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Emotion and psychosis: Links between depression, self-esteem, negative schematic beliefs and delusions and hallucinations

Ben Smith [a,*], David G. Fowler [b,1], Daniel Freeman [c], Paul Bebbington [d], Hannah Bashforth [c], Philippa Garety [c], Graham Dunn [e], Elizabeth Kuipers [c]

[a] UCL, Department of Mental Health Sciences, Archway Campus, Holborn Union Building, Highgate Hill, London, N19 5LW, UK
[b] School of Medicine, Health Policy and Practice, Elizabeth Fry Building, University of East Anglia, Norwich, NR4 7TJ, UK
[c] King's College London, Department of Psychology, Box 77, Institute of Psychiatry, De Crespigny Park, London, SE5 8AF, UK
[d] UCL, Department of Mental Health Sciences, Bloomsbury Campus, Wolfson Building, 48, Riding House Street, London, W1W 7EY, UK
[e] School of Epidemiology and Health Sciences, University of Manchester, Stopford Building, Oxford Road, Manchester, M13 9TT, UK

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Abstract

Background: The role of emotion in psychosis is being increasingly recognised. Cognitive conceptualisations of psychosis (e.g. [Garety, P.A., Kuipers, E.K., Fowler, D., Freeman, D., Bebbington, P.E., 2001. A cognitive model of the positive symptoms of psychosis. Psychological Medicine, 31, 189–195]) emphasise a central, normal, direct and non-defensive role for negative emotion in the development and maintenance of psychosis. This study tests specific predictions made by Garety et al. [Garety, P.A., Kuipers, E.K., Fowler, D., Freeman, D., Bebbington, P.E., 2001. A cognitive model of the positive symptoms of psychosis. Psychological Medicine, 31, 189–195] about the role of emotion and negative evaluative beliefs in psychosis.
Methods: 100 participants who had suffered a recent relapse in psychosis were recruited at baseline for the Prevention of Relapse in Psychosis (PRP) trial. In a cross-sectional analysis, we examined the role of depression, self-esteem and negative evaluative beliefs in relation to specific positive symptoms (persecutory delusions, auditory hallucinations and grandiose delusions) and symptom dimensions (e.g. distress, negative content, pre-occupation and conviction).
Results: Analysis indicated that individuals with more depression and lower self-esteem had auditory hallucinations of greater severity and more intensely negative content, and were more distressed by them. In addition, individuals with more depression, lower self-esteem and more negative evaluations about themselves and others had persecutory delusions of greater severity and were more pre-occupied and distressed by them. The severity of grandiose delusions was related inversely to depression scores and negative evaluations about self, and directly to higher self-esteem.
Conclusions: This study provides evidence for the role of emotion in schizophrenia spectrum-disorders. Mood, self-esteem and negative evaluative beliefs should be considered when conceptualising psychosis and designing interventions.

Keywords: Schematic beliefs; Hallucinations; Delusions; Depression; Schizophrenia

1. Introduction

The role of emotion in the development and maintenance of psychosis is being increasingly

* Corresponding author. Tel.: +44 207 288 3024.
E-mail addresses: ben.smith@ucl.ac.uk (B. Smith), d.fowler@uea.ac.uk (D.G. Fowler).
[1] Tel.: +44 1603 593 601; fax: +44 1603 593 604.

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recognised (e.g. Birchwood, 2003; Birchwood and Trower, 2006; Freeman and Garety, 2003; Guillem et al., 2005; Hafner et al., 2005). There is now a body of evidence from epidemiological, questionnaire, experimental and treatment studies that low mood, low self-esteem and negative schematic beliefs can contribute to the development of symptoms of psychosis (e.g. Barrowclough et al., 2003; Bowins and Shugar, 1998; Close and Garety, 1998; Drake et al., 2004; Freeman et al., 1998, 2003; Guillem et al., 2005; Hafner et al., 2005; Hall and Tarrier, 2003; Iqbal et al., 2000; Krabbendam et al., 2002, 2005; Martin and Penn, 2001; Trower and Chadwick, 1995). Krabbendam et al. (2005) reported a study of over 4500 individuals screened for psychiatric status and followed up for 3 years. Given the presence of hallucinatory experiences at baseline, the increase in risk of psychosis outcome at Year 3 was higher in those with depressed mood at Year 1 than in those without depressed mood at Year 1. Barrowclough et al. (2003) assessed negative self-evaluation using an in-depth interview in a group with schizophrenia ($N=59$). They found that negative self-evaluation was strongly associated with the positive symptoms of psychosis (PANSS positive sub-scale). Importantly, this remained significant even when levels of depression were controlled.

