Prejudice, Social Distance, and Familiarity with Mental Illness

by Patrick W. Corrigan, Annette Backs Edwards, Amy Green, Sarah Lickey Diwan, and David L. Penn

Abstract

In this study, the paths between two prejudicial attitudes (authoritarianism and benevolence) and a proxy measure of behavioral discrimination (social distance) were examined in a sample drawn from the general public. Moreover, the effects of two person variables (familiarity with mental illness and ethnicity) on prejudice were examined in the path analysis. One hundred fifty-one research participants completed measures of prejudice toward, social distance from, and familiarity with mental illness. Goodness-of-fit indexes from path analyses supported our hypotheses. Social distance is influenced by both kinds of prejudice: authoritarianism (the belief that persons with mental illness cannot care for themselves, so a paternalistic health system must do so) and benevolence (the belief that persons with mental illness are innocent and childlike). These forms of prejudice, in turn, are influenced by the believers' familiarity with mental illness and their ethnicity. We also discuss how these findings might contribute to a fuller understanding of mental illness stigma.

Keywords: Mental illness stigma, familiarity, prejudice

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The course of a person's experience with mental illnesses like schizophrenia is greatly hampered by social stigma. Unfortunately, stigma is not a rare event; stigmas about mental illness are widely endorsed by the general public. Studies show that many citizens in the United States (Rabkin 1974; Roman and Floyd 1981; Link 1987; Phelan et al. 1999) and most Western nations (Greenley 1984; Madianos et al. 1987; Bhugra 1989; Brockington et al. 1993; Hamre et al. 1994) endorse stigmatizing attitudes about mental illness. These attitudes seem to affect public behavior toward persons with mental illnesses like schizophrenia. Citizens are less likely to hire persons who are labeled mentally ill (Olshansky et al. 1960; Farina and Felner 1973; Bordieri and Drehmer 1986; Link 1987), less likely to lease them apartments (Page 1977, 1983, 1995), and less likely to freely interact with them (Martin et al. 1999).

Much of the research completed thus far on stigmatizing attitudes in mental illness has been largely descriptive and devoid of theoretical hypotheses (Corrigan 1998; Corrigan and Penn 1999). However, social psychologists studying the cognitive and motivational processes related to stereotypes, prejudice, and discrimination in ethnic, gender, and age outgroups have developed conceptual paradigms and methodological strategies that can be easily adapted for the study of mental health stigma (Crocker et al. 1998; Fiske 1998).

Social psychologists distinguish stereotypes from prejudice and discrimination. Stereotypes are efficient knowledge structures that represent a social group. Stereotypes are considered "social" because they represent collectively agreed upon notions of groups of persons (e.g., "most Irish people are drunks," "most people with mental illness are dangerous"). They are efficient because people can quickly generate impressions and expectations of individuals who belong to a stereotyped group (Hamilton and Sherman 1994): "Sean is Irish, so he's likely to drink on the job"; "Henrietta is mentally ill, so she is likely to be dangerous." In some ways, stereotypes are considered to be both valueless and without affect (Crocker et al. 1998; Fiske 1998). Many Americans have heard the statement that all Irish people are drunks. Awareness of this knowledge structure is not the same as endorsing the stereotype ("Yes, all Irish people are drunks!") or developing an affective reaction to it ("And all Irish people should be ashamed of themselves!"). Persons who agree with stereotypes and develop an emo-

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tional reaction are showing *prejudice* (e.g., "That's right, all mentally ill are dangerous, and I'm scared of them."). People who act on this prejudice are demonstrating *discrimination* (e.g., "I'm not going to rent my apartments to persons with mental illness because they are dangerous.").

Researchers believe that it is the hot emotional response (prejudice) to outgroups and not the cold cognitive appraisal (stereotype) that yields discriminatory behaviors toward outgroups (Stangor et al. 1991; Fiske 1998). Results of a meta-analysis on 23 social psychological studies showed that discrimination had little correlation with stereotype (r = 0.16) while it correlated significantly with prejudice (r = 0.32, Dovidio and Gaertner 1996). Stereotypes and prejudice also correlated poorly with each other. Using path analytic strategies, we are going to examine the path between prejudice about mental illness and the behavioral response (discrimination). A proxy for behavioral discrimination used in research on racial and other outgroup stereotypes (Crocker et al.1998), as well as in studies on mental illness (Link et al. 1987; Penn et al. 1994; 1999), is social distance. Social distance reflects an individual's self-report on his or her willingness to readily engage persons with mental illness in activities such as hiring them for babysitting, dating them, and renting them a room.

