assessment, and a further follow-up assessment one month later.
Results: Interpersonal sensitivity and the persecutory delusions were stable during the baseline period. At the post-therapy assessment there were significant reductions of large effect size for both interpersonal sensitivity and the persecutory delusions. These gains were maintained at follow-up.
Limitations: The main limitation is that in this initial test there was no control group. The intervention may not have caused the reduction in delusions. Further, bias may have been introduced by the outcome data being collected by the therapist.
Conclusions: The findings from this evaluation are consistent with the hypothesised causal role for interpersonal sensitivity in the occurrence of persecutory delusions. CBT-IPS shows promise as a therapeutic intervention but requires a rigorous test of its efficacy.

1. Introduction

A clear challenge in schizophrenia research is to improve treatments for delusional beliefs (Freeman, 2011). One approach to this challenge, which has been gaining empirical support (e.g., Foster, Startup, Potts, & Freeman, 2010; Hepworth, Startup, & Freeman, 2011; Myers, Startup, & Freeman, 2011; Waller, Freeman, Jolley, Dunn, & Garety, 2011), is to target key putative causal factors. A key causal factor for persecutory delusions is hypothesised to be common social evaluative concerns about rejection and vulnerability (Freeman, Garety, Bebbington, Smith, et al., 2005; see Fig. 1). If a person feels vulnerable then this provides fertile ground for thoughts that others may to try to exploit this weakness. One way such concerns have been conceptualised is as 'interpersonal sensitivity', defined by Boyce and Parker (1989) as *"an undue and excessive awareness of, and sensitivity to, the behaviour and feelings of others… particularly to perceived or actual situations of criticism or rejection…"*. We define interpersonal sensitivity more simply as: 'feeling vulnerable in the presence of others due to the expectation of criticism or rejection'. Self-doubt, a sense of inferiority, and interpersonal avoidance are characteristic of individuals with interpersonal sensitivity. In this paper we report for the first time the impact of treating interpersonal sensitivity in patients with persecutory delusions.

There is now evidence from a number of studies for a link between interpersonal sensitivity and paranoia. In a 50-year longitudinal study of a community population in Sweden, the risk of developing psychosis was doubled in individuals who were initially assessed as sensitive to others or easily hurt (Borgen et al., 2010). A direct link of interpersonal sensitivity to paranoia was first reported in a series of experimental studies using immersive virtual reality (Freeman, Garety, Bebbington, Slater, et al., 2005; Freeman et al., 2003, 2008). In each study, interpersonal sensitivity was a predictor of the occurrence of paranoia. In a later report a dose–response

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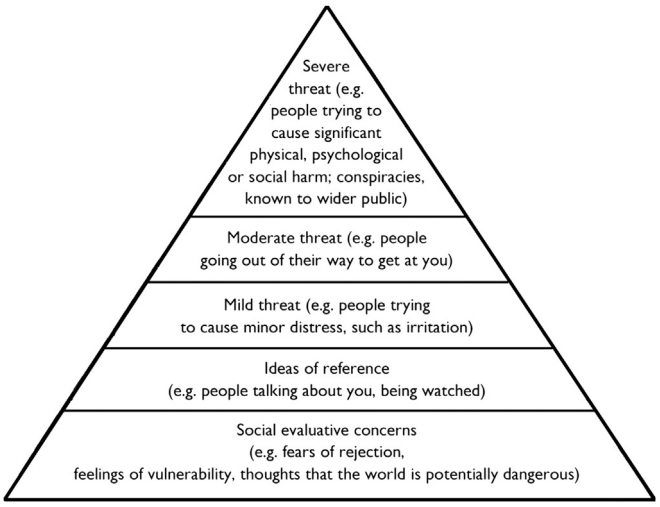

Fig. 1. The paranoia hierarchy (Freeman, Garety, Bebbington, Smith, et al., 2005).

relationship between interpersonal sensitivity and levels of non-clinical and clinical paranoia was found (Freeman, Pugh, Vorontsova, Antley, & Slater, 2010). Following this work, Masillo et al. (2012) reported that high levels of suspiciousness in individuals at risk of psychosis were significantly associated with interpersonal sensitivity. A causal link between interpersonal sensitivity and paranoia has not yet been directly tested.

