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Risk and Protective Factors of Internalized Mental Illness Stigma

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Risk and Protective Factors of Internalized Mental Illness Stigma

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by

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ABSTRACT

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The internalization of mental illness stigma is associated with an array of negative consequences; however, not all individuals experience the deleterious effects of internalized mental illness stigma. The present dissertation focuses on factors associated with internalized stigma, and will be the first to examine simultaneously both risk (i.e., shame, shame proneness and shame aversion, insight, and centrality and valence) and protective factors (social support and self-compassion) of internalized mental illness stigma. Using two of the most widely used assessments of internalized mental illness stigma (i.e., Self-Stigma of Mental Illness Scale [SSMIS] and the Internalized Mental Illness Scale [ISMI]), risk and protective factors were examined among adults recruited through Amazon Mechanical Turk (AMT; n = 215) and Facebook (n = 153) who self-reported a mental illness diagnosis. Whereas among AMT participants, shame proneness and centrality were significant predictors of the *process* of internalization of mental illness stigma (measured by the *Stereotype Self-Concurrence* subscale of the SSMIS), among Facebook participants centrality was the only significant predictor of process of the internalization of mental illness stigma. In addition, whereas among AMT participants, shame proneness (measured by the PFQ-2), centrality, valence, and social support were significant predictors of the *experience* of internalized stigma (measured by the ISMI), among Facebook participants state shame, centrality, valence, and social support were significant predictors of the experience of internalized stigma. Thus, centrality was the only significant risk factor across measures and samples. It is possible that the current dissertation may help to differentiate individuals at particular risk for internalization and ultimately to harness resilience

for those diagnosed with a mental illness, particularly among those diagnosed with mood or anxiety-related diagnoses.

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CHAPTER 1

INTRODUCTION

Mental illness is prevalent in the United States, such that 26.2% of Americans 18 years of age or older have been diagnosed, in the last 12-months, with a mental disorder based on DSM-IV classifications (Kessler & Wang, 2008). Furthermore, 46.4% of respondents on the National Comorbidity Survey Replication (NCS-R) indicated having at least one DSM-IV disorder assessed in the survey at some point in their lifetime. For those who have been diagnosed with a mental illness, the difficulties are multifaceted, such that an individual has to manage the symptoms associated with the psychiatric disorder, society's reaction to being labeled "mentally ill", and how this label influences his or her self-concept. Research suggests that aspects of psychiatric disorders (e.g., symptoms of the disorder and the potential skill deficits that may result), society's devaluation of those with a psychiatric disorder, and the influence this label has on one's self-concept can influence an array of negative consequences (Corrigan, 1999; Corrigan & Penn, 1997; Corrigan & Watson, 2002; Livingston & Boyd, 2010).

In addition to perceiving and managing society's devaluation of mental illness (i.e., public stigma; Wahl, 1999), individuals may contend with their internalization of mental illness stigma, which occurs when individuals believe negative societal messages (stereotypes, prejudice, and discrimination) and apply the societal messages to themselves (Corrigan, 2002). The internalization of mental illness stigma is associated with an array of negative consequences, such as feeling devalued and shameful (Corrigan, 1999), decrements to self-esteem and self-efficacy (Corrigan & Watson, 2002), demoralization (Cavelti, Kvrgic, Beck, Rüsch, & Vauth, 2012; Corrigan, Rafacz, & Rüsch, 2011; Lysaker et al., 2012; Lysaker, Roe, & Yanos, 2007; Mickelson & Williams, 2008; Ritsher & Phelan, 2004; Rüsch et al., 2006), lower quality of life (Corrigan et al., 2010; Earnshaw & Quinn, 2012; Kondrat & Early, 2011; Kondrat, 2012; Lv,

Wolf, & Wang, 2013), less treatment adherence (Fung, Tsang, & Corrigan, 2008; Sirey et al., 2001), less social support (Adewuya et al., 2009; Brohan, Elgie, Sartorius, & Thornicroft, 2010; Brohan, Gauci, Sartorius, & Thornicroft, 2011; Cerit, Filizer, Tural, & Tufan, 2012; Lv et al., 2013), and health disparities (Quinn & Chaudoir, 2009; Stuber, Meyer, & Link, 2008). Still, not all individuals experience the deleterious effects of internalized mental illness stigma (e.g., Chamberlin, 1998; Corrigan, 2002; Crocker & Major, 1989; Deegan, 1990). Given the possible implications of internalizing stigma for those with mental illness, coupled with variability in actual experience, it would seem that a focus on risk and protective factors of internalized stigma may help to differentiate individuals at particular risk for internalization and ultimately to harness resilience for those diagnosed with a mental illness. Yet, in a recent review, Klik & Williams (2014) discovered limited research on factors that predict more or less internalization of stigma. The present dissertation focused on factors associated with internalized stigma, and was the first to examine simultaneously both risk (i.e., shame, shame proneness and shame aversion, insight, and centrality and valence) and protective factors (social support and self-compassion) of internalized mental illness stigma in the lives of individuals diagnosed with mental illness.

Stigma

As described by Goffman (1963), the basis for stigma is the relationship between an "attribute and stereotype", where the attribute or "mark" informs others of a person's membership in a stigmatized category or group (p. 4). Individuals who possess a stigmatized attribute or characteristic belong to a social category that is labeled by society, stereotyped, and devalued based on possessing the stigmatized attribute (Crocker & Major, 1989; Frost, 2011; Goffman, 1963; Jones et al., 1984; Major & O'Brien, 2005). Link and Phelan (2001) suggests

"stigma exists when elements of labeling, stereotyping, separation, status loss, and discrimination occur together in a power situation that allows them" (p. 377). Thus, stigmatization is based on subjective generalizations, labels, and stereotypes which create a social identity that is devalued not only by other groups, but also by society as a whole (Crocker & Major, 1989; Major & O'Brien, 2005). Indeed, stigma is defined as an attribute or characteristic society deems undesirable, which can lead a person to feel discredited, shameful, and less than whole (Goffman, 1963). By being a member of a stigmatized group, stigmatized individuals are considered deviant, may be targets for prejudice, encounter discrimination, and experience negative economic and interpersonal outcomes (Crocker & Major, 1989; Goffman, 1963).

Public Stigma

Although there are many other components of stigma (e.g., anticipated, vicarious, felt), this dissertation focused on public stigma and internalized stigma (referred to as self-stigma; Corrigan & Watson, 2002). Public stigma is the devaluation of the stigmatized by others and is comprised of three components: stereotypes, prejudice, and discrimination (Corrigan & Watson, 2002; Corrigan, 2004). In a given culture, most people are aware of the labels and stereotypes that have become attached to members of stigmatized groups; however, not all people endorse these stereotypes (Devine, 1989). Prejudice is the emotional consequence of stigma where a person endorses the stereotypes associated with a stigmatized group, applies these stereotypes to his or her attitudes and beliefs, and subsequently judges members of the target group in a way that is congruent with the negative stereotype (Allport, 1954; Devine, 1989). Discrimination can be a consequence of prejudice but prejudice does not always result in discrimination. Research suggests that those who possess a stigmatized attribute experience discrimination, such that they

are treated differently and unequally solely based on their membership of a stigmatized group (Allport, 1954; Major & O'Brien, 2005). Thus, public stigma occurs when society reacts with prejudice and discriminates against a person or group of people based on the stigmatized beliefs associated with the target group (Corrigan, 2004).

Social-Cognitive Processes that Contribute to Public Stigma

Given the complexity of the physical and social world, humans are constantly processing, analyzing, and organizing information from their perceptual environment. In order to remember and use this information, and avoid becoming overwhelmed, the human mind is able to categorically organize and group similar information (termed categorical thinking) to develop mental or categorical representations, called schemas (Macrae & Bodenhausen, 2000). Categorical thinking and the development of schemas enables humans to conserve cognitive resources, develop expectations about our perceptual environment, and quickly organize vast amounts of new stimuli in to existing categories. When these categories are activated appropriately, categorical representations assist humans in understanding, evaluating, and making sense of the environment. Although categorical thinking allows humans to navigate the complexities of our environment, it also can have a powerful impact on social cognition (Macrae & Bodenhausen, 2000).

In an attempt to understand, simplify, and quickly process social information, social stimuli (e.g., people) are categorically organized based on similarities and differences (Crocker & Lutsky, 1986). Often social information is organized and categorized according to visible characteristics (i.e., race, gender, and age) and observed behaviors because this information is convenient and requires the least amount of cognitive resources to obtain (Crocker & Lutsky, 1986; Macrae & Bodenhausen, 2000). Because humans have a limited capacity for information

processing, generalizations are made about groups of people and labels (i.e., "mentally ill") become associated to groups in order to process social stimuli more quickly (Crocker & Lutsky, 1986). Through social exchange, labels can acquire meaning by becoming attached to a set of generalized beliefs, or stereotypes, that are invoked by members of the category (Crocker & Lutsky, 1986). Indeed, generalizations, labels, and stereotypes can help humans understand, simplify, and quickly process social information, but they can also lead to inaccuracies in how we perceive, interpret, and evaluate the social world, as well as influence the impressions we form about others (Crocker & Lutsky, 1986; Macrae & Bodenhausen, 2000).

Internalized Stigma

Deleterious effects of stigma are not only a result of direct experiences with prejudice and discrimination, but also through internalized perceptions, attitudes, and feelings of the stigmatized person. This second type of stigma, referred to as internalized stigma or self-stigma, has been described as the method by which one internalizes stigma or the transformational process in which public stigma becomes a part of a stigmatized person's self-concept (Corrigan & Watson, 2002). Internalized stigma includes stereotypes, prejudice, and discrimination; however, each of these components is applied to the self (Corrigan & Watson, 2002). Stigmatized individuals may be aware of negative stereotypes associated with their membership in a stigmatized group, but mere awareness of the negative stereotypes does not mean that an individual will internalize public stigma (Crocker & Major, 1989). For public stigma to become internalized, stigmatized individuals become aware of the negative stereotypes linked to the stigmatized characteristic or attribute they possess, agree with these stereotypes, and apply the negative stereotypes to themselves (Corrigan & Watson, 2002; Corrigan, 2004). Once negative stereotypes are applied to the self, stigmatized individuals may begin to incorporate the negative

beliefs of society in to their self-concept and experience negative emotional reactions (e.g., self-prejudice), demonstrated through decrements in self-esteem and self-efficacy. Finally, negative emotional reactions, or self-prejudice, may lead to self-discrimination or behavioral responses, such that self-efficacy and self-esteem decrements are associated with failure to pursue vocational or housing opportunities (Corrigan & Watson, 2002; Link, 1982, 1987).

