How People Evaluate Others With Social Anxiety Disorder: A Comparison to Depression and General Mental Illness Stigma

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Despite the availability of effective interventions, most individuals with social anxiety disorder do not seek treatment. Given their fear of negative evaluation, socially anxious individuals might be especially susceptible to stigma concerns, a recognized barrier for mental health treatment. However, very little is known about the stigma specific to social anxiety disorder. In a design similar to Feldman and Crandall (2007), university undergraduate students read vignettes about target individuals with a generic mental illness label, major depressive disorder, and social anxiety disorder. Subjects rated each of 3 people in the vignettes on social distance and 17 dimensions including dangerousness, heritability and prevalence of the disorder, and gender ratio. Results indicated that being male and not having experience with mental health treatment was associated with somewhat greater preferred social distance. Multiple regression analyses revealed that being embarrassed by the disorder and dangerousness predicted social distance across all 3 vignettes. The vignette for social anxiety disorder had the most complex model and included work impairment, more common among women, and more avoidable. These results have implications for understanding the specific aspects of the stigma associated with social anxiety disorder. Public service messages to reduce stigma should focus on more accurate information about dangerousness and mental illness, given this is an established aspect of mental illness stigma. More nuanced messages about social anxiety might be best incorporated into the treatment referral process and as part of treatment.

Despite the high prevalence of social anxiety disorder (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012) and its responsiveness to psychosocial and pharmacological interventions (Canton, Scott, & Glue, 2012), most people with social anxiety disorder do not seek treatment. In fact, over 80% of those with social anxiety disorder receive no treatment, compared with 40% of those with major depressive disorder and 50% of those with generalized anxiety disorder (Grant et al., 2005).

One factor that interferes with seeking treatment for mental disorders is the perceived public stigma and family shame attached to having a mental disorder (Corrigan, 2004; Vogel, Wade, & Hackler, 2007). *Stigma*, as defined by Goffman (1963) is the process of distinguishing individuals with certain socially discredited characteristics as different from the rest of society and then labeling these individuals to maintain that separation. Stigma about mental illness is driven, in part, by media portrayals, which frequently associate mental illness with violence, crime, or general dangerousness (Sieff, 2003).

The linking of socially undesirable characteristics, like dangerousness, to negative stereotypes about a labeled category of individuals frequently results in tangible separation of the stigmatized group through loss of status, discrimination, and differences in social, economic, and political power (Link & Phelan, 2001). For example, when students were asked to rate a set of hypothetical job applicants diagnosed with a back injury or mental illness, those with a back injury were viewed more favorably and were more likely be hired than those with a chronic mental illness (Gouvier, Systma-Jordan, & Mayville, 2003). Thus, mental illness stigma can have direct effects on daily functioning through differential privilege and indirect effects through social rejection (Feldman & Crandall, 2007).

Most previous studies of mental illness stigma have focused on serious mental illness, such as schizophrenia. Much less is known about stigma of other, more common mental disorders, such as depression and anxiety. Nevertheless, exceptions can be found in

three recent Australian studies on stigma related to depression (Griffiths, Christensen, & Jorm, 2008), generalized anxiety disorder (Batterham, Griffiths, Barney, & Parsons, 2013), and social anxiety disorder (Yap, Reavley, Mackinnon, & Jorm, 2013). In these studies, participants received vignettes portraying typical cases of the aforementioned disorders. Then, they answered questions assessing their sociodemographic characteristics, exposure to mental disorders, and personal and perceived stigma of the disorders. These studies revealed that male gender and less exposure to mental disorders predicted endorsement of more stigmatizing attitudes toward depression, generalized anxiety disorder, and social anxiety disorder (Batterham et al., 2013; Griffiths et al., 2008; Yap et al., 2013). Unfortunately, while this research extends the literature on predictors of stigma for more common mental disorders, it provides little information about the nature of stigma for these disorders, since only stigmatizing attitudes related to dangerousness/unpredictability and personal weakness (vs. illness) were examined (Yap et al., 2013).

