

The Stigma of Mental Illness as a Barrier to Self Labeling as Having a Mental Illness

Susanne Stolzenburg, Dipl-Psych,* Simone Freitag, PhD,† Sara Evans-Lacko, PhD,‡
Holger Muehlan, PhD,† Silke Schmidt, PhD,† and Georg Schomerus, MD*

Abstract: The aim of this study was to investigate whether personal stigma decreases self-identification as having a mental illness in individuals with untreated mental health problems. We interviewed 207 persons with a currently untreated mental health problem as confirmed by a structured diagnostic interview. Measures included symptom appraisal, self-identification as having a mental illness (SELFI), self-labeling (open-ended question on the nature of their problem) stigma-related variables (explicit and implicit), as well as sociodemographics, current symptom severity, and previous treatment. Support for discrimination and implicit stigmatizing attitude were both associated with lower likelihood of self-identification. More social distance and support for discrimination were associated with less self-labeling. Previous treatment was the strongest predictor of symptom appraisal, SELFI, and self-labeling. Destigmatizing mental illness could increase awareness of personal mental health problems, potentially leading to lower rates of untreated mental illness.

Key Words: Stigma of mental illness, self-identification, self-labeling, help-seeking barriers, label avoidance

(*J Nerv Ment Dis* 2017;205: 903–909)

Recognizing one's own symptoms as part of an impending mental illness is a crucial but yet underresearched early step in the process of seeking professional help. Self-identification as potentially having a mental illness has been conceptualized in two theoretical models of help-seeking: Thoits' model of the self-labeling process in mental illness, which is based on labeling theory, suggests that individuals "can self-label because they are able to observe and classify their behaviors, thoughts, and feelings from the perspective of the wider community" and that self-labeling can motivate help-seeking behavior (Thoits, 1985, p. 243). Over the last two decades, the term "self-labeling" has only sporadically been used regarding mental health conditions, but rather in other contexts like sexual orientation. Leventhal's self-regulation model of illness representation (Leventhal et al., 1998) also emphasizes the essential role of identity (what is it?) for illness behavior.

In this article, we examine whether and to what extent stigma is a barrier to self-labeling as having a mental illness in persons with untreated mental health problems. Stigma is an established barrier to help-seeking for mental illness (Clement et al., 2015; Corrigan et al., 2014; Eisenberg et al., 2009), willingness to seek help (Mojtabai, 2010), and even to seeking information about mental health and counseling (Lannin et al., 2015). Label avoidance has been identified as an important mechanism on how stigma can interfere with the help-seeking process. To avoid the negative consequences of

stigma, persons with untreated mental health problems can choose to avoid the label of having a mental illness by not seeking professional help (Corrigan et al., 2014; Savage et al., 2016). Data from the World Health Organization world mental health surveys shows that, in fact, only 1.7% to 26.2% of respondents with mild mental disorder, 13.3% to 39.9% of those with moderate mental disorder, and 11.0% to 59.7% of those with severe mental disorder had used any type of service in last 12 months (Wang et al., 2007). Epidemiological studies consistently show a large treatment gap in mental health care, for example, for major depressive disorder (Thornicroft et al., 2017), which is one of the most common mental disorders in the general population (Alonso et al., 2004; Dietrich et al., 2017).

So far, label avoidance has mostly been described as an active decision not to disclose a recognized mental health problem (Corrigan, 2004; Corrigan et al., 2014). At a closer look, however, label avoidance may start earlier than that and occur on an intrapersonal level, when symptoms occur and need to be recognized as potential signs of a mental illness. To avoid stigma, a person may already avoid appraising his or her mental health symptoms as being a sign of a mental disorder, thus avoiding the perceived need to seek for help (Schomerus et al., 2012). By sidestepping self-labeling as having a mental illness, individuals may also avoid self-stigma, the application of personal negative views about mental illness to themselves.

For this study, we conceptualize the complex process of self-labeling as four successive, interrelated steps. First, people need to recognize that they have a problem at all or that there is something wrong with them (symptom awareness). Second, they need to consider that their symptoms or problems could be part of an illness (symptom appraisal). Third, they need to contemplate specifically whether their symptoms could be part of a mental illness (self-identification as having a mental illness). Finally, they could conclude that they have a mental illness and decide to self-label as being mentally ill (self-labeling). Personal stigmatizing attitudes could interfere with this process at any stage: the more negative individuals feel about other people with mental illness, the more difficult it would be for them to be aware of their symptoms, appraise symptoms as part of an illness, self-identify, and, finally, self-label as having a mental illness.

Few studies examine whether stigma impacts self-labeling as having a mental illness. A systematic review of studies addressing health beliefs and perceived need for mental health care showed that none of the included studies purely assessed the "identity" illness perceptions in terms of the self-regulation model (Prins et al., 2008). Four other studies measured group identification, but these studies assessed group identification with regard to special support groups or the group of the mentally ill (Crabtree et al., 2010; Rüsche et al., 2006, 2009; Schibalski et al., 2017) but not individual self-identification as having a mental illness. To close this gap, we aim to investigate whether personal stigmatizing attitudes have a negative impact on the process of self-labeling as having a mental illness in persons with currently untreated mental health problems.

