

Stigma, Reflected Appraisals, and Recovery Outcomes in Mental Illness

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Abstract

Drawing on modified labeling theory and the reflected appraisals process and using longitudinal data from 129 mothers and their adult children with schizophrenia, we estimate models of the effects of mothers' stigmatized identity appraisals of their mentally ill children on reflected and self-appraisals, and how appraisals affect outcomes (symptoms, self-efficacy, life satisfaction). Results indicate that initial symptoms and functioning are related to how significant others think about their ill family members, how persons with mental illness think others perceive them, and how they perceive themselves. Part of the effects of initial symptoms and functioning on reflected appraisals are due to mothers' appraisals. A small part of the effects of outcomes on self-appraisals are due to others' and reflected appraisals. Stigmatized self-appraisals are related to outcomes, but reflected appraisals do not affect outcomes directly. Implications for modified labeling theory and social psychological processes in recovery from mental illness are discussed.

Keywords

mental illness, stigma, labeling, recovery, reflected appraisals

For persons diagnosed with a mental illness, dealing with the many difficulties that the illness brings, including the management of symptoms that can interfere with functioning, regaining a positive sense of self, and leading a productive and satisfying life, has come to be conceptualized as the process of *recovery* (Anthony 1993; Jacobson and Greenley 2002; Ralph and Corrigan 2005). Recovery is not considered an endpoint, but an ongoing process where these elements fluctuate over time and may gradually improve. Personal accounts and attempts by researchers to explain the process consistently point to certain core

outcomes, involving symptoms of the illness, self-concept (e.g., esteem, efficacy, identity), and socioeconomic well-being (e.g., employment, housing, relationships). Recovery is a prominent guiding principle in federal and state programs to treat mental illness and is featured, for example, in the *U.S. Surgeon*

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General's Report on Mental Health (U.S. Department of Health and Human Services 1999) and in the Presidential Commission's *Achieving the Promise: Transforming Mental Health Care in America* (U.S. Department of Health and Human Services 2003). While studies on recovery have begun to consider more elaborate causal processes that tie outcomes together, many of the social psychological aspects of recovery, especially those involving stigma and identity, with limited exception, remain unexamined (Markowitz 2001, 2004, 2005).

The stigma associated with mental illness is a major impediment to recovery, having the potential to transform a person's identity "from a whole and usual person to a tainted, discounted one" (Goffman 1963:3). Mental illness is linked to an array of negative stereotypical traits (e.g., dangerousness, incompetence), it is somewhat misunderstood by the general public, and is often inaccurately and negatively portrayed in the media (Phelan et al. 2000; Martin, Pescosolido, and Tuch 2000; Wahl 1995). Research based on *modified labeling theory* has shown how internalized stigma is related to the loss of socioeconomic status, restricted social networks, lowered self-esteem, and diminished quality of life (Link and Phelan 2001; Markowitz 1998; Rosenfield 1997). Research has not fully examined how the stigmatizing attitudes and responses of others may impede recovery, however. Moreover, it has not reconciled the role of disturbing symptomatic behavior as causes of stigmatizing responses that, in turn, affect recovery outcomes.

The role of the self-concept in stigma and recovery processes is a central concern, yet most research based on modified labeling theory has been limited to studies of how stigma negatively affects *global self-evaluation* (esteem) and *self-efficacy* (sense of personal control) among persons with mental illness (Markowitz 1998;

Rosenfield 1997; Wright and Gronfein 2000). More recently though, studies have begun to examine how stigma affects self-identities, or the ways in which persons with mental illness are viewed by self and others (Kroska and Harkness 2006, 2008). Critically, however, research has not specified an integrated model of stigma, one that links identity with symptoms and functioning. In this study, we seek to extend this line of research by incorporating insights from modified labeling theory with the reflected appraisals process of self-concept formation to examine how mental illness leads to a "spoiled identity" in terms of stigmatized self-image characteristics (e.g., unreliable, unintelligent, immature, and incompetent) that, in turn, affect recovery outcomes. To date, this process has not been adequately examined, in part, because of the need for data from persons with mental illness and significant others in their lives who contribute to self-concept formation.

We proceed by first discussing developments in stigma and recovery research, developing a model for the relationship between stigmatized appraisals and recovery outcomes. Then using data from a sample of persons with mental illness and their mothers, we test the measurement properties of an instrument designed to evaluate stigmatized self-image characteristics in the reflected appraisals process (others, reflected, and self-appraisals). We then estimate a series of models for how recovery outcomes (symptoms, self-efficacy, and quality of life) are influenced through the reflected appraisals process. This study thus takes a step forward in developing an integrated approach to the relationships between stigma, self-concept, and recovery, at the same time extending the generalizability of the reflected appraisals process. We conclude by discussing the limitations of our study and its

implications for theory and research on stigma and identity.

LABELING, STIGMA, AND RECOVERY IN MENTAL ILLNESS

Labeling theory is an important explanatory framework that accounts for the effects of stigma associated with devalued statuses, such as “delinquent” or “mentally ill” (Becker 1963; Lemert 1967; Scheff 1984). The theory is rooted in the symbolic interactionist perspective within sociology (Blumer 1969; Mead 1934; Stryker 1980). One of the premises of symbolic interactionism is that responses to persons and actions are based on socially constructed meanings (“definitions of the situation”) that are drawn from shared cultural knowledge. Within this framework, self-conceptions result from perceptions of how significant others (e.g., family, friends, and teachers) view the self—the reflected appraisals process (Kinch 1963). Based on others’ responses to the self, we come to see ourselves as we think others see us (Cooley 1902). Self-conceptions that are linked to occupied social positions are role identities (Stryker 1980). Persons occupy many normative roles (e.g., employee, spouse, and parent) with accompanying behavioral expectations. According to labeling theory, through mental health treatment, persons may be cast in the non-normative role of “mentally ill.”