Feldman and Crandall (2007) examined specific stigmatizing attitudes of mental illness in great depth. Undergraduate students rated vignettes describing individuals with 40 different *DSM–IV–TR* (American Psychiatric Association, 2000) mental disorders, including social anxiety disorder and depression, on 17 dimensions relevant to mental illness. Participants then completed a social distance measure (Bogardus, 1923) to assess social rejection of individuals with mental illness. Despite finding social rejection of most mental illnesses portrayed in the vignettes, Feldman and Crandall (2007) were able to identify three significant dimensions that predicted preference for social distance from people with mental illness: *dangerousness, personal responsibility*, and *rarity*. In other words, the most stigmatizing mental illnesses were those that were viewed as dangerous, the person's fault, and uncommon. Social anxiety disorder was among the least stigmatized of the disorders Feldman and Crandall (2007) investigated. One limitation of the Feldman and Crandall study is that it provided no specific information on the content of the stigma associated with social anxiety disorder. Also, the extended descriptions included more information than most people have about the disorders, thus not accurately evoking stigma that may come into play when people encounter someone with the disorder.

Thus, little is known about how individuals with social anxiety disorder are stigmatized, even though stigma might be of particular concern for individuals with social anxiety disorder given that the core feature of the disorder is fear of negative evaluation by others (American Psychiatric Association, 2013). Indeed, Olfson and colleagues (2000) found that a commonly cited reason for those with social anxiety not seeking treatment was fear about what others would think or say about them, which may reflect a type of stereotype threat. Stereotype threat occurs when a person knows about the stereotypes against him or her and feels threatened by the possibility of confirming these stereotypes (Steele & Aronson, 1995).

To reduce stereotype threat and enhance utilization of effective treatments for social anxiety disorder (e.g., Powers, Sigmarsson, & Emmelkamp, 2008), it seems necessary first to clarify the nature of the stereotypes about social anxiety disorder. Therefore, the present study compared perceptions of an individual described as having social anxiety disorder to an individual described as having major depressive disorder and an individual simply labeled with a mental illness. Major depressive disorder was included as a comparison because it is another common disorder (lifetime prevalence 14.4%; Kessler et al., 2012), and people with depression report perceived stigma regarding their mental disorder (Sirey et al., 2001). Vignettes with targets described as experiencing symptoms of depression were rated to be more unfriendly and unpleasant, and generally more negatively when labeled as having depression than a more general label such as mental illness or mental disorder (Szeto, Luong, & Dobson, 2013). The comparison to an unspecified mental illness in the present study allowed for evaluation of the specificity of any stigma associated with social anxiety disorder above and beyond a mental disorder in general.

Hypotheses

The following hypotheses were tested:

Hypothesis 1: Consistent with Feldman and Crandall (2007), we hypothesized that greater personal responsibility, dangerousness, and rarity would predict more social distance from individuals identified as having a mental disorder.

Hypothesis 2: Individuals with social anxiety disorder would be stigmatized, as indicated by a reported desire for social distance and an association between social anxiety disorder and certain undesirable traits.

Hypothesis 3: Finally, the study also sought to describe the nature of the stereotypes about individuals with social anxiety disorder and identify how they are similar to and different from the stereotypes for mental illness and for major depressive disorder.

Method

Participants

Two hundred sixty-five undergraduate participants were recruited from a public Midwestern university's online subject pool. Those who completed the study were awarded credit in partial fulfillment of course requirements. Of the 265 participants recruited, 244 (92.1%) completed the full set of questionnaires and were used in data analyses. The largest portion of participants (41.6%) were in their first year of college. Fifty percent of the participants were women, and 85.2% of participants were European American with 7.4% Latino, 3.3% African American, and 2.0% Asian American. Eight percent of participants reported current involvement with mental health services (i.e., psychotherapy or pharmacotherapy), and 23.1% reported past participation in treatment.