To assess respondents' stigmatizing attitudes, we will use both explicit and implicit measures. Implicit measures avoid social desirability bias, which could influence answers to explicit questions on personal attitudes toward a stigmatized group (Greenwald et al., 1998).

*Department of Psychiatry, University Medicine Greifswald; †Department Health and Prevention, University Greifswald, Greifswald, Germany; and ‡Personal Social Services Research Unit, London School of Economics and Political Science, London, UK.

Send reprint requests to Susanne Stolzenburg, Dipl-Psych, Department of Psychiatry, University of Greifswald, Ellernholzstraße 2, 17475 Greifswald, Germany. E-mail: susanne.stolzenburg@uni-greifswald.de.

Copyright © 2017 Wolters Kluwer Health, Inc. All rights reserved.
ISSN: 0022-3018/17/20512-0903

DOI: 10.1097/NMD.0000000000000756

In addition, in persons who have not identified as having a mental illness and who have not been in contact to services previously, the stigma of mental illness may be a nonsalient topic, and implicit measures could capture biases that would remain unnoticed in explicit statements.

METHODS

Sample and Study Design

The target population for our study included individuals with a currently untreated mental illness in the early stages of the process of self-labeling as having a mental health problem. For this purpose, we invited persons with symptoms of depression via newspaper advertisements, Facebook posts, and flyers to participate in our study. In our adverts, we described the symptoms of depression without mentioning the diagnosis, nor referring to psychiatry or mental illness, nor using the term “illness” or “disease” (see Appendix for details). We explained that many persons have such symptoms and that we wanted to find out why some do seek medical or therapeutic help and others do not. We focused on depression because of its high prevalence in the general population (Alonso et al., 2004) and because many of its symptoms can be easily described without using psychiatric terminology (e.g., sleep disturbances and lack of energy instead of insomnia and fatigue). By asking about present symptoms, we included persons being aware of their symptoms but potentially reluctant to appraise the symptoms as being part of an illness, or self-identify and self-label as having a mental illness. In the adverts, persons interested in the study were asked to call the study center. Altogether, 429 persons contacted the study center and underwent telephone screening using the Patient Health Questionnaire–9 (PHQ-9; Depression subscale; Kroenke et al., 2001). PHQ-9 scores of 5 to 9 are considered indicating mild, 10 to 14 moderate, and higher than 14 severe depression (Kroenke et al., 2010). Participants scoring 8 or higher and reporting that they did currently not receive any professional treatment for their complaints were invited for a face-to-face interview. We chose a screening threshold below the “moderate” category accounting for persons who would only reluctantly disclose their symptoms in a telephone screening. Thus, 266 participants were invited, of which 31 (12%) did not respond after two to three follow-up calls and attempts to reschedule the interview, resulting in 233 persons attending and completing the interview. The average interview duration was 142 minutes (SD = 36 minutes). The interviewer was present during the whole interview time and clarified any potential difficulties in the understanding of the self-report questionnaire. Every participant who finished the interview received €30 as a reimbursement for their time. The study was approved by the local ethics committee of the University Medicine Greifswald.

Twenty-six participants who completed the interview were excluded. Four participants stated during the interview that they were presently in treatment, and 22 participants were excluded because they did not fulfill the *ICD-10* criteria for any mental illness as assessed in the diagnostic interview (Mini International Neuropsychiatric Interview [MINI]). So, our final sample consisted of 207 participants with a present untreated mental health problem, fulfilling *ICD-10* criteria for a depressive or another mental illness.

Measures

The interview comprised a self-report questionnaire and implicit tests as well as a diagnostic interview. At the beginning, sociodemographic variables were assessed (sex, age, education, employment, and previous treatment). We assessed the proposed stages of self-labeling by the following measures:

The German version of the Patient Health Questionnaire (PHQ-9; Gräfe et al., 2004; Kroenke et al., 2010) was used to assess perceived

symptoms of depression at the time of the interview (symptom awareness). Items referred to the last 2 weeks, using a 4-point Likert scale (0 = not at all to 3 = nearly every day); sample items are little interest or pleasure in doing things; trouble concentrating on things, such as reading the newspaper or watching television; trouble falling or staying asleep; or increased sleep. The subscale showed an acceptable to good internal consistency in our sample (Cronbach's $\alpha = .78$). On average, participants had a mean total PHQ-9 score of 12.9 (SD = 4.7, range = 3–27), which corresponds to moderate depression (Kroenke et al., 2010).

We assessed whether participants considered their own complaints being related to a disease in general (“My complaints are part of an illness”, symptom appraisal). This single item was answered on a 5-point Likert scale anchored with 1 = not at all, 2 = rather no, 3 = don't know, 4 = rather yes, and 5 = definitely. On average, participants rated 3.3 (SD = 1.1, range = 1–5) on this item, showing a slight tendency to appraise their complaints as part of an illness.

