Soc Psychiatry Psychiatr Epidemiol (2011) 46:181–189
DOI 10.1007/s00127-010-0193-3

ORIGINAL PAPER

The recognition of mental health disorders and its association with psychiatric scepticism, knowledge of psychiatry, and the Big Five personality factors: an investigation using the overclaiming technique

Viren Swami · Raj Persaud · Adrian Furnham

Received: 20 May 2009 / Accepted: 25 January 2010 / Published online: 6 February 2010

Abstract The present study examined the general public's ability to recognise mental health disorders and this ability's association with psychiatric scepticism, knowledge of psychiatry, and the Big Five personality factors. A total of 477 members of the British general public completed an overclaiming scale, in which they were asked to rate the degree to which they believed 20 mental health disorders (of which five were foils designed to resemble real disorders) were real or fake. Participants also completed a novel scale measuring psychiatric scepticism, a single-item measure of knowledge of psychiatry, and a measure of the Big Five personality factors. Results showed that participants were significantly more likely to rate foils as fake disorders than real disorders. In addition, the difference between real and foil ratings was significantly predicted by knowledge of psychiatry, psychiatric scepticism, and the Big Five personality factors of agreeableness and openness to experience. These results are discussed in relation to the overclaiming technique as a novel method to study mental health literacy.

Keywords Mental health literacy · Overclaiming · Psychiatric knowledge · Psychiatric scepticism · Big Five

V. Swami (✉)
Department of Psychology, University of Westminster, 309 Regent Street, London W1B 2UW, UK
e-mail: v.swami@wmin.ac.uk

V. Swami
Department of Psychology, HELP University College, Kuala Lumpur, Malaysia

R. Persaud
Consultant Psychiatrist, Surrey and Borders Partnership NHS Trust, Leatherhead, UK

A. Furnham
Department of Clinical, Educational, and Health Psychology, University College London, London, UK

Introduction

Although mental health disorders are common in the general population [9, 31], with considerable emotional, physical, and socioeconomic consequences [2, 39, 46], it is believed that up to 70% of individuals with mental health disorders do not seek help (see [13]). Various research groups have argued that help-seeking for mental health disorders will improve with reductions in stigma [8], greater confidence in psychiatric treatments [52] and, importantly, better mental health literacy [24, 29].

The latter refers to "knowledge and beliefs about mental disorders which aid their recognition, management, or prevention" ([29], p. 182), and mirrors the emphasis on lay theories and beliefs in the study of health and illness [14, 34, 47]. The conceptual models used by lay individuals to explain mental health maintenance and the causes of ill health are viewed as important precisely because such models determine, at least in part, help-seeking behaviour for psychiatric symptoms, compliance with treatment, and the stigmatising of patients suffering from mental illnesses [4, 7, 21, 33].

However, a large and growing body of research suggests that there is a lack of mental health literacy among the general public. For instance, lay individuals do not often share the same opinion as professional about the aetiology of mental health disorders, preferring psychosocial over

biological explanations [5, 12, 17, 23, 35]. In addition, the public also have a poor opinion of psychiatric and psychological treatments for mental health disorders [3, 6, 26, 29, 30], preferring self-help interventions and alternative therapies [24].

An important component of mental health literacy is the ability to recognise mental health disorders [4, 24]. In this regard, numerous studies in different countries have reported that the public have trouble identifying and understanding disorders such as schizophrenia, psychopathy, and depression [6, 7, 15, 27, 33, 36, 38, 48, 49, 53]. This is important because correct identification of disorders has been shown to be associated with better help-seeking behaviour.

For example, evaluations of national awareness campaigns have reported improvements in the recognition of mental health disorders such as depression, as well as understanding of the impact of such disorders [19, 22, 28, 40, 51]. Just as important, these evaluations suggest that positive changes in attitudes towards mental health disorder are related to improved perceptions of help-seeking [28]. Thus, one study showed that correct labelling of a disorder facilitated appropriate help-seeking and treatment choice among young people [54]. However, it should also be noted that diagnostic labelling and the espousal of biological causal beliefs may be related to increased stigmatising of people with mental health problems [44].