Internalized Stigma Processes: Self-Concept and Reflected Appraisals

Internalized stigma is a construct that develops in relation to social influence and contact (Crocker & Quinn, 2000; Major & O'Brien, 2005). Research suggests that self-concept develops through "reflected appraisals" or the "looking glass self", such that people become aware of how others view and evaluate them through social contact and interactions (Crocker & Major, 1989). After repeated social experiences, a person may begin to incorporate others' views into his or her own idea of the self and develop ideas and beliefs about the self (i.e., self-concept) based on how he or she is viewed by others (Crocker & Major, 1989). Because stigmatized individuals possess a characteristic or attribute that is devalued by the general public, monitoring and evaluating others' reactions in order to develop one's self-concept can be problematic. For example, stigmatized individuals become aware of the public's devaluation through social interactions and as a consequence of these interactions begin to incorporate the devaluation into their self-concept, which ultimately can lead to negative consequences, such as lower self-esteem (Corrigan, 2004; Crocker & Quinn, 2000). To that end, research has demonstrated that mere awareness of the existence of public stigma may lead stigmatized individuals to apply the public's devaluation to themselves, expect to be rejected based on negative stereotypes, and believe they are less because of the stigmatized characteristic they possesses (Tangney &

Dearing, 2002; Corrigan & Watson, 2002; Corrigan, Watson, & Barr, 2006; Ritsher & Phelan, 2004).

Mental Illness Stigma

A mental illness refers to a medical condition that is characterized by disruptions in a person's thought, mood, and/or behaviors which become associated with distress and impairments in daily functioning (Centers for Disease Control and Prevention [CDC], 2013). People who have a mental illness must navigate both public and internalized mental illness stigma. For example, research suggests that society holds several misconceptions about mental illness (Brockington, Hall, Levings, & Murphy, 1993; Taylor & Dear, 1981). In a survey assessing over 2,000 English and American citizens, respondents reported that people with a mental illness are feared and excluded, irresponsible and need help making decisions, and childlike and need to be looked after (Brockington et al., 1993; Taylor & Dear, 1981). These misconceptions often correspond with stigmatizing attitudes about mental illness and may lead to discrimination, such as social exclusion. In a sample of 1444 adults in the United States, just over half of those who completed the 1996 General Social Survey (GSS) self-reported an unwillingness to interact socially, to work with, or to have a family member marry a person with a mental illness (Martin, Pescosolido, & Tuch, 2000). Although this is self-report data, the impact of such deleterious attitudes is a reality for people with a mental illness. Research suggests people with a mental illness are less likely to obtain a good job (e.g., Link, 1987) and/or safe housing (Segal, Baumohl, & Moyles, 1980). Additionally, discrimination can occur in the form of society's opinion of how people with a mental illness should be treated. For example, nearly half of those who completed the GSS also agreed that people with schizophrenia should be required to go to treatment (Pescosolido, Monahan, Link, Stueve, & Kikuzawa, 1999).

In a society that widely endorses stigmatizing attitudes, people with a mental illness may internalize society's devaluation and feel as though they are less because of their mental health status (Corrigan, 2004; Corrigan & Watson, 2002). Internalization of mental illness stigma can lead to a sense of hopelessness and other negative self-evaluations, such as self-esteem and self-efficacy decrement (Corrigan, 2004; Corrigan & Watson, 2002). In turn, hopelessness and negative evaluations can lead to limited engagement in self-beneficial behaviors, such as seeking help from healthcare providers (Yanos, Roe, Markus, & Lysaker, 2008). Thus, those individuals who highly internalize stigma are susceptible to poor mental and physical health outcomes (Chaudoir, Earnshaw, & Andel, 2013; Corrigan, 2002).

Measurements of Internalized Mental Illness Stigma

Currently, two of the most widely used measurements of internalized mental illness stigma are the Self-Stigma of Mental Illness Scale [SSMIS; Corrigan et al., 2006] and the Internalized Stigma of Mental Illness Scale [ISMI; Boyd Ritsher et al., 2003] (Livingston and Boyd, 2010). The SSMIS includes four subscales (e.g., stereotype awareness, stereotype agreement, stereotype self-concurrence, and self-esteem decrement) that assess the *process* of internalizing mental illness stigma, whereas the ISMI includes five subscales (e.g., alienation, stereotype endorsement, discrimination experiences, social withdrawal, and stigma resistance) that assess the subjective *experience* of internalized mental illness stigma. Because the SSMIS and the ISMI scale assess different aspects of internalized mental illness stigma, it is probable that there may be different risk and protective factors predicting the *process* and the subjective *experience* of internalized mental illness stigma. Moreover, although the SSMIS and ISMI are commonly used within the mental illness stigma literature, there is no work examining differences between these two measurements. Thus, an exploratory goal of this dissertation is to

examine each of these measurements as dependent variables in the proposed regression analyses to determine whether risk and protective factors of internalized mental illness stigma vary relative to the *process* of internalization or the subjective *experience* of internalized mental illness stigma.

Outcomes of Internalized Mental Illness Stigma

Although internalized mental illness stigma has been associated with negative consequences (e.g., feeling devalued and shameful (Corrigan, 1999), decrements to self-esteem and self-efficacy (Corrigan & Watson, 2002), demoralization (Cavelti et al., 2012; Corrigan et al., 2011; Lysaker et al., 2012; Lysaker etal., 2007; Ritsher & Phelan, 2004; Rüsch et al., 2006), lower quality of life (Corrigan et al., 2010; Kondrat & Early, 2011; Kondrat, 2012; Lv et al., 2013), less treatment adherence (Fung et al., 2008; Sirey et al., 2001), and less social support (Brohan et al., 2010, 2011; Cerit et al., 2012; Lv et al., 2013), not all those diagnosed with a mental illness experience these consequences. Some people with a mental illness may perceive mental illness stigma as not legitimate, responding with indifference or empowerment (Corrigan & Watson, 2002). For example, individuals that react to prejudice with empowerment become righteously angered (e.g., energized by and reactive to the injustice) and are more motivated to change their role as mental health consumers, be active in their treatment plan, and get involved in advocacy for higher quality of services (Chamberlin, 1998; Corrigan & Watson, 2002; Crocker & Major, 1989; Deegan, 1990).

Because not all stigmatized individuals internalize mental illness stigma and experience negative consequences, an in-depth examination of both risk and protective factors associated with internalization of mental illness stigma is warranted. A variety of factors have been hypothesized to be related to internalized mental illness stigma (reviewed below). Admittedly,

other variables (i.e., severity of symptoms, medication side effects, duration of illness, etc.) likely impact internalized stigma as well (Livingston & Boyd, 2010); however, these other likely contributors to internalized stigma may be less amenable to change.

Risk Factors for the Internalization of Mental Illness Stigma

State shame. Referred to as "the master emotion", shame can negatively impact many types of experiences, including one's affect, motivations, cognitions, and behaviors (Goldberg, 1991). Shame is conceptualized as a self-conscious emotion because it involves self-reflection and self-evaluation within complex self-relevant contexts (Tangney & Fischer, 1995; Tangney & Dearing, 2002; Tangney, Stuewig, & Mashek, 2007). In dealing with moral transgressions and/or social norm violations, a person may experience shame when introspection is used to evaluate and pass judgment on the self (Lewis, 1971; Tangney & Dearing, 2002). When experiencing shame a person imagines how others would perceive his or her shortcomings and anticipates rejection and disapproval if the devalued self were to be exposed to others (Lewis, 1971). Negative evaluations and disapproval of the self, as well as imagery of being exposed to others, may lead a person experiencing shame to feel inferior, worthless, powerless, and inadequate (Lewis, 1971; Tangney & Dearing, 2002). A person experiencing shame may withdraw from others by removing him or herself from social situations that may lead the devalued self to be exposed to others (Lewis, 1971).

The experience of shame depends on complex cognitive processes, such as self-recognition, where a person becomes aware that he or she has violated a moral principle or does not meet the standards, rules, norms, and goals he or she deems acceptable (Ferguson, Stegge, & Damhuis, 1991; Lewis, 1971; Tangney, & Dearing, 2002). Once the violation has occurred, an attribution process is used to determine whether the self or someone else is responsible (Lewis,

1971). If the self is responsible, the individual must then determine whether the violation reflects the whole, global self or whether the violation is a consequence of a specific behavior. If the person determines the self is at fault and the evaluation reflects globally on the self (Lewis, 1971), he or she may experience shame. Although shame can serve adaptive functions by discouraging maladaptive behaviors, experiencing shame is a painful self-awareness where a person feels flawed, valueless, and helpless, and that the failure is irreparably (Kaufman, 1985).

Often "shame" and "guilt" are used interchangeably because both are self-conscious emotions; however, the distinction between shame and guilt is the object or target of evaluation. In experiencing shame, negative evaluation surrounds the self (e.g., "I feel shame because my mental illness makes me less human than those without a mental illness."), whereas with guilt, the negative evaluation is the behavior or transgression (e.g., "I feel guilt because my behavior was irrational.") (Tangney & Dearing, 2002). Another distinction from guilt is the global self-devaluation component of shame that may lead to a person feeling small, desiring to hide and/or withdrawing from the situation. Thus, shame relative to mental illness is problematic because being diagnosed with a mental illness is not amendable, whereas if a person was experiencing guilt then he or she could avoid the behavior that caused him or her to experience guilt. For the purpose of this dissertation, I assessed shame, not guilt, as a risk factor for internalized mental illness stigma because internalized stigma involves the self, in which a person applies society's devaluation to the self, not to a behavior or transgression.

Research suggests that those diagnosed with a mental illness report significantly higher levels of shame relative to those without a mental illness (Gilbert, 2000; MacAulay & Cohen, 2014). The connection between mental illness and shame may be better understood by examining mental illness stigma. As discussed by Goffman (1963), those who possess a mental illness are

stigmatized, or deeply discredited and devalued by society. Since Goffman's (1963) landmark conceptualization of stigma, research has demonstrated that the general public endorses stigma about those diagnosed with a mental illness and mental health consumers are aware that mental illness is an attribute or characteristic that is deeply devalued by society (Link, 1987; Phelan, Link, Stueve, & Pescosolido, 2000). For example, Wahl (1999) reported that nearly 80% of survey respondents, which were mental health consumers, described instances of mental illness stigma (i.e., hurtful or offensive comments about mental illness). Thus, those diagnosed with a mental illness are aware they are violating what is seen as "normal" and may attribute this violation to the global self. Upon doing so, they are likely to experience shame.