The concept of interpersonal sensitivity was originally empirically studied in emotional problems, particularly depression and anxiety (e.g., Boyce & Parker, 1989; Harb, Heimberg, Fresco, Schneier, & Liebowitz, 2002; Wilhelm, Boyce, & Brownhill, 2004). Clearly such concerns about criticism and rejection are inherent in cognitive conceptualisations of social anxiety (e.g., Clark & Wells, 1995). Negative affect and related processing has been ascribed a key direct role in the occurrence of paranoia (Freeman, Garety, Kuipers, Fowler, & Bebbington, 2002). Interpersonal sensitivity is likely to be closely linked to negative beliefs about the self, which have also been studied in paranoia (Fowler et al., 2012; Freeman et al., 2014). Overall, systematic reviews of the evidence indicate that paranoia is directly associated with negative ideation about the self (Garety & Freeman, 2013; Kesting & Lincoln, 2013; Tiernan, Tracey, & Shannon, 2014). Interpersonal sensitivity as we define it concerns the content of cognitions, but such social-evaluative fears in individuals with persecutory delusions are also likely to be linked with psychological processes such as self-focus, worry, and the use of safety behaviours (Freeman et al., 2002).

The clinical implication is that treating interpersonal sensitivity will lessen paranoia. Such a clinical test will strengthen the evidence for a causal role for interpersonal sensitivity, and, importantly, add to the development of interventions for delusions. In this paper an evaluation of a brief cognitive behavioural therapy for interpersonal sensitivity (CBT-IPS) for patients with persecutory delusions is reported. The current research was an uncontrolled pilot study of whether CBT-IPS would be acceptable to patients and, potentially, beneficial. This is therefore a first stage preliminary test of the potential for targeting interpersonal sensitivity in patients with persecutory delusions. The primary hypotheses were that CBT-IPS would reduce both interpersonal sensitivity and persecutory delusions. There were two secondary hypotheses. It was hypothesised that changes in interpersonal sensitivity would be associated with changes in paranoia, and that CBT-IPS would also reduce negative beliefs about the self and others.

2. Method

2.1. Participants

Participants were recruited from adult mental health services in Oxford Health NHS Foundation Trust and Northamptonshire Healthcare NHS Foundation Trust. The inclusion criteria were: experiencing for at least six months a current persecutory delusion as defined by Freeman and Garety (2000); a rating of delusional conviction over 50% certainty; reporting interpersonal sensitivity, defined as a score on the IPSM (Boyce & Parker, 1989) of 95 or higher in accordance with the study of Freeman et al. (2010); aged between 18 and 65 years; a case note ICD-10 diagnosis of schizophrenia, schizoaffective disorder, or delusional disorder (WHO, 2010) or individuals with no diagnosis but where psychosis was judged by the team to be the primary problem; and stable medication dosage for at least a period of 1-month prior to taking part in the study. Exclusion criteria were: inability to give informed consent; the patient not wanting help for interpersonal sensitivity; substance dependence as the primary problem; already being in receipt of psychological therapy; organic impairments or a learning disability; and insufficient understanding of the English language for meaningful participation.

Eleven participants completed all therapy and assessment sessions (see Fig. 2). The mean age of this group was 38.0 years (SD = 15.8), there were 5 males and 6 females, with the ethnicities being White British ($n = 9$), Black African ($n = 1$), and Asian ($n = 1$). The diagnoses were schizophrenia ($n = 6$), delusional disorder ($n = 1$) and unspecified psychosis ($n = 4$). All but one participant was prescribed a second-generation anti-psychotic and no medication changes were reported during the study. Seven participants reported hearing distressing voices. No participant experienced visual hallucinations. Six participants had received CBT for psychosis in the past. A twelfth participant completed 3 sessions of therapy and then reported not requiring further sessions as she 'felt better'. This person failed to attend a post-therapy assessment and therefore is not included in this report.

2.2. Therapy

Table 1 summarises the key elements of the six sessions of therapy. There is no published CBT intervention for interpersonal sensitivity and therefore the content of the sessions was newly devised. The therapy was informed by a number of sources including: Butler (1999); Wells (1997); Bennett-Levy et al. (2004); research carried out by Boyce and Parker (1989); research on interpersonal sensitivity in paranoia (Freeman et al., 2003, 2010); and the first author and supervisor's clinical experience. The intervention used basic CBT principles i.e. collaborative working, agenda setting, formulation, behavioural tests, reduction of safety behaviours, attentional switching, a between-session task, and feedback on therapy (Beck, 1995). The emphasis in sessions was on experiential learning. Delusions were not directly challenged. Instead the focus was on reducing interpersonal sensitivity cognitions. The first author (VB) delivered the therapy, under the weekly supervision of a consultant clinical psychologist (DF), but adherence was not formally assessed.

2.3. Outcome measures

2.3.1. Interpersonal Sensitivity Measure (IPSM; Boyce & Parker, 1989)

The IPSM is a 36-item measure, with each item rated on a four-point scale, ranging from *'very like me'* (4) to *'very unlike me'* (1),