Development of a measure of mental health stigma including police behaviors

Kento Yasuhara^a, Dana L. Formon^b, Sarah Phillips^c and Elise M. Yenne^b

^a*College of Arts and Sciences, University of New Haven, West Haven, CT, USA;* ^b*College of Humanities and Social Sciences, Sam Houston State University, Huntsville, AL, USA;* ^c*College of Arts and Sciences, Drexel University, Philadelphia, PA, USA*

Various stigmatizing notions are associated with mental illness, resulting in negative personal (e.g. employment discrimination) and societal (e.g. public treatment of the mentally ill as ‘dangerous’ and/or ‘criminal’) outcomes. This study develops and validates a new multi-scale assessment tool to assess several dimensions of mental illness stigma, including perceived dangerousness, self-care, social distance, treatment amenability and predicted police behavior. A total of 641 undergraduate students from various American universities completed the new stigma measure along with two other existing measures. The results indicate that the new stigma measure has an acceptable three-factor solution consisting of self-care, dangerousness and police behavior. The self-care and dangerousness factors were found to have concurrent validity with the corresponding scales of the existing measures. Future research involving different populations, as well as the policy implications of the new police behavior factor, are discussed.

Keywords: mental health; stigma; assessment; dangerousness; self-care.

The public stigma associated with mental illness has long been an important area of scholarly inquiry. A review of the extant literature indicates that such stigma is associated with a host of negative social consequences, ranging from employment discrimination and decreased housing opportunities to reduced participation in mental health care (Alisky & Iczkowski, 1990; Corrigan, Druss, & Perlick, 2014; Rebeiro Gruhl, Kauppi, Montgomery, & James, 2012; Stuart, 2006). Given these costs, it is essential to conceptualize and capture the occurrence of stigma through measurement that is based in empirically supported theory. The following discussion first reviews the variation that exists within the literature regarding the definition of stigma and then briefly summarizes previous

attempts to measure it. After this, a number of shortcomings associated with such attempts are highlighted, followed by a discussion of the creation and subsequent validation of a measurement tool that is designed to assess multiple dimensions of stigma, including perceived dangerousness, self-care, social distance, treatment amenability and predicted police behavior.

Stigma: definitions and dimensions

The concept of stigma has not been uniformly defined, nor does it exist as a single construct. Although an extensive review of stigma definitions and dimensions is beyond the scope of this study, it is important to differentiate between the two. In defining stigma, most scholars agree that individuals

Correspondence: Kento Yasuhara, College of Arts and Sciences, University of New Haven, West Haven, CT, USA. Email: KYasuhara@newhaven.edu

who are stigmatized have a characteristic that marks them as different from the majority of people, which leads to their devaluation and becomes the basis for exclusion or avoidance (Major & O'Brien, 2005). In contrast, a number of dimensions along which stigma can occur have been delineated (Jones, Farina, Hastorf, Markus, & Miller, 1984). Briefly, those who are high on the dimension of *peril* are perceived by the general public to be dangerous or frightening, while individuals who are low on the dimension of *aesthetics* are affected by conditions that are perceived to be unattractive or displeasing. Alongside these dimensions, *origin* refers to the degree of responsibility that one may or may not hold in assuming the stigmatized identity, whereas *course* refers to the extent to which the stigmatized illness has worsened over time. Finally, *concealability* and *disruptiveness* indicate the level of visibility of the condition and the degree to which it interferes with social relationships, respectively (Jones et al., 1984). These dimensions underlie typically stigmatized conditions and may occur individually, or co-occur, to create stigma (Ahmedani, 2011). Furthermore, components of stigma rarely occur in a vacuum. Social distance, for example – a measurement of the degree of exclusion that individuals with mental illness experience across a range of social situations (e.g. unwilling to work with an individual with mental illness, rent a room to an individual with mental illness, etc.; see Boyd, Katz, Link, & Phelan, 2010) – has been shown to be associated with a multitude of other dimensions of stigma. National survey data in the United States (US) indicate that the preference for social distance from adults with mental illness is inversely associated with the belief in one's potential to improve with treatment, and positively associated with perceptions of dangerousness to self and others (Barczyk, 2015; Martin, Pescosolido, & Tuch, 2000). Such relationships have also been well established elsewhere in the literature (Link,

Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Marie & Miles, 2008)

Stigma measurement

The early attempts to measure the stigmatization of mental illness began with Star's (1955) seminal work, which culminated in the first nationally representative survey of the American public's knowledge of and attitudes toward mental illness (Pescosolido, 2013). Star's vignettes were later updated to reflect current diagnostic criteria and used to examine recognition of mental illness, beliefs about its causes, perceptions of dangerousness associated with individuals who have mental illness and ideas concerning the degree of social distance sought from people with mental illness (Link et al., 1999). As scholarly inquiry in this area has advanced, however, theories such as those described in the previous section have directly impacted upon stigma measurement by determining the content of various assessments (Yang et al., 2007). Indeed, two of the most frequently measured dimensions of stigma include social distance and perceived dangerousness (Jorm & Oh, 2009; Jorm, Reavley, & Ross, 2012). Moreover, the past several decades have given birth to numerous other rating scales and measures developed to assess the stigma associated with mental illness, predominantly in the following areas: stereotyping; opinions and community attitudes toward mental illness; and respondent attribution, either emotional reactions (e.g., anger) or behavioral intentions toward persons with mental illness (Link, Yang, Phelan, & Collins, 2004).

Despite the proliferation of tools designed to assess various dimensions and forms of stigma, scholars who research stigma typically utilize measures that individually assess just one of its dimensions, even though the nature of stigma is inherently multifaceted. Although there are exceptions to this trend – e.g. the Mental Illness Stigma Scale developed by Day, Edgren, and Eschleman (2007), which assesses Jones et al.'s (1984) six dimensions

of stigma – a review of the literature further reveals a number of recent studies that not only individually assess relevant dimensions of mental illness stigma (e.g., blameworthiness, perceived seriousness, etc.) but do so using single-item measure designs (Anglin, Alberti, Link, & Phelan, 2008; Anglin, Link, & Phelan, 2006; Boyd et al., 2010; Yang et al., 2013). A full review of the relative strengths and weaknesses of single-item vs. multi-item measures is beyond the scope of this study; however, multi-item measures not only offer comprehensive profiles of multidimensional constructs but can also yield information on changes within the individual dimensions measured by the scale that are less susceptible to distortion than single-item measures (Bowling, 2005).

Furthermore, such research largely continues to employ vignette methodology (Link et al., 2004; Parcesepe & Cabassa, 2013). Although there are a number of advantages to the use of vignettes in stigma research (e.g. practicality), detailed descriptions of individuals with mental illness – in the absence of real people who might be able to provide corrective feedback on initial impressions – may force participants to rely on preformed cognitive schemas to give answers about a person's own opinions or imagined behavior that may or may not relate to a person's actual behavior (Evans et al., 2015; Link et al., 2004). Moreover, the use of vignettes that describe the diagnostic criteria for a certain mental health concern may limit the applicability of a particular scale to other diagnoses and contexts.

To address the shortcomings of previous measurement attempts, a new multi-scale assessment tool was developed to assess various dimensions of mental illness stigma, including perceived dangerousness, self-care, social distance and treatment amenability. The purpose of the current study, therefore, is to take an initial step toward the validation of this measure. A secondary aim however is to develop an assessment tool that can ultimately be administered to law enforcement officers

as part of their training on stigma and mental illness. Therefore, items that assess predicted police behavior are also included. Nevertheless, it should be noted that the varied nature of stigma necessitates the use of multiple methodologies in its study and measurement (Yang et al., 2007). Thus, the current study represents just one of many possible approaches to measuring stigma.

Method

Participants

The participants consist of 641 undergraduates from three US universities – one located in the south and the other two in the northeast. Participation was advertised to students taking various courses and offered in exchange for course credit. The sample consists of 115 freshmen, 107 sophomores, 182 juniors and 154 seniors. The remaining 83 students did not submit a response.

