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Internalized stigma in schizophrenia: Relations with dysfunctional attitudes, symptoms, and quality of life

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ABSTRACT

Internalized stigma refers to the process by which individuals with mental illness apply negative stereotypes to themselves, expect to be rejected by others, and feel alienated from society. Though internalized stigma has been hypothesized to be associated with maladaptive cognitions and expectations of failure, this relationship with dysfunctional attitudes has not been fully examined. In the present study, 49 individuals with schizophrenia or schizoaffective disorder completed the Internalized Stigma of Mental Illness Scale (ISMI; Ritscher et al., 2003) in addition to measures tapping defeatist performance beliefs, beliefs regarding low likelihood of success and limited resources, negative symptoms, depression, and quality of life. Consistent with prior research, internalized stigma was correlated with depression and quality of life but not with negative symptoms. Further, internalized stigma was correlated with both measures of dysfunctional attitudes. After controlling for depressive symptomatology, the relationship between internalized stigma and beliefs regarding low likelihood of success and limited resources remained significant, and though the correlation between defeatist performance beliefs and internalized stigma was no longer significant, it was of a similar magnitude. Overall, these data suggest that dysfunctional attitudes play a role in internalized stigma in individuals with schizophrenia, indicating a possible point of intervention.

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1. Introduction

Individuals with mental illness who are highly stigmatized face serious challenges across multiple domains, including social isolation, income loss, difficulty obtaining housing and employment, depression, loss of quality of life, and reduced access to medical care (e.g., Bordieri and Drehmer, 1986; Druss et al., 2000; Farina and Felner, 1973; Katschnig, 2000; Link et al., 1987, 1989; Lloyd et al., 2005; Page, 1977). In fact, “mental illness” is regarded as one of the most highly rejected status conditions, clustering more often with drug addiction, prostitution, ex-convict status, and alcoholism rather than with conditions such as cancer, diabetes, or heart disease (e.g., Albrecht et al., 1982; Angermeyer and Dietrich, 2006; Tringo, 1970).

The current literature delineates three levels of stigma: structural, social, and internalized. While structural (i.e., institutional) stigma exists at the systems level and social stigma exists at the group level, internalized or self-stigma exists at the individual level and describes the process by which affected individuals endorse stereotypes about mental illness, expect social rejection, apply these stereotypes to themselves, and believe that they are

devalued members of society (Corrigan et al., 2005, 2006; Ritscher and Phelan, 2004). Further, internalized stigma may be characterized by maladaptive behavior, identity transformation, and acceptance of diminished expectations for oneself on the basis of mental illness (Caltaux, 2003; Livingston and Boyd, 2010).

Surveys have shown that individuals with schizophrenia and other forms of serious mental illness report high levels of internalized stigma (Ritscher and Phelan, 2004), and research has shown that internalized stigma is associated with decreased self-esteem and self-efficacy, hopelessness, demoralization, depression, reduced feelings of empowerment/mastery, poor quality of life, impairments in vocational functioning, and reduced motivation to work towards recovery goals (e.g., Link et al., 1989, 2001; Livingston and Boyd, 2010; Lysaker et al., 2007; Ritscher et al., 2003; Ritscher and Phelan, 2004; Yanos et al., 2010, 2008). Further, individuals with high levels of internalized stigma are less likely to pursue employment and independent living opportunities (e.g., Link, 1982) and less likely to utilize mental health services (Fenton et al., 1997; Sirey et al., 2001a, 2001b). Because internalized stigma obstructs recovery and wellness goals and inhibits individuals with schizophrenia from pursuing appropriate services and treatments, a thorough understanding of internalized stigma and its correlates is necessary.