We used the self-identification as having a mental illness – scale (SELFI) to measure self-identification with the group of persons with mental illness. Schomerus et al. (2012) developed this five-item scale (originally termed “Mental Health Problem Appraisal Scale”), which measures to what extent participants regard present personal complaints as evidence for a mental illness. Items are “Current issues I am facing could be the first signs of a mental illness,” “The thought of myself having a mental illness seems doubtful to me” (reversely coded), “I could be the type of person that is likely to have a mental illness,” “I see myself as a person that is mentally healthy and emotionally stable” (reversely coded), and “I am mentally stable, I do not have a mental health problem” (reversely coded). Participants rated each item on a 5-point Likert scale anchored with 1 = don't agree at all and 5 = agree completely. In our sample, the scale showed good internal consistency (Cronbach's $\alpha = .84$). On average, participants had a mean total score of 15.8 (SD = 4.8, range = 5–25) and an item-level mean of 3.2 (SD = 1.0), showing a slight tendency to self-identify as having a mental illness.

Participants stating that their complaints were “rather yes” or “definitely” part of an illness (symptom appraisal, as described above) were subsequently asked to name a disease that described their symptoms best. From this open-ended question, we defined a dummy variable, with 1 indicating that participants had named any mental illness as a cause for their symptoms and used this variable self-labeling for our analyses. One in four participants (24.6%) named a mental illness describing their current complaints best.

To establish whether participants met criteria of a mental disorder according to *ICD-10*, we conducted a short structured diagnostic interview—the German version of the MINI (Ackenheil et al., 1999; Sheehan et al., 1998). The MINI assesses psychiatric Axis-I disorders from the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition*, and *ICD-10*. Because of the psychiatric terminology used in this interview, which could influence both self-identification and attitudes, the MINI was conducted at the end of the session and was used in retrospect to define the final sample of participants who did fulfill our inclusion criterion of a present mental illness.

Other measures examined personal stigmatizing attitudes of the respondents. The Social Distance Scale uses seven items that assess respondents' willingness to interact with persons with mental illness in various everyday situations, such as moving next door or spend an evening socializing (Link et al., 1987), indicating the extent of personal stigmatizing attitudes. A sample item is “How would you feel about renting a room in your home to a person with severe mental illness?” Items are rated on a 5-point Likert scale, with 1 = very likely to 5 = very unlikely. In our sample, the scale showed good internal consistency (Cronbach's $\alpha = .85$). On average, participants had a mean total score of 11.5 (SD = 3.9, range = 5–25) and an item-level mean of 2.3 (SD = 0.8).

We used three items to assess support for discrimination of persons with mental illness (Schomerus et al., 2007). Discrimination refers to a behavior that is intended to have a differential or harmful effect on the members of a stigmatized group and “is the behavioral result of prejudice” (Corrigan et al., 2014, p. 42). Items were rated on a 5-point Likert scale anchored with 1 = don't agree at all and 5 = agree completely. Items were as follows: “If persons with mental illness do not consent to medical treatment, they should receive compulsory treatment,” “Persons with mental illness should not be allowed to have a driving license,” “Persons with mental illness should not be allowed to hold public office.” The three-item scale showed acceptable internal consistency (Cronbach's $\alpha = .70$). On average, participants had a mean total score of 7.1 (SD = 3.0, range = 3–15) and an item-level mean of 2.4 (SD = 1.0).

We conducted a Brief Implicit Association Test (BIAT) to measure the strength of implicit stigma. A BIAT is a short version of the original Implicit Association Test, which is an established measure of a person's association strength between different mental concepts (e.g., to assess the extent of stereotypes; Nosek et al., 2014; Sriram and Greenwald, 2009). The BIAT has already been used to assess implicit stigma-related associations in persons with severe mental illness (Rüsch et al., 2010). The BIAT was administered using the proprietary software Inquisit 4. The software computes a final score *D*, which is a measure of association strength. *D* is computed as the difference between response latencies and standard deviations of two different combinations of concepts (Nosek et al., 2014). *D* has a theoretical minimum of -2 and a maximum of +2. Positive *D* scores represent a stronger implicit association between “mental illness” and “different,” whereas negative *D* scores represent a stronger association between “mental illness” and “normal.” Conventionally, a *D* score of 0.2 is regarded small, a score of 0.5 medium, and a score of 0.8 large (Greenwald et al., 1998). On average, participants had a mean *D* score of 0.06 (SD = 0.30, range = -0.70 – 0.85), showing that there was, on average, no tendency to associate “mental illness” with “normal” or “different” in our sample.

Statistical Analyses

We computed the total scores of the different measures, imputing missing values using individual mean participant response of that scale, if no more than 25% of values were missing (Downey and King, 1998; Roth et al., 1999). In all analyses concerning implicit stigma, we excluded participants who produced an error rate of more than 25% in classifying attributes into subordinate categories (Nosek et al., 2014). Hence, a smaller sample size was available for statistical analyses including the implicit stigma measure (BIAT; *n* = 183).