Early versions of labeling theory specified the process by which deviant labels are applied and persons’ self-conceptions and social opportunities are altered. Scheff (1974, 1984) argued that when behavior continually violates social norms, is highly visible—as in “crisis” situations—and is regarded as serious, it may be viewed as evidence of “mental illness,” resulting in assignment of a psychiatric diagnosis. Scheff’s theory emphasized the role of formal labeling in setting into

motion stigmatizing processes that lead to sustained symptomatic behavior (1984). Propositions of Scheff’s labeling theory have been strongly contested, with critics charging that negative outcomes for persons with mental illness are due to the impairment caused by the symptoms of mental disorder, not the stigma of labeling—a more strict “psychiatric” framework (Gove 1979, 1982; Gove and Howell, 1974). Symptoms of many forms of mental illness are associated with social withdrawal, loss of interest in activities, irritability, and non-normative emotional responses. These symptoms can make social interaction and role performance very difficult. As a result, persons may be judged by others negatively—for example, as less competent, unpredictable, or potentially harmful. Rather than adopt a “symptoms versus stigma” approach to understanding outcomes, models that incorporate both allow for a fuller understanding of the trajectory of recovery.

In Link and colleagues’ modified labeling theory, the strong claim made by Scheff that labeling *causes* “careers in residual deviance” is replaced by a more subtle approach to how stigma affects the course of illness and functional outcomes among those labeled through mental health treatment (Link 1987; Link, Mirotznik, and Cullen 1991; Link et al. 1997). According to the theory, widely held stereotypical attitudes about persons with mental illness (e.g., as incompetent and dangerous) become personally relevant to an individual when diagnosed with a mental illness. Because of these attitudes, those diagnosed expect to be devalued and discriminated against. This anticipated rejection is directly experienced as demoralizing, in that self-esteem is lowered and depression increases. Also, to avoid rejection, persons so labeled are expected to adopt coping orientations, such as secrecy, disclosure, or social

withdrawal, enhancing the effects of expected rejection by constricting social networks and leading to unemployment and lowered income. Thus, stigmatizing beliefs act as self-fulfilling prophecies (Darley and Fazio 1980). Although some argue that such beliefs simply illustrate that people with mental illness are aware of stigma but do not necessarily apply it to themselves (Watson et al. 2007), these findings may also be interpreted more directly as anticipated rejection, in keeping with the symbolic interactionist notion of viewing the self from the vantage point of the generalized other.

Drawing on the stress-process model (Pearlin et al. 1981), the theory further predicts that lowered self-esteem, constricted interpersonal networks, unemployment, and low income increase stress. Stress, in turn, places persons at risk for increased symptoms. In this way, while labeling and stigma are not the sole cause of sustained mental illness, they indirectly affect the course of illness through changes in the self-concept and key social outcomes. Despite these advances, modified labeling theory studies have not fully incorporated the role of disturbing symptomatic behavior as causes of stigmatizing responses, and with limited exception (Kroska and Harkness 2006), studies have not considered the identity dimension of self-concept.

Stigma, Self-Concept, and the Reflected Appraisals Process

Over time, the self-concept is generally stable, yet subject to change (Demo 1992). Despite a focus on the role of the self-concept in stigma processes, modified labeling theory-based research has been primarily concerned with how expectations of rejection negatively affect global self-evaluation (esteem) and self-efficacy (sense of personal control) among persons with mental illness (Markowitz 1998;

Rosenfield 1997; Wright and Gronfein 2000). It has only recently examined how stigma affects other dimensions of self, including self-meanings or personal attributes (Kroska and Harkness 2006, 2008). Stigma may adversely impact these dimensions of self, having important consequences for recovery. Persons who, for example, consider themselves as less competent, capable, or successful may feel demoralized and act in ways that live up to stigmatized self-images that reduce their quality of life by not making friends, furthering their education, or seeking jobs. Diminished quality of life may then lead to an increased risk of symptoms of psychiatric disorder (Markowitz 2001).

In a recent study, Kroska and Harkness (2006) show how, among persons with a serious mental illness, “stigma sentiments”—the evaluation (e.g., good vs. bad), potency (e.g., strong vs. weak), and activity (e.g., sharp vs. dull) (EPA) profile of “a person with mental illness”—is related to corresponding dimensions of reflected appraisals (“how others see me”) and self-identities (“myself as I really am”). We build on their novel approach in several ways. First, we include the appraisals of *the person with mental illness* by a significant other, a key component of the reflected appraisals process. Second, although there is some overlap, rather than the more general EPA dimensions of identity appraisals, we focus on a more specific set of characteristics associated with mental illness. Finally, we examine the causal impact of stigmatized identities—through the reflected appraisals process—on outcomes that represent dimensions of recovery for persons with mental illness.

Our proposed model, presented in Figure 1, posits that initial levels of symptoms, functioning, and self-evaluation are likely to impact the ways in which significant others think about the person with