However, recent cognitive conceptualisations of psychosis (e.g. Bentall et al., 1994; Chadwick and Birchwood, 1994; Garety et al., 2001; Trower and Chadwick, 1995) vary in their account of the role of emotion in psychosis. Bentall and colleagues understand persecutory delusions to be the result of a psychological defence against underlying negative emotion and low self-esteem (e.g. Bentall et al., 1994). In contrast, Garety and colleagues claim negative emotion and low self-esteem have a central, normal, direct and non-defensive role in the development of symptoms (Fowler, 2000; Freeman and Garety, 2003; Garety et al., 2001). They hypothesise that as emotional disorder increases, psychotic symptoms worsen and that this is 'normal' (i.e. the same emotional processes are likely to be operating with the same direction of effect as in the non-psychotic population).

Building on the work of other researchers (e.g. Maher 1988; Frith, 1992; Hemsley, 1993; Bentall et al., 1994; Chadwick and Birchwood, 1994; Morrison et al., 1995), Garety et al. (2001) proposed that emotional changes occur in the context of anomalous conscious experiences (e.g. heightened perceptions, thoughts experienced as voices) and adverse life events. Such emotional changes feed back into the moment-by-moment processing of anomalous experiences, influence their content, and perpetuate their occurrence. Fowler (2000) specifically suggests that distressing voices and persecutory delusions are associated with the appraisal of negative beliefs and thinking. For example, the content of distressing auditory hallucinations often mirrors the content of depressive thinking associated with low mood (Fowler, 2000).

Garety et al. (2001) also propose that these emotional processes occur against an important social and cognitive background. Early adverse experiences are postulated to create an enduring cognitive vulnerability, characterised by negative schematic models of the self and others (e.g. I am vulnerable, others are dangerous). Fowler (2000) suggests that the triggering of negative schematic beliefs in individuals vulnerable to psychosis may lead to them hearing voices with threatening or critical content. Such a view suggests that it is also the accessing of negative schematic beliefs and thoughts of negative content, rather than simply depressed mood or low self-esteem that is associated with distressing voices and persecutory delusions.

Despite these developments, it remains unclear how negative schematic beliefs and emotional dysfunction interact in psychosis. Using a large sample, the current study aims to test predictions made by Garety et al. (2001) about the role of emotion and negative schematic beliefs in psychosis. It builds on previous important work (e.g. Barrowclough et al., 2003) by extending analysis to individual symptoms and to symptom dimensions.

To facilitate this, we developed a new measure of schematic beliefs in psychosis. The Brief Core Schema Scales (BCSS); (Fowler et al., 2006) assess strongly held negative evaluations of self (e.g. I am weak, I am bad, I am useless) and strongly held negative evaluations of others (e.g. Others are untrustworthy, others are dishonest, others are threatening), as well as positive evaluations of self and others. The reason for developing this new measure was two-fold. First, there is a need for clinically relevant, relatively quick self-report measures of schematic beliefs (of self *and* others) in large studies involving multiple assessments. The BCSS is therefore clinically derived and aims capture beliefs about self and others that are often reported by clients to their therapists. Secondly, we wanted to make clear distinctions between self-report measures of self-esteem (e.g. Rosenberg, 1965) and of schematic beliefs. The negative self-items in the BCSS measure strongly held negative self-evaluations and provide an operational construct of negative schematic self-beliefs. These are distinct from existing assessments of self-esteem that tend to measure presence of positive evaluations of self or their absence, and seem to relate closely to depressed