First, testing whether the variables on self-labeling and stigma were correlated in the expected direction, we assessed pairwise correlation coefficients to examine the association between the stages of the self-labeling process (symptom awareness, symptom appraisal, self-identification, and self-labeling) with explicit and implicit stigma variables. Second, to test whether the associations between stigma variables and self-labeling remain significant when control variables are added to the model, we used regression analyses simultaneously including the stigma variables and previous treatment, age, sex, and education. Third, as a sensitivity analysis, we additionally included depressive symptoms (which is identical to symptom awareness) in the models for symptom appraisal, self-identification, and self-labeling.

Because of different types of dependent variables (symptom appraisal: categorical; symptom awareness and self-identification: continuous; and self-labeling: binary), we used ordinal logistic regression, linear regression, and logistic regression as appropriate. Assumptions for linear regression analyses such as normality distribution from residuals, heteroscedasticity, and multicollinearity were

tested and were met. All statistical procedures were computed using STATA (version 14).

RESULTS

Sample Characteristics

Participants were on average 49.6 years old (SD = 16.3), 71.0% were women. As seen in Table 1, the sample included people of a range of ages, with lower numbers in the 35-to-44 years age group. Most participants were employed (38.3%) or retired (24.8%). The following are the participants' level of education compared with local statistical data (Statistical Office Germany, 2015): 35.9% had completed 12 or 13 years of schooling (local general population: 20.3%), 55.1% had completed 10 years of schooling (local general population: 53.3%), and only 6.8% had completed 9 years of schooling or less (local general population: 19.7%).

All individuals in our final sample met diagnostic criteria for at least one mental illness according to *ICD-10*. Most participants fulfilled diagnostic criteria for a mood disorder (F3: *n* = 181, 87.4%) or neurotic, stress-related and somatoform disorder (F4: *n* = 120, 58.0%). Fourteen participants fulfilled diagnostic criteria for a substance use disorder (F1: 6.7%), and two participants for behavioral syndromes associated with physiological disturbances and physical factors (F5: 1.0%). The most frequent disorders were recurrent depressive disorder (*n* = 69, 33.3%), major depression (*n* = 62, 30.0%), and double depression (*n* = 25, 12.1%). Altogether, 103 (49.8%) of the participants met diagnostic criteria for only one disorder, 132 (63.8%) simultaneously met criteria for two disorders, and 3.9% (*n* = 8) met criteria for three disorders, the most frequent combination being a mood disorder with a disorder from *ICD-10* section F4 (*n* = 98, 47.3%).

TABLE 1. Characteristics of the Sample (*N* = 207)

	<i>n</i>	%
Sex		
Female	147	71.0
Male	60	29.0
Age		
18–24	21	10.6
25–34	30	14.5
35–44	15	7.3
45–54	47	22.7
55–64	58	28.0
>65	36	16.9
Education in school years		
12 or 13 yr	74	35.9
10 yr	114	55.1
9 yr or less	14	6.8
Family status		
Married	76	36.7
Divorced	44	21.3
Single	78	37.7
Employment		
University student	26	12.9
Unemployed	24	11.9
Employed	79	38.2
Pension/unable to work	12	6.0
Retired	50	24.9
Total numbers of cases <i>n</i> < 207 due to nonresponse.		

TABLE 2. Pairwise Correlation Coefficients Between Self-Identification and Stigma Variables ($n = 178\text{--}207$)

	1	2	3	4	5	6	7
1 Symptom awareness (PHQ-9)	1						
2 Symptom appraisal	.24***	1					
3 Self-identification (SELFI)	.37***	.49***	1				
4 Self-labeling	.25***	.51***	.52***	1			
5 Social distance	-.14*	-.02	-.14	-.21**	1		
6 Support for discrimination	-.06	.01	-.22**	-.23***	.50***	1	
7 BIAT-different	-.13	.07	-.18*	-.06	.14	.10	1

BIAT-different (implicit stigma), D value (positive values indicate stronger implicit association between differentness and mental illness).

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

About half of the participants ($n = 107$; 53.2%) indicated that they had previously been in treatment because of a mental health problem. Fifty persons (24.2%) reported that they had previously seen a psychiatrist, and 86 persons (41.5%) reported having seen a psychotherapist/psychologist.

Self-Labeling and Stigma—Pairwise Correlation

Table 2 shows pairwise correlation coefficients between symptom awareness, symptom appraisal, self-identification, self-labeling, and stigma-related variables. The following are the main results from Table 2: a) symptom awareness, symptom appraisal, self-identification, and self-labeling were positively interrelated ($r = 0.24$ to 0.52). b) Stronger stigma was negatively associated with the stages of the self-labeling process. In particular, desire for social distance was associated with less symptom awareness, less self-labeling, and (below significance) less self-identification ($r = -0.14$ to -0.21). Stronger support for discrimination was associated with both lower self-identification as having a mental health problem and less self-labeling ($r = -0.22$ and -0.23). Stronger implicit stigma was associated with lower self-identification ($r = -0.18$).

