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Research report

Public beliefs about and attitudes towards bipolar disorder: Testing theory based models of stigma

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ABSTRACT

Background: Given the vast literature into public beliefs and attitudes towards schizophrenia and depression, there is paucity of research on attitudes towards bipolar disorder despite its similar prevalence to schizophrenia. This study explored public beliefs and attitudes towards bipolar disorder and examined the relationship between these different components of stigma.
Method: Using an online questionnaire distributed via email, social networking sites and public institutions, 753 members of the UK population were presented with a vignette depicting someone who met DSM-IV criteria for bipolar disorder. Causal beliefs, beliefs about prognosis, emotional reactions, stereotypes, and social distance were assessed in response to the vignette. Preacher and Hayes procedure for estimating direct and indirect effects of multiple mediators was used to examine the relationship between these components of stigma.
Results: Bipolar disorder was primarily associated with positive beliefs and attitudes and elicited a relatively low desire for social distance. Fear partially mediated the relationship between stereotypes and social distance. Biomedical causal beliefs reduced desire for social distance by increasing compassion, whereas fate causal beliefs increased it through eliciting fear. Psychosocial causal beliefs had mixed effects.
Limitations: The measurement of stigma using vignettes and self-report questionnaires has implications for ecological validity and participants may have been reluctant to reveal the true extent of their negative attitudes.
Conclusions: Dissemination of these findings to people with bipolar disorder has implications for the reduction of internalised stigma in this population. Anti-stigma campaigns should attend to causal beliefs, stereotypes and emotional reactions as these all play a vital role in discriminatory behaviour towards people with bipolar disorder.

1. Introduction

Research on public beliefs about and attitudes towards mental illness is extensive, but almost exclusively focuses on schizophrenia and depression, or mental illness in general (Angermeyer and Dietrich, 2006; Thornicroft, 2006). Given that there are considerable differences in lay beliefs about and attitudes towards different disorders (Crisp et al., 2000), it is surprising that the field has rarely expanded beyond studies comparing schizophrenia and depression. Indeed, two literature reviews on mental illness stigma comment on the scarcity of research into public beliefs about and attitudes towards bipolar disorder (Angermeyer and Dietrich, 2006; Thornicroft, 2006). Further, a systematic review on stigma in bipolar disorder revealed a paucity of studies investigating public attitudes towards bipolar disorder, and largely inconsistent findings from the few low quality studies which were reviewed (Ellison et al., 2013). The review revealed no UK studies investigating the public's emotional, cognitive or behavioural reactions towards bipolar disorder.

The dearth of research into public attitudes towards bipolar disorder is particularly surprising given the moderate to high degree of internalised stigma found in this population There is evidence for its deleterious effect on general functioning, social adjustment, self-esteem, and depressive symptomatology (see Ellison et al., 2013 for a review).

The media have significant influence on public attitudes towards mental illness (Thornicroft et al., 2007). While this is usually negative (Huxley and Thornicroft, 2003; Leff and Warner, 2006), bipolar disorder has recently been the focus of celebrity disclosures and television programmes, which may have had a positive effect on stigma (Chan, 2010; Chan and Sireling, 2010). Indeed, anti-stigma campaigns such as *Time to Change* (www.time-to-change.org.uk) have used celebrities such as Stephen Fry as part of their

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campaigns(Eaton, 2009). Bipolar disorder has also been portrayed in the media as associated with 'creative types'(Chan, 2010; Chan and Sireling, 2010) and intelligence (Laurance, 2010). As public beliefs about intelligence and creativity have not been the focus of research to date, and the other findings have only been investigated among student populations, it remains unclear whether bipolar disorder is in fact viewed more positively.