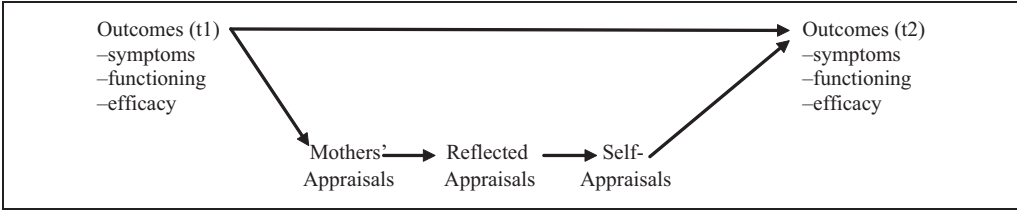


Figure 1. Stigma, Reflected Appraisals, and Recovery Outcomes

mental illness. The more symptomatic and less socially engaged and competent persons with mental illness are, the more likely they are to be seen in stigmatized terms by significant others. Persons with mental illness pick up on these appraisals expressed to varying degrees (reflected appraisals), which may then affect their identities (self-appraisals) in stigmatized ways. To the extent that persons see themselves in stigmatized terms, this is likely to adversely affect their symptoms/functioning and self-evaluation. Alternatively, to the extent that symptoms and functioning are not affected by others' and self-appraisals, this suggests that it is simply the degree of stability in the underlying illness, rather than stigmatized identity, that determines outcomes, in line with a more strictly medical or "psychiatric" perspective. In order to test the model, data about appraisals is required from persons with mental illness and family members. To our knowledge, no such data with these requirements exist. As such, we embedded measures of appraisals from both sources in an ongoing longitudinal study (described below), allowing us to provide a preliminary test of the model.

According to the reflected appraisals process, the self-concept is shaped in large part by the perceived responses of significant others, such as family, friends, or teachers (Gecas and Burke 1995; McCall and Simmons 1966; Stryker 1980). We focus on one of the most significant groups in the lives of persons with mental

illness—family members. The vital role of family members as caregivers, and the attendant burdens carried by them, has long been recognized. So too, the role of the family's emotional climate in contributing to relapse and other negative outcomes is the subject of an extensive body of research on "expressed emotion" (see Avison 1999a, 1999b).

The study of stigma and families, however, remains limited to describing how stigma impacts the family members of persons with mental illness (Lefley 1989; Phelan, Bromet, and Link 1998; Struening et al. 2001). Even though families are often the targets of "courtesy" stigma, they may also inadvertently act as sources of stigma to their mentally ill family members. For example, studies of persons with mental illness report that, after employers and the general population, family members and mental health providers are a frequent source of stigmatizing responses, such as viewing respondents as less than competent, lacking understanding, making offensive comments, and expressing concern about potential dangerousness (Dickerson, Sommerville, and Origoni 2002; Jenkins and Carpenter-Song 2009). These expressions—much like the critical or over-involved comments that are implicated in the "expressed emotion" literature—are likely to impact the way that persons with mental illness think about themselves. Prior research, for example, has shown that significant others' expectations are associated with role performance and the quality of patient-family

relationships (Barrowclough et al. 2001; Greenley 1979; Struening et al. 2001).

We expect that the attitudes of family members of those with mental illness are important because they shape how those with mental illness come to think of themselves, in turn affecting recovery outcomes. By focusing on the impact of family members' appraisals on identity, we attempt to elaborate on mechanisms through which family attitudes toward persons with mental illness—which may be transmitted to them through critical or pessimistic interpersonal messages, as past research has shown—impact recovery outcomes. We also believe that it is important to acknowledge that many of these messages toward ill relatives grow out of positive intentions and reflect attempts to cope with the difficulties of having a relative with serious mental illness, yet they are of concern because of their potential adverse effects.

Previous tests providing support for the reflected appraisals process focused on global (e.g., good/bad) evaluations (Hoelter 1984) and more specific outcomes such as self-esteem, academic, and athletic performance among schoolchildren (Felson 1981, 1985, 1989; Miyamoto and Dornbusch 1956). More recently, attention has turned to delinquency and depression using representative samples of adolescents (DeCoster and Heimer 2001; Matsueda 1992). These studies show that prior levels of delinquency and depression affected reflected appraisals (of parents, teachers, and friends) of youths as “troublemakers,” “rule-violators,” and “distressed,” which then led to increased delinquency and depression. In one study, parents' appraisals of youths' initial delinquent behavior were also shown to affect reflected appraisals (Matsueda 1992). These studies did not, however, show whether the effects of reflected appraisals on outcomes were due to self-appraisals. In order to provide a more detailed

understanding of how stigma affects recovery, we apply a similar approach to a sample of persons with serious mental illness, but include all elements of the reflected appraisals process—family members' appraisals, reflected appraisals, and self-appraisals—in terms of stigmatized self-conceptions consistent with the stereotypes associated with mental illness. We also focus on the impact of appraisals on important outcomes for persons with mental illness, including symptoms, functioning, and quality of life.

Model Specification

Following a similar approach used in prior research, we developed a set of 22 semantic-differential type measures of personal attributes consistent with mental illness stereotypes (e.g., safe/dangerous, success/failure, trustworthy/untrustworthy, unintelligent/intelligent, gentle/violent, competent/incompetent”) (Burke and Tulley 1977; Hoelter 1984; Schwartz and Stryker 1970). The complete set of items is shown in the Appendix. These items were administered to family members to assess *significant others' appraisals* (e.g., “John is . . . trustworthy/untrustworthy, unintelligent/intelligent,” etc.). The same set of items was administered to those with mental illness to assess their *reflected appraisals* (e.g., “My mother thinks I am . . . trustworthy/untrustworthy, unintelligent/intelligent,” etc.) and their *self-appraisals* (e.g., “I am . . . trustworthy/untrustworthy, unintelligent/intelligent,” etc.).

Including data from family members and persons with mental illness helps deal with “same-source” bias, allowing for a firmer inference of the independent effect of family appraisals on self- and reflected appraisals. These measures are then incorporated in a series of models where initial levels of symptoms, self-esteem, efficacy, functioning, and quality

of life affect family appraisals of patients along stigmatized identity dimensions. Significant others' appraisals, in turn, are predicted to influence reflected appraisals (mentally ill persons' perceptions of their families' view of themselves). Self-appraisals, in turn, affect outcomes. The model implies a set of mediated relationships where outcomes are due, in part, to appraisals. In line with prior research, we anticipate that, due to communication barriers and ambiguous feedback, the effects of reflected appraisals on self-appraisals may be larger than the effect of significant others' appraisals on reflected appraisals (Shrauger and Schoeneman 1979).