Within the social and clinical psychological literature, research investigating the relationship between shame and internalized stigma does so in several different ways: as a component of internalized stigma (i.e., internalized shame), as a predictor of internalizing stigma (i.e., shame proneness), or as a consequence of internalized stigma (i.e., shame as an emotional reaction) (Hasson-Ohayon et al., 2012; Lewis, 1998; Link, Yang, Phelan, & Collins, 2004; Luoma et al., 2007; Rüsch et al., 2006). Research suggests that shame is associated with increased depressive symptoms, more experiential avoidance, lower quality of life, and increases in secrecy coping (Luoma et al., 2007). Those who report feeling shameful have a lower probability of rejecting stigmatizing beliefs, lower self-esteem, and reported a lower quality of life (Rüsch et al., 2006, 2007; Rüsch, Todd, Bodenhausen, Olschewski, & Corrigan, 2010). Whether shame is conceptualized as internalized shame, shame proneness, or an emotional reaction to stigma, shame is a fundamental component of stigma, and the experience of shame can negatively impact the lives of those who are stigmatized (Scheff, 1998). Thus, it is probably that "shame can meld into a sense of one's own identity (e.g., as flawed, a failure, unlovable)"

and lead a stigmatized individual to internalize stigma more readily relative to those who do not experience feelings of shame (Andrews, 1998, p. 4). Similarly, I argue that the experience of shame, or state shame, may be a risk factor for the internalization of mental illness stigma. People with a mental illness who are aware they have violated social standards or what is seen as "normal" and attribute this violation to the global self will likely report higher levels of state shame and be at higher risk for the internalization of mental illness stigma.

Shame proneness and aversion. In addition to actual experiences of shame, research has examined the dispositional tendencies toward experiencing shame, such that some people respond with shame more often than others (shame proneness; Harder, Cutler, & Rockart, 1992; Harder & Lewis, 1987; Tangney, 1995) and perceive shame as especially painful and undesirable (shame aversion; Schoenleber & Berenbaum, 2010). People who are more prone to shame internalize stigma more readily relative to those who are not prone to shame (Hasson-Ohayon et al., 2012). For example, among people diagnosed with a mental illness, shame proneness was associated with internalized stigma, such that those individuals who reported high shame proneness were also more aware of stigma related stereotypes, agreed and endorsed these stereotypes more readily, experienced more decrements to their self-esteem, felt more alienation, were more likely to withdraw socially, and experienced more discrimination (Hasson-Ohayon et al., 2012; Rusch et al., 2006).

In addition to shame-proneness, shame aversion is a dispositional tendency that may influence internalized stigma. Although relatively little work has examined shame aversion as it relates to internalized mental illness stigma, research has examined shame proneness and shame aversion relative to the symptomology of personality disorders (Schoenleber & Berenbaum, 2010, 2012). This research suggests that the impact of shame proneness (on symptomology of

personality disorders) *depends on* the level of shame aversion, such that high shame proneness is associated with more symptoms at high levels of shame aversion, but not at low levels of shame aversion. I proposed that in addition to mental illness symptoms, the interaction between shame proneness and shame aversion may influence the internalization of mental illness stigma, such that being highly prone and averse to shame may serve as a risk factor for the internalization of mental illness stigma.

Insight. In relation to mental illness, insight is defined as awareness of one's mental disorder, knowledge of the consequences associated with having a mental illness, and awareness of the need for treatment (Amador, Strauss, Yale, & Gorman, 1991). Insight is best understood as a multifaceted construct including a variety of components (e.g., retrospective and current insight) and phenomenon (e.g., psychological defense mechanism or cognitive deficits) (Amador et al., 1991); however, at the fundamental level, insight is described as the difference between one's perception of the self and the community's perception of the self (Amador et al., 1991).

Research suggests that those diagnosed with schizophrenia have poor insight, defined as lack of awareness and/or denial of illness (Carpenter, Strauss, & Bartko, 1973; Wilson, Ban, & Guy, 1986). These findings evidence the relationship between schizophrenia and poor insight; however, the measurement used to assess insight was limited in that it did not include whether participants correctly attributed their symptoms to their mental illness, were aware of the consequences associated with their mental illness, and were aware of the need for treatment. Research, using a more comprehensive measurement of insight (i.e., awareness of disorder, consequences, and need for treatment) suggests that poor insight among those diagnosed with schizophrenia is a result of cognitive deficits from the illness rather than a defense mechanism to avoid the illness (Arango, Adami, Sherr, Thaker, & Carpenter, 1999). Because much of the

research has examined the influence of insight among those diagnosed with schizophrenia, it is not clear what role insight plays for those diagnosed with other mental illnesses. It is probable that insight influences people with other mental illnesses, even though cognitive deficits may not be present, possibly through the internalization of mental illness stigma.

Research suggests that insight is associated with internalized stigma among those diagnosed with a mental illness and this relationship is paradoxical (Adewuya, Owoeye, Erinfolami, & Ola, 2010; Cavelti et al., 2012; Hasson-Ohayon et al., 2012; Lysaker et al., 2007; Mak & Wu, 2006; Norman, Windell, Lynch, & Manchanda, 2011). For example, high insight and internalization of stigma led to lower levels of self-esteem, hope, and quality of life, compared to those with high insight who report not endorsing self-stigmatizing beliefs (Lysaker et al., 2007). On the other hand, individuals who reported low insight and internalized stigma had higher levels of self-esteem and hope compared to those with high levels of insight and who report endorsing self-stigmatizing beliefs. This research suggests that insight and internalized stigma interact to predict negative outcomes (i.e., self-esteem decrements, hopelessness, and low quality of life); however, replicated findings of this work are insufficient to uphold the assumption that insight and internalized stigma interact, producing negative outcomes (for further review see Yanos et al., 2008).

I proposed that insight will be a risk factor for the internalization of mental illness stigma. As a person gains insight into his or her mental illness, he or she becomes more aware of the disorder, the consequences, and treatment benefits associated with his or her diagnosis. At first glance, these aspects of insight appear beneficial for people diagnosed with a mental illness, but I argue that the more insight gained increases the likelihood a person may internalize mental illness stigma. For example, through insight a person gains awareness of his or her mental

illness, which can be synonymous with becoming aware that they have been diagnosed with a mental illness (i.e., labeled mentally ill). Moreover, in gaining insight a person becomes aware of the consequences of his or her mental illness, which can range from expected symptomology to anticipated social consequences, such as societal perceptions of those diagnosed with a mental illness. By gaining insight a person also learns the benefits of attending and participating in treatment, but by going to treatment others may become aware that he or she has been diagnosed with a mental illness, be labeled "mentally ill" by others, and experience both public and internalized stigma. Thus, insight may serve as a risk factor for the internalization of stigma among those diagnosed with a mental illness.

Centrality and valence. Centrality is defined as how central, or important, a person considers the identity (e.g., race, sexual orientation, mental illness) to his or her definition of self; whereas valence is described as how positive or negative a person feels about his or her identity (Sellers, Smith, Shelton, Rowley, & Chavous, 1998). To date, much of the research examining centrality has been conducted among African Americans, where higher centrality has been associated with lower levels of psychological distress (e.g., Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Sellers et al., 1998; Yip, Seaton, & Sellers, 2006). Among other identities, such as Latin-Americans and women, centrality is negatively related to psychological well-being, such that the more central the identity (also called group identification) was to one's definition of self, the lower psychological well-being (Major, Quinton, & Schmader, 2003; McCoy & Major, 2003). Drawing from the same racial identity literature, valence (also referred to as private regard) among African Americans is thought to be an important component in developing and maintaining a healthy racial identity. Research suggests that valence has been linked to depression and self-esteem, such that African American women who reported more

positive valence have increased self-esteem and report less symptoms of depression (Yip et al., 2006). Taken together, centrality and valence play a role in negative outcomes, but these constructs may impact other stigmatized identities differently.

Centrality may serve as a protective factor that mitigates psychological distress among African Americans; however, the relationship between centrality and negative outcomes may not be the same for those diagnosed with a mental illness. Quinn and Chaudoir (2009) examined centrality among individuals who self-reported a concealable identity (i.e., mental illness, weight/appearance issues, family members with medical or psychological issues, sexually related activity, medical condition, abusive family relations, addiction, rape, sexual orientation, sexual abuse, drug use, criminal action, and abortion). Results indicated that those who reported the identity as more central to their definition of self also reported increased psychological distress (Quinn & Chaudoir, 2009). Thus, centrality can be a protective factor for those with a visible identity (e.g., race), but this may not be the case for those with a concealable identity (e.g., mental illness). Although centrality has been examined among those self-reporting a mental illness, to date, valence has not been examined among those diagnosed with a mental illness.

I proposed the relationship between valence and internalized stigma will be moderated by centrality and this interaction term will be a risk factor for internalized mental illness stigma. Among racial minorities, research demonstrated an interactive effect of centrality and valence. For example, African American women reported that more positive valence was associated with lower depression when their racial identity was central to their definition of self (Settles, Navarrete, Pagano, Abdou, & Sidanius, 2010). In this way, I proposed that centrality and valence may interact to influence the internalization of mental illness stigma. As one of the most stigmatized identities in our society, most individuals who have a mental illness are aware of this

stigmatized status and report a negative valence associated with their mental illness identity (Byrne, 2000; Corrigan & Penn, 1999). The identity "mentally ill" is different from many other stigmatized identities because it is difficult to find positive aspects of this identity; whereas, racial and sexual minorities can connect with like others from the community, finding positivity among others with the same stigmatized identity. Negative valence toward one's mental illness identity, paired with perceiving one's mental illness as central to one's definition of self, may predict more negative outcomes, such as internalized mental illness stigma. Thus, the relation between valence and internalized mental illness stigma may be moderated by centrality, such that those who view their mental illness status as negative will internalize stigma when they report their mental illness as central to their definition of self.

Protective Factors for the Internalization of Mental Illness Stigma

Perceived social support. Social support is defined as the perception that one is loved and cared for, respected, and part of communicative network that responds caringly, encouragingly, and with understanding and compassion (Cobb, 1976; Wethington & Kessler, 1986). As suggested in the definition of social support, the perception that one's social support network *will* act may be more important than whether the network actually *does* act. To that end, *perceived* support has been associated with positive well-being variables (e.g., less distress), but these variables have been unrelated or negatively associated with *received* support (Kaul & Lakey, 2003; Lakey & Lutz, 1996). Perceived social support may buffer against the negative effect of stress when a person views his or her support network as ready and willing to use available resources to assist in handling the stressful event (Cohen & Wills, 1985). Additionally, among the general population, those who have higher levels of social support report better

psychological and physical health (Cohen, 1988, 2004; Cohen & Syme, 1985; Cohen & Wills, 1985).

For those diagnosed with a mental illness, social support has been linked to array of positive outcomes, such as increased service use (Lam & Rosenheck, 1999), fewer hospitalizations (Albert, Becker, Mccrone, & Thornicroft, 1998), and better health outcomes (Chronister, Chou, & Liao, 2013; Corrigan & Phelan, 2004). Moreover, social support has been described as a fundamental component of recovery for those diagnosed with a mental illness (Hogan, 2003). Research examining social support among those diagnosed with a mental illness also has explored the influence of support on stigma processes. For those diagnosed with a mental illness, social support is thought to provide an opportunity to share experiences, discuss more effective ways to confront and handle stigma, and share ideas on how to address stigma problems (Dudley, 2000).