To date, studies on the accurate recognition and labelling of mental health disorders have followed one of two patterns. On the one hand, some studies have asked participants to identify a range of mental health disorders presented as case vignettes [25, 33, 49]; on the other, studies have asked participants to rate statements about particular disorders, noting inherent discrepancies between lay and professional opinions [15, 17, 48]. Both techniques have proved useful for research on mental health literacy, but the focus of such studies is invariably on disorders that are recognised by the psychiatric and medical professions.

The present study

One potential way to extend the available literature on the recognition of mental health literacy is to use the overclaiming technique (cf. [41]). In this technique, participants are asked to rate their familiarity with a large set of items (e.g. languages, historical people and events, books, places, and so on), of which a certain number are foils (i.e. they do not actually exist). The foils resemble real items and thus appear to be plausible items to non-experts, and any degree of familiarity with them constitutes overclaiming [43]. The overclaiming technique is used widely in the estimation of an individual's cognitive ability [42], but to our knowledge it has not been previously used to examine mental health literacy.

The primary aim of the present study, therefore, was to examine recognition of a range of mental health disorders using the overclaiming technique. This technique has some advantages over other methods, including its invulnerability to warning (i.e. priming participants about the existence of foils), its user-friendliness (the evaluative function of the technique is unobtrusive), and its wide applicability (the technique can be used to evaluate a wide variety of knowledge sets) (see [42]). In the present study specifically, we asked participants to rate the degree to which they believed 20 mental health disorders (of which five were foils designed to resemble real disorders) were real or fake. Any degree of familiarity with the five foils, therefore, would represent overclaiming specifically and poor mental health literacy more generally. In addition, assuming that the difference between ratings of real disorders and foils constitutes a measure of mental health literacy, we would be able to examine the association between this measure and various psychological variables.

Specifically, in the present study we focused on psychiatric scepticism, psychiatric knowledge, and the 'Big Five' personality factors. In the first instance, we designed a novel scale to measure psychiatric scepticism, that is a cynicism towards psychiatry and psychiatric conceptualisations, possibly coupled with a lower willingness to rely on psychiatric treatments and biomedical orientations toward mental illness. Although the term psychiatric scepticism is sometimes discussed in the literature [45], we were unable to find a reliable measure of the construct and hence developed a novel scale for the current study.

As a corollary to psychiatric scepticism, we also measured self-reported knowledge of psychiatry using a single-item scale. Most previous studies using similar scales have shown that psychiatric knowledge is a weak-to-moderate predictor of mental health literacy [15, 18, 49], although the association may be weak or non-significant in conditions where knowledge is generally poor [16]. Thirdly, we examined the association between mental health literacy and the Big Five personality factors. The Big Five is a hierarchical model of personality with five bipolar traits (agreeableness, conscientiousness, emotional stability, openness, and extraversion) representing personality at the broadest level of abstraction [37]. The framework has been shown to have good predictive ability in many real-world domains [11], but to our knowledge no previous study has applied it in relation to mental health literacy.

In the first instance, we expected that poorer mental health literacy (operationalised in the present study as a smaller numerical difference between ratings of real disorders and foils) would be associated with greater psychiatric scepticism (cf. [45]). Second, we predicted that greater

knowledge of psychiatry would be associated with better mental health literacy, which is what has been reported in previous work [15, 18, 49]. Given the dearth of previous work in relation to mental health literacy and the Big Five, formulating explicit hypotheses in this instance was more difficult. Of the Big Five, Openness to Experience was the factor that was most likely to be positively associated with greater mental health literacy, given this factor's association with creativity, higher general knowledge, and intelligence (see [11]).