METHODS

Sample

Data were used from a longitudinal study (2000–2005) of aging mothers of adult children with mental illness. We use data from waves 3 and 4 (collected at an 18-month interval) of the study since they contain the measures relevant to our model. Mothers were the primary family respondent and were recruited through community support programs, the local media, and the National Alliance for the Mentally Ill. They were asked to participate if they met three criteria: (1) the mother was age 55 or older; (2) the mother reported that her son or daughter had been diagnosed by a psychiatrist as having schizophrenia or schizoaffective disorder; (3) the mother provided at least weekly assistance with a major activity of daily living to her son or daughter with mental illness. This assured that the mothers had sufficient contact with their children to provide appraisals.

Mothers completed a two-hour, in-home interview and self-administered questionnaire. At the end of the interview, mothers were asked for permission to contact their

sons or daughters to see if they would participate in the study by completing a self-administered questionnaire (70 percent of mothers agreed to allow contact). Mothers who agreed to contacting their mentally ill sons/daughters did not differ in any way from mothers who did not in terms of background demographic variables, but mothers who agreed may have had somewhat better relationships with their children (Greenberg, Knudsen, and Aschbrenner 2006). Ninety percent of the sons and daughters approached agreed to participate and were administered the questionnaire about three weeks later ($n = 129$ after listwise deletion of missing data). Almost all of the adults with mental illness were also receiving community support program services.

The persons in the study's sample have likely been dealing with the problems associated with mental illness for some time. Prior research on families and mental illness indicates that the course of illness is very episodic or undulating in nature, at times highly stressful in terms of the severity of symptoms and the amount of disruption and stress that result, followed by periods of stability, in a recurring cycle (Seltzer, Greenberg, and Krauss 1995; Karp 2001). Consequently, we are able to capture only part of what are long-term processes, but using survey data at an 18-month interval provides sufficient time for outcomes to vary and allows for the estimation of the more "synchronous" effects of self- and family appraisals on recovery outcomes (Finkel 1995).

Appraisal Measures

A series of 22 items (shown in the Appendix), referenced for *self-appraisals* ("I am..."), *reflected appraisals* ("My mother thinks I am..."), and *significant other appraisals* ("My son/daughter is...") were included in the fourth wave

Table 1. Descriptive Statistics

	Time 1		Time 2	
	Mean	Std. Dev.	Mean	Std. Dev.
Outcomes				
<i>Symptoms</i>	48.97	36.63	47.56	36.56
<i>Self-Efficacy</i>	2.66	.55	2.73	.55
<i>Life Satisfaction</i>	2.28	.74	2.35	.72
Identity Appraisals				
<i>Mothers' Appraisals</i>	-	-	-1.36	1.30
<i>Reflected Appraisals</i>	-	-	-1.00	1.11
<i>Self-Appraisals</i>	-	-	-1.23	1.16
Client Demographics				
<i>Age</i>	44.16	8.21	-	-
<i>Male</i>	.74	.44	-	-
<i>White</i>	.85	.36	-	-
<i>Education</i>	2.67	1.49	-	-
<i>Married</i>	.18	.39	-	-
<i>Living with Parents</i>	.36	.48	-	-
<i>Employed</i>	.27	.45	-	-
Mother Demographics				
<i>Age</i>	72.07	8.16	-	-
<i>Education</i>	3.22	.35	-	-
<i>Married</i>	.51	.50	-	-

of the study. Items were coded using a seven-point (-3 to +3) semantic differential scale, so that higher numbers indicate more stigmatized appraisals. Exploratory principal components factor analysis followed by confirmatory factor analysis using LISREL support (1) a unidimensional construct of self-image appraisals for each target reference (self, reflected, and other), and (2) a three-factor structure of self, reflected, and other appraisals indicating discriminant validity across the three referents.¹ Stigmatized image appraisals items were then summed and averaged across the 22

items for each referent. The alpha scale reliability for significant others' appraisals is .950; for reflected appraisals it is .968; and for self-appraisals it is .947. In a manner similar to Kroska and Harkness's (2006) findings regarding EPA ratings, the high reliability for each referent scale reflects the tendency for judgments to generalize across the 22 items. Although the means for each scale (see Table 1) differ from the scale midpoints of 0 ($p < .001$), indicating a tendency for appraisals to be generally favorable, note that the average score for reflected appraisals is somewhat lower than for self- and mothers' appraisals, consistent with the modified labeling theory notion of expected devaluation. Also, the correlation between reflected and self-appraisals ($r = .556$) is higher than the correlation between significant others' and reflected appraisals ($r = .273$) and between others' and self-appraisals ($r = .206$), consistent with previous studies

¹There is a slight tendency for items 3 (safe/dangerous) and 7 (gentle/violent) to load on an additional factor. The results are the same whether these items are omitted or not. We therefore present the results including the full set of items. Although the items include all three of the dimensions that Kroska and Harkness (2006, 2008) examine (evaluation, potency, activity), most of them are on the evaluation dimension.

that suggest a degree of ambiguity and bias in how other appraisals are transmitted (Felson 1981, 1985; Shrauger and Schoeneman 1979).

Outcome Measures

The *Brief Symptom Inventory* consists of 52 self-reported items, focusing on several dimensions of symptoms in the past month, including somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility, paranoid ideation, and psychoticism (Derogatis and Melisaratos 1983).² These items are coded on a five-point scale from 0 to 4 (from 0 = "not at all" to 4 = "extremely") and summed. The alpha reliability coefficient for the scale at both waves was .97.

Subjective *life satisfaction* was assessed using 22 items adapted from Lehman's (1988) scale that asks respondents how they feel about living arrangements, family and social relationships, leisure activities, finances, employment, safety, and health. The items are coded on a seven-point scale (from 1 = "terrible" to seven = "delighted"). The items were summed and divided by 22. The alpha reliability coefficient for the scale at both waves was .94.