People who report higher levels of social support are less likely to internalize mental illness stigma (Adewuya et al., 2010; Chronister et al., 2013). Chronister et al. (2013) demonstrated that emotional and tangible social support and internalized stigma mediated the relationship between public stigma and mental illness recovery, such that those who reported more public stigma had less emotional and tangible support, reported internalizing mental illness stigma, and ultimately had worse mental health outcomes. Vyavaharkar and colleagues (2010) demonstrate that social support is related to depressive symptoms through its association with internalized stigma, which may suggest that stigmatized individuals who have more opportunities for social support will internalize stigma less and possibly experience a reduction in depressive symptoms. Because research suggests social support may provide an opportunity to maintain open communication about the struggles associated with having a mental illness (e.g.,

Dudley, 2000) and reduce depressive symptoms (Vyavaharkar et al., 2010), I proposed that having a supportive social network may mitigate the internalization of mental illness stigma.

Self-compassion. Self-compassion is conceptualized as having a positive and healthy attitude toward oneself (Neff, 2003a; Neff, 2003b), which includes embracing, rather than avoiding, one's own suffering and being motivated to improve one's situation and ease one's suffering. A self-compassionate person handles pain and shortcomings by taking a nonjudgmental approach, keeping in mind that one's own experience is a part of being human and the human experience as a whole (Neff, 2003a; Neff, 2003b). Self-compassion is comprised of self-kindness (i.e., being kind to oneself rather than judgmental and critical), common humanity (i.e., examining one's experiences as part of being human and something that all humans experience), and mindfulness (i.e., having awareness of one's pain and suffering while not ruminating or over-identifying with the emotional experience).

Self-compassion has been positively correlated with happiness, optimism, and positive affect (Neff, Rude, & Kirkpatrick, 2007). Moreover, self-compassion may buffer against anxiety and lead to increased levels of psychological well-being (Neff, Kirkpatrick, & Rude, 2007). In a recent meta-analysis, self-compassion was associated with more positive psychological outcomes, such as lower depression, lower anxiety, and resilience to stress (MacBeth & Gumley, 2012). Although self-compassion has been linked to improved psychological well-being, limited work has examined the role of self-compassion among those diagnosed with a mental illness. Among individuals with major depressive disorder (MDD), self-compassion training may be used as a strategy to regulate emotions, particularly among those suffering with high levels of depressive symptomology (Diedrich, Grant, Hofmann, Hiller, & Berking, 2014; Krieger, Altenstein, Baettig, Doerig, & Holtforth, 2013). Among those with social anxiety disorder, less

self-compassion was associated with greater fear of negative evaluations from others (Werner et al., 2012). This growing body of evidence suggests that self-compassion may influence the lives of those diagnosed with a mental illness, but further research is necessary.

To date, no research has examined mental illness stigma and self-compassion. Because possessing a devalued identity (such as mental illness) can be stressful and self-compassion can increase one's resilience to stress, I proposed that self-compassion may be associated with less internalized mental illness stigma. For those diagnosed with a mental illness, higher levels of self-compassion may allow them to be kind and less judgmental toward themselves in the face of public mental illness stigma, attribute their stigma experiences as part of common humanity rather than feeling alienated and isolated, and be mindful of public stigma but not ruminate on society's devaluation of their mental illness identity. In sum, being able to approach mental illness stigma with self-kindness, common humanity, and mindfulness may predict less internalized mental illness stigma.

The Current Study

Not all individuals experience the negative consequences associated with mental illness stigma. Some individuals respond to stigma with righteous anger, empowerment, or indifference, whereas others internalize mental illness stigma and experience an array of negative outcomes. Those who respond to stigma with empowerment and righteous anger may become more motivated to change their role as mental health consumers, more active in their treatment plan, and more involved in the advocacy for higher quality of services (Chamberlin, 1998; Corrigan & Watson, 2002; Crocker & Major, 1989; Deegan, 1990). Because not all stigmatized individuals internalize mental illness stigma and experience negative consequences, an in-depth examination of risk and protective factors associated with less internalization of mental illness stigma was

warranted. The goal of the current dissertation was to identify risk and protective factors that predict the internalization of mental illness stigma. More specifically, this project focused on the risk factors of shame, shame proneness, shame aversion, insight, valence, and centrality, and the protective factors of social support and self-compassion among those diagnosed with mental illness (See Figure 1).

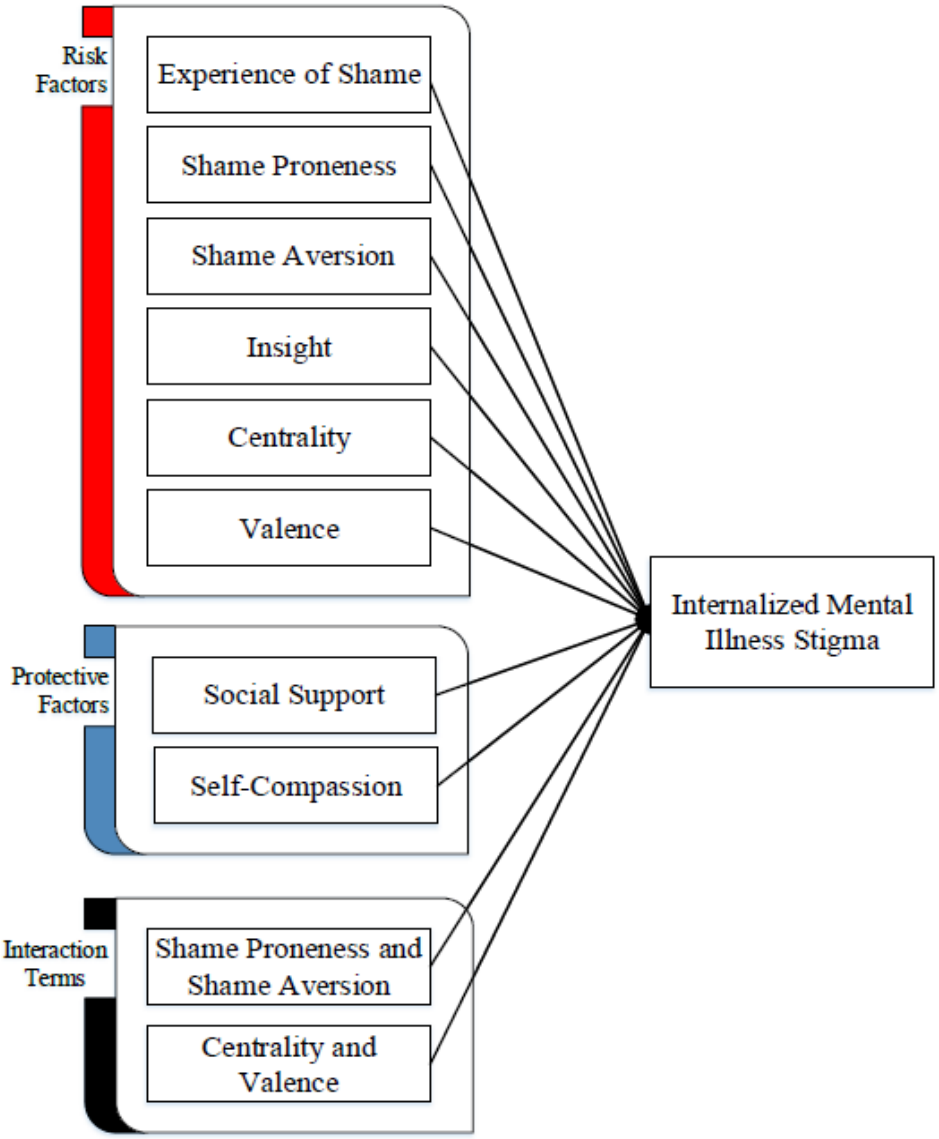

Figure 1: Proposed Relationship Between Risk/Protective Factors and Internalized Mental Illness Stigma. Shame, shame proneness, shame aversion, insight, centrality, valence, social support, and self-compassion will be predictor variables and internalized mental illness stigma

will be the outcome variable. These factors are going to explain variance in internalized stigma, such that shame, shame proneness, shame aversion, insight, centrality, and valence will serve as risk factors and self-compassion and social support will serve as protective factors for the internalization of mental illness stigma. Moreover, the relationship between centrality and internalized stigma will be moderated by valence and the relationship between shame proneness and internalized stigma will be moderated by shame aversion.

Based on the above literature review and theoretical arguments provided, I proposed:

H1: The factors of shame, shame proneness, shame aversion, insight, centrality, valence, perceived social support, and self-compassion would explain variance in internalized stigma. More specifically, shame, shame proneness, shame aversion, insight, centrality, and valence would serve as risk
factors for the internalization of mental illness stigma, such that people who experience more shame, are more prone and averse to shame, have more insight, report their mental illness as central to their identity, and view their mental illness status as negative would report more internalization of mental illness stigma. By contrast, self-compassion and social support would serve as protective factors for the internalization of mental illness stigma, such that those who report more self-compassion and perceived social support would have less internalization of mental illness stigma.

H2: The relationship between centrality and internalized stigma would be moderated by valence, such that higher centrality would influence internalized stigma when participants reported a more negative valence about their mental illness status.

H3: The relationship between shame proneness and internalized stigma would be moderated by shame aversion, such that those who report higher shame proneness would internalize mental illness stigma when high in shame aversion.

CHAPTER 2

METHOD

Participants and Procedure

In order to capture the range of experiences of those self-reporting a mental illness, participants were recruited using two strategies, Amazon's Mechanical Turk (AMT) and Facebook. AMT allowed for recruitment of a more diverse sample than those represented in typical college student samples (Buhrmester, Kwang, & Gosling, 2011). Moreover, the anonymity of AMT may have allowed people with a mental illness to be more forthcoming in their responses. Because the "boost" feature was used to advertise to people interested in mental health, those recruited from Facebook may be more active in groups and connected to the mental illness community, allowing me to assess risk and protective factors among a population that may internalize mental illness stigma less.