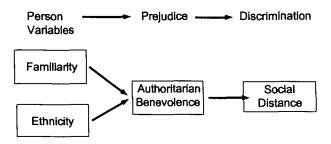
Previous factor analyses have identified two distinct clusters that reflect prejudicial attitudes about mental illness: authoritarianism (the belief that persons with mental illness as a class are inferior to normal persons and therefore require coercive handling) and benevolence (kindness to unfortunates, leading to behavior akin to how parents treat children) (Cohen and Struening 1962). These factors are derived from the Opinions of Mental Illness (OMI) Questionnaire (Cohen and Struening 1962) and are considered to be prejudice rather than stereotypes, because they represent respondents' agreement with these attitudes. These factors have been cross-validated on samples from Canada (Taylor and Dear 1981), Britain (Brockington et al. 1993), Greece (Madianos et al. 1987), and Israel (Rahav et al. 1984). We expected to find that authoritarian attitudes that view the person as incapable of self-care would clearly lead to social distance. However, we also expected that prejudices like the benevolent view that persons with mental illness are childlike can have equally pernicious effects and lead to social distance. Attitudes of benevolence can lead to a kind of parental concern about lack of responsibility ("You're simply not trying hard enough to deal with your mental illness.") that can result in anger and a desire to avoid the irresponsible individual (Weiner 1995).

Researchers have examined several variables that affect prejudicial attitudes about mental illness. Familiarity with persons with mental illness seems to be highly associated with attitudes about this group (Link and Cullen 1986; Penn et al. 1994; Holmes et al. 1999). Familiarity has been described as knowledge of and experience with mental illness. Intensity of familiarity varies,

rience with mental illness. Intensity of familiarity varies, from a person only seeing television portrayals of mental illness, to a person having a friend or coworker with mental illness, to a person having a family member with mental illness, to a person having a mental illness him- or herself. Familiarity with mental illness has been shown to be inversely associated with prejudicial attitudes toward mental illness (Holmes et al. 1999).

Other person variables also affect prejudice toward mental illness. In particular, persons from minority ethnic groups experience mental health stigma more harshly than those from the majority group (Rush 1998) and seem to be less likely to endorse prejudice about mental illness (Schnittker et al. 1999). Hence, we expected ethnic background (i.e., minority versus nonminority) to influence authoritarian and benevolent attitudes about mental illness. Figure 1 summarizes the paths tested in this study. Two person variables (familiarity and ethnicity) inversely influence prejudicial attitudes toward mental illness (authoritarianism and benevolence), which in turn directly affect the believer's social distance from persons with mental illness.

Figure 1. Path models examined



Method

Research participants for this study were recruited from 24 Illinois community colleges participating in a statewide paraprofessional training initiative on increasing knowledge and skills related to mental illness and psychiatric rehabilitation; data were collected at the beginning of the program and hence were not affected by training. These students were about evenly split between individuals who had been working in community services for mental illness and individuals with no prior work experience in the field. No differences (p > 0.40) were found in measures across groups with and without prior

work experience; hence, the remaining analyses represent data from the collapsed samples. Of the 240 persons solicited for the study, 151 provided data sets that were included in the analyses reported here; the other 89 subjects failed to complete one or more of the study measures and hence could not be included in the path analyses. The group of final participants did not differ significantly from the whole sample by demographics. Table 1 summarizes demographics for participants whose data were analyzed in this report. In particular, ethnicity was split into white and nonwhite groups.

