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## Social cognition, internalized stigma, and recovery orientation among adults with serious mental illness

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### Abstract

**Objective**—The social cognitive model is useful in understanding internalized stigma, but research has not examined it in relationship to recovery orientation, an important outcome. This study examined the impact of the four stages of internalized stigma on recovery orientation and assessed cognitive insight as a moderator.

**Methods**—Data from a community sample of adults with serious mental illness ( $N = 268$ ) was collected through structured interviews. Regression-based analyses were used to examine the main effects of internalized stigma on recovery orientation and the moderating effect of cognitive insight.

**Results**—Applying stigmatizing beliefs to oneself and the related decrement in self-esteem each predicted decreased recovery orientation. Cognitive insight moderated the effect of self-application of stigmatizing beliefs on recovery orientation.

**Implications**—Increasing cognitive insight by fostering flexibility in self-cognitions may help reduce internalized stigma. Interventions may also benefit from addressing the emotional component of internalized stigma, such as feelings of shame.

The negative impacts of internalized stigma (IS) related to mental health diagnoses are well-known (e.g., Drapalski, Lucksted, Perrin, Aakre, & Brown, 2013; Livingston & Boyd, 2010; Watson, Corrigan, Larson, & Sells, 2007). Watson and colleagues (2007) described a progressive four-step social-cognitive model of IS in which a person with mental illness is aware of societal stigma, accepts those stigmatizing beliefs, applies them to him- or herself, and suffers a stigma-related decrement in self-esteem. Each stage must precede the next to result in IS, yet it remains unclear whether certain components are stronger contributors to negative outcomes, such as reduced recovery orientation (RO). Furthermore, research has not established the role that cognitive insight (CI) may play in IS. CI refers to the ability to reflect on one's thoughts and beliefs, including psychotic experiences, and to respond to corrective feedback.

The present study examined the impact of each component of the social cognitive model of IS on RO, with CI as a potential moderator. Our hypotheses were (1) that higher IS would be associated with lower RO, (2) that the greatest contributors to reduced RO would be the stereotype self-congruence and self-esteem decrement components of the social-cognitive model, and (3) that CI would moderate between IS and RO.

## Methods

### Participants

Participants were 268 adults diagnosed with serious mental illness receiving psychosocial rehabilitation services at five community sites (rural, suburban, and urban) in Maryland, USA.

### Procedure

Data were collected as part of a larger community-based randomized controlled trial examining the efficacy of the Ending Self Stigma (ESS) intervention (Lucksted et al., in press). A trained research assistant screened participants for eligibility, assessed capacity to consent, and obtained written informed consent before collecting data via structured interview. All procedures had prior IRB approval. The parent trial interviewed participants at baseline, post-intervention, and 6-month follow up; the present study used baseline data only.

### Measures

Internalized stigma was measured by the Self-Stigma of Mental Illness Scale (SSMIS; Corrigan, Watson, & Barr, 2006), a valid and reliable measure of 40 items comprising four ten-item subscales using a 9-point Likert response scale (1 *strongly agree* to 9 *strongly disagree*). Each subscale corresponds to a component of the social-cognitive model of IS: Stereotype awareness (Aware), stereotype agreement (Agree), stereotype self-concurrence (Apply), and self-esteem decrement (Harm). Each subscale demonstrated acceptable internal consistency in the present sample ( $\alpha = .84$  to  $.91$ ).

Recovery orientation was measured by the Maryland Assessment of Recovery in People with Serious Mental Illness scale (MARS; Drapalski et al., 2012). The MARS is a 25-item self-report measure reflecting positive beliefs about one's ability to take responsibility for recovery, make decisions, and overcome challenges to lead a fulfilling life despite symptoms of mental illness. Items are rated on a 5-point Likert scale, ranging from 1 (*Not at all*) to 5 (*Very much*), such that higher total scores represent a stronger recovery orientation. The MARS demonstrated excellent internal consistency in the present sample ( $\alpha = .94$ ).

Cognitive insight was measured by the Beck Cognitive Insight Scale (BCIS; Beck, Baruch, Balter, Steer, & Warman, 2004), a 15-item self-report measure, using a 4-point Likert response scale (1 *Do not agree at all* to 4 *Agree completely*). The BCIS consists of two inversely related subscales (self-reflectiveness and self-certainty). A composite index is calculated by subtracting the sum of self-certainty items from the sum of self-reflectiveness items, and reflects the degree to which a person balances flexibility and rigidity in his or her beliefs. Internal consistency of the self-reflectiveness and self-certainty subscales in the present sample were  $.66$  and  $.51$ , respectively.

### Data Analyses

Prior to analyses, we inspected univariate results and bivariate correlations and checked data for relevant assumption violations. Each component of the social-cognitive model of

internalized stigma (IS) was examined separately as a predictor of recovery orientation (RO), because they are separate, progressive stages within the model and not facets of a univariate construct. We used hierarchical multiple regression supplemented with relative weights analysis (Tonidandel & LeBreton, 2015) to determine the independent contribution of each IS component to the observed variance in RO. Relative weights analysis eliminates error due to multicollinearity by transforming correlated predictors into orthogonal variables, completing regression analyses with the orthogonal predictors, then converting the resulting standardized regression weights back to the original variable metric (Johnson, 2000; Tonidandel & LeBreton, 2011). We then used regression-based analyses (Hayes, 2013) to examine cognitive insight as a moderator between IS components and RO. Moderation analysis examines how the moderator variable impacts the direction or strength of the relationship between the predictor and outcome.