Stimuli

Prior to completing each measure described below, participants were provided with instructions to imagine or recall an individual either labeled with a mental disorder or described as possessing prototypical symptoms of a mental disorder. These data are drawn from a larger study of stigma and mental illness that investigated

participants' views on various disorders; this included a cued listing of attributes about the disorders that was used for a stigma-reduction intervention development and is not reported here. The three target disorders for this study were social anxiety disorder, major depressive disorder, and a generic label of mental illness. The instructions for each of these three disorders follow:

> 1. Please think about a person whom you have observed at work, met at school, known in the community, seen on TV, or read about in the press who has really bad anxiety whenever he (or she) has to be around people. Mostly people can't tell he (or she) is anxious but he (or she) worries all the time that other people will think something bad about him (or her). In fact, he (or she) worries about what he (or she) will say to someone, even way ahead of time. If you cannot think of any examples, please imagine such a person.

> 2. Please think about a person whom you have observed at work, met at school, known in the community, seen on TV, or read about in the press who has times that he (or she) feels incredibly sad and loses interest in doing things all day, every day for a couple of weeks at a time. When he (or she) is feeling this way he (or she) has trouble getting out of bed, can't concentrate very well and sometimes wishes he (or she) were dead. If you cannot think of any examples, please imagine such a person.

> 3. Please think about a person whom you have observed at work, met at school, known in the community, seen on TV, or read about in the press who has a mental illness. If you cannot think of any examples, please imagine such a person who has a mental illness.

The description of major depression and social anxiety disorder were not labeled as such. Unlike social anxiety disorder and major depressive disorder, there are no prototypical symptoms of *mental illness*. Indeed, part of the purpose of this study is to clarify how people's conceptions of social anxiety disorder differ from their conceptions of mental illness. Thus, in the above stimuli, *mental illness* is given only as a label without a descriptive vignette.

Measures

Dimensions of mental illness scale. This 17-item measure, adapted from Feldman and Crandall (2007), used a 7-point semantic differential scale to rate the target individuals on dimensions that prior literature has shown to describe common conceptions about those with mental illness. The 17 dimensions were dangerousness, personal responsibility for symptoms, unavoidability of illness, lack of reality awareness, commonness of illness, disruptiveness in social situations, extent treatable with medications, causes problems at work, embarrassment in having illness, sexual nature of symptoms, chronicity of illness without treatment, self-control, extent treatable with psychotherapy, severity of illness, gender-based illness, visibility of illness, and heritability of illness. Some phrasing was altered slightly from Feldman and Crandall (2007) for clarity. (The first author can be contacted for a copy of the measure.)

Social distance scale. This 7-item measure of social distance was adapted from Bogardus (1923, 1925) and has been previously employed in stigma research (Crandall, 1991; Biernat & Crandall, 1999; Feldman & Crandall, 2007). Participants used a 7-point Likert scale 1 (*Strongly Disagree*), to 7 (*Strongly Agree*) to respond to items, including "I would like this person to be a close

personal friend" and "I would like this person to come and work at the same place I do." Items were reverse coded as needed, summed, and averaged to form a single social distance score. This social distance scale showed high internal consistency for all three target disorders in this study ($\alpha = .88 - 0.91$). Higher scores correspond with a preference for greater social distance from the target individuals.

Demographics measure. In addition to sociodemographic information (i.e., age, ethnicity, gender, socioeconomic status), the demographics measure also included questions about participants' current and past participation in mental health services, family history of mental health problems, and family membership in mental health professions.

Procedure

After providing informed consent, participants completed the measures online at their convenience. The mental illness, depression, and social anxiety stimuli used in the present study were first, eighth, and 14th of the 14 stimuli, respectively. Measures were always presented in the following order after each vignette: attributes listing measure (not used in this study), dimensions of mental illness scale, and social distance scale. The demographics measure was completed at the end of the study. Participants had unlimited time to complete the measures, but all participants completed the study in less than 1 hr.