Amazon Mechanical Turk (AMT) service. AMT service (www.mturk.com) is an online participant pool that allows people from across the world to complete task and services for a small monetary fee. For the purpose of this study, three qualifiers were used: location (i.e., United States), a 90% task approval rate which is an indication of a "worker's" prior completion rate, and at least 50 HITS approved previously (Shapiro, Chandler, & Mueller, 2013). AMT users were notified in the task description that they were eligible to complete the task if they lived in the United States, were 18 years of age or older, and spoke English as their primary language. AMT users who completed the online survey, titled "Life Experience Related to Mental Health," did so through an invitation-only online source (surveymonkey.com) and created a unique identifier (ID) to ensure they completed the survey only one time. The online survey was anonymous and took approximately 30 minutes to complete. After completing the

online survey, participants were debriefed and compensated $.50, which is the suggested and accepted rate for long AMT survey tasks (Buhrmester et al., 2011). Overall, 648 people completed the online survey. All participants initially completed questions about demographic characteristics, including a question about mental illness diagnosis. Participants who self-reported a mental illness diagnoses were prompted to complete measures assessing all constructs (e.g., internalized mental illness stigma, state shame, shame proneness, shame aversion, insight, centrality, valence, social support, and self-compassion). Of those who completed the survey, 238 (36.7%) people self-reported a mental illness diagnosis. In addition to the qualifiers and eligibility requirements mentioned above, instructional manipulation check (IMC) questions (e.g., "Please select on the number "3". Do not click on any of the other answer choices") were inserted throughout the survey. Respondents who missed one or more of the IMC questions, did not complete the necessary surveys for the main study analyses, and/or completed the survey more than once were not retained for analyses. Based on quality and completion, 215 (90.3% of those self-reporting a mental illness diagnosis) participants who self-reported a mental illness diagnosis were retained for main study data analyses.

The average person in the AMT sample (n = 215) was 36 years of age (M = 35.85; SD = 12.02), female (73.5%), heterosexual (77.2%), White (80.0%), non-religious (43.7%), from suburban areas (46.0%), employed (58.6%), single (36.6%) and had some college education (87.0%). Relative to mental and physical health, most participants reported their mental health (M = 2.77; SD = 1.05) and physical health (M = 2.87; SD = 0.97) as being fair or good. Most participants reported using alcohol (M = 2.08; SD = 1.14), tobacco (M = 2.30; SD = 1.73), prescription drugs for non-medical purposes (M = 1.56; SD = 1.13), and/or illegal drugs (M = 1.63; SD = 1.19) once or twice within the last year. The majority of participants reported that

they had experienced sexual, physical, or emotional trauma at some point in their life (81.9%). Because participants reported more than one diagnosis (i.e., disorder comorbidity), diagnosis was dummy coded "yes/no" for each of the following: mood disorder (e.g., depression, bipolar), anxiety disorder (PTSD, OCD, panic disorder, GAD), psychotic disorder (e.g., schizophrenia, schizoaffective disorder, schizophreniform disorder), attention-relation disorder (e.g., ADHD, ADD), impulse disorder (e.g., impulse control disorder), intellectual/cognitive/developmental-related disorder (e.g., mental retardation, dementia, Asperger's), sexual disorder (e.g., pedophilia, sexual sadism), substance abuse, eating disorders (e.g., body dysmorphic disorder, bulimia, anorexia nervosa) and personality disorder (e.g., antisocial, BPD). Participants reported an array of mental illness diagnoses, including mood disorders (74.0%), anxiety disorders (55.8%), psychotic disorders (1.9%), attention-related disorders (11.6%), intellectual/cognitive/developmental-related disorders (1.4%), personality disorders (5.2%), substance abuse (3.7%), and eating disorders (1.9%). On average, participants reported that this diagnosis was their first time experiencing a mental illness (61.4%), believed that these experiences would reoccur (76.7%), and had been diagnosed for five or more years (54%). Concerning symptom severity, the majority of participants reported that the symptoms of their mental illness were moderate to severe (M = 3.52; SD = 0.81). The majority of participants reported comorbid diagnoses (M = 1.77; SD = 1.04). The open-ended qualitative question related to cause of disorder was coded as biological, environmental, both biological and environmental, unknown cause, or other. The majority of the sample reported the cause of their mental illness as environmental (46%).

Table 1.
Demographics of Participants Self-Reporting a Mental Illness Diagnosis

	AMT (n = 215)		Facebook (n = 153)	
Variable				
Age (*M, SD*)	35.85	12.02	37.46	11.66
Gender (*n*, %)				
Female	158	73.5	137	89.5
Male	53	24.7	10	6.5
Transgender Male to Female	0	0	1	.7
Transgender Female to Male	3	1.4	1	.7
Other	1	0.5	4	2.6
Sexual Orientation (*n*, %)				
Heterosexual	166	77.2	95	62.1
Homosexual	8	3.7	8	5.2
Bisexual	33	15.3	32	20.9
Other	5	2.3	8	5.2
Race (*n*, %)				
Caucasian	172	80.0	144	94.1
Black/African-American	20	9.3	0	0
Hispanic	9	4.2	5	3.3
Asian/Asian-American	4	1.9	0	0
Alaskan Native/Native American	1	0.5	2	1.3
Pacific Islander	2	0.9	0	0
Multiracial	4	1.9	1	.7
Other	0	0	1	.7
Rurality (*n*, %)				
Urban	72	33.5	47	30.7
Suburban	99	46.0	75	49.0
Rural	43	20.0	30	19.6
Religion (*n*, %)				
Protestant	63	29.3	48	31.4
Catholic	23	10.7	18	11.8
Jewish	2	0.9	6	3.9
Muslim	0	0	0	0
Buddhist	9	4.2	1	.7
Hindu	1	0.5	1	.7
I am non-religious	94	43.7	51	33.3
Other	23	10.7	28	18.3

Table 1 (continued)

Education (*n*, %)				
Some high school, no diploma	3	1.4	5	3.3
High school or GED	25	11.6	9	5.9
Currently enrolled in college	19	8.8	17	11.1
Some college, no diploma	74	34.4	33	21.6
Bachelor's Degree	67	31.2	56	36.6
Advanced Degree	27	12.6	32	20.9
Employment Status (*n*, %)				
Employed	126	58.6	91	59.1
Unemployed	88	40.9	62	40.5
Relationship Status (*n*, %)				
Single	78	36.3	52	34.0
In a relationship	24	11.2	20	13.1
Cohabitating	34	15.8	13	8.5
Separated	4	1.9	1	.7
Married	70	32.6	59	38.6
Domestic Partnership	3	1.4	8	5.2
Health Status (*M, SD*)				
Mental Health	2.77	1.05	2.46	.97
Physical Health	2.87	0.97	2.65	.76
Substance Use (*M, SD*)				
Alcohol	2.08	1.14	1.95	.95
Tobacco	2.30	1.73	1.95	1.58
Prescription drug (non-medical)	1.56	1.13	1.29	.77
Illegal Drugs	1.63	1.19	1.51	1.07
Trauma Experienced (*n*, %)				
Yes	176	81.9	129	84.3
No	39	18.1	24	15.7
Diagnosis (*n*, %)				
Mood	159	74.0	128	83.7
Anxiety	120	55.8	97	63.4
Psychotic	4	1.9	8	5.2
ADHD	25	11.6	14	9.2
Intellectual, Cognitive, or Developmental	3	1.4	1	.7
Borderline Personality Disorder	7	3.3	13	8.5
Personality - Other	4	1.9	3	2.0
Substance Abuse	8	3.7	6	3.9
Eating Disorder	4	1.9	12	7.8
Other	1	.5	2	1.3
Symptom Severity (*M, SD*)	3.52	0.81	3.71	.77
Comorbidity (*M, SD*)	1.77	1.04	2.13	1.27
Length of Diagnosis (*n*, %)				
Less than a year	18	8.4	6	3.9
1 - 2 years	34	15.8	18	11.8

Table 1 (continued)

3 – 5 years	47	21.9	16	10.5
5 – 10 years	55	25.6	42	27.5
More than 10 years	61	28.4	70	45.8
First Time Experience (*n*, %)	132	61.4	83	54.2
Reoccur (*n*, %)	165	76.7	130	85.0
Treatment (*n*, %)				
Medication	115	53.5	101	66.0
Psychologist/Psychiatrist	69	32.1	77	50.3
Alternative Forms	110	51.2	82	53.6
Cause (*n*, %)				
Biological	35	16.3	39	25.5
Environmental	99	46.0	47	30.7
Both	50	23.3	50	32.7
Other	4	1.9	3	2.0
Unknown	24	11.3	10	6.5

Using SPSS, a "quality" variable was created and participants were coded based on measurement completion and quality of the data. Participants who were retained for the main study analysis completed the entire survey, did not miss any of the IMC questions, and were coded with a “0” (n = 215). Participants who completed the entire survey and missed one or more IMC question were coded with a “1” (n = 29) and were not retained for main analysis, but were compared to those retained for analyses. Participants who completed the survey more than once were coded with a “2” (n = 3) and were not used in the main study analysis. Participants who did not complete the scales necessary for analysis were coded with a “3” (n = 23) and were not retained for main analyses, but were compared to those retained for analyses.

Participants retained for analysis differed on several demographic characteristics from participants not retained due to lower quality of data (e.g., coded with a “1”). Relative to participants retained for analysis, participants who missed one or more IMC question were more likely to be male (χ^2 = 11.95, p = .008), be racially diverse (χ^2 = 12.90, p = .045), be

employed (χ^2 = 10.33, p = .001), diverse in their religious denomination (χ^2 = 29.53, p = .000), attend religious services several times a year (χ^2 = 23.74, p = .000), be experiencing mental illness for the first time (χ^2 = 4.502, p = .034), and to be diagnosed with an intellectual/cognitive/developmental-related disorder (χ^2 = 3.85, p = .050), but were less likely to have reported a mood-related diagnosis (χ^2 = 10.42, p = .001) or anxiety-related diagnosis (χ^2 = 4.67, p = .031).

Participants retained for analysis differed on several demographic characteristics from participants not retained due to not completing the scales necessary for main study analyses (e.g., coded with a "3"). Relative to participants retained for analysis, participants who did not complete the survey in its entirety were more likely to report an eating-related disorder diagnosis (^{2} = 3.95, p = .047) and less likely to have reported a mood-related disorder diagnosis (^{2} = 12.136, p = .000).

For continuous demographic characteristics, preliminary analyses were conducted to examine differences among those who were retained for analyses (coded as "0") relative to those who were not retained due to lower quality (coded as "1") or incomplete data (coded as "3"). An analysis of variance (ANOVA) revealed a main effect of the "quality" variable on physical health [F(2, 261) = 3.159, p = .044], alcohol use [F(2, 262) = 4.54, p = .012], and symptom severity [F(2, 261) = 3.159, p = .044]. Participants who completed the entire survey and missed one or more IMC question reported marginally significant differences in physical health relative to participants who completed the entire survey and did not miss any of the IMC questions, such that participants retained for main study analysis reported worse physical health (M = 2.87, SD = .97) than those not retained for main study analyses (M = 3.31, SD = .85). Participants who completed the entire survey and did not miss any of the IMC questions reported

significant differences in alcohol use relative to participants who completed the entire survey and missed one or more IMC question, such that participants retained for main study analysis reported less alcohol use (M = 2.08, SD = 1.14) than those not retained for main study analyses (M = 2.62, SD = 1.05). Participants who completed the entire survey and did not miss any of the IMC questions reported significant differences in symptom severity relative to participants who completed the entire survey and missed one or more IMC question, such that participants retained for main study analysis reported their symptomology as more severe (M = 3.52, SD = .81) than those not retained for main study analyses (M = 3.10, SD = .67).