## Results

### Sample

The sample consisted of 163 men (60.8%) and 105 women (39.2%), the majority of whom were single/never married ( $n = 193$ , 72%). Mean age was 44.69 years ( $SD = 12.36$ , range = 18 to 70). Diagnostic distribution was predominantly schizophrenia spectrum disorders ( $n = 146$ , 56.6%). Other diagnoses included bipolar ( $n = 70$ , 27.1%), depression without psychosis ( $n = 23$ , 8.9%) and with psychosis ( $n = 15$ , 5.8%), and other diagnoses ( $n = 4$ , 1.6%). Participants were 46.3% African American ( $n = 124$ ), 43.7% Caucasian American ( $n = 117$ ), 7.1% multiracial ( $n = 19$ ), and 2.2% other ( $n = 6$ ); almost all identified as non-Hispanic (95.9%,  $n = 257$ ). Slightly less than half had completed 12 years of education (45.5%,  $n = 122$ ), while 30.9% ( $n = 83$ ) had completed fewer (range = 5 to 11 years), and 23.2% ( $n = 62$ ) had completed more (range = 13 to 18 years). Almost all participants were unemployed (94%,  $n = 252$ ).

### Hypothesis testing

The final regression model showed that 18.4% of the variance in recovery orientation (RO) was explained by the four components of the social cognitive model,  $F(4, 257) = 15.69$ ,  $p < .001$ . Perceived stereotype self-congruence (“Apply” subscale) and related self-esteem decrement (“Harm” subscale) each made significant contributions,  $beta = -.21$  for each;  $p = .02$  and  $.01$ , respectively. According to the relative weights analysis, they accounted for 34.68% (Apply; 95% CI [.016, .125]) and 34.46% (Harm; 95% CI [.013, .130]) of the 18.4% explained variance in RO. Stereotype awareness (“Aware” subscale) and agreement (“Agree” subscale) did not significantly contribute to observed variance (95% CI [−.007, .079] and [−.006, .073], respectively). Cognitive insight (BCIS composite score) moderated the relationship between Apply and RO ( $xm = .043$ ;  $t(260) = 2.528$ ;  $p < .012$ ; 95% CI [.009, .076]), such that the negative relationship between IS and RO was stronger at lower levels of CI. CI did not moderate between self-esteem decrement and RO ( $xm = .008$ ;  $t(260) = .474$ ;  $p < .636$ ; 95% CI [−.025, .040]). A multiple additive moderation analysis with BCIS subscales revealed that only the self-reflectiveness subscale moderated the relationship between Apply and RO ( $xm = .051$ ;  $t(258) = 2.859$ ;  $p < .005$ ; 95% CI [.016, .087]), such that IS was a stronger predictor of lowered RO when self-reflection was low. Self-certainty

was not a significant moderator ( $xw = -.035$ ;  $t(258) = -1.393$ ;  $p = .165$ ; 95% CI  $[-.084, .015]$ ).

## Discussion

The social-cognitive model (Corrigan, Rafacz, & Rüsich, 2011; Corrigan et al., 2006; Watson, et al., 2007) is a popular and useful framework for conceptualizing internalized stigma. The present study provided additional support for thinking of the model's four stages in two sets (awareness-agreement and application-harm; Corrigan et al., 2011) and suggested that both of the latter stages contribute to negative impacts on outcome.

The self-reflectiveness component of CI emerged as a relevant construct in relationship to IS and RO. The differential moderation effects of the BCIS subscales suggested that the moderation effect of the composite score was driven by variability in the self-reflectiveness subscale. Further research is needed to elucidate our understanding of the BCIS composite score and each component in relationship to IS and RO.

These findings have both theoretical and clinical implications. First, they highlight the importance of self-esteem decrement (Harm) as a unique component of the social cognitive model of IS. Harm showed an independent effect on RO distinguishable from the effect of stereotype self-congruence (Apply). Stereotype self-congruence may be conceptualized as a cognitive component of IS, with self-esteem decrement as its shame-based emotional counterpart.

Clinically, these results suggest that interventions aimed at reducing IS should help individuals modify both the cognitive and emotional components of IS. In addition to cognitive techniques aimed at modifying stereotype self-congruence, strategies helping to reduce stigma-related shame (reflected here by self-esteem decrement) are likely to contribute to positive outcomes, such as increased RO. Cognitive self-reflectiveness, which appears to measure flexibility in one's own judgments and beliefs, may also warrant direct intervention as a potential protective factor. Techniques to increase healthy flexibility in one's own cognitive judgments may help to ameliorate the effects of IS and to increase RO. Future research, including longitudinal studies, is needed to elucidate these relationships and to further explore their clinical and theoretical implications. It will also be important to examine how these variables and interactions might differ across specific diagnoses.

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