Self-efficacy (mastery) is measured by the average score on the widely used eight-item scale developed by Pearlin et al. (1981) that reflects the extent to which persons believe they have a sense of mastery, or personal control, over circumstances and events in their lives. The items are coded on a scale from 1 to 4 so that higher numbers indicate a greater degree of self-efficacy. The alpha

reliability coefficient for the scale at both waves was .78.³

Control Variables

In the analysis, we considered several additional variables that may influence both appraisals and recovery outcomes, including age (in years); gender (1 = female); education (0 = less than 8th grade; 1 = 8th through 11th grade; 2 = high school graduate/GED; 3 = 1–3 years of college; 4 = associates degree; 5 = bachelor's degree; 6 = post BA/BS but not a graduate degree; 7 = graduate degree); marital status (1 = married); whether they were living with their parents (1 = yes); and whether they were employed (1 = yes). For mothers, we control for several variables that may influence the resources available to mitigate the strain of their children's illness as well as their understanding of mental illness, including age, education, and marital status (1 = married).

Analysis Strategy

The reflected appraisals process implies a series of mediated relationships. We first estimate a series of OLS equations that regresses mothers' appraisals on prior levels of symptoms, life satisfaction, and self-efficacy. Next, we regress reflected appraisals on prior levels of symptoms, life satisfaction, and self-efficacy to see how each of these variables is related to clients' perceptions of their mothers' appraisals. To this equation, we then add mothers' appraisals to see whether the relationship between prior levels of each outcome and reflected appraisals is mediated by mothers' appraisals. We then regress self-appraisals on prior levels of symptoms, life satisfaction, and self-efficacy to see how clients' initial levels

²We explored the possibility that a "more troubling" symptoms subscale (e.g., psychotic and aggressive types of symptoms) might be more strongly correlated with mothers' appraisals than "less troubling symptoms" (e.g., anxiety, depression, and withdrawal). It appears that both types of symptoms are similarly correlated with mothers' appraisals.

³We also examined models using the Rosenberg (1965) Self-Esteem Scale. Since it was highly correlated with the self-efficacy scale ($r = .74$) and the results were very similar for both outcomes, we opted to present the results of the self-efficacy models.

of each variable affect their own appraisals. To these equations we successively add mothers' and reflected appraisals to see whether the effects of prior levels of symptoms, life satisfaction, and self-efficacy on self-appraisals operate through mothers' and reflected appraisals. Finally, we regress time 2 outcomes (symptoms, life satisfaction, and self-efficacy) on their time 1 levels to estimate their stability across the 18-month period. We then successively add mothers', reflected, and self-appraisals to isolate their effects on the outcomes, controlling for prior influences (Finkel 1995) and to see whether the effects of mothers' appraisals on outcomes are mediated by reflected appraisals and whether the effects of reflected appraisals on the outcomes are mediated by self-appraisals.⁴

RESULTS

Symptoms

The results of the stigmatized identity-recovery models for each outcome are presented in Tables 2–4.⁵ The models

⁴We considered estimating the equations using structural equations with latent variables, but given the number of observed indicators and model parameters, we are limited by our sample size. Nevertheless, we estimated models using trimmed scales, and the results are substantively identical. This is likely due to the high reliability of most of our measures.

⁵In this sample of persons with serious mental illness, there was very little association of the control variables with the identity appraisal or outcome variables. This is in contrast to correlations between demographic variables and symptoms of distress in general population samples (Mirowsky and Ross 2003). The only exceptions were a slight tendency for white respondents' mothers to provide less stigmatized appraisals (standardized coefficients averaged about $-.23$ across the series of equations) and for respondents with older mothers to view themselves in more stigmatized terms (standardized coefficients averaged about $.22$ across the equations). We present the results of the models net of the control variables.

involving symptoms are shown in Table 2. First, we regress mothers' appraisals on initial levels of symptoms and reflected appraisals (Table 2, equations 1 and 2). The results from these equations show that, as expected, higher symptoms are associated with significantly more stigmatized appraisals by mothers (standardized beta = $.32$) as well as more stigmatized reflected appraisals (beta = $.16$).

Next, we add mothers' appraisals to the reflected appraisals equation to examine whether it mediates the effect of initial symptoms on reflected appraisals (equation 3). As expected, mothers' appraisals are associated with increased stigmatized reflected appraisals (beta = $.27$). Importantly, consistent with the theoretical model, when mothers' appraisals are added, the effect of initial symptoms on reflected appraisals is reduced substantially and is no longer significant. Together, symptoms and mothers' appraisals account for about 9 percent of the variation in reflected appraisals.

The results of the self-appraisals regression models are shown in equations 4 through 6. First, the effect of initial symptoms on self-appraisals (equation 4) is positive and significant (beta = $.30$). When mothers' appraisals are added (equation 5), the effect is significant (beta = $.46$), and while the effect of initial symptoms on self-appraisals is reduced by almost half, it is still significant, suggesting that a large part of the effect of symptoms on self-appraisals is due to mothers' appraisals. Next, reflected appraisals are added to the equation (6) to see whether the effect of mothers' appraisals on self-appraisals is due to reflected appraisals. It appears that reflected appraisals have a small effect on self-appraisals (beta = $.13$, $p < .10$) and mediate only a small portion of the direct effect of mothers' appraisals on self-appraisals. Together, symptoms and appraisals (mother and reflected)

Table 2. Stigmatized Appraisals and Symptoms

	Mothers' Appraisals									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Symptoms (t1)	.316***	.156#	.088	.300***	.183*	.171	.842***	.788***	.789***	.771***
Mothers' Appraisals	-	-	.267**	-	.456***	.421***	-	.204***	.205***	.158*
Reflected Appraisals	-	-	-	-	-	.131#	-	-	.026	.011
Self-Appraisals	-	-	-	-	-	-	-	-	-	.097*
R ²	.100	.024	.091	.090	.284	.300	.709	.748	.748	.754

Note: Standardized OLS estimates shown

#p < .10. *p < .05. **p < .01. ***p < .001 (one-tailed tests).

account for about 30 percent of the variation in self-appraisals.