Table 1. Demographics and measures¹

Mean/frequency	SD
81.9%	
18.1%	
37.9	11.7
16.2%	
39.5%	
10.5%	
18.0%	
15.6%	
77.9%	
22.1%	
8.1	2.5
110.2	12.9
17.2	5.3
9.3	3.7
	81.9% 18.1% 37.9 16.2% 39.5% 10.5% 18.0% 15.6% 77.9% 22.1% 8.1 110.2 17.2

Note.—AA = associate's degree; BA = bachelor's degree; > BA = some graduate school education; HS = high school; OMI = Opinions of Mental Illness; SC = some college; SD = standard deviation.

¹ Familiarity is the score from the Level of Contact Report. Authoritarianism and benevolence are the factors from the OMI Questionnaire. Higher OMI scores represent greater disagreement with the prejudicial attitude. Social distance is the total score from the Social Distance Scale.

Measures of Familiarity, Prejudice, and Social Distance. Research participants completed three measures that represented familiarity, prejudicial attitudes, and social distance. Familiarity was assessed using the Level of Contact Report (Holmes et al. 1999). Previous studies have measured familiarity categorically by asking participants the yes/no question, "Do you know someone with a mental illness?" (Penn et al. 1994). However, categorical measures have limited power compared to measures based on interval or ratio scales, so the Level of Contact Report was developed. The Level of Contact Report lists 12 situations that vary in intimacy with persons with mental illness. These situations were adapted from other scales used in stigma research (Link et al.1987; Penn et al. 1994) and

varied from least intimate contact ("I have observed, in passing, a person that I believe had a mental illness"), to medium intimacy ("I have worked with a person who had a severe mental illness at my place of employment"), to high intimacy ("I have a mental illness"). Three experts in psychiatric disability ranked the situations in terms of intimacy of contact; the mean of rank order correlations summarizing interrater reliability was 0.83. A subsequent sample of 100 research participants validated the rank order (Holmes et al. 1999).

Research participants were instructed to check all of the situations on the 12-item list that they have experienced in their lifetime. The index for familiarity in this study was the rank score of the most intimate situation indicated by the participant. For example, a research participant who checked three situations from the test—"A friend of the family has a severe mental illness" (rank order score = 9), "I have watched a documentary on television about mental illness" (score = 4), and "My job includes providing services to persons with mental illness" (score = 7)—would receive a score of 9 because "A friend of the family has a severe mental illness" is the most intimate of the checked situations.

Prejudicial attitudes about mental illness were assessed using the OMI Questionnaire (Cohen and Struening 1962), a measure that has been used in several studies about prejudicial attitudes toward mental illness (see Corrigan and Penn 1999 for a review). The OMI comprises 70 statements about the presentation and treatment of mental illness (e.g., "One of the main causes of mental illness is a lack of moral strength or will power") that respondents rate on a 6-point agreement scale (6 =strongly disagree). Factor analyses of the OMI have yielded five reliable and valid factors, with the two factors accounting for the greatest variance corresponding with authoritarianism and benevolence (Struening and Cohen 1963; Taylor and Dear 1981; Brockington et al. 1993). Higher OMI scales represent greater disagreement with the prejudicial attitude.

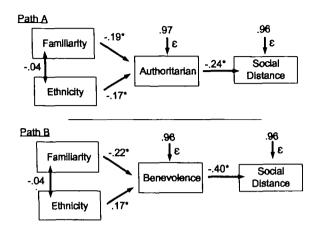
Social distance from mental illness was assessed with the Social Distance Scale (SDS, Link et al. 1987; Penn et al. 1994). The scale comprises seven items (e.g., "How would you feel about renting a room in your home to a person with severe mental illness?") that participants rate on a 0- to 3-point willingness scale (3 = definitely unwilling). The sum of ratings equals social distance, with higher scores representing greater desire to distance oneself from persons with mental illness. The SDS has good internal consistency ($\alpha = 0.75$) and validity (see Penn et al. 1994 for a fuller discussion of the SDS psychometrics) and is often used in stigma research as a proxy measure for behavioral indexes of discrimination against mental illness (Penn et al. 1994; Holmes et al. 1999).