One aspect of internalized stigma that has not been fully explored is the role of dysfunctional attitudes. From a social-cognitive

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perspective, Corrigan and Calabrese (2005) have proposed that internalized stigma consists of negative self-statements and schemas that surface through exposure to stereotypes present in one's culture. A frequently studied type of dysfunctional belief is defeatist performance beliefs, which are "overly generalized negative conclusions regarding [one's] own task performance (Beck et al., 2009, p. 152). For example, "If you cannot do something well, there is little point in doing it at all" or "People should have a reasonable likelihood of success before undertaking anything." Research has found that, compared to healthy controls, individuals with schizophrenia are more likely to endorse defeatist performance beliefs (Horan et al., 2010). Beck et al. (2009) have also highlighted the role of negative expectancy appraisals in schizophrenia, which refer to beliefs about reduced future likelihood of pleasure, acceptance, success, and perception of limited cognitive resources necessary to perform tasks associated with daily living. These beliefs regarding low likelihood of success and limited resources are significantly correlated with defeatist performance beliefs, diminished experience of negative symptoms, and depressive symptoms in schizophrenia (Couture et al., 2011) and may be associated with the development of maladaptive behaviors, such as social avoidance and isolation. In line with Beck's cognitive model of schizophrenia (Beck et al., 2009), the selection of maladaptive behaviors then limits opportunities to challenge the negative beliefs, which ultimately reinforces the dysfunctional beliefs and attitudes. Thus, while research has found a relationship between internalized stigma and negative beliefs about one's capability (i.e., self-efficacy, empowerment) (Corrigan et al., 2006; Ritsher et al., 2003), the relationship between internalized stigma and other forms of dysfunctional attitudes (e.g., beliefs about likelihood of pleasure, acceptance, and success) has not been empirically examined and warrants further exploration. This distinction is important because these other forms of dysfunctional attitudes encompass more than beliefs about capability. In other words, an individual with mental illness may report high levels of self-efficacy, but generalized beliefs about low likelihood of pleasure or acceptance may preclude one from social engagement.

Further, though internalized stigma has been shown to be associated with a number of psychosocial outcomes, its relationship with symptoms in schizophrenia remains unclear. Research has shown that internalized stigma increases avoidant coping and active social avoidance (Yanos et al., 2008), which suggests a possible connection to negative symptom domains of asociality and anhedonia. Rector et al. (2005) proposed that stigma may be a cognitive factor in the development of negative symptoms. In the only study to investigate the relationship between internalized stigma and negative symptoms, Lysaker et al. (2007) found that positive but not negative symptoms were associated with internalized stigma. Because this study utilized the Positive and Negative Syndrome Scale (PANSS; Kay et al., 1987), which only includes seven negative symptom items, further exploration using a more thorough negative symptom assessment is warranted. Additionally, the role of depression is important to examine as depressive symptoms have been found to be associated with both internalized stigma (Ritsher et al., 2003; Ritsher and Phelan, 2004) and dysfunctional attitudes (Couture et al., 2011; Grant and Beck, 2009). Elucidating the relationship between internalized stigma and symptoms in schizophrenia could also inform treatment approach and development of interventions for the amelioration of internalized stigma in schizophrenia.

The current study expands on the literature regarding the relationship between internalized stigma and dysfunctional attitudes in individuals with schizophrenia. We hypothesized that defeatist performance beliefs and beliefs regarding low likelihood of success and limited resources would be significantly correlated

with self-reported internalized stigma. Consistent with prior research, we hypothesized that internalized stigma would be significantly correlated with quality of life and depression. Further, we expected that the relationship between internalized stigma and dysfunctional attitudes would remain significant after statistically controlling for depression. Finally, we investigated the relationship between internalized stigma and negative symptoms.

2. Methods

2.1. Participants

Data were taken from a larger project focused on the measurement of beliefs and attitudes proposed by cognitive conceptualizations of negative symptoms in schizophrenia. Participants with schizophrenia or schizoaffective disorder were recruited from outpatient mental health clinics affiliated with a Veterans Administration Medical Center and a division of community psychiatry at a public university. Additional inclusion criteria were age between 18 and 64 years, seen by a mental health provider at the participating clinic at least twice in the last six months, ability to read, and willingness to provide consent. Exclusion criteria were as follows: (1) documented history of neurological disorder or head trauma with loss of consciousness, (2) mental retardation as indicated by chart review, (3) history of significant neurological disease, (4) inability to provide informed consent, and (5) inability to participate due to intoxication or escalation of psychiatric symptoms at the time of the assessment resulting in disruptive or aggressive behavior. Individuals were identified by either chart review or referral by a mental health clinician, yielding a sample of 49 participants who met inclusion criteria and completed the baseline assessment.