The models for symptoms are presented in equations 7 through 10. First, as shown in equation 7, where time 2 symptoms are regressed on time 1 symptoms, there is a high level of stability in symptoms over the 18-month interval ($\beta = .84$). In equation 8, we add mothers' appraisals to examine the effect on symptoms. The addition of mothers' appraisals has a modest but statistically significant impact on symptoms ($\beta = .20$) and reduces the effect of initial symptoms by about 6 percent. Next, we add reflected appraisals to the equation (9) and see that the effect is not significant. Finally, we add self-appraisals to the equation and find a small but statistically significant effect on symptoms ($\beta = .10, p < .05$). When self-appraisals is added, however, the effect of mothers' appraisals and initial levels of symptoms are further reduced, indicating that at least some portion of their effects operate through self-appraisals, but not through reflected appraisals.

Quality of Life

The models involving life satisfaction are shown in Table 3. First, we regress mothers' appraisals on initial levels of life satisfaction and reflected appraisals (equations 1 and 2). The results from equation 1 show that, as expected, higher life satisfaction is associated with significantly lower stigmatized appraisals by mothers (standardized $\beta = -.36$). In equation 2, initial level of life satisfaction is also associated with significantly less stigmatized reflected appraisals ($\beta = -.22$). Apparently, those who are doing better in terms of social and economic well-being are seen in a more favorable light by their mothers. Their perceptions of mothers' appraisals are also more favorable.

Next, we add mothers' appraisals to the reflected appraisals equation to examine

whether it mediates the relationship between life satisfaction and reflected appraisals (equation 3). As in the prior set of models, mothers' appraisals increases stigmatized reflected appraisals ($\beta = .27$). Importantly, consistent with the theoretical model, when mothers' appraisals are added, the effect of life satisfaction on reflected appraisals is reduced substantially and is no longer significant. Together, symptoms and mothers' appraisals account for about 11 percent of the variation in reflected appraisals.

The results of the self-appraisals models are shown in equations 4 through 6. First, in equation 4, the effect of life satisfaction on self-appraisals is negative and significant ($\beta = -.44$), indicating that those who are doing well also see themselves in less stigmatized terms. When mothers' appraisals are added (equation 5), its effect is significant ($\beta = .45$) and the effect of initial life satisfaction on self-appraisals is reduced by over 34 percent, but is still significant, suggesting that a substantial part of the effect of life satisfaction on self-appraisals is due to mothers' appraisals. Next, reflected appraisals are added to the equation (6) to see whether the effect of mothers' appraisals on self-appraisals is due to reflected appraisals. It appears that reflected appraisals have a small effect on self-appraisals, approaching statistical significance ($\beta = .10, p < .10$) and mediate a small portion of the direct effect of mothers' appraisals on self-appraisals (about 6 percent). Together, life satisfaction and appraisals (mother and self) account for about 38 percent of the variation in self-appraisals.

The models for life satisfaction are presented in equations 7 through 10. First, as shown in equation 7, where life satisfaction at time 2 is regressed on life satisfaction at time 1, it has a high level of stability over the 18-month interval ($\beta = .76$). In equation 8, we add mothers' appraisals

Table 3. Stigmatized Appraisals and Life Satisfaction

	Mothers' Appraisals									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Life Satisfaction (t1)	-.359***	-.220*	-.126	-.443***	-.290**	-.280**	.762***	.688***	.680***	.618***
Mothers' Appraisals	-	-	.272**	-	.445***	.418***	-	-.221**	-.202*	-.105#
Reflected Appraisals	-	-	-	-	-	.104#	-	-	-.073	-.045
Self-Appraisals	-	-	-	-	-	-	-	-	-	-.225**
R ²	.129	.037	.114	.196	.370	.329	.580	.624	.629	.659

Note: Standardized OLS estimates shown
 #p < .10. *p < .05. ** p < .01. ***p < .001 (one-tailed tests).

to examine the effect on life satisfaction. When added, these appraisals have a moderate and statistically significant impact on life satisfaction ($\beta = .22$) and this reduces the effect of initial life satisfaction by about 7 percent. Next, we add reflected appraisals to the equation (9) and see that the effect, although in the expected direction, is not significant. Finally, we add self-appraisals to the equation (10) and find that this has a moderate, statistically significant effect ($\beta = -.23$). When it is added, however, the effect of mothers' appraisals and initial levels of life satisfaction are further reduced, indicating that at least some portion of their effects operates through self-appraisals, but not through reflected appraisals.

Self-Efficacy

The models involving self-efficacy (mastery) are shown in Table 4. First, we regress mothers' appraisals on initial levels of self-efficacy and reflected appraisals (equations 1 and 2). The results from the first equation show that, as expected, higher self-efficacy is associated with significantly lower stigmatized appraisals by mothers (standardized $\beta = -.25$). Apparently, those with a higher sense of personal control are seen in a more favorable light. As shown in equation 2, initial level of self-efficacy is also associated with significantly less stigmatized reflected appraisals ($\beta = -.25$), indicating that those with a higher sense of control perceive themselves as being seen in a more favorable light by their mothers.

Next, we add mothers' appraisals to the reflected appraisals equation to examine whether this mediates the effect of self-efficacy on reflected appraisals (equation 3). As in the prior set of models, mothers' appraisals significantly predict stigmatized reflected appraisals ($\beta = .28$). Consistent with the theoretical model,

when mothers' appraisals are added, the effect of self-efficacy on reflected appraisals is reduced by about 20 percent, but it is still statistically significant. Together, self-efficacy and mothers' appraisals account for about 13 percent of the variation in reflected appraisals.