Results

Preliminary Analyses

To assess whether participants' experience with mental health problems was related to their preference for social distance, two one-way between-groups MANOVAs were conducted with social distance scores for mental illness, major depressive disorder, and social anxiety disorder as the dependent variables and current and past treatment as the respective independent variables. Those currently in mental health treatment and those not currently in mental health treatment did not show an overall difference in preference for social distance from target individuals, $F(3, 235) = 2.19$, $p = .089$, *Wilks'* $\lambda = 0.973$. However, participants who reported past involvement with mental health treatment endorsed desire for less social distance than participants with no prior mental health treatment, $F(3, 225) = 2.85$, $p = .038$, Wilks' $\lambda = 0.963$. Specifically, participants with prior treatment reported preferring less social distance from an individual with social anxiety ($M = 4.00$, $SD = 1.35$) and depression ($M = 4.38$, $SD = 1.41$) than participants with no prior treatment (social anxiety: $M = 4.40$, $SD = 1.20$, $F(1, 227) = 4.32$, $p = .039$; depression: $M = 4.92$, $SD = 1.19$, $F(1, 227) = 7.53$, $p = .007$. No significant difference in preferred social distance was found for generic mental illness, $F(1, 227) = 2.35$, $p = .127$. Separate MANOVAs were conducted for mental illness, depression, and social anxiety with prior treatment as the independent variable and the 17 dimensions as the dependent variables. Findings demonstrated significant differences among the 17 dimensional ratings for social anxiety, $F(17, 181) = 1.76$, $p = .036$, Wilks' $\lambda = 0.858$, but not for depression, $F(17, 180) = 1.23$, $p = .246$, Wilks' $\lambda =$

0.896, or mental illness, $F(17, 200) = 1.16$, $p = .295$, Wilks' $\lambda = 0.981$. As shown in Table 1, participants with prior mental health treatment viewed social anxiety as significantly less the person's fault, more common, more treatable with medication, and more embarrassing to have.

Next, to assess whether men and women differed in their desire for social distance from individuals with mental illness, depression, or social anxiety, a one-way between-groups MANOVA was conducted with gender as the independent variable and the social distance scores as the dependent variables. Results showed no significant difference between men's and women's preferences for social distance, $F(3, 234) = 0.53$, $p = .662$, Wilks' $\lambda = 0.993$. Separate MANOVAs were conducted for mental illness, depression, and social anxiety with gender as the independent variable and the 17 dimensions as the dependent variables. Findings demonstrated significant gender effects among the 17 dimensional ratings for mental illness, $F(17, 210) = 2.16$, $p = .006$, Wilks' $\lambda = 0.851$, depression, $F(17, 190) = 3.219$, $p < .001$, Wilks' $\lambda = 0.776$, and social anxiety disorder, $F(17, 190) = 2.01$, $p = .012$, Wilks' $\lambda = 0.848$. As shown in Table 2, women rated mental illness as significantly more common, more treatable with medication, more severe, and having symptoms of a more sexual nature than did men. Women also rated depression as significantly less the person's fault, more unavoidable, more common, more treatable with medications, and more prevalent in women than men did. Finally, women viewed social anxiety disorder as significantly less the person's fault and less sexual in nature than men did. Given these findings, gender was controlled for in the following regression analyses by entering it as the first predictor in each.

Comparison to Feldman and Crandall (2007)

To make comparisons between this study and Feldman and Crandall's (2007) study on which it was based, hierarchical regressions were conducted to examine which of the 17 dimensions were significant predictors of participants' preferred social distance from individuals with generic mental illness, major depressive disorder, and social anxiety disorder. The regression for mental illness generated a two-predictor model that accounted for a large portion of the variance in social distance, $R^2 = .320$, Adjusted $R^2 = .262$, $F(18, 209) = 5.47$, $p < .001$. Higher ratings of dangerousness and work problems because of mental illness predicted a desire for greater social distance from a person with mental illness (see Table 3). The regression for major depressive

disorder generated a 4-predictor model for social distance preferences, $R^2 = .291$, Adjusted $R^2 = .224$, $F(18, 189) = 4.31$, $p < .001$. A desire for greater social distance from a person described as depressed was associated with viewing the symptoms as more publicly visible and with viewing the person as more lacking in reality awareness, more embarrassed by the symptoms, and more dangerous to others (see Table 3). The regression for social anxiety disorder yielded a more complex model with five predictors, $R^2 = .332$, Adjusted $R^2 = .268$, $F(18, 188) = 5.18$, $p < .001$. Greater social distance was associated with viewing the person as more dangerous, and more embarrassed by the symptoms; viewing the symptoms as causing more problems at work; and viewing the disorder as more common among women, and less likely to be avoidable. (See Table 3.)