Self-Labeling and Stigma—Regression Analyses

To further test our hypothesis that stronger expression of stigma was associated with lower symptom awareness, symptom appraisal, self-identification, and self-labeling, we used multiple regression analyses, regressing explicit and implicit stigma variables on different

stages of process of self-labeling. Each analysis was controlled for variables that might also impact on outcome variables (previous treatment, age, sex, and education). Table 3 shows beta coefficients of linear regression analyses and odds ratios (ORs) of logistic and ordered regression analyses, confirming the negative associations of support for discrimination with self-identification and self-labeling, and of implicit stigma with self-identification (Table 3). In these analyses, stigma variables were not significantly related to the early stages of self-labeling (symptom awareness and symptom appraisal).

Of the control variables, having previously been in treatment was positively associated with all stages of self-labeling: symptom awareness, symptom appraisal, self-identification, and self-labeling. Higher age was positively associated with symptom appraisal and with self-labeling. Higher education was negatively associated with symptom appraisal.

To validate our results, we conducted a sensitivity analysis adding depression severity (PHQ-9) as an additional predictor variable for the later stages of the process of self-identification. Depression severity was in fact positively associated with symptom appraisal (OR = 1.10, 95% confidence interval [CI] = 1.03–1.18), self-identification ($\beta = .31$, $p = 0.000$), and self-labeling (OR = 1.10, 95% CI = 1.01–1.20). However, all reported associations between stigma variables and the stages of self-labeling remained significant.

DISCUSSION

Our study supports our hypothesis that personal stigma impedes the process of self-labeling as having a mental illness in persons with

TABLE 3. Regression Analyses Regressing the Four Steps of the Self-Labeling Process on Stigma Variables ($n = 171\text{--}175$)

	Symptom Awareness (PHQ-9)		Symptom Appraisal	Self-Identification (SELFI)		Self-Labeling
	β	p	OR [95% CI]	β	p	OR [95% CI]
Social distance	-.09	0.347	1.00 [0.92–1.09]	.04	0.634	0.94 [0.83–1.06]
Support for discrimination	.04	0.638	0.98 [0.87–1.10]	-.18	0.036	0.83 [0.70–0.98]
BIAT-different	-.15	0.056	1.13 [0.43–2.97]	-.18	0.013	0.59 [0.17–2.09]
Previous treatment	.16	0.035	2.62 [1.48–4.63]	.35	0.000	2.89 [1.32–6.35]
Age	-.13	0.103	1.02 [1.00–1.04]	-.07	0.364	1.03 [1.00–1.05]
Sex	-.08	0.288	1.00 [0.53–1.87]	.01	0.859	0.58 [0.25–1.36]
Education	-.05	0.484	0.75 [0.58–0.97]	-.03	0.623	1.02 [0.73–1.44]
Adjusted R^2	.04			.17		
Pseudo- R^2			.05			.13

Linear regression (symptom awareness, self-identification); ordinal regression (symptom appraisal); logistic regression (self-labeling). Significant results are in bold-face. BIAT-different (implicit stigma), D value (positive values indicate stronger implicit association between differentness and mental illness); previous treatment (1 = yes); sex (1 = woman).

untreated mental health problems and may thus pose a barrier to help-seeking. Label avoidance as a reaction to stigma seems to be not only an active decision to avoid stigma but also an intrapersonal phenomenon involving personal stigmatizing attitudes, leading to avoidance of self-labeling. Personal stigma deters people from framing their present mental health problem as being related to a possible mental illness.

Before discussing our findings in detail, some limitations of our study should be mentioned. First, we used a convenience sample of untreated people with a mental health problem in a Western industrialized country (Germany) that cannot be considered representative for all persons with mental disorders. Findings might differ in other cultural and national contexts. Sampling persons who are not in contact with services is generally challenging, and a gold standard approach would certainly have been using a sample of persons recruited by a representative epidemiological study. However, our approach via newspaper and social media adverts yielded a diverse sample with a considerable burden of untreated mental disorders, and almost half of our sample had never sought help for their mental health problems. Second, it is unclear whether the incentive of €30 had any impact on the response behavior of participants. Albeit, we hold the view that the incentive was important to promote motivation for participation in this study. Third, the presence of interviewers may have introduced response biases like social desirability during completion of the questionnaire. However, presence of interviewers was of benefit for many participants, especially older people, because they could pose questions when filling out the questionnaire. Fourth, the PHQ-9, which we used as an indicator of symptom awareness, had also been used at first contact with the study center to identify individuals likely having a present mental health problem, thus excluding persons who were unaware of their mental health-related symptoms. Because symptom awareness showed a weak negative correlation with personal stigma, our screening procedure likely introduced a selection bias toward lower personal stigma.