The results for self-appraisals are shown in equations 4 through 6. First, the effect of self-efficacy on stigmatized self-appraisals (equation 4) is negative and significant ($\beta = -.32$), indicating that those who are higher in self-efficacy also see themselves in less stigmatized terms. When mothers' appraisals are added (equation 5), the effect is strong and significant ($\beta = .55$), and the effect of initial self-efficacy on self-appraisals is reduced by about 30 percent, but it is still significant, suggesting that a part of the effect of self-efficacy on self-appraisals is due to mothers' appraisals. Next, reflected appraisals are added to the equation (6) to see whether the effect of mothers' appraisals on self-appraisals is due to reflected appraisals. It appears that reflected appraisals have a small effect on self-appraisals that approaches statistical significance ($\beta = .10$, $p < .10$) and mediates only a small portion of the direct effect of mothers' appraisals on self-appraisals. Together, self-efficacy and appraisals (mother and self) account for about 38 percent of the variation in self-appraisals.

The models for self-efficacy are presented in equations 7 through 10. First, as shown in equation 7, there is a moderately high level of stability in self-efficacy over the 18-month interval ($\beta = .63$). In equation 8, we add mothers' appraisals to examine the extent to which they affect self-efficacy. When added, mothers' appraisals have a moderate and statistically significant impact on self-efficacy ($\beta = -.22$) and reduce the effect of initial self-efficacy by about 6 percent. Next, we add reflected appraisals to the

Table 4. Stigmatized Appraisals and Self-Efficacy (Mastery)

	Mothers' Appraisals		Reflected Appraisals		Self-Appraisals					Mastery (t2)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
Mastery (t1)	-.254**	-.249**	-.200*	-.315**	-.220**	-.200***	.634***	.592***	.602**	.558***	
Mothers' Appraisals	-	-	.278**	-	.548***	.525***	-	-.220**	-.233*	-.109	
Reflected Appraisals	-	-	-	-	-	.109#	-	-	-.053	.078	
Self-Appraisals	-	-	-	-	-	-	-	-	-	-.247**	
R ²	.064	.062	.131	.103	.378	.380	.402	.449	.451	.490	

Note: Standardized OLS estimates shown

#p < .10. *p < .05. ** p < .01. ***p < .001 (one-tailed tests).

equation (9) and see that the effect is not significant. Finally, we add self-appraisals to the equation and find that this has a moderate, statistically significant effect ($\beta = -.25$). When self-appraisals is added, however, the effect of mothers' appraisals is further reduced (by about 53 percent) and is no longer significant, indicating that a substantial portion of their effect operates through self-appraisals, but not through reflected appraisals.

CONCLUSION

In this study, we applied the reflected appraisals process model to examine how stigmatized identity affects dimensions of recovery for persons with mental illness. The study produced several key findings. First and not surprisingly, symptoms and functioning are related to how family members think about their ill family members, how persons with mental illness think others perceive them, and how they perceive themselves in terms of potentially stigmatized personal characteristics. Consistent with our expectations, initial levels of symptoms, self-efficacy, and quality of life are linked to the manner in which mothers appraise their sons and daughters with mental illness: those who are doing better in terms of symptoms and social well-being, as well as those with higher levels of personal control, are perceived by their mothers as more competent, capable, and healthy compared to those who are doing less well. The effects of these variables on reflected appraisals are explained, in part, by mothers' appraisals. Also, part of the effects of symptoms, self-efficacy, and life satisfaction on self-appraisals is explained by others' appraisals and reflected appraisals.

Second, our findings show that mothers' appraisals are reflected in patients' perceptions of what their mothers think about them (reflected appraisals).

Although it is impossible to test how appraisals are conveyed to persons with mental illness using these data, one possible interpretation is that negative feedback (e.g., "you're like a child, not an adult") provided by mothers is at times conveyed directly, out of frustration and stress, and is part of the "conflicted relationships" that are often a consequence of mental illness (Early 2006; Karp 2001; Silver 2002). Indeed, a body of research suggests that caregiver criticism (termed "expressed emotion"), both as rated by observers and as perceived by those with mental illness, is robustly associated with risk of symptomatic relapse (Butzlaff and Hooley 1998; Renshaw 2008). Negative feedback can also be conveyed in a number of subtle ways that stigmatize persons with mental illness, such as sustained social exclusion or insidious comments (Dickerson et al. 2002; Jenkins and Carpenter-Song 2009).

Third, beyond the link between mothers' and reflected appraisals is our finding that reflected appraisals are related to self-appraisals, but not strongly so. The direction of the coefficients are, however, consistent with prior research showing that the ways in which persons think significant others perceive them affects their self-conceptions (Felson 1981, 1985, 1989). It could be that persons with mental illness incorporate others' appraisals into their self-appraisals in a less cognitive process, or that there is a greater degree of ambiguity in their perceptions of others' appraisals. This renders somewhat tentative an extension of the generalizability of the reflected appraisals process from dimensions of identity associated with academic and athletic ability and physical attractiveness among young persons to dimensions of stigmatized identity associated with serious mental illness among adults.

Fourth, our findings show that, despite high levels of stability, symptoms, self-

efficacy, and life satisfaction are affected by stigmatized self-conceptions, consistent with the reflected appraisals process.⁶ It appears, however, that self-appraisals have a comparatively greater impact on outcomes compared to mothers' appraisals, the effects of which are not mediated by reflected appraisals. Together, these findings suggest that perhaps beyond clinical intervention (medication, counseling) implied by a strict medical model approach, recovery is, at least to some extent, a process that is influenced by the expectations and feedback provided by significant others in the lives of persons with mental illness. Significant others' positive appraisals exert an effect that may be similar to that of social support. The presence of positive identity-related feedback may reduce symptoms while negative feedback may facilitate sustained symptoms. Moreover, stigmatized self-conceptions may reduce sense of control, empowerment in treatment programs, and motivation to seek jobs and make friends, and thus contribute to diminished quality of life.