Procedure

All participants voluntarily agreed to complete an anonymous survey online. They completed 28 items on the current measure, an 8-item dangerousness measure taken from Penn et al. (1994) and the measure created by Day et al. (2007). Once the data were collected, an exploratory factor analysis was conducted to examine the extent to which the survey subscales load onto the preexisting factors that had previously been hypothesized. Pearson correlations were also performed to evaluate concurrent validity.

Items and questionnaires

The stigma measure contains 28 initial questions based on 5 subscales, (dangerousness, performance of daily activities, social distance, treatability and predicted police behavior). The dangerousness subscales contain items that are based in part on Link et al.'s (1999) work and consist of questions asking if individuals with mental illness are likely to do something

harmful to themselves or others (the psychometric properties for the Link et al., 1999 scales are not available). The social distance subscales consist of modified versions of the items presented in Phelan and Basow's (2007) vignette study asking about how close in distance and relationship participants are comfortable getting to a person with mental illness (Chronbach's α ranges from 0.82 to .88, depending on the vignette). The dangerousness and social distance subscales are incorporated into the measure because they have been identified as the two most commonly measured and studied components of stigma by a series of meta-analyses on stigma research (Jorm et al., 2012; Jorm & Oh, 2009). Given that these constructs are most commonly measured and identified in the literature, incorporating them as part of the current study was done to help unify the operationalization of stigma and stigma measurement.

The performance of daily activities subscale, also drawn in part from the work of Link et al. (1999), includes items which ask participants to consider the likelihood that individuals with mental illness are able to make responsible financial and employment decisions for themselves. The treatability subscale consists of items from a survey that assesses mental health professionals' attitudes toward mental illness (Hugo, 2001); it asks about the likelihoods of mentally ill individuals successfully completing treatment and of their relapsing (psychometric data for this measure were not available). The items on the performance of daily activities and treatability were added because they are often seen as components of stigma that are specific to mental health (Link et al., 1999; Hugo, 2001) and are also potentially relevant to the predicted police behavior subscale created for the measure in this study.

Finally, the predicted police behavior subscale consists of items which ask participants to consider the likelihood that law enforcement officers would need to call for backup, draw their weapons or use physical force when

dealing with an individual with mental illness. These items were created for the current study and appear to be unique in the stigma literature at this time. The police behavior subscale was included because restrictive devices such as Tasers are often used by police officers against individuals with mental health issues (O'Brien & Thom, 2014). These questions are also the result of stereotypical police interactions with individuals who have a mental illness, which at least in part stems from recent media coverage and the related public outcry concerning the aggressive manner in which mentally ill persons are dealt with by the police.

Unlike most other measures, the current measure does not employ the use of a vignette, as the aim is to create a measure of stigma that can be used with any potential mental health diagnosis. However, this made locating an appropriate measure for concurrent validation difficult, as few other stigma measures appear in the literature without the vignette context, and none of them represent all the subscales in the new measure. The stigma survey created by Day et al. (2007) was chosen for this task (no psychometric data is reported), and the comparison measure consists of dimensions of stigma that are relatively comparable to the current measure. Moreover, the questions in the scale created by Day et al. are designed in such a way that they can be contextualized either by vignettes or on their own by replacing the name of the diagnosis with the generalized term 'mental illness'. Given the current measure's emphasis on the potential for law enforcement involvement and violence, the dangerousness scale was also validated using Penn et al.'s (1994) dangerousness stigma scale (Chronbach's $\alpha = .75$).

Results

Once the data were deemed suitable for exploratory factor analysis ($KMO = .95$, Bartlett's test of sphericity $\chi^2 = 13,680.71$, $p > .001$), the 28 hypothesized items were examined with principle axis factoring and

Promax rotation. An acceptable solution includes the need for a solution of at least 3 items, where the factors have a minimum eigenvalue of 1.0, with factor loading of below .40 and cross-loadings of above .30 being excluded. (Kaiser, 1960; Tabachnick & Fidell, 2007). The initial analysis returned 4 factors with eigenvalues of above 1.00. Together, these 4 factors account for 68.74% of the variance. The items that were hypothesized to belong to the treatment amenability factor were found to load onto the self-care and dangerousness factors. Furthermore, several items on the hypothesized social distance factor load primarily onto the self-care factor, while others have cross-loadings with the self-care factor. Once these cross-loaded items had been removed, the social distance factor failed to meet the criteria of having 3 items per factor (Table 1).