Participants were 71.4% male and 87.8% African-American. Participants had a mean age of 49.61 (S.D.=7.15, range 25–64), a mean of 11.18 years of education (S.D.=2.05, range 6–16), and 24.5% were veterans. Overall, 81.6% lived unsupervised in a home/apartment, boarding house or halfway house, 18.4% resided in some type of supervised living arrangement, 93.3% of participants received disability benefits, and 22.4% reported a current job. In terms of diagnosis, 77.6% of participants met criteria for schizophrenia and 22.4% met criteria for schizoaffective disorder. Participants endorsed low to moderate depression on the CDSS (mean Calgary Depression Scale for Schizophrenia score=2.11, S.D.=2.22).

2.2. Measures

2.2.1. Diagnostic and symptom measures

The *Structured Clinical Interview for DSM-IV* (SCID-I; First et al., 1994) was used to establish diagnoses. Interviews were completed by masters' level assessors, and diagnoses were achieved utilizing all available information (e.g., participant report, medical records, treatment providers). To prevent rater drift, interviewers received bi-monthly supervision during which videotapes of study interviews were reviewed. The *Scale for the Assessment of Negative Symptoms* (SANS; Andreasen, 1982) is a 19-item interview measure that assesses the severity of negative symptoms in schizophrenia. The present study utilized the four SANS subscales of Affective Flattening or Blunting, Alogia, Avolition-Apathy, and Anhedonia-Asociality. Items are rated on a 6-point scale, ranging from "not at all" to "severe". The SANS has good inter-rater reliability and internal consistency (Andreasen, 1982). The *Calgary Depression Scale for Schizophrenia* (CDSS; Addington et al., 1990) is a 9-item semi-structured interview measure designed to assess depressive symptoms in people with schizophrenia separate from positive, negative, and extrapyramidal symptoms. The CDSS has good reliability and validity (Muller et al., 2005). The total CDSS score was used in all analyses.

2.2.2. Assessment of internalized stigma

The *Internalized Stigma of Mental Illness Scale* (ISMI, Ritsher et al., 2003) is a 29-item measure of internalized stigma. Sample items include: "I feel out of place in the world because I have a mental illness" and "People discriminate against me because I have a mental illness." Participants rate each item on a 4-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). The ISMI includes five subscales: Alienation, Stereotype Endorsement, Discrimination, Social Withdrawal, and Stigma Resistance. Based on prior findings that the 5-item Stigma Resistance scale shows only weak relations to other ISMI subscales (Lysaker et al., 2007), items from Stigma Resistance were not considered in the current study. A modified total ISMI score was calculated based on the remaining 24 items. The ISMI has good internal consistency, test-retest reliability, and construct validity (Ritsher et al., 2003). In the current sample, the modified total ISMI score showed high internal consistency (Cronbach's alpha=0.90).

2.2.3. Quality of life measure

The *Brief Quality of Life Interview* (BQOL; Lehman, 1995) provides a global measure of satisfaction as well as objective and subjective indicators of quality of life with ratings that cover multiple life domains. For the present study, subscales pertaining to the social domain were selected in order to focus on interpersonal quality of life. Objective quality of life subscales includes Daily Activities, Family Contact, and Social Contact. Subjective quality of life subscales includes General Life Satisfaction, Satisfaction with Daily Activities, Satisfaction with Family, and Satisfaction with Social Relations. For the subjective indicators, participants rate their feelings on a 7-point scale (1 = terrible, 7 = delighted).

2.2.4. Dysfunctional attitudes measures

Defeatist Performance Beliefs subscale from the Dysfunctional Attitudes Scale (DAS; Weissman and Beck, 1978) is a 15-item measure concerning one's ability to perform tasks and the likelihood of success. Items are rated on a 7-point Likert scale (1 = agree totally, 7 = disagree totally). The DAS has been found to correlate with negative symptoms, neurocognitive functioning, and community functioning in previous studies (Grant and Beck, 2009), and the defeatist performance beliefs subscale has good internal consistency (Couture et al., 2011). In the current sample, the defeatist performance beliefs subscale is significantly correlated with the BQOL ($r = -0.31, p < 0.05$). The *Success and Resource Appraisals Questionnaire* (SARA-Q; Couture et al., unpublished results) is a 25-item measure that assesses beliefs regarding low expectations for success and perception of limited cognitive resources. Items are rated on a 7-point Likert scale ranging from "agree totally" to "disagree totally." Examples include: "If I try to be more active, it will probably turn out badly" and "I can't think as well as other people." The SARA-Q demonstrates good internal consistency in this ($\alpha = 0.85$) and other samples ($\alpha = 0.88$) (Couture et al., 2011). This scale is significantly correlated with the defeatist performance beliefs subscale of the DAS ($r = 0.50, p < 0.01$) and the diminished experience factor of negative symptoms ($r = 0.42, p < 0.01$) (Couture et al., 2011). In the current sample, the SARA-Q is significantly correlated with the BQOL ($r = -0.45, p < 0.01$).