Facebook. Facebook is a social networking website where users can interact with friends, family, and colleagues, allowing people to stay connected by posting pictures, uploading videos, posting updates in the "news feed", and sending messages. Participants were recruited using the "boost" feature on Facebook, which allows a post to be shared to a specific audience of Facebook users. For a monetary fee, the online survey was advertised to 14,704 individuals 18 years of age or older, located within the United States, and with an interest in mental health. Additionally, the online survey was advertised by posting the web link to the Social Issues and Relations Laboratory's Facebook page, while asking others to share via their news feed. People self-selected to participate in the study by clicking the advertised website link, which directed them to an online survey (hosted via surveymonkey.com) titled, "Life Experience Related to Mental Health." Overall, 341 people completed the online survey. Participants who self-reported a mental illness diagnoses were prompted to complete measures assessing all constructs (e.g., internalized mental illness stigma, state shame, shame proneness, shame aversion, insight, centrality, valence, social support, and self-compassion). Of those who completed the survey, 204 (59.8%) people self-reported a mental illness diagnosis. In addition to eligibility

requirements mentioned above, instructional manipulation check (IMC) questions (e.g., "Please select on the number "3". Do not click on any of the other answer choices") were inserted throughout the survey. Respondents who missed one or more of the IMC questions (n = 3), did not report being over 18 years of age (n = 1), or did not complete the necessary surveys for the main study analyses (n = 47), and were not retained for analyses. Based on quality and completion, 153 (75% of those self-reporting a mental illness diagnosis) participants who self-reported a mental illness diagnosis were retained for main study data analyses.

The average person in the Facebook sample (n = 153) was 38 years of age (M = 37.46; SD = 11.66), female (89.5%), heterosexual (62.1%), White (94.4%), non-religious (33.3%), from suburban areas (49.0%), employed (59.1%), married (38.6%) and had a Bachelor's Degree (36.6%) (See Table 1 for complete demographic characteristics). Relative to mental and physical health, most participants reported their mental health (M = 2.46; SD = .97) and physical health (M = 2.65; SD = 0.76) as being fair or good. Most participants reported using alcohol (M = 1.95; SD = .95), tobacco (M = 1.95; SD = 1.58), prescription drugs for non-medical purposes (M = 1.29; SD = .77), and/or illegal drugs (M = 1.51; SD = 1.07) once or twice within the last year. The majority of participants reported that they had experienced sexual, physical, or emotional trauma at some point in their life (84.3%). Because of the comorbidity of disorders reported, diagnosis was dummy coded "yes/no" for each of the following: mood disorder (e.g., depression, bipolar), anxiety disorder (PTSD, OCD, panic disorder, GAD), psychotic disorder (e.g., schizophrenia, schizoaffective disorder, schizophreniform disorder), attention-relation disorder (e.g., ADHD, ADD), impulse disorder (e.g. impulse control disorder), intellectual/cognitive/developmental-related disorder (e.g., mental retardation, dementia, Asperger's), sexual disorder (e.g., pedophilia, sexual sadism), substance abuse, eating disorders

(e.g., body dysmorphic disorder, bulimia, anorexia nervosa) and personality disorder (e.g., antisocial, BPD). Participants reported an array of mental illness diagnoses, including mood disorders (83.7%), anxiety disorders (63.4%), psychotic disorders (5.2%), attention-related disorders (9.2%), intellectual/cognitive/developmental-related disorders (.7%), personality disorders (10.5%), substance abuse (3.9%), and eating disorders (7.8%). On average, participants reported that this diagnosis was their first time experiencing a mental illness (54.2%), believed that these experiences would reoccur (85.0%), and had been diagnosed for more than ten years (45.8%). Concerning symptom severity, the majority of participants reported that the symptoms of their mental illness were moderate to severe (M = 3.71; SD = 0.77). The majority of participants reported comorbid diagnoses (M = 2.13; SD = 1.27). The open-ended qualitative question related to cause of disorder was coded as biological, environmental, both biological and environmental, unknown cause, or other. The majority of the sample reported the cause of their mental illness as both biological and environmental (32.7%) (see Table 1).

Using SPSS, a variable was created and participants were coded based on quality and measurement completion. Participants who were retained for the main study analysis completed the entire survey, did not miss any of the IMC questions, and were coded with a "0" (n = 153). Participants who completed the entire survey and missed one or more IMC question were coded with a "1" (n = 3) and were not retained for main analysis. Because so few participants missed any of the IMC questions, these individuals were not compared to those retained for main study analyses. Participants who did not complete all the necessary scales were coded with a "2" (n = 47) and were not retained for main analyses but were compared to those retained for analyses.

Participants retained for analysis differed on several demographic characteristics from participants not retained due to attrition (e.g., coded with a "2"). Relative to participants retained

for analysis, participants who did not complete all the necessary scales were more likely to have reported a mood-related diagnosis ($\chi^2 = 8.52$, $p = .004$) and/or an anxiety related diagnosis ($\chi^2 = 7.79$, p = .005). For continuous demographic characteristics, preliminary analyses were conducted to examine differences among those who were retained for analyses (coded as "0") relative to those who were not retained due to attrition (coded as "2"). An independent samples t-test revealed significant differences in prescription drug use for non-medical purposes, $t(192) = -2.37$, $p = .026$, and number of comorbid disorders, $t(190) = 2.388$, $p = .018$. Participants who did not complete all the necessary scales (coded as "2") used prescriptions drugs for non-medical purposes more frequently ($M = 1.60$, $SD = .99$) than those retained for main study analyses ($M = 1.29$, $SD = .77$) and reported less comorbid disorder diagnoses ($M = 1.63$, $SD = .84$) relative to those retained for main study analyses ($M = 2.13$, $SD = 1.27$).

Comparing samples within recruitment strategies. Preliminary analyses were conducted to examine differences between the AMT and Facebook samples relative to demographic characteristics. Participants recruited from Facebook were more likely than those recruited from AMT to be female ($\chi^2 = 24.91$, $p = .00$), to have an advanced degree ($\chi^2 = 14.88$, $p = .01$), to report a mood-related diagnosis ($\chi^2 = 4.91$, $p = .03$), to report being diagnosed with borderline personality disorder ($\chi^2 = 4.78$, $p = .03$), to report an eating-related diagnosis ($\chi^2 = 7.69$, $p = .01$), to be diagnosed for ten or more years ($\chi^2 = 18.26$, $p = .00$), to report the cause of their illness as biologically or both biologically and environmentally based ($Ç^2 = 21.11$, $p = .00$), to be currently taking medication for an illness/disorder ($Ç^2 = 5.09$, $p = .02$), and to be currently seeing a psychologist or psychiatrist ($Ç^2 = 12.42$, $p = .00$). On the other hand, participants recruited from AMT were more likely than those recruited from Facebook to be racially diverse ($Ç^2 = 21.11$, $p = .00$), non-religious ($Ç^2 = 14.24$, $p = .03$) and attend

religious services rarely/never ($Ç^2$ = 10.08, p = .02), diagnosed for three to five years ($Ç^2$ = 18.26, p = .00), and report the cause of their illness/disorder as environmentally based ($Ç^2$ = 14.08, p = .01). Additionally, an independent-samples t-test revealed the samples recruited via AMT and Facebook differed on mental health, $t(366) = 2.87$, p = .00, and physical health, $t(362) = 2.35$, p = .02, such that participant recruited via AMT reported worse mental (M = 2.77; SD = 1.05) and physical health (M = 2.87; SD = 2.65), relative to the mental (M = 2.46; SD = .97) and physical health (M = 2.65; SD = .76) reported by Facebook users. Participants recruited from AMT differed significantly from participants recruited from Facebook on prescription drug use for non-medical purposes, $t(367) = 1.95$, p = .01, such that AMT participants reported more prescription drug (M = 1.56; SD = 1.13) use than those recruited from Facebook (M = 1.29; SD = .77). Participants recruited from Facebook differed significantly from AMT participants on the number of comorbid disorders reported, $t(364) = -2.98$, p = .00, such that Facebook users reported more comorbid disorders (M = 2.13; SD = 1.27), relative to AMT participants (M = 1.77; SD = 1.04). Facebook participants differed significantly from AMT participants on reported symptom severity, $t(365) = -2.26$, p = .03, such that participants recruited from Facebook reported their symptoms as more severe (M = 3.71; SD = .76) than participants recruited from AMT (M = 3.52; SD = .81).

An independent-samples t-test was conducted to determine differences between main study variables relative to the different recruitment strategies (i.e., AMT and Facebook). Results indicated that the samples differed on several variables: shame proneness, $t(366) = 2.66$, p = .01, insight, $t(366) = -5.08$, p = .00, centrality, $t(366) = -2.49$, p = .01, valence, $t(366) = -2.35$, p = .01, and self-compassion, $t(366) = 3.345$, p = .00 (see Table 2). Participants recruited from AMT reported being less prone to experience shame (M = 15.17; SD = 7.39)

relative to the participants recruited from Facebook (*M* = 17.17; *SD* = 6.69). Participants recruited from Facebook reported more insight (*M* = 4.48; *SD* = .55) compared to AMT participants (*M* = 4.10; *SD* = .80). Facebook participants also reported their mental illness/disorder as more central to their sense of self (*M* = 4.06; *SD* = 1.49) and more negative valence associated with their mental illness identity (*M* = 3.89; *SD* = 1.05), relative to the centrality (*M* = 3.67; *SD* = 1.53) and valence (*M* = 3.61; *SD* = 1.18) reported by participants recruited from AMT. Participants recruited from AMT reported higher levels of self-compassion (*M* = 2.76; *SD* = .78) relative to participants recruited from Facebook (*M* = 2.49; *SD* = .75).

Table 2.
Differences in Main Study Variable within Recruitment Strategies: AMT and Facebook

	AMT (*n* = 215)		Facebook (*n* = 153)			
Variable	M	*SD*	M	*SD*	*t*	*p*
Predictors						
State Shame	3.79	0.87	3.90	0.86	-1.15	.251
Shame Proneness						
PFQ-2	15.17	7.39	17.17	6.69	-2.66	.008
TOSCA	35.64	8.75	37.52	9.70	-1.94	.053
Shame Aversion	60.98	15.92	64.14	15.73	-1.89	.060
Insight	4.10	.80	4.48	0.55	-5.08	.000
Centrality	3.66	1.53	4.06	1.49	-2.49	.013
Valence	3.61	1.18	3.89	1.05	-2.35	.019
Social Support	4.87	1.38	4.90	1.40	-0.16	.876
Self-Compassion	2.76	0.78	2.49	.75	3.35	.001
Outcomes						
SSMIS-SF	13.25	8.30	13.51	7.79	-0.30	.763
ISMI	1.99	0.56	1.97	0.51	0.35	.725

Because of the above reported differences in both demographic and main study variables the samples recruited from AMT and Facebook were not combined, and each of the proposed analyses were conducted for each sample.