Based on the criteria for an acceptable solution, 4 items were dropped due to cross-loading and a three-factor solution was run. It was found that the three-factor solution accounts for 66.44% of the variance. The final scale is composed of 24 items and has acceptable reliability ($\alpha = .92$). The first factor, self-care, includes 16 items from the hypothesized self-care and social distance items ($\alpha = .96$). The second factor, dangerousness, includes 4 items from the hypothesized dangerousness and treatment amenability scales ($\alpha = .86$). The third factor, police behavior, includes 4 items from the police subscale ($\alpha = .91$). The self-care and dangerousness factors are significantly correlated ($r = .14, p > .001$), as are the dangerousness and police behavior factors ($r = .56, p > .001$). However, the self-care and police behavior factors are not significantly correlated ($r = -.006, p = .880$; see Table 2).

In order to test for convergent validity, the dangerousness subscale was correlated with Penn et al.'s (1994) dangerousness scale. The Penn et al. scale displays adequate reliability ($\alpha = .87$) and is significantly correlated with the dangerousness scale of the current measure

($r = .30, p > .001$). Significantly correlated with the total Day et al. scale ($r = .081, p = .19$), when the police behavior factor of the total scale is removed, the remaining two-factor scale is significantly correlated with the Day et al. scale ($r = .227, p < .001$).

Discussion

Based on the results, the newly created measure detailed herein seems to be comprised of three subscales rather than five. Of the five subscales originally hypothesized, the self-care and social distance items seem to measure a singular construct rather than separate ones. These two constructs are related: people who believe that individuals with mental health problems have poor self-care will also want to put more social distance between themselves and these individuals. Furthermore, the dangerousness and treatment amenability items also seem to measure a singular construct rather than separate ones. It is noted that individuals who are seen as being more dangerous are also seen as being less likely to be able to receive treatment. This interpretation makes some intuitive sense, as dangerous individuals are also seen as being difficult to manage, and therefore less likely to be available for treatment or even to want treatment.

Although the total scale of the current measure does not correlate with the Day et al. (2007) scale, this is not unexpected as the former contains the new police behavior factor. When this new factor is removed, the scale correlates significantly with the Day et al. scale, which indicates that the other two scales are consistent and demonstrates high concurrent validity.

Limitations

This study has several limitations, one of which concerns the external validity of the sample. Although the data were gathered from individuals located in different geographic regions, the sample is composed entirely of

Table 1. Factor loadings for the four-factor solution.

Item	Hypothesized scale	Promax pattern coefficients			
		I	II	III	IV
1	Self-care	.80			
3	Self-care	.71			
5	Self-care	.83			
6	Self-care	.93			
8	Self-care	.85			
13	Self-care	.76			
15	Self-care	.73			
18	Self-care	.74			
19	Self-care	.77			
28	Self-care	.52			
2	Social distance	.61			
10	Social distance	.63			
14	Social distance	.66			
17	Social distance	.54			.46
22	Social distance	.50			.53
27	Social distance				.58
4	Police behavior			.64	
11	Police behavior			.90	
12	Police behavior			.95	
20	Police behavior			.89	
25	Police behavior		.34	.40	
7	Treatment amenability	.87			
23	Treatment amenability		.58		
26	Treatment amenability	.51			.48
9	Dangerousness		.75		
16	Dangerousness		.76		
21	Dangerousness		.88		
24	Dangerousness		.74		
Variance (%)		39.93	20.42	5.45	3.94
No. of items		16	5	5	2
Mean		59.77	15.59	11.56	7.85
Standard deviation		22.9	6.92	6.53	3.62
Cronbach's α		.96	.88	.88	.74

Note: Loadings <.30 were suppressed.