2.3. Procedures

Study procedures were approved by the University of Maryland Institutional Review Board. Participants completed a standardized informed consent process with trained recruiters and signed an informed consent document. Final eligibility was determined during the assessment following the administration of the SCID.

2.4. Data analysis

Correlational analyses were conducted to examine the relationships between internalized stigma and dysfunctional attitudes, negative symptoms, depression, and quality of life. We then conducted partial correlations to determine whether the relationship between internalized stigma and dysfunctional attitudes remained statistically significant after controlling for depressive symptoms.

3. Results

3.1. Correlations between internalized stigma and dysfunctional attitudes

Table 1 lists correlations between internalized stigma and dysfunctional attitudes. Internalized stigma was significantly correlated with dysfunctional attitudes. The Defeatist Performance Beliefs subscale of the DAS was significantly correlated with the modified total score on the ISMI ($r = 0.29, p < 0.05$). Low expectations for success and perception of limited cognitive resources as assessed by the SARA-Q were significantly correlated with the modified ISMI total score ($r = 0.52, p < 0.01$).

3.2. Correlations between internalized stigma and symptoms

Correlations between internalized stigma and symptoms are listed in Table 1. Internalized stigma was not significantly correlated with negative symptoms on the SANS. Depressive symptoms as assessed by the CDSS were significantly correlated with the modified total ISMI score ($r = 0.34, p < 0.05$).

Table 1

Correlations between ISMI and dysfunctional attitudes, symptoms, and quality of life.

	ISMI total (modified)
Dysfunctional Attitudes	
DefPerfBel	0.29*
SARA-Q	0.52*
CDSS	0.34*
SANS	
Affective blunting	-0.23
Alogia	-0.03
Avolition/apathy	-0.10
Anhedonia/asociality	-0.22
BQOL	
General life satisfaction	-0.04
Satisfaction w/daily activities	-0.09
Satisfaction w/family	-0.30*
Satisfaction w/social relations	-0.31*
Daily activities	0.00
Family contact	-0.06
Social contact	0.10

Note: ISMI = Internalized Stigma of Mental Illness, DefPerfBel = Defeatist Performance Beliefs, SARA-Q = Success and Resource Appraisals Questionnaire, CDSS = Calgary Depression Scale for Schizophrenia, SANS = Scale for the Assessment of Negative Symptoms, BQOL = Brief Quality of Life Inventory.

* Correlation is significant at the 0.05 level.

3.3. Correlations between internalized stigma and quality of life

Correlations between internalized stigma and quality of life are also presented in Table 1. Satisfaction with Family ($r = -0.30, p < 0.05$) and Satisfaction with Social Relations ($r = -0.32, p < 0.05$) on the BQOL were both significantly correlated with the modified total score on the ISMI. General Life Satisfaction, Satisfaction with Daily Activities, Daily Activities, Family Contact, and Social Contact were not correlated with the ISMI.

3.4. Correlations between internalized stigma and dysfunctional attitudes controlling for depression

After controlling for depression severity, the partial correlation between internalized stigma and beliefs regarding low expectations for success and perception of limited cognitive resources remained statistically significant. The SARA-Q remained correlated with the modified total score on the ISMI ($pr = 0.47, p < 0.01$). However, the correlation between Defeatist Performance Beliefs and the modified ISMI total score was no longer significant ($pr = 0.29$); however, the correlation was of a similar magnitude to the zero-order correlation.