Multiple regression analyses showed that associations with stigma were most robust for those stages of the self-labeling process that involved explicit mention of mental disorders, namely, self-identification and self-labeling. Appraising symptoms as being part of an illness in general (regardless of illness type, physical or mental), in contrast, was not associated with stigmatizing attitudes in this study, indicating that mental illness stigma is a barrier specifically to the mental illness-related stages of the self-labeling process.

Previous treatment for mental health problems also showed strong significant positive associations with all stages of self-labeling. By seeking help previously, respondents presumably have been labeled as having a mental illness and thus were more likely to regard their present problem as being part of a mental disorder (Peter et al., 2017). In addition, persons more ready to self-identify as having a mental illness could have been more willing to seek help in the past. Our findings that both more severe symptom load and previous help-seeking are associated with more self-labeling mirror previous studies on help-seeking that have similarly shown that higher distress levels and previous help-seeking are positively associated with actual help-seeking (Biddle et al., 2004; Gulliver et al., 2010; Komiti et al., 2006).

Our study demonstrates that there is indeed a link between higher stigma and lower readiness to conceptualize personal complaints as potential signs of a mental illness. Clement et al. (2015) reported within a systematic review of 144 studies that stigma has a small- to moderate-sized negative effect on help-seeking intentions or behavior. The authors synthesized past research into a conceptual model representing the process underlying the relationship between stigma and help-seeking. In this model, self-identification as having a mental illness plays an indirect role by producing a dissonance between the preferred social identity and mental illness stereotypes.

However, past research has mostly focused on predictors of help-seeking intentions or behavior, without investigating factors that might facilitate earlier stages of the help-seeking process. Our results indicate that stigma might interfere with help-seeking at this very early stage of the help-seeking process.

From an epidemiological point of view, our findings could help explain the service use gap consistently found with regard to mental disorders. When examining predictors of help-seeking, epidemiological studies usually account for symptoms and diagnoses but do not enquire whether participants actually consider having a mental illness (Brandstetter et al., 2017). Our study shows that in persons with untreated mental disorders, not only symptom severity and treatment experience but also personal stigma determine whether a person considers himself or herself being mentally ill. Our results suggest that epidemiological studies aiming to assess help-seeking behavior also need to assess relevant attitudes like personal stigma and self-labeling as having a mental illness to fully understand delay and failure to seek help for mental health problems.

Our study also adds to the evidence that personal endorsement of stigma poses a barrier to help-seeking. Personal attitudes are shaped by the cultural context and reflect public attitudes (Evans-Lacko et al., 2012), so reducing the public stigma of mental disorders is necessary and would also improve readiness to self-identify if encountering mental health problems. Beyond this, however, there is also a need to develop a multifaceted approach targeting interventions that help persons with untreated mental illness as well as persons with treated mental illness to overcome their personal stigmatizing attitudes. Such interventions could be part of secondary or tertiary preventive efforts, and they could rely on evidence-based strategies to reduce the stigma of mental illness, for example, contact (Corrigan et al., 2012; Thornicroft et al., 2016). In addition, interventions promulgating the continuum concept of mental health have been shown to reduce stigma (Corrigan et al., 2016; Schomerus et al., 2016), but have so far not been evaluated with regard to self-identifying as having a mental illness. The cognitive concept of a permeable illness continuum from being mentally ill to being mentally healthy (as opposed to a categorical distinction between two different states “ill” and “healthy”) could facilitate identifying as having a mental illness and, ultimately, increase help-seeking.

CONCLUSION

Stigma seems to hinder the framing of personal mental health problems as being part of a possible mental disorder. Longitudinal studies are needed to explore how this affects actual help-seeking behavior. Antistigma interventions should also target those at risk or in the early stages of a mental illness (Gronholm et al., 2017).

ACKNOWLEDGMENT

We wish to thank the anonymous reviewers for their inspiring comments on an earlier version of this paper.

DISCLOSURE

This work was funded by the Deutsche Forschungsgemeinschaft (DFG) (grant IDs SCHO 1337/4-1 and SCHM 2683/4-1). The authors declare no conflict of interest.

REFERENCES

- Ackenheil M, Stotz-Ingenlath G, Dietz-Bauer R, Vossen A (1999) *MINI Mini International Neuropsychiatric Interview, German Version 5.0. 0 DSM IV*. Germany: Psychiatrische Universitätsklinik München.
- Alonso J, Angermeyer MC, Bernert S, Bruffaerts R, Brugha TS, Bryson H, de Girolamo G, Graaf R, Demeyttenaere K, Gasquet I, Haro JM, Katz SJ,