Results

The means, frequencies, and standard deviations of measures included in the study are summarized in table 1. Note that the sample was significantly female (which corresponds with employment trends in the mental health field) and about three-quarters white. Moreover, the sample was fairly familiar with mental illness, scoring 8 on a 12-point scale, and did not exhibit significant social distance. Average SDS scores below 14 suggest the sample is "probably willing" to socially interact with persons with mental illness; the mean score for our sample was 9.3. Unfortunately, such high mean scores yield ceiling effects and restricted ranges that might lead to type II error. This problem needs to be considered in the interpretation and discussion of the results of the data analyses. Intercorrelations among these measures, plus associations with the demographic variables, are summarized in table 2.

Path analysis was used to test the theoretical model outlined in the introduction because it examines both the size and the direction of association among a set of variables. Results of this analysis are summarized in figure 2. All analyses were conducted using the SAS System's CALIS procedure. These analyses used the maximum likelihood method of parameter estimation with all analyses performed on the variance-covariance matrix (Hatcher 1994).

Figure 2. Model of relationship between ethnicity, familiarity, authoritarian and benevolent attitudes, and social distance



Note.—Standardized path coefficients appear on single-headed straight arrows; correlations appear on double-headed curved arrows; *t* values corresponding with starred (*) coefficients were greater than 2.00 (p < 0.05). Path A represents the mediating effects of authoritarian attitudes. Path B represents the mediating effects of benevolent attitudes.

Goodness-of-fit indexes for the various models are presented in table 3. The chi-square statistic included in this table provides a test of the null hypothesis that the

Variable	1	2	3	4	5	6	7
1 Gender							
2 Age	0.03						
3 Education	0.01	0.18*					
4 Ethnicity	-0.06	-0.01	-0.01				
5 Familiarity	0.03	0.14*	0.26**	-0.04			
6 Authoritarianism	-0.14*	0.04	0.30**	-0.31**	0.16*		
7 Benevolence	0.12	-0.07	0.13	-0.14*	0.02	0.28**	
8 Social distance	0.01	0.19*	<i>–</i> 0.18*	0.08	-0.09	-0.32***	0.15*

Table 2. Intercorrelations among demographic and dependent measures¹

¹ Familiarity is the score from the Level of Contact Report. Authoritarianism and benevolence are the factors from the Opinions of Mental Illness Questionnaire. Social distance is the total score from the Social Distance Scale.

* p < 0.05; ** p < 0.001; *** p < 0.01

Table 3.	Goodness-of-fit indices for tested models	

Model	x ²	df	p	NFI	NNFI	CFI
Auth → SDS (path A)	0.16	2	0.92	0.99	1.41	1.00
SDS → Auth (path A reversed)	9.47	2	0.009	0.51	-0.61	0.44
Ben \rightarrow SDS (path B)	0.32	2	0.85	0.99	1.16	1.00
SDS → Ben (path B reversed)	11.68	2	0.003	0.70	0.10	0.70

Note.—Auth = authoritarianism; Ben = benevolence; CFI = comparative fit index; NFI = normed fit index; NNFI = non-normed fit index; SDS = Social Distance Scale.

reproduced covariance matrix has the specified model structure (i.e., that the model fits the data). Table 3 also provides three additional goodness-of-fit indexes: the normed fit index (NFI, Bentler and Bonett 1980), the nonnormed fit index (NNFI, Bentler and Bonett 1980), and the comparative fit index (CFI, Bentler 1989). The NFI ranges from 0 to 1, where 0 represents the goodness of fit associated with the null model (a model where all variables are uncorrelated) and 1 represents the goodness of fit associated with a saturated model (a model with 0 degrees of freedom that perfectly reproduces the original covariance matrix). The NNFI and CFI are variations on the NFI that have been shown to be less biased in small samples (Bentler 1989). Values on the NFI, NNFI, and CFI greater than 0.9 suggest an acceptable fit between model and data.

Path A in figure 2 shows the relationships between person variables (familiarity and ethnicity), authoritarianism, and social distance. As shown in table 3, the chisquare was nonsignificant ($\chi^2 = 0.16$, p > 0.90), supporting the fit between model and data. Moreover, values for the NFI, CFI, and NNFI were all greater than 0.9 and fairly robust, also supporting the fit between model and data. We compared the path between authoritarianism and social distance with its reverse—social distance and authoritarianism—to make sure Path A was not spurious (higher OMI scales represent greater disagreement with the prejudicial attitude). As can be seen from table 3, none of the indexes of goodness of fit supported the reverse model.