Method

Participants

The participants of this study were 260 men and 217 women recruited from the British general public (age $M = 38.11$, SD = 14.89). The majority of participants were of European Caucasian descent (63.3%), with the remainder being of Asian descent (21.4%), African Caribbean descent (9.2%), or of some other ethnic background (6.1%). Most participants were Christians (40.0%), with others self-reporting as being atheists (34.9%), Muslims (10.7%), Buddhists (5.5%), or of some other religious affiliation (8.8%). In terms of highest education qualifications, 11.7% had been educated to a GCSE level, 23.1% had A-Level qualifications, 37.5% had a Bachelors degree, 20.5% had a Masters degree, 3.4% had a doctorate, and 3.8% had some other qualification. In terms of marital status, 34.2% were single, 22.6% were in a dating relationship, 32.7% were married, 9.2% were separated or divorced, and 1.3% had some other status.

Materials

Mental health disorder recognition

Participants were presented with 20 mental health disorders followed by a brief statement describing the disorder (see Table 1). Of the 20 disorders, 15 represented real disorders that are included in DSV-IV [1], and their descriptions provided minimum diagnostic criteria for diagnosis. In addition, five disorders were foils designed by a professional consultant psychiatrist (the second author) to resemble real mental health disorders, which would seem plausible to individuals with little or no training in psychiatry or the psychological sciences. Participants were asked to rate the degree to which they believed each disorder was real or fake (1 = *Real*, 7 = *Fake*). Using Winer's intra-class reliability for *k* means, we found a high degree of agreement in participants' ratings of real disorders (0.96) and foils (0.94).

Psychiatric scepticism scale

For the present purposes, we designed a novel scale to measure an individual's degree of psychiatric scepticism (see Table 2). The first author initially compiled a list of statements about psychiatry that varied in their degree of scepticism towards psychiatry as a legitimate science. This initial list of statements was then revised by the final author to maximise clarity and to minimise redundancy. The final list consisted of 16 items relating to psychiatric scepticism, which participants were asked to rate for agreement on a 7-point scale (1 = *Strongly disagree*, 7 = *Strongly agree*). The factor structure and internal consistency coefficients for this scale are described in the "Results".

Ten item personality inventory (TIPI)

This is a brief scale for assessing the Big Five personality factors, which shows adequate convergent and discriminant validity, test–retest reliability, and patterns of external correlates. Participants rated the extent to which a pair of traits (e.g. 'Extraverted, enthusiastic') applied to them on a 7-point scale (1 = *Disagree strongly*, 7 = *Agree strongly*). Five items were reverse-coded, and two items were averaged to arrive at scores for each of the Big Five personality traits. Internal consistency coefficients for each of the Big Five factors were as follows: extraversion, 0.56; emotional stability, 0.52; conscientiousness, 0.55; openness to experience, 0.60; and agreeableness, 0.59. Although these alpha coefficients are below the recommended cutoff of 0.70, they are acceptable for two-item scales and are in line with TIPI alphas reported elsewhere (see [20]).

Knowledge of psychiatric disorders

Following previous studies [15, 17, 48], we asked participants to rate their lifetime knowledge of psychiatric disorders on a 7-point scale (1 = *Not at all knowledgeable*, 7 = *Very knowledgeable*).

Demographics

All participants provided their demographic details consisting of sex, age, ethnicity, religion, highest education qualification, marital status, and annual income.

Procedure

All participants were recruited opportunistically by the authors of this study, which in practice meant approaching potential participants at several public locations in Greater London (e.g. train stations, parks, libraries). The nature of the experiment was explained to participants, and once

Table 1 Mean ratings and standard deviations for each of the 20 psychiatric disorders