4. Discussion

The present study examined the relationships among internalized stigma and dysfunctional attitudes, symptoms, and quality of life in individuals with schizophrenia. As predicted, internalized stigma was associated with defeatist performance beliefs and beliefs regarding low likelihood of success and limited resources such that greater severity of dysfunctional attitudes was associated with more self-reported internalized stigma. This pattern illustrates the ways that dysfunctional attitudes regarding success and pleasure may play a meaningful role in the experience of internalized stigma in individuals with schizophrenia. The finding that personal beliefs that one may not be successful or

that one will not find future experiences pleasurable are related to internalized stigma suggests that maladaptive beliefs and expectations of failure may help explain why individuals with mental illness who report high internalized stigma feel alienated from others and socially withdraw. Difficulties with interpersonal relationships may then in turn also exacerbate negative beliefs regarding likelihood of success and limited resources. These results expand on the literature of diminished self-efficacy in internalized stigma and illustrate how other forms of dysfunctional attitudes beyond beliefs about capability may contribute to impaired functioning.

In line with previous research (Ritsher et al., 2003), internalized stigma was correlated with depression in our sample. Quality of life subscales Satisfaction with Family and Satisfaction with Social Relations were also related to internalized stigma, with poorer quality of life in these domains being associated with greater internalized stigma. Interestingly, internalized stigma was not related to objective subscales of quality of life, such as Family Contact or Social Contact, indicating that internalized stigma did not affect the quantity of contact so much as the satisfaction with that contact.

Given the relationship between depressive symptoms and dysfunctional attitudes in prior studies (e.g., Couture et al., 2011), it was important to ensure that the relationship between dysfunctional attitudes and internalized stigma was not due to depression alone. Results from partial correlations found that the relationship between internalized stigma and beliefs regarding low expectations for success and perception of limited cognitive resources remained statistically significant after controlling for depression severity, indicating that depressive symptoms were not driving this relationship. Though the relationship between internalized stigma and defeatist performance beliefs was no longer significant after controlling for depression, the correlation was of a similar magnitude. These findings highlight the importance of dysfunctional attitudes in internalized stigma but also suggest that targeting dysfunctional attitudes alone may be insufficient in reducing internalized stigma (i.e., the correlation between defeatist performance beliefs and internalized stigma indicates only 9% shared variance). In other words, defeatist performance beliefs, which have been identified as a measurable intervention target (Grant and Beck, 2009) that may be incorporated into a variety of psychosocial interventions for schizophrenia, including cognitive remediation programs (Wykes and Reeder, 2005), social skills training (Kopelowicz et al., 2006), and other cognitive behavioral therapies for schizophrenia (Grant et al., 2012; Morrison et al., 2004), may be considered a promising adjunctive component to psychosocial interventions that target internalized stigma.

Our findings also indicate that self-reported internalized stigma is not associated with negative symptoms, which is consistent with prior research (Lysaker et al., 2007). These results do not support cognitive conceptualizations of schizophrenia that invoke stigma as a cognitive factor in the development of negative symptoms (Rector et al., 2005). Instead, internalized stigma seems to be related to satisfaction in social relations as well as non-negative symptoms such as depression.

This study has several limitations. The sample is primarily older and male; it is unclear whether these findings would generalize to females or younger adults. We did not include an assessment of positive symptoms of schizophrenia, which have been shown to be associated with internalized stigma (Lysaker et al., 2007), so the relationship between internalized stigma and the full range of psychiatric symptoms could not be examined. The study data is primarily self-report, and the self-report measure of internalized stigma may not capture other conceptualizations of this construct (Corrigan et al., 2011). The factor

structure of the SARA-Q is currently unknown, and further research regarding its psychometric properties is needed. The assessment of functioning focuses on general measures of behavioral contact and satisfaction; other potentially relevant factors, such as substance use, preferred coping strategies, and social support were not included but may impact internalized stigma and dysfunctional beliefs. As research on internalized stigma expands, studies should incorporate experimental and multi-method paradigms to examine the behavioral and emotional correlates of internalized stigma during actual interpersonal interactions.