Finally, paired samples t tests were conducted examining overall preference for social distance from individuals with social anxiety disorder compared to those with mental illness and major depressive disorder. Results showed that participants' endorsed preference for greater social distance from an individual with depression ($M = 4.78$, $SD = 1.25$) than someone with social anxiety, $M = 4.29$, $SD = 1.26$; $t(238) = 5.893$, $p < .001$, or someone with mental illness, $M = 4.38$, $SD = 1.22$; $t(243) = 4.21$, $p < .001$. No significant differences were found between participants' preferences for social distance from individuals with social anxiety and mental illness, $t(239) = 1.00$, $p = .317$.

Discussion

The primary purpose of this study was to describe the stereotypes of individuals with social anxiety disorder and to compare those stereotypes to individuals with major depression or a generic label of mental illness to identify aspects of the stereotype that might be specific to social anxiety disorder. Another purpose of the study was to replicate the earlier study by Feldman and Crandall (2007) that showed undergraduate students stigmatized various mental disorders more if individuals with the disorders were perceived as more dangerous, personally responsible for the disorder, and the disorder was less common.

Overall, this study showed some similarities between how someone with mental illness and someone with social anxiety disorder were stigmatized. Social distance ratings for mental illness and social anxiety disorder did not differ. For both mental illness and social anxiety disorder, a desire for more social distance was predicted by their perceptions of target individuals as danger-

Table 1. *Summary of the Significant Differences in Dimensional Ratings of "Mental Illness," Major Depressive Disorder, and Social Anxiety Disorder by Participants With and Without Prior Mental Health Treatment*

	Mental illness			Major depressive disorder			Social anxiety disorder		
	Prior treatment	No prior treatment		Prior treatment	No prior treatment		Prior treatment	No prior treatment	
Dimension	M (SD)	M (SD)	F	M (SD)	M (SD)	F	M (SD)	M (SD)	F
Personal responsibility for symptoms	2.06 (1.32)	2.41 (1.57)	2.15	3.46 (1.47)	3.17 (1.55)	1.03	3.04 (1.32)	3.69 (1.30)	8.99**
Commonness of illness	4.32 (1.38)	4.15 (1.40)	0.59	4.81 (1.20)	4.49 (1.28)	2.34	4.85 (1.09)	4.31 (1.21)	7.65**
Extent illness is treatable with medications	3.81 (1.47)	3.74 (1.44)	0.10	4.81 (1.27)	4.73 (1.23)	0.15	4.54 (1.49)	4.09 (1.28)	4.28*
Embarrassment in having illness	4.30 (1.41)	4.08 (1.57)	0.85	4.33 (1.10)	4.08 (1.30)	1.49	4.58 (1.30)	4.11 (1.48)	4.01*

* $p < .05$. ** $p < .01$.

Table 2. *Summary of the Significant Differences Between Men's and Women's Dimensional Ratings of "Mental Illness," Major Depressive Disorder, and Social Anxiety Disorder*