Item	*M*	SD
(1) *Schizophrenia* A mental condition characterised by abnormalities in the perception or expression of reality. It most commonly manifests as auditory hallucinations, paranoid or bizarre delusions, or disorganised speech in the context of significant social or organisations dysfunction (R)	1.71	1.17
(2) *Dyslexia* A learning disability that is characterised by difficulties with learning how to decode words, to spell and to read accurately and fluently, but with no intellectual deterioration (R)	1.78	1.24
(3) *Night fear syndrome* An anxiety disorder characterised by acute fears that something terrible will happen while the patient is asleep. Sufferers are so afraid of waking up that they often sleep for many more hours than most others, in some cases up to several days on end (F)	4.32	1.80
(4) *Obsessive–compulsive disorder* An anxiety disorder most commonly characterised by obsessive, distressing, intrusive thoughts and related compulsions (tasks or 'rituals') which attempt to neutralise the obsessions (R)	1.99	1.15
(5) *Post-traumatic stress disorder* An anxiety disorder that can develop after exposure to one or more terrifying events, characterised by the re-experiencing of that trauma and accompanied by symptoms of increased arousal and avoidance of stimuli associated with the trauma (R)	1.80	1.18
(6) *Blue sky complex* If, while on holiday to sunnier climates, an individual experiences a traumatic event, she or he associated good weather with the trauma and develops an avoidance of fine climates. Simply looking at pictures of blue skies, as in holiday brochures, will cause sufferers to have panic attacks (F)	5.03	1.80
(7) *Munchausen syndrome* A psychiatric disorder in which those affected fake disease, illness or psychological trauma in order to draw attention or sympathy to themselves (R)	3.03	1.72
(8) *Acalculia* An acquired impairment in which individuals have difficulty performing simple mathematical tasks, such as adding, subtracting, multiplying and even simply stating which of two numbers is larger (R)	3.41	1.69
(9) *Panic disorder* The presence of recurrent, unexpected panic attacks followed by at least 1 month of persistent concern about having another panic attack, worry about the implications of the panic attacks, or a significant behavioural change related to the attacks (R)	2.18	1.35
(10) *Multiple identity replication* A personality disorder in which an individual has more than one personality and cycles through these different personalities at random, believing that they are someone else for a particular period of time (F)	3.72	1.94
(11) *Major depressive disorder* A mental disorder characterised by a pervasive low mood, loss of interest in usual activities, and diminished ability to experience pleasure (R)	2.18	1.42
(12) *Anorexia nervosa* An eating disorder where an individual refuses to maintain a minimally normal body weight, is intensely afraid of gaining weight, and exhibits a significant disturbance in the perception of the shape or size of his/her body (R)	1.62	1.11
(13) *Absent attention disorder* An attention disorder in which patients lapse into what appear to be mini hypnotic states several times a minute, characterised by different dream states that occur every few seconds for several minutes on end (F)	4.00	1.87
(14) *Paruresis* A phobia in which the sufferer is unable to urinate in the (real or imaginary) presence of others, such as in a public restroom (R)	3.72	1.69
(15) *Autistic disorder* A brain developmental disorder characterised by the presence of markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and interests (R)	1.78	1.31
(16) *Generalised anxiety disorder* An anxiety disorder characterised by excessive, uncontrollable and often irrational worry about everyday things, which is disproportionate to the actual source of the worry and which interferes with daily functioning (R)	2.35	1.46
(17) *Social anxiety disorder* An anxiety disorder characterised by a marked and persistent fear of social or performance situations in which embarrassment may occur and win which exposure to the situation invariably provokes an immediate anxiety response (R)	2.53	1.47
(18) *Attention-deficit hyperactivity disorder* (ADHD) A neurobehavioral disorder characterised by a persistent pattern of inattention and/or hyperactivity, as well as forgetfulness, poor impulse control or impulsivity, and distractibility (R)	2.31	1.62
(19) *Antisocial personality disorder* A psychiatric disorder characterised by a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence due to the lack of love and care for the child (R)	3.02	1.75
(20) *Sleep Switch Syndrome* A sleep disorder in which an individual has the experience of falling asleep and awaking instantly, when in fact they have been asleep for several hours (F)	4.30	1.93
Overall real disorders	2.36	0.85
Overall foil disorders	4.27	1.41

they provided informed consent, they were given a four-page questionnaire to complete along with brief instructions. All participants took part on a voluntary basis and were not remunerated for their participation. Given the nature of this study, we paid particularly attention to fully debriefing (verbally) participants once they had completed and returned the questionnaire to the experimenter.