Bold text indicates factors with significant loading.

university students of a certain education level and age range. Thus, these findings may not generalize beyond students in a university setting. Additionally, many of the students were enrolled on psychology courses, which may also make it difficult to measure the stigma of mental illness as such students will have

gained more knowledge in mental illness as such students will have gained more knowledge in mental illness, most likely lowering their stigma. Furthermore, demographic information was not collected for this dataset, so there is little information available regarding the specific characteristics of the participants.

Table 2. Factor loadings for the three-factor solution.

Item	Hypothesized scale	Promax pattern coefficients		
		I	II	III
1	Self-care	.73		
3	Self-care	.65		
5	Self-care	.81		
6	Self-care	.83		
8	Self-care	.81		
13	Self-care	.83		
15	Self-care	.78		
18	Self-care	.82		
19	Self-care	.88		
2	Social distance	.67		
10	Social distance	.74		
14	Social distance	.81		
17	Social distance	.78		
27	Social distance	.47	.34	
4	Police behavior			.62
11	Police behavior			.87
12	Police behavior			.92
20	Police behavior			.85
7	Treatment amenability	.83		
23	Treatment amenability		.67	
26	Treatment amenability	.79		
9	Dangerousness		.69	
16	Dangerousness		.70	
21	Dangerousness		.85	
Variance (%)		38.68	21.59	6.17
No. of items		16	4	4
Mean		60.29	12.44	8.40
Standard deviation		22.73	5.51	5.50
Cronbach's α		.96	.84	.91

Note: Loadings <.30 were suppressed.

SC = Self-Care, SD = Social Distance, PO = Police, TX = Treatment Amenability, D = Dangerousness.

Another limitation is the non-specificity of the term 'mental health problem' that is used in the measure. Although this term is used so that the measure can be administered broadly, individuals may have different feelings and stigma associated with different mental illnesses. For example, depression and schizophrenia are commonly known mental illnesses, but both are thought of in different contexts. Such illnesses are also portrayed

differently in the media, which could also skew stigma towards different illnesses.

Finally, an assumption was made that the questions are designed to measure stigma and that the constructs are appropriate for measuring the stigma attached to mental health problems for this population. Although the questions within the measure are based on questions from past research, there is an underlying assumption that such questions are

appropriate for measuring the singular concept of stigma – but there is also a possibility that a singular ‘stigma’ construct is not an appropriate measurement of the concept.

Conclusion

The measure presented in this study adds several components, such as police behavior and perceived dangerousness, that are important to measuring the stigma of mental illness. The inclusion of these constructs, along with the traditional facets of stigma, will enable the use of such stigma measures in new contexts, and will perhaps lead to new or reimagined training designed to lower the stigma of mental illness in different populations. Considering the rise in coverage of mental illness within the criminal justice system, it is important to consider the stigma that is developing based on the coverage of such stories in the local and national media.

Furthermore, the development of this measure was instigated based on the belief that it is important for law enforcement personnel to have training on the topic of stigma and mental illness. In so doing, the police behavior factor becomes an important aspect to consider, as law enforcement or those who wish to enter into law enforcement are within the scope of the individuals who would initially be given this measure. Future research on the stigma of mental illness could focus on law enforcement personnel, as they are most often the first to respond in situations where individuals with mental illness are in crisis. Measures such as this might be used alongside the training of officers so that they can begin to recognize the stigma that they personally attach to individuals with mental illness, in an effort to develop better understanding and empathy.

Ethical standards

Declaration of conflicts of interest

Kento Yasuhara has declared no conflicts of interest.

Dana L. Formon has declared no conflicts of interest.

Sarah Phillips has declared no conflicts of interest.

Elise M. Yenne has declared no conflicts of interest.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent

Informed consent was obtained from all individual participants included in the study.

Acknowledgements

We thank our colleagues from the University of New Haven, Sam Houston State University, and Drexel University for providing insight and expertise that greatly assisted the research.