	Mental illness			Depression			Social anxiety disorder		
	Men	Women		Men	Women		Men	Women	
Dimension	M (SD)	M (SD)	F	M (SD)	M (SD)	F	M (SD)	M (SD)	F
Commonness of illness	3.98 (1.36)	4.46 (1.39)	6.83*	4.27 (1.26)	4.96 (1.20)	16.55***	4.32 (1.23)	4.58 (1.18)	2.39
Unavoidability of illness	4.87 (1.94)	5.16 (1.75)	1.40	3.65 (1.47)	4.45 (1.33)	16.92***	3.96 (1.18)	4.15 (1.49)	1.07
Extent illness is treatable with medications	3.49 (1.55)	4.06 (1.26)	9.30**	4.47 (1.16)	5.05 (1.23)	12.18**	4.13 (1.26)	4.27 (1.38)	0.54
Gender-based illness (more likely in women)	3.76 (0.81)	3.97 (1.02)	2.86	4.26 (0.89)	4.62 (0.98)	7.51**	4.10 (0.69)	4.29 (0.78)	3.53
Personal responsibility for symptoms	2.28 (1.47)	3.12 (1.43)	0.02	4.00 (1.22)	3.17 (1.29)	22.69***	3.82 (1.25)	3.12 (1.34)	14.80***
Sexual nature of symptoms	2.06 (1.32)	2.54 (1.49)	6.62*	2.69 (1.48)	2.37 (1.38)	2.72	2.85 (1.59)	2.25 (1.29)	8.83**
Severity of illness	4.46 (1.09)	4.78 (1.08)	4.97*	4.56 (1.46)	4.68 (1.40)	0.40	3.66 (1.14)	3.88 (1.26)	2.33

$^*p < .05.$ $^{**}p < .01.$ $^{***}p < .001.$

ous and having an embarrassing problem. However, the model for predicting social distance for social anxiety disorder was more complex than that for mental illness with three additional predictors. Viewing social anxiety as unavoidable was associated with less desire for social distance, while viewing it as being more common among women and causing work problems was associated with greater desire for social distance. These results suggest that social anxiety disorder carries a stigma, albeit one that is more complex than a generic label of mental illness.

This study also revealed some similarities between how people stigmatize individuals with social anxiety disorder and major depressive disorder. For both social anxiety disorder and major depressive disorder, participants reported greater desire for social distance from individuals perceived as more dangerous and more embarrassed by their illness. As with the comparison of social anxiety and mental illness, the model predicting social distance for social anxiety was somewhat more complex than the model for major depression. Specifically, perceiving symptoms as more avoidable, more common among women, and causing more problems with work predicted greater desire for social distance from individuals with social anxiety, but not individuals with major depression. Nevertheless, perceived public visibility of the illness predicted desire for social distance from individuals with major depression, but not individuals with social anxiety. Overall, participants endorsed greater preference for social distance from individuals with major depression than from individuals with social

anxiety. The two unique predictors of desired social distance for major depression, lack of reality awareness and perceived public visibility, likely account for this difference. Increased public visibility of a mental disorder may be related to greater desire for social distance because of higher risk of stigma by association (Phelan, Bromet, & Link, 1998). Stigma by association may be particularly relevant to preference for social distance from individuals with major depression, since the ability of others to observe symptoms is considered among potential criteria for diagnosing major depressive disorder (American Psychiatric Association, 2000, 2013).

With respect to the greater complexity of the model for social anxiety disorder compared to mental illness, this could be attributed to the difference between a description of symptoms in the vignette for social anxiety disorder and a simple label of mental illness. Given the ubiquity of subclinical social anxiety (Wittchen & Fehm, 2003), perhaps the participants who viewed it as suffered primarily by women and more avoidable did not connect the description of social anxiety disorder with the everyday experience of subclinical social anxiety. Potentially as a result of viewing the person with described social anxiety disorder as very different from themselves (Link & Phelan, 2001), these participants preferred not to associate with the person.

Although this model for social anxiety disorder was more complex, it demonstrated some similarity to Feldman and Crandall's (2007) model in that both included *dangerousness* among signif-

Table 3. *Predictors of Social Distance for "Mental Illness," Major Depressive Disorder, and Social Anxiety Disorder*

	Mental illness			Major depressive disorder			Social anxiety disorder		
Predictor	B	t	95% CI	B	t	95% CI	B	t	95% CI
Gender of participant (Controlled)	−.005	.04	[.302, −.291]	−.016	.09	[.357, −.325]	−.049	.30	[.368, −.270]
Causes problems at work							.254	2.89**	[.080, −.427]
Embarrassment in having illness	.188	3.28***	[.375, −.301]	.163	2.25*	[.020, −.306]	.209	3.08**	[.075, −.343]
Dangerousness to others	.202	3.27***	[.080, −.323]	.144	2.24*	[.017, −.270]	.206	2.92**	[.067, −.344]
Lack of reality awareness				.158	2.50*	[.033, −.283]			
Likelihood of women getting illness							.231	2.15*	[.019, −.443]
Unavoidability of illness							−.138	2.13*	[.265, −.010]
Visibility of illness to public				.197	3.12**	[.073, −.322]			
	$R^2 = 0.320$, Adj. $R^2 = 0.262$			$R^2 = .291$, Adj. $R^2 = 0.224$			$R^2 = .332$, Adj. $R^2 = 0.268$		