The t values for the three path coefficients in Path A were all significant (p < 0.05). Familiarity and ethnicity, which were not shown to be significantly intercorrelated, were significantly associated with authoritarianism. The greatest effect in the path was between authoritarianism and social distance.

Path B in figure 2 showed the path from person variables to benevolence to social distance. Once again, the indexes representing goodness of fit, summarized in table 3, all supported the fit between the model and data: the chi-square was not significant and the NFI, NNFI, and CFI all exceeded 0.9. The reverse model—social distance to benevolence—failed to show good fit; for example, the three indexes of fit were below 0.9. Moreover, the path coefficients in Path B corresponded with significant t values. Once again, the largest coefficient represented the path between prejudicial attitude (benevolence) and social distance.

Discussion

Research completed by social psychologists suggests that prejudicial attitudes influence discriminatory behaviors.

Results of this study support a similar path for mental illness. Namely, prejudicial attitudes about mental illness influence social distance, a proxy for discriminatory behaviors toward persons with mental illness. Persons who less strongly reject an authoritarian attitude toward mental illness—the belief that a paternalistic mental health system should make decisions for persons with psychiatric disability because they are unable to care for themselves—are more likely to maintain social distance from this outgroup than others. This finding seems to make sense and parallels theories about the overall pernicious effects of mental health stigma; that is, negative views about mental illness lead to negative behaviors toward persons with psychiatric disabilties (Corrigan 1998).

Of equal importance in this study are the deleterious effects of benevolence. Namely, the view that persons with mental illness are childlike and need to be watched by a compassionate caretaker also leads to social distance. In fact, the path coefficient between benevolence and social distance (-0.40) was greater than the coefficient representing the path between authoritarianism and social distance. Hence, both benevolence and authoritarianism lead to decisions to avoid persons with mental illness.

In some ways, the path that includes benevolence might be counterintuitive; one might suspect that viewing persons with mental illness as innocent children might lead to helping behavior rather than to social distance. However, viewing persons with mental illness in this manner may also engender perceptions of irresponsibility. This, in turn, may lead to angry reactions and avoidance (Weiner 1995; Corrigan 2000). A current study by our group is trying to tease out the mediating effects of sympathy and anger.

Findings from this research also supported the hypothesis that two person variables influence prejudicial attitudes about mental illness. Individuals who are relatively more familiar with mental illness, either through school learning or experience with peers and family members, are less likely to endorse prejudicial attitudes about this group. Moreover, persons from minority ethnic groups are less likely to support prejudicial attitudes about mental illness. Social psychologists have shown that outgroup members (like persons from ethnic minority groups) who are the object of prejudice from the majority are less likely to be prejudicial toward others (Fiske 1998).

The size of the sample was somewhat small, although still within the range of path analyses reported in the literature (Hatcher 1994). Moreover, the sample was largely female and white, thus diminishing the ability to generalize findings to the population. Future research needs to cross-validate these findings on independent samples. Nevertheless, all of the goodness-of-fit indexes for the two models examined in this study were robust,

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and the individual path coefficients were all significant. Moreover, the reverse models (social distance \rightarrow prejudicial attitudes) failed to yield adequate goodness of fit. Hence, these findings seem to solidly support the hypotheses of the study.

There is a second problem with this study that needs to be examined in future research. Namely, the size of the relationship between prejudice and social distance, although significant, was still small. This finding is contrary to the original predictions tested in this study; expressed prejudicial attitudes do not necessarily correlate with actual discriminatory behavior (Devine et al. 1996). Persons may say one thing about an outgroup but act toward them in a different manner. Future research needs to determine whether social distance, the behavioral discrimination proxy, actually leads to discriminatory behavior. Are persons who endorse prejudicial attitudes about mental illness less likely to associate with persons with psychiatric disabilities?

