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Causal beliefs about intellectual disability and schizophrenia and their relationship with awareness of the condition and social distance

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ABSTRACT

Evidence on mental illness stigma abounds yet little is known about public perceptions of intellectual disability. This study examined causal beliefs about intellectual disability and schizophrenia and how these relate to awareness of the condition and social distance. UK lay people aged 16+(N=1752), in response to vignettes depicting intellectual disability and schizophrenia, noted their interpretation of the difficulties, and rated their agreement with 22 causal and four social distance items. They were most likely to endorse environmental causes for intellectual disability, and biomedical factors, trauma and early disadvantage for schizophrenia. Accurate identification of both vignettes was associated with stronger endorsement of biomedical causes, alongside weaker endorsement of adversity, environmental and supernatural causes. Biomedical causal beliefs and social distance were negatively correlated for intellectual disability, but not for schizophrenia. Causal beliefs mediated the relationship between identification of the condition and social distance for both conditions. While all four types of causal beliefs acted as mediators for intellectual disability, for schizophrenia only supernatural causal beliefs did. Educating the public and promoting certain causal beliefs may be of benefit in tackling intellectual disability stigma, but for schizophrenia, other than tackling supernatural attributions, may be of little benefit in reducing stigma.

1. Introduction

Lay causal beliefs about mental illness have found a lot of attention in the empirical literature. There has been much debate, particularly in relation to schizophrenia, how different causal beliefs or conceptualisations affect social distance, as measure of stigma (Angermeyer and Matschinger, 2005; Schomerus et al., 2013). This question has important implications for anti-stigma interventions. Causal attributions associated with higher levels of stigma should be discredited, whereas those associated with lower levels of stigma are obvious ones to reinforce. The most hotly contested question is whether promoting biological explanations has a positive effect on stigma or the reverse (Angermeyer et al., 2011; Corrigan and Watson, 2004; Jorm and Griffiths, 2008; Jorm and Oh, 2009; Kvaale et al., 2013; Read et al., 2006; Speerforck et al., 2014). Emphasising biological factors and parallels between physical and mental illness can be expected to reduce blame from the individual and hence stigma in line with attribution theory, as difficulties are attributed to factors outside the individual's control (Weiner, 1985). Conversely if difficulties are attributed to causes within the individual's control, attribution theory predicts that others are less willing to interact with a person.

However, the likening of mental illness to a 'brain disease' may unintentionally increase stigma by enhancing perceptions of unpredictability and dangerousness (Angermeyer et al., 2011; Read et al., 2006) and by making the person seem 'defective' and 'almost a different species' (Phelan, 2002). Evidence suggests that biological causal explanations do not necessarily have a positive effect on levels of stigma (Dietrich et al., 2004). The authors argued that biological causes and those that a person can influence themselves may be associated with a perceived lack of control, such as loss of cognitive control in the case of brain damage or loss of personal control in the case of laziness attributed to a "weak character". Hence both attributions may lead others to view the person as dangerous and unpredictable.

The evidence is mostly derived from vignette based studies, and in some cases by inviting lay people to respond directly to

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diagnostic labels. One important question to address in using diagnostically unlabelled vignettes is whether the causal beliefs of those who identify the symptoms presented as signs of the respective condition differ from the causal beliefs of those who interpret the behaviours presented differently. The present study attempted to do so, while also linking these processes to stigma. Understanding how lay causal beliefs relate to awareness of intellectual disability and schizophrenia and to stigma is important for a number of reasons. Evidence on the public's causal beliefs and stigma can inform public education efforts and identify what messages are most helpful. In addition, the integration of all three aspects in empirical inquiries allows us to identify the respective contributions of awareness and different causal beliefs to social distance and thus what targets to choose to have the greatest effect on stigma.