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References

- Addington, D., Addington, J., Schissel, B., 1990. A depression rating scale for schizophrenics. *Schizophrenia Research* 3, 247–251.
- Albrecht, G., Walker, V., Levy, J., 1982. Social distance from the stigmatized: a test of two theories. *Social Science and Medicine* 16, 1319–1327.
- Andreasen, N.C., 1982. Negative symptoms in schizophrenia. *Archives of General Psychiatry* 39, 784–788.
- Angermeyer, M.C., Dietrich, S., 2006. Public beliefs about and attitudes towards people with mental illness: a review of population studies. *Acta Psychiatrica Scandinavica* 113, 163–179.
- Beck, A.T., Rector, N.A., Stolar, N.M., Grant, P.M., 2009. *Schizophrenia: Cognitive Theory, Research, and Therapy*. Guilford, New York, NY.
- Bordieri, J., Drehmer, D., 1986. Hiring decisions for disabled workers: looking at the cause. *Journal of Applied Social Psychology* 16, 197–208.
- Caltaux, D., 2003. Internalized stigma: a barrier to employment for people with mental illness. *International Journal of Therapy and Rehabilitation* 10, 539–543.
- Corrigan, P.W., Calabrese, J.D., 2005. Strategies for assessing and diminishing self-stigma. In: Corrigan, P.W. (Ed.), *On the Stigma of Mental Illness: Practical Strategies for Research and Social Change*. American Psychological Association, Washington, DC, pp. 239–256.
- Corrigan, P., Kerr, A., Knudsen, L., 2005. The stigma of mental illness: explanatory models and methods for change. *Applied & Preventive Psychology* 11, 179–190.
- Corrigan, P.W., Rafacz, J., Rusch, N., 2011. Examining a progressive model of self-stigma and its impact on people with serious mental illness. *Psychiatry Research* 189, 339–343.
- Corrigan, P.W., Watson, A.C., Barr, L., 2006. The self-stigma of mental illness: implications for self-esteem and self-efficacy. *Journal of Social and Clinical Psychology* 25, 875–884.
- Couture, S.M., Blanchard, J.J., Bennett, M.E., 2011. Negative expectancy appraisals and defeatist performance beliefs and negative symptoms of schizophrenia. *Psychiatry Research* 189, 43–48.
- Druss, B.G., Bradford, D.W., Rosenheck, R.A., Radford, M.J., Krumholz, H.M., 2000. Mental disorders and the use of cardiovascular procedures after myocardial infarction. *Journal of the American Medical Association* 283, 506–511.
- Farina, A., Felner, R.D., 1973. Employment interviewer reactions to former mental patients. *Journal of Abnormal Psychology* 82, 268–272.
- Fenton, W.S., Blyler, C.R., Heinssen, R.K., 1997. Determinants of medication compliance in schizophrenia: empirical and clinical findings. *Schizophrenia Bulletin* 23, 637–651.
- First, M.B., Spitzer, R.L., Gibbon, M., Williams, J.B.W., 1994. *Structured Clinical Interview for Axis I DSM-IV*. Biometrics Research Department, New York State Psychiatric Institute, New York, NY.
- Grant, P.M., Beck, A.T., 2009. Defeatist beliefs as a mediator of cognitive impairment, negative symptoms, and functioning in schizophrenia. *Schizophrenia Bulletin* 35, 798–806.
- Grant, P.M., Huh, G.A., Perivoliotis, D., Stolar, N.M., Beck, A.T., 2012. Randomized trial to evaluate the efficacy of cognitive therapy for low-functioning patients with schizophrenia. *Archives of General Psychiatry* 69, 121–127.
- Horan, W.P., Rassovsky, Y., Kern, R.S., Lee, J., Wynn, J.K., Green, M.F., 2010. Further support for the role of dysfunctional attitudes in models of real-world functioning in schizophrenia. *Journal of Psychiatric Research* 44, 499–505.
- Katschnig, H., 2000. Schizophrenia and quality of life. *Acta Psychiatrica Scandinavica* 102, 33–37.
- Kay, S.R., Fiszbein, A., Opler, L.A., 1987. The Positive and Negative Syndrome Scale for schizophrenia. *Schizophrenia Bulletin* 13, 261–276.
- Kopelowicz, A., Liberman, R.P., Zarate, R., 2006. Recent advances in social skills training for schizophrenia. *Schizophrenia Bulletin* 32 (Suppl. 1), 12–23.