1.1. Models of stigma

There have been no studies testing theory based models of stigma in bipolar disorder (Ellison et al., 2013). Cognitive, emotional and behavioural reactions are understood as distinct yet related components of stigma. Corrigan's model of public stigma (Corrigan, 2000; Corrigan and Watson, 2002) proposes a relationship between these reactions, whereby endorsement of a negative stereotype (i.e. people with mental illness are dangerous), leads to an emotional response (i.e. fear), which in turn leads to a behavioural reaction (i.e. a desire for social distance). Thus, emotional reactions are understood as having a key mediating role in the relationship between stereotypes (cognitive reactions) and discrimination (behavioural reactions). There is evidence for this causal path in both schizophrenia and depression, with it explaining a slightly greater proportion of the variance in social distance towards people with schizophrenia than depression (Angermeyer and Matschinger, 2003a; Angermeyer et al., 2004a). An understanding of whether Corrigan's model holds true for bipolar disorder is crucial in developing targeted anti-stigma campaigns and identifying barriers to the social inclusion of people with this diagnosis.

Cognitive reactions also include causal attributions, and attribution theory (Weiner, 1980) is often used to explain the link between causal beliefs, emotional reactions and desire for social distance. It proposes that inferring personal responsibility for a negative event increases anger and diminishes helping behaviour, while attributing the cause of an event to be outside the person's control increases pity and desire to help (Corrigan et al., 2000). It has therefore been generally assumed that endorsement of biomedical beliefs has a positive effect on social distance by reducing anger and increasing pity (Corrigan et al., 2000). Promoting biomedical causal explanations has therefore been recommended in anti-stigma campaigns (Jorm et al., 1997). There is, however, some evidence that endorsement of biomedical causal beliefs for schizophrenia has the opposite effect of increasing fear and social distance (Angermeyer and Matschinger, 2003b; Read et al., 2006), although some studies have found no relationship between the two (Bennett et al., 2008; Jorm and Griffiths, 2008), and the opposite has been found for intellectual disabilities (Connolly et al., in press; Panek and Jungers, 2008). While environmental causes are generally associated with less anger, more pity and less social distance (Angermeyer et al., 2010; Angermeyer and Matschinger, 2003b), the picture is complicated because it depends on which environmental causes are endorsed and which disorder these are attributed to (Angermeyer and Matschinger, 2003a). With no research exploring the relationship between causal beliefs, emotional reactions and social distance in bipolar disorder, it is unclear how such attributions should be used in anti-stigma campaigns or the role emotional reactions may play in mediating the relationship between causal attributions and discriminatory behaviour.

Table 1
Socio-demographic characteristics of the sample ($n=694$).

	(%)
Gender	
Male	28.9
Female	71.1
Ethnicity	
White British	76.7
White other	14.3
Black African/Black Caribbean	1.9
Asian	4.6
Other	2.5
Religion	
Religious	46.1
Non-religious/atheist/agnostic	53.9
Education	
Degree	73.9
No degree	26.1
Occupation	
Student[a]	29.6
Not student	70.4
Contact with bipolar disorder	
Yes	47.4
No	52.6

Note:
[a] Includes A-level students.

1.2. Objectives

This study addressed the following questions:

(1) What are public beliefs about and attitudes towards bipolar disorder, with regard to causal beliefs, beliefs about prognosis, stereotypes, emotional reactions, and social distance?
(2) Does Corrigan's model of public stigma hold true for bipolar disorder? Specifically, is the relationship between stereotypes and social distance mediated by emotional reactions?
(3) What effect do different causal attributions for bipolar disorder have on desire for social distance? Is this relationship mediated by emotional reactions?

2. Method

2.1. Participants

The sample comprised of 753 UK residents aged 16 years and over. This is a sub-sample of participants recruited for a study reported elsewhere which explored the effect of renaming disorders on public beliefs and attitudes (Ellison et al., in preparation). Socio-demographic characteristics of the sample are presented in Table 1 (this information was not available for 59 participants). The mean age of participants was 33 years ($SD=13.28$).

2.2. Procedure

Participants were recruited using both email and the social networking site Facebook. Selected companies, educational institutions, and voluntary organisations, including local football clubs, sent the recruitment email to their distribution lists. Facebook recruitment comprised of the recruitment email being posted on an open public online group with a request to invite others to the group. Flyers and posters were put in public libraries and community centres directing people to the Facebook group and directly to the online questionnaires. An incentivised form of snowballing was used (Gardner, 2009), which involved the initial email circulation of study details using these methods including a request to pass on the information to other people, and a reward to those who recruited the largest number of participants into the study. All participants were also given the option to enter into a prise draw to win £100 of retail vouchers. All questionnaires were