- Kessler RC, Kovess V, Lépine JP, Ormel J, Polidori G, Russo LJ, Vilagut G, Almansa J, Arbabzadeh-Bouchez S, Autonell J, Bernal M, Buist-Bouwman MA, Codony M, Domingo-Salvany A, Ferrer M, Joo SS, Martínez-Alonso M, Matschinger H, Mazzi F, Morgan Z, Morosini P, Palacin C, Romera B, Taub N, Vollebergh WA; ESEMeD/MHEDEA 2000 Investigators, European Study of the Epidemiology of Mental Disorders (ESEMeD) Project (2004) Prevalence of mental disorders in Europe: Results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatr Scand Suppl.* 420:21–27.
- Biddle L, Gunnell D, Sharp D, Donovan JL (2004) Factors influencing help seeking in mentally distressed young adults: A cross-sectional survey. *Br J Gen Pract.* 54: 248–253.
- Brandstetter S, Dodoo-Schittko F, Speerforck S, Apfelbacher C, Grabe HJ, Jacobi F, Hapke U, Schomerus G, Baumeister SE (2017) Trends in non-help-seeking for mental disorders in Germany between 1997–1999 and 2009–2012: A repeated cross-sectional study. *Soc Psychiatry Psychiatr Epidemiol.* 52: 1005–1013.
- Clement S, Schauman O, Graham T, Maggioni F, Evans-Lacko S, Bezborodovs N, Morgan C, Rüsch N, Brown JS, Thornicroft G (2015) What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychol Med.* 45:11–27.
- Corrigan P (2004) How stigma interferes with mental health care. *Am Psychol.* 59: 614–625.
- Corrigan P, Morris SB, Michaels P, Rafacz J, Rüsch N (2012) Challenging the public stigma of mental illness: A meta-analysis of outcome studies. *Psychiatr Serv.* 63: 963–973.
- Corrigan PW, Druss BG, Perlick DA (2014) The impact of mental illness stigma on seeking and participating in mental health care. *Psychol Sci Public Interest.* 15: 37–70.
- Corrigan PW, Schmidt A, Bink AB, Nieweglowski K, Al-Khouja MA, Qin S, Discont S (2016) Changing public stigma with continuum beliefs. *J Ment Health.* 26:1–8.
- Crabtree JW, Postmes T, Haslam C (2010) Mental health support groups, stigma, and self-esteem: Positive and negative implications of group identification. *J Soc Issues.* 66:553–569.
- Dietrich S, Mergl R, Rummel-Kluge C (2017) From the first symptoms of depression to treatment. When and where are people seeking help? Does stigma play a role? *Psychiatr Prax.* 44:461–468.
- Downey RG, King C (1998) Missing data in Likert ratings: A comparison of replacement methods. *J Gen Psychol.* 125:175–191.
- Eisenberg D, Downs MF, Golberstein E, Zivin K (2009) Stigma and help seeking for mental health among college students. *Med Care Res Rev.* 66: 522–541.
- Evans-Lacko S, Brohan E, Mojtabai R, Thornicroft G (2012) Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European countries. *Psychol Med.* 42:1741–1752.
- Gräfe K, Zipfel S, Herzog W, Löwe B (2004) Screening psychischer Störungen mit dem “Gesundheitsfragebogen für Patienten (PHQ-D).” *Diagnostica.* 50: 171–181.
- Greenwald AG, McGhee DE, Schwartz JL (1998) Measuring individual differences in implicit cognition: The implicit association test. *J Pers Soc Psychol.* 74: 1464–1480.
- Gronholm PC, Thornicroft G, Laurens KR, Evans-Lacko S (2017) Mental health-related stigma and pathways to care for people at risk of psychotic disorders or experiencing first-episode psychosis: A systematic review. *Psychol Med.* 47: 1867–1879.
- Gulliver A, Griffiths KM, Christensen H (2010) Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC Psychiatry.* 10:113.
- Komiti A, Judd F, Jackson H (2006) The influence of stigma and attitudes on seeking help from a GP for mental health problems: A rural context. *Soc Psychiatry Psychiatr Epidemiol.* 41:738–745.
- Kroenke K, Spitzer RL, Williams JB (2001) The PHQ-9: Validity of a brief depression severity measure. *J Gen Intern Med.* 16:606–613.
- Kroenke K, Spitzer RL, Williams JB, Löwe B (2010) The Patient Health Questionnaire Somatic, Anxiety, and Depressive Symptom Scales: A systematic review. *Gen Hosp Psychiatry.* 32:345–359.
- Lannin DG, Vogel DL, Brenner RE, Abraham WT, Heath PJ (2015) Does self-stigma reduce the probability of seeking mental health information? *J Couns Psychol.* 63: 351–358.
- Leventhal H, Leventhal EA, Contrada RJ (1998) Self-regulation, health, and behavior: A perceptual-cognitive approach. *Psychol Health.* 13:717–733.
- Link BG, Cullen FT, Frank J, Wozniak JF (1987) The social rejection of former mental patients—Understanding why labels matter. *Am J Sociol.* 92:1461–1500.
- Mojtabai R (2010) Mental illness stigma and willingness to seek mental health care in the European Union. *Soc Psychiatry Psychiatr Epidemiol.* 45:705–712.
- Nosek BA, Bar-Anan Y, Sriram N, Axt J, Greenwald AG (2014) Understanding and using the brief Implicit Association Test: Recommended scoring procedures. *PLoS One.* 9:e110938.
- Peter O, Lang J, Stein K, Wirth K, Jungbauer J (2017) “The diagnosis is not me—But it is a part of me”—An in-depth interview study on perspectives of mentally ill people. *Psychiatr Prax.* doi: 10.1055/s-0043-100026.
- Prins MA, Verhaak PF, Bensing JM, van der Meer K (2008) Health beliefs and perceived need for mental health care of anxiety and depression—The patients' perspective explored. *Clin Psychol Rev.* 28:1038–1058.
- Roth PL, Switzer FS, Switzer DM (1999) Missing data in multiple item scales: A Monte Carlo analysis of missing data techniques. *Organ Res Meth.* 2:211–232.
- Rüsch N, Corrigan PW, Todd AR, Bodenhausen GV (2010) Implicit self-stigma in people with mental illness. *J Nerv Ment Dis.* 198:150–153.
- Rüsch N, Corrigan PW, Wassel A, Michaels P, Larson JE, Olschewski M, Wilkniss S, Batia K (2009) Self-stigma, group identification, perceived legitimacy of discrimination and mental health service use. *Br J Psychiatry.* 195:551–552.
- Rüsch N, Lieb K, Bohus M, Corrigan PW (2006) Self-Stigma, empowerment, and perceived legitimacy of discrimination among women with mental illness. *Psychiatr Serv.* 57:399–402.
- Savage H, Murray J, Hatch SL, Hotopf M, Evans-Lacko S, Brown JS (2016) Exploring professional help-seeking for mental disorders. *Qual Health Res.* 26: 1662–1673.
- Schibalski JV, Müller M, Ajdacic-Gross V, Vetter S, Rodgers S, Oexle N, Corrigan PW, Rössler W, Rüsch N (2017) Stigma-related stress, shame and avoidant coping reactions among members of the general population with elevated symptom levels. *Compr Psychiatry.* 74:224–230.
- Schomerus G, Angermeyer MC, Baumeister SE, Stolzenburg S, Link BG, Phelan JC (2016) An online intervention using information on the mental health-mental illness continuum to reduce stigma. *Eur Psychiatry.* 32:21–27.
- Schomerus G, Auer C, Rhode D, Lupp M, Freyberger HJ, Schmidt S (2012) Personal stigma, problem appraisal and perceived need for professional help in currently untreated depressed persons. *J Affect Disord.* 139:94–97.
- Schomerus G, Matschinger H, Angermeyer MC (2007) Familiarity with mental illness and approval of structural discrimination against psychiatric patients in Germany. *J Nerv Ment Dis.* 195:89–92.
- Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, Hergueta T, Baker R, Dunbar GC (1998) The Mini-International Neuropsychiatric Interview (M.I.N.I.): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *J Clin Psychiatry.* 59:22–33.
- Sriram N, Greenwald AG (2009) The Brief Implicit Association Test. *Exp Psychol.* 56: 283–294.
- Statistical Office Germany (2015) Available at: <https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/BildungForschungKultur/Bildungsstand/Tabellen/Bildungsabschluss.html>. Accessed January 23, 2017.
- Thoits PA (1985) Self-Labeling processes in mental illness: The role of emotional deviance. *Am J Sociol.* 91:221–249.