- Lehman, A.F., 1995. Evaluating Quality of Life for Persons with Severe Mental Illness: Assessment Toolkit. The Evaluation Center at Health Services Research Institute, Cambridge, Mass.
- Link, B.G., 1982. Mental patient status, work, and income: an examination of the effects of a psychiatric label. *American Sociological Review* 47, 202–215.
- Link, B.G., Cullen, F.T., Frank, J., Wozniak, J., 1987. The social rejection of ex-mental patients: understanding why labels matter. *American Journal of Sociology* 92, 1461–1500.
- Link, B.G., Struening, E., Cullen, F.T., Shrout, P.E., Dohrenwend, B.P., 1989. A modified labeling theory approach to mental disorders: an empirical assessment. *American Sociological Review* 54, 400–423.
- Link, B.G., Struening, E.L., Neese-Todd, S., Asmussen, S., Phelan, J.C., 2001. Stigma as a barrier to recovery: the consequences of stigma for the self-esteem of people with mental illness. *Psychiatric Services* 52, 1621–1626.
- Livingston, J.D., Boyd, J.E., 2010. Correlates and consequences of internalized stigma for people living with mental illness: a systematic review and meta-analysis. *Social Science & Medicine* 71, 2150–2161.
- Lloyd, C., Sullivan, P.L., Williams, D., 2005. Perceptions of social stigma and its effect on interpersonal relationships of young males who experience a psychotic disorder. *Australian Occupational Therapy Journal* 52, 243–250.
- Lysaker, P.H., Roe, D., Yanos, P.T., 2007. Toward understanding the insight paradox: internalized stigma moderates the association between insight and social functioning, hope, and self-esteem among people with schizophrenia spectrum disorders. *Schizophrenia Bulletin* 33, 192–199.
- Morrison, A.P., Renton, J.C., Dunn, H., Williams, S., Bentall, R.P., 2004. *Cognitive Therapy for Psychosis: A Formulation-Based Approach*. Brunner-Routledge, Hove, UK.
- Muller, M.J., Brenning, H., Gensch, C., Klinga, J., Kienzle, B., Muller, K.M., 2005. The Calgary Depression Rating Scale for schizophrenia in a health control group: psychometric properties and reference values. *Journal of Affective Disorders* 88 (1), 69–74.
- Page, S., 1977. Effects of the mental illness label in attempts to obtain accommodation. *Canadian Journal of Behavioral Science* 9, 85–90.
- Rector, N.A., Beck, A.T., Stolar, N., 2005. The negative symptoms of schizophrenia: a cognitive perspective. *Canadian Journal of Psychiatry* 50, 247–257.
- Ritsher, J.B., Otilingam, P.G., Grajales, M., 2003. Internalized stigma of mental illness: psychometric properties of a new measure. *Psychiatry Research* 121, 31–49.
- Ritsher, J.B., Phelan, J.C., 2004. Internalized stigma predicts erosion of morale among psychiatric outpatients. *Psychiatry Research* 129, 257–265.
- Sirey, J., Bruce, M.L., Alexopoulos, G.S., Perlick, D., Friedman, S.J., Meyers, B.S., 2001a. Perceived stigma and patient-rated severity of illness as predictors of antidepressant drug adherence. *Psychiatric Services* 52, 1615–1620.
- Sirey, J.A., Bruce, M.L., Alexopoulos, G.S., Perlick, D.A., Raue, P., Friedman, S.J., Meyers, B.S., 2001b. Perceived stigma as a predictor of treatment discontinuation in young and older outpatients with depression. *American Journal of Psychiatry* 158, 479–481.
- Tringo, J., 1970. The hierarchy of preference toward disability groups. *Journal of Special Education* 4, 295–306.
- Weissman, A.N., Beck, A.T., 1978. Development and validation of the Dysfunctional Attitude Scale: a preliminary investigation. In: *Proceedings of the Meeting of the American Educational Research Association*. Toronto, ON.
- Wykes, T., Reeder, C., 2005. *Cognitive Remediation Therapy for Schizophrenia*. Routledge, New York, NY.
- Yanos, P.T., Lysaker, P.H., Roe, D., 2010. Internalized stigma as a barrier to improvement in vocational functioning among people with schizophrenia spectrum disorders. *Psychiatry Research* 178, 211–213.
- Yanos, P.T., Roe, D., Markus, K., Lysaker, P.H., 2008. Pathways between internalized stigma and outcomes related to recovery in schizophrenia spectrum disorders. *Psychiatric Services* 59, 1437–1442.