Materials

Internalized stigma. Internalized stigma was assessed using two scales: The Self-stigma of Mental Illness Scale – Short Form (SSMIS-SF; Corrigan et al., 2006) and Internalized Stigma of Mental Illness Scale (ISMI; Boyd Ritsher, Otilingam, & Grajales, 2003). The Self-Stigma of Mental Illness Scale – Short Form (SSMIS- SF) includes 20 Likert-type items rated on a 9-point scale that ranges from 1 (*strongly disagree*) to 9 (*strongly agree*). The SSMIS-SF contains four subscales: stereotype awareness, stereotype agreement, stereotype self-concurrence, and self-esteem decrement. The *Stereotype Awareness* subscale contains five items (e.g., "I think the public believes most persons with mental illness are to blame for their problems") assessing the degree to which a person with a mental illness is aware of the stereotypes associated with people who have a mental illness. The *Stereotype Agreement* subscale contains five items (e.g., "I think most persons with mental illness are to blame for their problems") assessing the degree to which individuals with a mental illness agree with stereotypes associated with people who have a mental illness. The *Stereotype Self-Concurrence* subscale contains five items (e.g., "Because I have a mental illness I am unable to take care of myself") that assess the degree to which a person with a mental illness applies mental illness stereotypes to his or herself. The *Self-Esteem Decrement* subscale contains five items (e.g., "I currently respect myself less because I am unable to take care of myself") assessing the degree to which a person with mental illness experiences self-esteem decrements because he or she has applied mental illness stereotypes to the self. Each of the subscales have demonstrated a satisfactory internal consistency (Corrigan, Powell, & Rüsch, 2012). To calculate an internalized stigma score, items were summed for *Stereotype Self-Concurrence* subscale where higher scores indicate internalization of mental illness stigma (AMT ± = .84; Facebook ± = .70).

The Internalized Stigma of Mental Illness (IMSI) scale (Boyd Ritsher et al., 2003) includes 29 Likert items rated on a 4-point scale that ranges from 1 (*strongly disagree*) to 4 (*strongly agree*). The ISMI contains five subscales: alienation, stereotype endorsement, discrimination experiences, social withdrawal, and stigma resistance. The *Alienation* subscale contains six items (e.g., "I feel out of place in the world because I have a mental illness") assessing an individual's experiences of possessing an attribute or "mark" that is stigmatized. The *Stereotype Endorsement* subscale contains seven items (e.g., "Mentally ill people tend to be violent") assessing whether stigmatized individuals endorse common stereotypes about people with mental illness. The *Discrimination Experience* subscale contains five items (e.g., "People discriminate against me because I have a mental illness") assessing stigmatized individuals experience with others, specifically how they are treated by others. The *Social Withdrawal* subscale contains six items (e.g., "I don't talk about myself much because I don't want to burden others with my mental illness") assessing stigmatized individuals' use of withdrawal from others as a response to coping with their mental illness. The *Stigma Resistance* subscale contains five items (e.g., "I can have a good, fulfilling life, despite my mental illness") assessing the extent to which stigmatized individuals are unaffected by self-stigmatizing beliefs. Items within the *Stigma Resistance* subscale are reverse coded before the scale is scored. To calculate an internalized stigma score, items are averaged, where higher scores indicated higher levels of internalized stigma. The ISMI has demonstrated satisfactory internal consistency (± = .90), as well as test-retest reliability (r = .92) (Boyd Ritsher et al., 2003). After reverse coding the necessary items, a mean score was calculated, such that higher scores indicated internalization of mental illness stigma (AMT ± = .94; Facebook ± = .94).

State Shame. The Turner's Experiential Shame Scale (ESS; Turner, 1998) was used to assess the experience of shame (i.e., state shame). The ESS consists of 11 items where participants' self-report reactions of physical, emotional, and social shame experiences, as well as one item related to willingness to discuss their mental illness status with an acquaintance. Each item includes a semantic choice where participants circle the number that most represents how they feel at the current moment (e.g., 1-pale to 7-flush). Sample items include: "Physically, I feel: pale/flushed, normal heartbeat/rapid heartbeat, very warm/very cool," "Emotionally, I feel: content/distressed, good/bad, clear/confused," and "Socially, I feel like: hiding/being sociable, talking/being quiet, no one sees me/people are looking at me." The last item, assessing willingness to discuss mental illness status, is rated on a 7-point Likert type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The ESS demonstrated satisfactory internal consistency in studies conducted with both healthy participants and those participants reporting a mental illness diagnosis (Rüsch et al., 2006). After reverse coding the necessary items, a mean score was calculated, with higher scores indicating higher levels of state shame (AMT ± = .67; Facebook ± = .74).

Shame Proneness. The Harder's Personal Feelings Questionnaire-2 (PFQ-2, Harder & Zalma, 1990) and Tangney's Test of Self-Conscious Affect (TOSCA-3; Tangney, Dearing, Wagner, & Gramzow, 2000) were used to assess shame proneness. The PFQ-2 is a global word checklist where participants are asked to self-report how frequently they experience the feeling, ranging from 0 (*means that you never experience the feeling*) to 4 (*means that you experience the feeling continuously or almost continuously*) (Harder & Zalma, 1990). There are ten shame-items (e.g., "embarrassment", "feeling humiliated") and six guilt-items (e.g., "remorse", "intense guilt"). Harder and Zalma (1990) demonstrated two-week test-retest reliability for the shame-

proneness scale (.91) and guilt-proneness (.85) and a satisfactory internal consistency for shame-proneness (± = .78) and guilt-proneness (± = .72). Items were summed to yield a shame-proneness score (between 0 and 40), such that higher scores indicated increased shame-proneness (AMT ± = .88; Facebook ± = .87).

The TOSCA-3 is a scenario-based self-report questionnaire that consists of 11 negative and 5 positive social scenarios, where each scenario has five reactions that are rated on a 5-point Likert type scale ranging from 1 (*not likely*) to 5 (*very likely*) (Tangney et al., 2000). A short version, which includes only the 11 negative scenarios, has been shown to be equivalent to the full 16-scenario version (Tangney & Dearing, 2002). After eliminating the positive scenarios, the shame and guilt scales of the short form of the TOSCA-3 correlated (.94 and .93) with the corresponding full-length scales (Tangney and Dearing, 2002). The TOSCA-3 scenario items were created from the original TOSCA (Tangney, Wagner, Gramzow, 1989), which were created based on written accounts of personal shame, guilt, and pride experiences of college students and non-college adults. The following is a sample negative scenario: "You attend your co-worker's housewarming party and you spill red wine on their new cream-colored carpet, but you think no one notices." Each scenario includes four possible reactions, including a shame reaction ("You would wish you were anywhere but at the party") and a guilt reaction ("You would stay late to help clean up the stain after the party"). Tangney and Dearing (2002) report satisfactory internal consistency for the shame-proneness items (± = .77-.88) and for the guilt-proneness items (± = .70-.83). Scores are calculated by summing the responses to the shame items, such that higher scores indicate increased shame-proneness (AMT ± = .83; Facebook ± = .85).

Shame Aversion. The Shame Aversive Reactions Questionnaire (ShARQ; Schoenleber & Berenbaum, 2010) was used to assess shame aversion. The ShARQ contains 14 items that are

rated on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include: “Feeling inadequate troubles me more than anything else” and “I am comfortable acknowledging my own imperfections”. The ShARQ has demonstrated satisfactory internal consistency (± = .89), as well as, convergent and discriminant validity (Schoenleber, & Berenbaum, 2010). A shame aversion score was calculated by reverse scoring half of the items and then summing the items, where higher scores indicate higher levels of shame aversion (AMT ± = .91; Facebook ± = .90).

Insight. An adapted version of The Scale to Assess Unawareness of Mental Disorders (SUMD) (Amador et al., 1993) was used to assess participants’ level of insight relative to their mental illness and The Beck Cognitive Insight Scale (BCIS) was used to measure cognitive deficits among individuals who self-report a mental illness/disorder diagnosis. The adapted version of the SUMD was used to assess insight as a risk factor of internalized mental illness stigma, whereas the BCIS was used to assess cognitive deficits and was assessed as a possible covariate in the regression analyses.

The original SUMD (Amador et al., 1993) was designed as a clinician-reported insight scale, but it has been adapted as a self-report measure for this dissertation. The purpose of the original SUMD (Amador et al., 1993) is to assess participants’ attribution of symptoms to their mental illness and awareness of their mental illness status, the benefits associated with treatment, and the social consequences (e.g., hospitalization) associated with having a mental illness. The adapted version of the SUMD contains 23 symptoms, which were drawn from the original SUMD and from psychiatric intake forms, and four items rated on a 5-point Likert type scale ranging from 1 (*do not agree at all*) to 5 (*agree completely*). For each symptom, participants will check whether they have experienced these symptoms in the past 12 months, in their

lifetime, or if they are currently experiencing these symptoms. Sample symptoms include: depressed mood, racing thoughts, impulsivity, anxiety attacks, change in appetite, and increased irritability. Likert-type items: "I believe the symptoms I marked above are caused by my mental illness," "I am aware that I have a mental illness (psychiatric problems and/or emotional difficulties)," "In thinking about mental illnesses (psychiatric problems and/or emotional difficulties), "I am aware that treatment, such as medication, can reduce how severe symptoms are and how often they occur," and "I believe that some experiences of mental illnesses (psychiatric problems and/or emotional difficulties) may lead to negative social consequences, such as involuntary hospitalization or being arrested." These items were used to assess attribution of symptoms to mental illness status and awareness of mental illness status, benefits of treatment, and social consequences. An insight score was calculated by taking an average of the four items, where higher scores indicate increased insight (AMT ± = .72; Facebook ± = .52)

The Beck Cognitive Insight Scale (BCIS) was used to measure cognitive deficits, as a covariate, among those diagnosed with a mental illness (Beck, Baruch, Balter, Steer, & Warman, 2004). The BCIS includes two subscales that measure self-reflectiveness and self-certainty. The Self-Reflectiveness subscale includes nine items that assess the degree to which a participant thinks introspectively and is willing to accept shortcomings. The Self-Certainty subscale includes six items that assesses a participant's certainty about his or her beliefs or judgments. All items are rated on a 4-point Likert-type scale, ranging from 1 (*do not agree at all*) to 4 (*agree completely*). Both subscales have demonstrated satisfactory internal consistency (Beck et al., 2004). A cognitive insight score was calculated by subtracting the sum score of the self-certainty subscale (AMT ± = .71; Facebook ± = .55) from the sum of the self-reflectiveness subscale (AMT ± = .75; Facebook ± = .66).