$^*p < .05.$ $^{**}p < .01.$ $^{***}p < .001.$

icant predictors of preferred social distance. Indeed, dangerousness has become an increasingly common association with many mental disorders in the United States (Pescosolido, 2013; Phelan & Link, 1998), which apparently now extends even to social anxiety disorder. The major discrepancy from Feldman and Crandall (2007) may be the more surprising result; despite being the strongest predictor of social distance in Feldman and Crandall's (2007) research, *personal responsibility* was not a significant predictor of desire for social distance from an individual with mental illness, social anxiety disorder, or depression in this study. This discrepancy could be attributed to Feldman and Crandall having aggregated preferred social distance across vignettes for 40 mental disorders. In their study, the disorders with the greatest preferred social distance tended to be those considered more blameworthy within society (e.g., pedophilia, drug dependence, alcohol dependence). This is consistent with findings that certain mental health issues are seen as more self-inflicted or the fault of the individual such as alcohol dependence and drug addiction (e.g., Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000; Pescosolido, 2013; Schomerus et al., 2011). Thus, attributing personal responsibility to individuals with these disorders may be more acceptable and induce less social desirability than attributing personal responsibility to individuals with the mental health conditions in the present study. The absence of rarity in the models and additional predictors of preferred social distance found for social anxiety may also be attributable to the difference between examining aggregated mental disorders versus a single disorder (i.e., social anxiety). This is consistent with our finding that mental illness generated a less complex, two-predictor model for social distance, like Feldman and Crandall's (2007).

In addition to investigating the nature of the stigma for social anxiety, this study expanded previous literature by further examining potential effects for gender in mental illness stigma. Although men and women did not differ in desired social distance, they did endorse different views of social anxiety, depression, and mental illness. Consistent with previous research (Batterham et al., 2013; Corrigan & Watson, 2007; Griffiths et al., 2008; Mojtabai, 2010), women appeared to endorse less stigmatizing attitudes than men, overall. In the present study, women reported viewing mental illness and depression as more common and more treatable with medication than men did. Furthermore, women viewed individuals with depression and social anxiety as less personally responsible for their symptoms than men did. Conversely, women reported viewing mental illness as more severe than men did. While this finding for women appears to be contradictory, higher social empathy has been used to explain the less stigmatizing attitudes of women in the past (Schieman & Van Gundy, 2000), which may be driven by the generation of more pity among women with greater perceived severity of a mental illness (Corrigan & Watson, 2007). In addition, women tended to characterize major depression as more likely to occur in women than men did, consistent with epidemiological data (Kessler et al., 2012). Perhaps the elevated epidemiological risk results in women being better informed about depression than men. Finally, although men and women differed in their perceptions of the sexual nature of the symptoms of mental illness and social anxiety disorder, men and women both perceived all three disorders as having symptoms that are not particularly sexual in nature overall. Thus, it is unclear why some effects for gender were found for this particular item.

Past treatment, but not current treatment, was associated with less social distance but this effect size was modest and limited to depression and social anxiety disorder. Overall, this is consistent with previous research suggesting that those with greater familiarity with mental illness demonstrate less social rejection of individuals with serious mental illness (Corrigan, Green, Lundin, Kubiak, & Penn, 2001), depression (Griffiths et al., 2008), social anxiety (Yap et al., 2013), and posttraumatic stress disorder (Yap et al., 2013). In an undergraduate population, many with previous mental health treatment, are likely to have experience with anxiety or depression. Thus, treated participants' familiarity with depression and social anxiety may be related to their lower preferred social distance from imagined others with depression or anxiety. Participants with prior treatment also viewed social anxiety disorder as more common, more treatable with medication, less the target individual's fault, but more embarrassing than participants without prior treatment. If participants with mental health treatment view the target individual with social anxiety as similar to themselves, their tendency to view social anxiety as more embarrassing may reflect the shame-related beliefs associated with perceived stigma of mental health problems (Rusch, Todd, Bodenhausen, Olschewski, & Corrigan, 2010).