- Thornicroft G, Chatterji S, Evans-Lacko S, Gruber M, Sampson N, Aguilar-Gaxiola S, Al-Hamzawi A, Alonso J, Andrade L, Borges G, Bruffaerts R, Bunting B, de Almeida JM, Florescu S, de Girolamo G, Gureje O, Haro JM, He Y, Hinkov H, Karam E, Kawakami N, Lee S, Navarro-Mateu F, Piazza M, Posada-Villa J, de Galvis YT, Kessler RC (2017) Undertreatment of people with major depressive disorder in 21 countries. *Br J Psychiatry*. 210:119–124.
- Thornicroft G, Mehta N, Clement S, Evans-Lacko S, Doherty M, Rose D, Koschorke M, Shidhaye R, O'Reilly C, Henderson C (2016) Evidence for effective interventions to reduce mental-health-related stigma and discrimination. *Lancet*. 387:1123–1132.
- Wang PS, Aguilar-Gaxiola S, Alonso J, Angermeyer MC, Borges G, Bromet EJ, Bruffaerts R, de Girolamo G, de Graaf R, Gureje O, Haro JM, Karam EG, Kessler RC, Kovess V, Lane MC, Lee S, Levinson D, Ono Y, Petukhova M, Posada-Villa J, Seedat S, Wells JE (2007) Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO world mental health surveys. *Lancet*. 370:841–850.

APPENDIX

Advertisement Text

Many people have everyday complaints like **sleep disturbances, tiredness, lack of energy, concentration problems, loss of appetite, joylessness, irritability, lack of interest, and aching head and limbs**. Researchers at the Department of Health and Prevention at the University of Greifswald want to find out why some people with such complaints seek medical help while others do not. If you have experienced the abovementioned complaints during the last weeks, please contact us for a detailed interview: xxx@uni-greifswald.de, xxx or xxx (SMS/WhatsApp). All participants of our study will receive a small financial compensation for their efforts.