1.1. Lay beliefs about intellectual disability

In contrast to the burgeoning mental health literature, evidence on the general public's conceptualisations about intellectual disability is thin on the ground. A review identified only five studies during the period 1990–2010 that looked at lay people's beliefs about the causes of intellectual disabilities (Scior, 2011). Only two of these examined the relationship between causal beliefs about intellectual disability and stigma. In a US-based study, intellectual disability due to genetics was perceived most positively, while "self-inflicted" disability, in this case due to drinking cleaning fluid in childhood, was viewed most negatively (Panek and Jungers, 2008). In a study conducted in Ethiopia, supernatural retribution was deemed one likely cause of intellectual disability that was in turn associated with more negative attitudes (Mulatu, 1999). Studies in India and Tanzania identified lay causal beliefs, including a belief that intellectual disability may be due to 'god's will', parents' actions and transgressions of social or religious rules or witchcraft (Kisanji, 1995; Madhavan et al., 1990). Only 4% of lay people in India saw prenatal complications or heredity as likely causes (Madhavan et al., 1990). Significant misconceptions about the causes of Down Syndrome among the Australian public were identified by Gilmore et al. (2003), including 26% of respondents believing the condition to be caused by parental lifestyle or problems during birth. While these studies provide some useful pointers, they are mostly limited by small sample sizes and provide limited evidence on the effect of different causal beliefs on stigma.

A study of Pakistani parents of children with intellectual disabilities found that all parents made reference to theological explanations as to why they had a child with a disability, but most also gave biomedical or other explanations (Croot et al., 2008). Parents often gave theological explanations initially, but resorted to biomedical discourse when facing negative or unhelpful ideas. Their findings are in line with Hatton et al. (2003), who noted that parents who have a good understanding of the medical explanation for their child's disability appear to use this to refute unhelpful beliefs about the causes of their child's disability among their extended family and expectations of a 'cure'. Thus the idea that biomedical explanations can lower stigma is certainly present within the intellectual disability literature, but at present is poorly articulated and not empirically tested.

1.2. Aims of the study

This study set out to investigate the relationship between lay knowledge, causal beliefs and social distance in relation to intellectual disability and schizophrenia. The research questions were: 1) what beliefs about the likely causes of typical symptoms of (mild) intellectual disability and schizophrenia are prevalent in the UK? ; 2) what effect does awareness of intellectual disability/schizophrenia, as evidenced by the ability (or lack thereof) to recognise symptoms of the respective condition in a diagnostically unlabelled vignette, have on causal beliefs and social distance? In particular, do people who recognise the condition attribute more importance to biomedical factors, and less to psychosocial and supernatural factors? ; and 3) what is the association between causal beliefs and social distance? Finally, we hypothesised that the relationship between knowledge of the respective condition and social distance is mediated by participants' causal beliefs. These processes were examined in relation to intellectual disability and schizophrenia to ascertain whether they are disorder specific or more generic.

2. Methods

2.1. Participants

A cross-sectional survey involving a convenience sample of 1752 adult UK residents was conducted. The majority were female and their mean age was 25.4 years (range 16-79 years). All participants were either UK nationals or had been resident in the UK for at least 3 years. The sample was very ethnically mixed. Prior contact with someone with mental health problems was reported by 46.4%, and prior contact with someone with intellectual disabilities by 32.6%. Demographic data are provided in Table 1.

2.2. Procedure

Participants were recruited via email to the social contacts of the authors and junior researchers involved in the project, the social networking site Facebook, and advertisements on internet forums. Facebook recruitment comprised of the recruitment email being posted on open public online groups with a request to invite others to the group. Advertisements containing information about the study and a link to the on-line survey site were placed on on-line discussion forums. In addition, participants were asked

Table 1.
Participant demographic data.

Variable		N (%)
Gender		
	Female	974 (55.6)
	Male	704 (40.2%)
	Missing	74 (4.2%)
Age		
	16 to 24	1163 (66.4%)
	25 to 34	248 (14.2%)
	35 to 49	178 (10.2%)
	50 to 64	56 (3.2%)
	65+	13 (0.7%)
	Missing	94 (5.4%)
Education		
	To age 16 or less	82 (4.7%)
	To age 18	1190 (67.9%)
	University degree	405 (23.1%)
	Missing	75 (4.3%)
Ethnicity		
	White Caucasian	813 (46.4%)
	Asian	463 (26.4)
	Black African/Caribbean	255 (14.6)
	Other	131 (7.5)
	Missing	90 (5.1%)