Findings from this study have implications for stigma change programs. One of the debates in the research literature on changing social attitudes is that improving attitudes does not necessarily lead to enhanced behavior (Weiner 1995; Corrigan 2000). Results from the path analyses in this study suggest that prejudicial attitudes have direct influence on discriminatory behavior. Hence, changing these attitudes may lead to improvements in behavior. The path analyses also showed that familiarity with mental illness may diminish prejudice toward this group. Hence, education and contact programs that promote familiarity with mental illness may diminish prejudicial attitudes.

References

Bentler, P.M. Causal modeling via structural equation systems. In: Nesselroade, J.R., and Cattell, R.B., eds. Handbook of Multivariate Experimental Psychology: Perspectives on Individual Differences. 2nd ed. New York, NY: Plenum Press, 1989. pp. 317-335.

Bentler, P.M., and Bonett, D.G. Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88:588–606, 1980.

Bhugra, D. Attitudes toward mental illness: A review of the literature. Acta Psychiatrica Scandinavica, 80:1–12, 1989.

Bordieri, J.E., and Drehmer, D.E. Hiring decisions for disabled workers: Looking at the cause. *Journal of Applied Social Psychology*, 16:197–208, 1986.

Brockington, I.F.; Hall, P.; Levings, J.; and Murphy, C. The community's tolerance of the mentally ill. *British Journal of Psychiatry*, 162:93–99, 1993.

Cohen, J., and Struening, E.L. Opinions about mental illness in the personnel of two large mental hospitals. *Journal of Abnormal and Social Psychology*, 64:349–360, 1962.

Corrigan, P.W. The impact of stigma on severe mental illness. *Cognitive and Behavioral Practice*, 5:201-222, 1998.

Corrigan, P.W. Mental health stigma as social attribution: Implications for research methods and attitude change. *Clinical Psychology: Science and Practice*, 7:48-67, 2000.

Corrigan, P.W., and Penn, D.L. Stigma-busting and stereotype: Lessons from social psychology on discrediting psychiatric stigma. *American Psychologist*, 54:765-776, 1999.

Crocker, J.; Major, B.; and Steele, C. Social stigma. In: Gilbert, D.T., and Fiske, S.T., eds. *Handbook of Social Psychology*. 4th ed., vol. 2. Boston, MA: McGraw-Hill, 1998. pp. 504–553.

Devine, P.G.; Evett, S.R.; and Vasquez-Suson, K.A. Exploring the interpersonal dynamics of intergroup contact. In: Sorrentino, R.M., and Higgins, E.T., eds. Handbook of Motivation and Cognition: The Interpersonal Context. Vol. 3. New York, NY: Guilford, 1996. pp. 423-464.

Dovidio, J.F., and Gaertner, S.L. Affirmative action, racial biases, and intergroup relations. *Journal of Social Issues*, 52:51, 1996.

Farina, A., and Felner, R.D. Employment interviewer reactions to former mental patients. *Journal of Abnormal Psychology*, 82:268–272, 1973.

Fiske, S.T. Stereotyping, prejudice, and discrimination. In: Gilbert, T., and Fiske, S.T., eds. *Handbook of Social Psychology*. 4th ed., vol. 2. Boston, MA: McGraw-Hill, 1998. pp. 357–411.

Greenley, J.R. Social factors, mental illness, and psychiatric care: Recent advances from a sociological perspective. *Hospital and Community Psychiatry*, 35:813–820, 1984.

Hamilton, D.L., and Sherman, J.W. Stereotypes. In: Wyer, R.S., and Srull, T.K., eds. *Handbook of Social Cognition*. 2nd ed., vol. 2. Hillsdale, NJ: Erlbaum, 1994. pp. 1–68.

Hamre, P.; Dahl, A.A.; and Malt, U.F. Public attitudes to the quality of psychiatric treatment, psychiatric patients, and prevalence of mental disorders. *Nordic Journal of Psychiatry*, 48:275–281, 1994.

Hatcher, L. A Step-By-Step Approach to Using the SAS System for Factor Analysis and Structural Equation Modeling. Cary, NC: SAS Institute, 1994.

Holmes, E.P.; Corrigan, P.W.; Williams, P.; Canar, J.; and Kubiak, M. Changing public attitudes about schizophrenia. *Schizophrenia Bulletin*, 25(3):447-456, 1999.