Table 2 Items and factor loadings of the psychiatric scepticism scale

Item	Factor loading
(13) Psychiatric diagnoses are often based on the individual or cultural prejudices of psychiatrists	0.83
(14) Psychiatric diagnoses serve to pathologise individuals simply for being different	0.81
(15) Psychiatrists often misdiagnose or misunderstand those from ethnic, gender, or cultural groups other than their own	0.80
(8) Psychiatrists often exaggerate evidence of psychiatric symptoms	0.80
(2) Many psychiatric diagnoses or disorders do not meet basic scientific standards	0.76
(11) Psychiatric diagnoses serve only to stigmatise patients	0.74
(4) Current psychiatric treatments are ultimately far more damaging than helpful to patients	0.70
(12) The attitude psychiatrists toward patients is often experienced as demeaning and controlling	0.68
(9) The ethical integrity of psychiatry is compromised by financial and professional links with pharmaceutical and insurance companies	0.67
(1) The specific definitions of, or criteria for, many current psychiatric diagnoses are vague and arbitrary	0.65
(16) Most medications prescribed by psychiatrists have been proven to improve or manage mental health disorders	−0.63
(10) Psychiatry uses a system of diagnoses that is scientifically reliable and valid	−0.64
(5) Psychiatry inappropriately applies medical concepts to the mind and society	0.60
(3) The definitions, or criteria for, many current psychiatric disorders leave too much room for opinions and interpretations	0.59
(7) Psychiatry inappropriately excludes other approaches (e.g. alternative medicine) to mental distress	0.58
(6) Psychiatrists never treat patients against their will	−0.38

Results

Descriptive statistics

Mean ratings and standard deviations for each of the 20 psychiatric disorders are reported in Table 1. We also calculated an overall rating for the real and foil disorders by taking the mean of items associated with each category. As can be seen in Table 1, the foil disorders had a higher mean rating than the real disorders (indicating a stronger belief that these disorders were fake). There were no sex differences in ratings of the real (men $M = 4.20$, SD = 1.42; women $M = 4.36$, SD = 1.38), $t(475) = 1.26$, $p = 0.209$, $d = 0.11$, or foil disorders (men $M = 2.40$, SD = 0.87; women $M = 2.31$, SD = 0.82), $t(475) = 1.11$, $p = 0.266$, $d = 0.11$. For this reason, these data were pooled across sex for further analyses. A repeated measures t test revealed that the difference between the mean ratings for real and foil disorders was significant, $t\ (475) = 27.03$, $p < 0.001$, $d = 1.61$.

We also calculated an overall overclaiming score by taking the difference in mean ratings for real and foil disorders, where a higher difference reflects a stronger belief that foils were fake disorders, and hence better mental health literacy ($M = 1.91$, SD = 1.55).[1] The distribution of this data did not differ significantly from normality (Kolmogorov–Smirnov $z = 1.55$, $p = 0.57$), allowing us to treat this item as a parametric variable. There were no sex differences on this difference score (men $M = 1.80$, SD = 1.53; women $M = 2.05$, SD = 1.56), $t(475) = 1.76$, $p = 0.080$, $d = 0.16$. To further analyse this difference score, we conducted between-group analyses by educational attainment and ethnicity. Results of a one-way analysis of variance (ANOVA) showed no significant between-group differences on educational attainment, $F(1, 471) = 1.97$, $p = 0.082$, $\eta_p^2 = 0.02$, or ethnicity, $F(1, 473) = 1.32$, $p = 0.267$, $\eta_p^2 = < 0.01$.