References

- Ahmedani, B. K. (2011). Mental health stigma: Society, individuals, and the profession. *The Journal of Social Work Values and Ethics*, 8, 4-1-4-16.
- Alisky, J. M., & Iczkowski, K. A. (1990). Barriers to housing for deinstitutionalized psychiatric patients. *Hospital and Community Psychiatry*, 41, 93-95. doi: [10.1176/ps.41.1.93](https://doi.org/10.1176/ps.41.1.93)
- Anglin, D. M., Alberti, P. M., Link, B. G., & Phelan, J. C. (2008). Racial differences in beliefs about the effectiveness and necessity of mental health treatment. *American Journal of Community Psychology*, 42, 17-24. doi: [10.1007/s10464-008-9189-5](https://doi.org/10.1007/s10464-008-9189-5)
- Anglin, D. M., Link, B. G., & Phelan, J. C. (2006). Racial differences in stigmatizing attitudes toward people with mental illness. *Psychiatric Services*, 57, 857-862. doi: [10.1176/ps.2006.57.6.857](https://doi.org/10.1176/ps.2006.57.6.857)

- Barczyk, A. N. (2015). Relationship between the public's beliefs in recovery, level of mental illness stigma, and previous contact. *Community Mental Health Journal*, 51, 38–47. doi: [10.1007/s10597-014-9766-z](https://doi.org/10.1007/s10597-014-9766-z)
- Bowling, A. (2005). Just one question: If one question works, why ask several? *Journal of Epidemiology and Community Health*, 59, 342–345. doi: [10.1136/jech.2004.021204](https://doi.org/10.1136/jech.2004.021204)
- Boyd, J. E., Katz, E. P., Link, B. G., & Phelan, J. C. (2010). The relationship of multiple aspects of stigma and personal contact with someone hospitalized for mental illness, in a nationally representative sample. *Social Psychiatry and Psychiatric Epidemiology*, 45, 1063–1070. doi: [10.1007/s00127-009-0147-9](https://doi.org/10.1007/s00127-009-0147-9)
- Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Psychological Science in the Public Interest*, 15, 37–70. doi: [10.1177/1529100614531398](https://doi.org/10.1177/1529100614531398)
- Day, E. N., Edgren, K., & Eshleman, A. (2007). Measuring stigma toward mental illness: Development and application of the mental illness stigma scale. *Journal of Applied Social Psychology*, 37(10), 2191–2219. Retrieved from [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1559-1816](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1559-1816)
- Evans, S. C., Roberts, M. C., Keeley, J. W., Blossom, J. B., Amaro, C. M., Garcia, A. M., ..., Reed, G. M. (2015). Vignette methodologies for studying clinicians' decision-making: Validity, utility, and application in ICD-11 field studies. *International Journal of Clinical and Health Psychology*, 15, 160–170. doi: [10.1016/j.ijchp.2014.12.001](https://doi.org/10.1016/j.ijchp.2014.12.001)
- Hugo, M. (2001). Mental health professionals' attitudes towards people who have experienced a mental health disorder. *Journal of Psychiatric and Mental Health Nursing*, 8, 419–425. doi: [10.1046/j.1351-0126.2001.00430.x](https://doi.org/10.1046/j.1351-0126.2001.00430.x)
- Jones, E., Farina, A., Hastorf, A., Markus, H., & Miller, D. T. (1984). *Social stigma: The psychology of marked relationships*. New York, NY: Freeman.
- Jorm, A. F., & Oh, E. (2009). Desire for social distance from people with mental disorders: A review. *Australian and New Zealand Journal of Psychiatry*, 43, 183–200. doi: [10.1080/00048670802653349](https://doi.org/10.1080/00048670802653349)
- Jorm, A. F., Reavley, N., & Ross, A. M. (2012). Belief in the dangerousness of people with mental disorders: A review. *Australian & New Zealand Journal of Psychiatry*, 46, 1029–1045. doi: [10.1177/0004867412442406](https://doi.org/10.1177/0004867412442406)
- Link, B. G., Phelan, J. C., Bresnahan, M., Stueve, A., & Pescosolido, B. A. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health*, 89(9), 1328–1333. doi: [10.2105/AJPH.89.9.1328](https://doi.org/10.2105/AJPH.89.9.1328)
- Link, B. G., Yang, L. H., Phelan, J. C., & Collins, P. Y. (2004). Measuring mental illness stigma. *Schizophrenia Bulletin*, 30, 511–541. doi: [10.1093/oxfordjournals.schbul.a007098](https://doi.org/10.1093/oxfordjournals.schbul.a007098)
- Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology*, 56, 393–421. doi: [10.1146/annurev.psych.56.091103.070137](https://doi.org/10.1146/annurev.psych.56.091103.070137)
- Marie, D., & Miles, B. (2008). Social distance and perceived dangerousness across four diagnostic categories of mental disorder. *Australian & New Zealand Journal of Psychiatry*, 42, 126–133. doi: [10.1080/00048670701787545](https://doi.org/10.1080/00048670701787545)
- Martin, J. K., Pescosolido, B. A., & Tuch, S. A. (2000). Of fear and loathing: The role of 'disturbing behavior,' labels, and causal attributions in shaping public attitudes toward people with mental illness. *Journal of Health and Social Behavior*, 41, 208–223. doi: [10.2307/2676306](https://doi.org/10.2307/2676306)
- O'Brien, A. J., & Thom, K. (2014). Police use of TASER devices in mental health emergencies: A review. *International Journal of Law and Psychiatry*, 37(4), 420–426. doi: [10.1016/j.ijlp.2014.02.014](https://doi.org/10.1016/j.ijlp.2014.02.014)
- Parcesepe, A. M., & Cabassa, L. J. (2013). Public stigma of mental illness in the United States: A systematic literature review. *Administration and Policy in Mental Health and Mental Health Services Research*, 40, 1–22. doi: [10.1007/s10488-012-0430-z](https://doi.org/10.1007/s10488-012-0430-z)
- Penn, D. L., Guynan, K., Daily, T., Spaulding, W. D., Garbin, C. P., & Sullivan, M. (1994). Dispelling the stigma of Schizophrenia: What sort of information is best? *Schizophrenia Bulletin*, 20(3), 567–578. doi: [10.1093/schbul/20.3.567](https://doi.org/10.1093/schbul/20.3.567)
- Pescosolido, B. A. (2013). The public stigma of mental illness: What do we think; What do we know; What can we prove? *Journal of Health and Social Behavior*, 54, 1–21. doi: [10.1177/0022146512471197](https://doi.org/10.1177/0022146512471197)
- Phelan, J. E., & Basow, S. A. (2007). College students' attitudes toward mental health illness: An examination of the stigma process. *Journal of Applied Social Psychology*,