The finding of a link between significant others' appraisals and recovery outcomes is also consistent with previous research on expressed emotion (Greenley 1986). Perhaps critical comments from relatives induce shame that is directly internalized by the ill family member, thus leading persons with mental illness to think and act in ways that inhibit recovery. As a recent review by Renshaw (2008) illustrates, the level of criticism patients perceive from their caretakers is a robust predictor of negative clinical outcome among people with

serious mental illness. The present study suggests that perceived criticism on the part of the those with mental illness is not simply illusory or an artifact of paranoid symptoms but is, at least in part, a reflection of the opinions of caregiving family members.

There are, of course, some limitations to this study that need to be considered. One is the representativeness of the sample. Mentally ill participants in the study were among those generally engaged in treatment, and their mothers who agreed to participate likely represent those who are perhaps somewhat more sympathetic, supportive, and informed about mental illness. In addition, because the sample consisted of families who, on average, had been coping with the ill member's condition for some time, we did not have opportunity to capture the reflected appraisals process during the dynamic first-episode epoch, when its effects might potentially be stronger. For all of the above reasons, our findings may be rather conservative with regard to the potential for significant others' stigmatized identity appraisals to undermine recovery.

Future studies on stigma, reflected appraisals, and mental illness would benefit from a larger sample size, more frequent administration of appraisal items, and the inclusion of other family members and caregivers. Ideally, we would have been able to test our model on a larger sample of persons with a wider variety of diagnoses. Given our measures of recovery outcomes at two points in time, we were able to isolate the effects of appraisals on those outcomes. In future studies, the appraisal items need to be administered at more than one point in time in order to better isolate the longer-term, causal effect of symptoms, efficacy, and life satisfaction on appraisals, as well as to determine the extent to which significant others'

⁶In supplementary analyses, we re-estimated the series of models for self-efficacy and life satisfaction, controlling for symptoms, in order to further rule out the possibility that the associations between appraisals these outcomes could be due to symptoms. Doing so produced no substantive changes in the results.

appraisals drive self-appraisals, as opposed to being the product of them. Moreover, it would be useful to examine the extent to which the appraisals of other family members such as spouses, fathers, and siblings, as well as treatment providers, play a role in the recovery process.

The findings of our study suggest a potential direction for extending modified labeling theory. An important step in further study is the need to include measures such as devaluation-discrimination beliefs in the model to examine how more widely held stigmatizing attitudes towards mental illness (expectations held by “most people in the community”) influence recovery through their effects on others’, reflected, and self-appraisals. In this way, following symbolic interactionist theory, we can link the attitudes of the “generalized other” with those of “significant others” to better understand self-concept formation and outcomes among persons with mental illness.

Mental illness represents a challenge to the study of self and identity, leading to several questions that may be guided by identity theories (Stets and Burke 2005). Unlike other medical conditions that have the potential to transform identity in positive ways (e.g., “cancer survivor”), and because of its potential for disturbing behavior and the powerful stigma it carries, mental illness is likely to affect the self in more adverse ways (Albee and Joffe 2004). These effects may not be straightforward, however. For example, to what extent are the adverse effects of stigma contingent upon the salience of mental illness as a role-identity dimension relative to other dimensions? As those who have written about recovery indicate, work and social relationships are important sources of self-worth, offsetting the stigma of a diagnosis of mental illness, as well as helping to buffer the additional stresses that illness creates (Ralph and Corrigan 2005). Also, in terms of

relationships with significant others, while we have emphasized consistency in stigmatized identity appraisals, how can discrepancies between role-identity expectations and performance be understood? For example, to what extent are appraisals affected by more specific discrepancies between the normative role expectations held by others (e.g., as sons or daughters) and behavior related to those roles? Similarly, how does the imbalanced exchange created by caregiving and the disruptions and dependency created by mental illness lead to further stigmatizing attitudes held by family members?

In sum, this study highlights the notion that recovery from mental illness is not simply a matter of controlling symptoms as indicated by a strictly “psychiatric” perspective, but that it is, to a certain extent, a social-psychological process. The ways in which people think about persons with mental illness affect the beliefs and actions of those with mental illness, in turn shaping the trajectory of illness. Despite some limitations, given the generally favorable results of the present study, our preliminary study suggests that integrating modified labeling theory with reflected appraisals and identity formation processes may help further our understanding of how stigma impedes recovery.

APPENDIX

Measures of Mothers’, Reflected, and Self-Appraisals

Items are referenced for self-appraisals (“I am ...”), reflected appraisals (“My mother thinks I am ...”), and significant other appraisals (“My son/daughter is ...”). Items were coded using a 7-point (–3 to +3) semantic differential scale, so that higher numbers indicate more stigmatized appraisals.

(continued)

APPENDIX (continued)

1. Friendly	Unfriendly
2. Trustworthy	Untrustworthy
3. Safe	Dangerous
4. Unintelligent	Intelligent
5. Competent	Incompetent
6. Success	Failure
7. Gentle	Violent
8. Good	Bad
9. Able	Unable
10. Easygoing	Difficult
11. Organized	Disorganized
12. Dirty	Clean
13. Stable	Unstable
14. Predictable	Unpredictable
15. Weak	Strong
16. Reliable	Unreliable
17. Rational	Irrational
18. Fast	Slow
19. Childlike	Adult
20. Mature	Immature
21. Lazy	Hardworking
22. Responsible	Irresponsible

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