Psychiatric scepticism

An exploratory factor analysis was conducted with the 16 items of the psychiatric scepticism scale for all participants. The significance of Bartlett's test of sphericity, $\chi^2 = 4{,}189.36$, $df = 120$, $p < 0.001$, and the size of the Kaiser–Meyer–Olkin measure of sampling adequacy, KMO = 0.93, revealed that the 16 items had adequate common variance of a factor analysis [50]. We, therefore, conducted a factor analysis with Varimax rotation, where the number of factors to be extracted was determined by factor eigenvalues above 1.0, inspection of the Scree plot [10], and an extraction criterion of 0.30 [32]. Based on these criteria, a single factor was extracted, which in total explained 29.9% of the variance and had an eigenvalue of 4.78 (see Table 2 for factor loadings). Based on these results, we computed an overall psychiatric scepticism score by taking the mean of all 16 items, following reverse-coding of three negatively loading items. The internal consistency coefficient (Cronbach's α) for this factor score was 0.92.

[1] Calculating a bias or difference index such as this is meaningful in its own right, as demonstrated in studies of overclaiming in relation to intelligence (see [42, 43].

Table 3 Inter-item correlations between the real–foil difference scores (where a higher difference reflects a stronger belief that foils were fake disorders, and hence better mental health literacy), psychiatric scepticism, the Big Five factors, knowledge of psychiatric disorders, and participant age

	(1) Real–foil difference	(2) Psychiatric scepticism	(3) Extraversion	(4) Agreeableness	(5) Conscientiousness	(6) Emotional stability	(7) Openness	(8) Knowledge of disorders	(9) Age
(1)		−0.32**	−0.04	0.20**	−0.04	0.13**	0.03	0.38**	−0.03
(2)			−0.08	−0.04	−0.01	−0.17**	−0.40**	−0.44**	0.18**
(3)				0.05	0.02	0.04	0.28**	0.08	−0.05
(4)					0.03	0.16**	0.06	0.03	0.06
(5)						0.25**	0.12*	0.09*	0.02
(6)							0.02	0.06	−0.04
(7)								0.30**	−0.19**
(8)									−0.23**
M	1.91	3.69	4.40	4.88	4.87	4.66	5.04	3.62	38.11
SD	1.55	1.07	1.46	1.12	1.37	1.33	1.57	1.59	14.89

* $p < 0.05$; ** $p < 0.001$

Correlations

We computed bivariate correlations between the real–foil difference scores, psychiatric scepticism, the Big Five factors, knowledge of psychiatric disorders, and participant age. As can be see in Table 3, the difference scores were significantly correlated with psychiatric scepticism, agreeableness, emotional stability, and knowledge of psychiatric disorders. It was also noteworthy that psychiatric scepticism was significantly correlated with emotional stability, openness to experience, participant age, and knowledge of psychiatric disorders. The latter correlation provides a measure of convergent validity for the novel psychiatric scepticism scale.

Multiple regression

Following the correlational analyses, we conducted a multiple linear regression with the difference scores as the dependent variable and all other variables as predictors. Results of this analysis showed that the regression was significant, $F(8, 476) = 18.39$, $p < 0.001$, Adj. $R^2 = 0.23$. Of the variables entered into the model, the only significant predictors were (in order of strength) knowledge of psychiatric disorders (st. $\beta = 0.33$, $t = 7.11$, $p < 0.001$), psychiatric scepticism (st. $\beta = -0.22$, $t = 4.61$, $p < 0.001$), Agreeableness (st. $\beta = 0.18$, $t = 4.36$, $p < 0.001$), and openness to experience (st. $\beta = -0.13$, $t = -2.72$, $p = 0.007$).

Discussion

This is the first study to use the overclaiming technique to examine mental health literacy. Our results showed that participants were significantly more likely to rate the five foils as fake disorders than they were the real disorders. In addition, the difference between ratings of real disorders and foils, which we assumed to be a measure of mental health literacy, was significantly predicted by knowledge of psychiatric disorders, psychiatric scepticism, and the Big Five personality factors of agreeableness and openness to experience. These results are discussed in further detail below.