Overall, these findings have implications for both stigma reduction interventions and therapeutic interventions for individuals with social anxiety disorder. Given that perceptions of dangerousness predicted social rejection for all three disorders and appears to be a consistent finding across studies, one primary public health message to reduce stigma should be accurate information that individuals with mental illness are unlikely to be dangerous to others. Public stigma reduction messages may particularly benefit from targeting men, since results suggest men tend to hold more stigmatizing views of mental illness than women. Variations in the content of the stereotypes about depression and social anxiety disorder indicate that stigma-reduction strategies must be disorder specific, to some extent. The more nuanced messages may be particularly appropriate at the point of referral for mental health treatment, such as materials used by general medical practitioners where individuals with anxiety disorders often initially seek services (Wang et al., 2005). Such targeted stigma-reduction efforts may increase the follow through once a treatment recommendation is made.

Individuals who are in treatment for social anxiety disorder may benefit from stigma reduction interventions as well. For example, individuals with social anxiety disorder who feel socially rejected because of the perceived stigma and shame of having this disorder (and not just irrational fears of negative evaluation) could be educated in therapy about the nature of their symptoms. This could also be normalizing for clients, since participants with prior treatment viewed social anxiety as more embarrassing than those without prior treatment. Treatment for social anxiety might also integrate more elements to address features of the disorder that predict social rejection. For example, more exposures to work situations could help both to decrease occupational interference of social anxiety and to decrease coworkers' potential social rejection as a result of perceived work problems caused by the anxiety.

Although this study extends the available research on mental illness stigma by examining differences in mental health experience, gender effects, and the specific stereotypes of social anxiety disorder, it has several limitations. Use of the label *mental illness*

versus descriptive vignettes for social anxiety and depression presents a potential confounding variable in comparing stigmatization of these disorders. However, as previously mentioned, generic mental illness could not easily be given a prototypical description. Another limitation of the study is that the vignette for social anxiety disorder specifically mentioned that the disorder is not visible to others, potentially biasing participants' responses to the item about visibility of the illness. Nevertheless, this is an accurate description of individuals with social anxiety (Hope, Heimberg, & Bruch, 1995; Norton & Hope, 2001) and thus increases the external validity of participants' responses to the vignette. Although an undergraduate sample may limit generalization to nonstudents, the use of undergraduates allowed for a more direct comparison to Feldman and Crandall (2007). The decision to use the same self-report measures as Feldman and Crandall (2007) was also for the purpose of replication. Nevertheless, self-report measures may be susceptible to social desirability, and future research should employ other measures such as a behavioral measure of social distance (Goff, Steele, & Davies, 2008). Finally, order effects cannot be ruled out as the order of the ratings was not randomized. Related to this, it is possible participants were fatigued by the time they completed the ratings for the target vignette describing social anxiety disorder. However, the fact that perceptions of dangerousness was a key predictor across all disorders, a finding consistent with the literature and Feldman and Crandall (2007) who used randomization, suggests participants provided valid responses across the entire research measure.

Thus, future research should further examine gender effects in mental illness stigma, investigating whether perceptions vary depending on the gender of the person with the disorder. Research on the impact of stigma on people with social anxiety would enhance understanding of the other side of this unique stigma. Additional research is needed on strategies for decreasing stigma of specific mental disorders, since results suggested stereotypes vary across disorders. Finally, investigations of how and whether stigma reduction can increase treatment seeking and decrease the social cost of having social anxiety disorder are key in improving the lives of individuals with this common and often debilitating anxiety disorder.

Keywords: stigma; social anxiety disorder; treatment barriers

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