- 37(12), 2877–2902. doi: [10.1111/j.1559-1816.2007.00286.x](https://doi.org/10.1111/j.1559-1816.2007.00286.x)
- Rebeiro Gruhl, K. L., Kauppi, C., Montgomery, P., & James, S. (2012). Painting everybody with the same brush: Employment discrimination of persons with serious mental illness in rural places. *Journal of Rural Mental Health*, 36, 11–17. doi: [10.1037/h0094775](https://doi.org/10.1037/h0094775)
- Star, S. (1955). *The public's ideas about mental illness*. Paper presented at the annual meeting of the National Association for Mental Health, Indianapolis, IN.
- Stuart, H. (2006). Mental illness and employment discrimination. *Current Opinion in Psychiatry*, 19, 522–526. doi: [10.1097/01.yco.0000238482.27270.5d](https://doi.org/10.1097/01.yco.0000238482.27270.5d)
- Yang, L. H., Kleinman, A., Link, B. G., Phelan, J. C., Lee, S., & Good, B. (2007). Culture and stigma: Adding moral experience to stigma theory. *Social Science & Medicine*, 64, 1524–1535. doi: [10.1016/j.socscimed.2006.11.013](https://doi.org/10.1016/j.socscimed.2006.11.013)
- Yang, L. H., Purdie-Vaughns, V., Kotabe, H., Link, B. G., Saw, A., Wong, G., & Phelan, J. C. (2013). Culture, threat, and mental illness stigma: Identifying culture-specific threat among Chinese-American groups. *Social Science & Medicine*, 88, 56–67. doi: [10.1016/j.socscimed.2013.03.036](https://doi.org/10.1016/j.socscimed.2013.03.036)