A wealth of previous research has shown that the general public have trouble identifying real mental disorders such as schizophrenia and depression [6, 7, 17, 27, 28, 33, 38, 48, 53]. In contrast, the results of the present study suggest that the general public are capable of identifying fake disorders that are embedded among real disorders. One possible explanation for the latter result is that our foils did not sufficiently resemble real disorders to seem plausible to our participants. That is, the foils may not have been sufficiently 'real' to elicit overclaiming responses.

Even acknowledging this possibility, our results lend themselves to an alternative explanation: it may be that there is a distinction between recognition and understanding of real disorders and that of fake disorders. In other words, real mental disorders may be more salient to participants, possible because of their appearance in the public sphere (cf. [15]). By contrast, our foils would have received no such coverage among the public (e.g. there may not have been a semantic link between these foils and mental health knowledge), leading to a greater tendency to rate these as fake disorders. In general, these findings warrant further investigation as they may highlight ways in which understanding of mental health issues develop and are propagated among the general public.

Our results also showed that mental health literacy, as indexed by the difference in ratings of real disorders and

foils, was significantly predicted by knowledge of psychiatric disorders, psychiatric scepticism, and the Big Five personality factors of agreeableness and openness to experience. In the first instance, our results replicate previous work showing that greater knowledge of psychiatry in general or specific mental health disorders results in improved mental health literacy [15, 18, 49]. These results are also consistent with reports that national awareness campaigns are associated with improvements in the recognition and understanding of mental health disorders [28, 40].

Our results also extend previous work by showing that psychiatric scepticism is associated with poorer mental health literacy. That is, individuals who take a cynical attitude towards psychiatry appear to have a poorer ability to recognise foils from real disorders. Given the moderate negative correlation between psychiatric scepticism and knowledge of psychiatry, it might be argued that psychiatric scepticism mediates the association between knowledge and mental health literacy. These results are important in themselves because they suggest that psychiatric scepticism, a relatively under-researched topic, may influence mental health literacy and, in turn, help-seeking behaviour [45].

Finally, our results showed that the Big Five personality factors of agreeableness (positively) and openness (negatively) predicted better mental health literacy, albeit weakly. The association between agreeableness and mental health literacy is possibly explained as a function of the tendency for agreeable individuals to be accommodating and empathetic in social situations. That is, agreeable individuals may have better mental health literacy because they are more concerned with the well-being of others. On the other hand, the negative association between mental health literacy and openness is more difficult to explain, given that open individuals would be expected to be more intellectually curious and attentive to inner feelings. One possibility is that, to be confident that a foil does not exist would require some degree of confidence about a large and complex field, and more open individuals may feel a foil is unlikely to exist but do not rule it out entirely (i.e. they are more open to the possibility that a disorder exists for which they have no knowledge). However, it should be also noted that, in our study, the Big Five personality factors showed only moderate internal consistency, and it is important to replicate these findings using more reliable scales.

Other limitations of the present study include the reliance on an opportunity sample of the general public, which limits our ability to generalise these findings. In addition, we have only examined the association between mental health literacy and a small number of individual differences variables. In total, the included variables explained just over 20% of the variance in mental health literacy, but there may be other pertinent variables that future studies could investigate. These might include gendered identities, emotional intelligence, and other demographics such as socioeconomic class. Finally, future work could also extend the present research using more sophisticated overclaiming measures and analyses that were not possible in the present study (e.g. signal detection analysis; see [42].

In conclusion, this study is the first to use the overclaiming technique to study mental health literacy among the general public. Researchers studying mental health literacy may find this technique useful, particularly as it has a number of advantages over traditional measures (for a discussion, see [42]). More generally, our results may have public health implications, particularly if our results can be extended. For example, it may be useful to examine the extent to which participants are likely to seek help for real disorders compared with foils, to stigmatise others based on this distinction. Certainly, using novel methodologies such as in the present study may highlight new avenues for research that have not been previously considered.

Acknowledgments We are grateful for the assistance of Idris Alsagoff, Adnan Haque, Nicolas S. Alexander with data collection.

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