Link, B.G. Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review*, 52:96–112, 1987.

Link, B.G., and Cullen, F.T. Contact with the mentally ill and perceptions of how dangerous they are. *Journal of Health and Social Behavior*, 27:289–303, 1986.

Link, B.G.; Cullen, F.T.; Frank, J.; and Wozniak, F. The social rejection of former mental patients: Understanding why labels matter. *American Journal of Sociology*, 92:1461–1500, 1987.

Madianos, M.G.; Madianou, D.; Vlachonikolis, J.; and Stefanis, C.N. Attitudes toward mentally ill in the Athens area: Implications for community mental health intervention. *Acta Psychiatrica Scandinavica*, 75:158–165, 1987.

Martin, J.K.; Pescosolido, B.A.; and Tuch, S.A. "Do Attributions and Interpersonal Contact Shape Public Attitudes Toward Mental Health Problems? Applying a Traditional Sociological Model of Prejudice." Unpublished manuscript, Indiana Consortium for Mental Health Services Research, 1999.

Olshansky, S.; Grob, S.; and Ekdahl, M. Survey of employment experiences of patients discharged from three state mental hospitals during period 1951-1953. *Mental Hygiene*, 44:510-522, 1960.

Page, S. Effects of the mental illness label in attempts to obtain accommodation. *Canadian Journal of Behavioural Science*, 9:85–90, 1977.

Page, S. Psychiatric stigma: Two studies of behaviour when the chips are down. *Canadian Journal of Mental Health*, 2:13-19, 1983.

Page, S. Effects of the mental illness label in 1993: Acceptance and rejection in the community. *Journal of Health and Social Policy*, 7:61–68, 1995.

Penn, D.L.; Corrigan, P.W.; Martin, J.; Ihnen, G.; Racenstein, J.M.; Nelson, D.; Cassisi, J.; and Hope, D.A. Social cognition and social skills in schizophrenia: The role of self-monitoring. *Journal of Nervous and Mental Disease*, 187:188–190, 1999.

Penn, D.L.; Guynan, K.; Daily, T.; Spaulding, W.D.; Garbin, C.P.; and Sullivan, M. Dispelling the stigma of schizophrenia: What sort of information is best? Schizophrenia Bulletin, 20(3):567-578, 1994.

Phelan, J.C.; Link, B.G.; Stueve, A.; and Pescosolido, B. "Public Conceptions of Mental Illness in 1950 and 1996: Has Sophistication Increased? Has Stigma Declined?" Unpublished manuscript, Columbia School of Public Health, 1999.

Rabkin, J. Public attitudes toward mental illness: A review of the literature. Schizophrenia Bulletin, 10(Fall):9-33, 1974.

Rahav, M.; Struening, E.L.; and Andrews, H. Opinions on mental illness in Israel. *Social Science and Medicine*, 19:1151–1158, 1984.

Roman, P.M., and Floyd, H.H. Social acceptance of psychiatric illness and psychiatric treatment. *Social Psychiatry*, 16:21-29, 1981.

Rush, L. Affective reactions to multiple social stigmas. *Journal of Social Psychology*, 138:421-430, 1998.

Schnittker, J.; Freese, J.; and Powell, B. "Nature, Nurture, Neither, Nor: Black–White Differences in Beliefs About the Causes and Appropriate Treatment of Mental Illness." Paper presented at the annual meeting of the American Sociological Association, San Francisco, CA, May 1999.

Stangor, C.; Sullivan, L.A.; and Ford, T.E. Affirmative and cognitive determinants of prejudice. *Social Cognition*, 9:359–380, 1991.

Struening, E.L., and Cohen, J. Factorial invariance and other psychometric characteristics of 5 opinions about mental illness. *Educational and Psychological Measurement*, 23:289–298, 1963.

Taylor, S.M., and Dear, M.J. Scaling community attitudes toward the mentally ill. *Schizophrenia Bulletin*, 7(2):225-240, 1981.

Weiner, B. Judgements of Responsibility: A Foundation for a Theory of Social Conduct. New York, NY: Guilford Press, 1995.

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