Centrality. Centrality was measured with six items that assess how important, or central, the individual feels his or her mental illness status is to the self. The six items are rated on a 7-point Likert-type scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include: “My mental illness is an important reflection of who I am,” “In general, my mental illness is an important part of the way I see myself,” and “My mental illness defines who I am.” These items have demonstrated satisfactory internal consistency in a community sample (± = .81; Quinn et al., 2014). To calculate a centrality score, items were averaged, where higher scores indicate mental illness as more central to the self (AMT ± = .90; Facebook ± = .89).

Valence. The private regard subscale of The Multidimensional Inventory of Black Identity (MIBI) was adapted for mental illness and used to assess valence (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). Private regard, or valence, refers to how a person, either positively or negatively, evaluates his or her group membership or identity and whether they feel positively or negatively toward others with the same group membership or identity. The private regard subscale of The Multidimensional Inventory of Black Identity (MIBI) consists of six Likert-type items that range from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include: “I feel good about other people with my mental illness,” “I am happy with my mental illness,” and “I am proud to be a member of my mental illness group.” The Private Regard subscale of the MIBI has demonstrated satisfactory internal consistency among Black college students (± = .61; Sellers et al., 1997). A valence score was calculated by reverse scoring the necessary items and then computing an average score, such that lower scores indicate more negative valence toward mental illness (AMT ± = .73; Facebook ± = .68).

Social Support. The Multidimensional Scale of Perceived Social Support (MSPSS) was used to assess perceived social support (Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS

consists of 12 items that are rated on a 7-point Likert-type scale which ranges from 1 (*strongly disagree*) to 7 (*strongly agree*). The MSPSS assesses three sources of social support: a significant other's (not specific to romantic partner), family, and friends' support. Sample items include: "My family really tries to help me," "I have friends with whom I can share my joys and sorrows," and "There is a special person who is around when I am in need." The MSPSS has demonstrated satisfactory internal consistency (± = .81-.90) and test-retest reliability (Zimet et al., 1988; Zimet, Powell, Farley, Werkman, & Berkoff, 1990). A perceived social support score was calculated by reverse scoring the necessary items and then averaging the items, such that higher items indicate more perceived social support (AMT ± = .93; Facebook ± = .93).

Self-compassion. The Self-Compassion Scale – Short Form (Raes, Pommier, Neff, & Van Gucht, 2011) is was used to measure self-compassion. The Self-Compassion Scale – Short Form consists of 12 items that are rated on a 5-point Likert-type scale that ranges from 1 (almost never) to 5 (almost always). To assess the three components of self-compassion, The Self-Compassion Scale – Short Form consists of six subscales: self-kindness vs. self-judgment, common humanity vs. isolation, and mindfulness vs. over-identified. The *Self-kindness* subscale contains two items (e.g., "I try to be understanding and patient towards those aspects of my personality I don't like") and the *Self-judgment* subscale contains two items (e.g., "I'm disapproving and judgmental about my own flaws and inadequacies"), which assesses being kind and understanding toward oneself rather than self-critical or judgmental. The *Common Humanity* subscale contains two items (e.g., "I try to see my failings as part of the human condition") and the *Isolation* subscale contains two items (e.g., "When I'm feeling down, I tend to feel like most other people are probably happier than I am"), which assesses the perception of one's experiences and personal failures as part of the human experience rather than seeing these

experiences as separating and isolating. The *Mindfulness* subscale contains two items (e.g., "When something painful happens I try to take a balanced view of the situation") and the *Over-identified* subscale contains two items (e.g., "When I'm feeling down I tend to obsess and fixate on everything that's wrong"), which assesses the ability to be mindful and aware of one's painful thoughts and feelings rather than ruminating, over-identifying, and exaggerating them. Raes and colleagues (2011) report a satisfactory internal consistency for the Self-Compassion Scale – Short Form (± = .86). The overall self-compassion score was computed by reverse scoring the negative subscale items (e.g., self-judgment, isolation, over-identification) and then computing the mean (AMT ± = .89; Facebook ± = .89).

Data Analysis Plan

Prior to analyses addressing the main aim of this project, descriptive statistics and bivariate correlations were conducted for all main study variables. In addition, prior to main study analyses, demographic variables (e.g., age, gender, sexual orientation, race/ethnicity, education level, rurality, mental health, physical health, alcohol use, tobacco use, prescription drug use for non-medical purposes, illegal drug use, health insurance, relationship status, employment status, religious denomination, attendance of religious services, past trauma, mental illness diagnosis, years diagnosed, first time diagnosis, diagnosis comorbidity symptom severity, reoccurrence likelihood, cause of mental illness, medication treatment, psychotherapy treatment, alternative forms of treatment, and cognitive insight) were examined as possible covariates for the main analyses. To assess these demographic variables, a linear regression analysis was conducted for each sample (e.g., AMT and Facebook) separately for both internalized stigma outcomes: the *process* of internalization (e.g., the *Stereotype Self-Concurrence* subscale of the

Self-Stigma of Mental Illness Scale-Short Form [SSMIS-SF]) and the *experience* of internalized stigma (e.g., the Internalized Stigma of Mental Illness Scale [ISMI]).

In order to address the primary study aim of examining the risk and protective factors associated with internalized stigma of mental illness, moderated multiple regression analysis was conducted on both samples. Based on the preliminary analysis mentioned above, necessary covariates were entered into Step 1 of a hierarchical linear regression. To test H1, risk factors (i.e., shame, shame proneness, shame aversion, insight, centrality, and valence) were entered in to Step 2 and protective factors (i.e., self-compassion and social support) were entered in Step 3 of the hierarchical linear regression. Next, in order to test H2 and H3, two interaction terms – shame proneness X shame aversion and centrality X valence – were added to the model hierarchically in Step 4. These interaction terms were created with centered versions of the shame proneness, shame aversion, centrality, and valence variables (these centered variables were also the variables used in testing the main effects in the prior step).

To estimate sample size for both recruitment strategies (e.g., AMT and Facebook), G power (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner, 2007) was used to conduct a statistical power analysis. To conduct a linear multiple regression on the most saturated regression model (tested and total number of predictors was 18), with an = .05 and power = .80, adequate sample size for the model tested was determined to be $N = 150$. Thus, the sample size collected for each method of recruitment (e.g., AMT and Facebook) will be sufficient to ensure statistical power for the data analyses conducted

CHAPTER 3

RESULTS

Amazon Mechanical Turk

Preliminary analyses were conducted to examine which demographic variables (e.g., age, gender, sexual orientation, race/ethnicity, education level, rurality, mental health, physical health, alcohol use, tobacco use, prescription drug use for non-medical purposes, illegal drug use, health insurance, relationship status, employment status, religious denomination, attendance of religious services, past trauma, mental illness diagnosis, years diagnosed, first time diagnosis, number of comorbid diagnoses, symptom severity, reoccurrence likelihood, cause of mental illness, medication treatment, psychotherapy treatment, alternative forms of treatment, and cognitive insight) to include as covariates in main study analyses. A linear regression analysis was conducted for each internalized stigma outcome: the *process* of internalization (e.g., the *Stereotype Self-Concurrence* subscale of the Self-Stigma of Mental Illness Scale-Short Form [SSMIS-SF]) and the subjective *experience* of internalized stigma (e.g., the Internalized Stigma of Mental Illness Scale [ISMI]). The linear regression analysis revealed statistically significant effects of alcohol use, comorbidity rate, and first time diagnosis on the *process* of internalizing mental illness stigma (e.g., the *Stereotype Self-Concurrence* subscale of the SSMIS-SF); therefore, these variables were retained as covariates for the analyses with the *process* of internalizing mental illness stigma as the outcome. The next linear regression analysis revealed statistically significant effects of sexual orientation, trauma experienced, comorbidity rate, symptom severity, first time diagnosis, reoccurrence likelihood, and ADD/ADHD diagnosis on the *experience* of internalized mental illness stigma (e.g., the ISMI); therefore, these variables

were retained as covariates for the all analyses with the *experience* of internalized stigma as the outcome.

In order to address the primary study aim of examining risk and protective factors associated with internalized mental illness stigma (H1, H2, and H3) among the sample collected from AMT, a four step moderated multiple regression analysis was conducted separately for the dependent variables of the *process* of internalization (i.e., the *Stereotype Self-Concurrence* subscale of the SSMIS-SF) and the *experience* of internalized mental illness stigma (i.e., the ISMI). Covariates were entered at Step 1, risk factors (e.g., state shame, shame proneness, shame aversion, insight, centrality, and valence) were entered at Step 2, protective factors were entered at Step 3 (e.g., social support and self-compassion), and the interactive terms (e.g., shame proneness X shame aversion and centrality X valence) were entered at Step 4 of the regression model. To assess multicollinearity among predictor variables, tolerance and variance inflation factor statistics were examined for each regression model; all values were within acceptable range.

Table 3 displays the main (H1) and moderating effects (H2 and H3) of the risk and protective factors on the *process* of internalizing mental illness stigma (e.g., the *Stereotype Self-Concurrence* subscale of the SSMIS-SF). The hierarchical multiple regression revealed that when the risk factors were entered in Step 2 the R^2 change was significant, $F(7, 200) = 12.59$, $p = .00$, with risk factors accounting for 19.1% of variance in the process of internalizing mental illness stigma. When the protective factors were entered in to Step 3 the R^2 change was not significant, $F(2, 198) = 1.22$, $p = .30$, with protective factors accounting for only 0.8% of variance in the process of internalizing mental illness stigma. When the interactive terms were entered in to Step 4 the R^2 change was not significant, $F(3, 195) = 1.535$, $p = .21$, with the

interactive terms accounting for only 1.5% of variance in the process of internalizing mental illness stigma.

Table 3.
Hierarchical Regression Analysis Summary for Variables Explaining Stereotype Self-Concurrence subscale of SSMIS-SF: AMT (n = 215)

Variable	B	SEB	β	95% CI	R^2	” R^2
Model 1					.154	
Alcohol Use	1.51	.46	.21**	.59, 2.42		
Comorbidity	2.10	.53	.26***	1.05, 3.15		
First Time Experience	3.18	1.10	.19**	1.01, 5.35		
Model 2					.345	.191***
Alcohol Use	.98	.42	.14*	.14, 1.81		
Comorbidity	1.11	.52	.14*	.08, 2.14		
First Time Experience	.86	1.05	.05	-1.21, 2.93		
State Shame	.50	.65	.05	-.78, 1.78		
Shame Proneness (PFQ)	-.41	.70	-.04***	.16, .52		
Shame Proneness (TOSCA)	.34	.09	.30	-.24, .04		
Shame Aversion	-.10	.07	-.11	-.12, .05		
Insight	-.04	.04	-.07	-1.79, .97		
Centrality	1.78	.41	.33***	.97, 2.59		
Valence	-.78	.46	-.11	-1.68, .12		
Model 3					.353	.008
Alcohol Use	1.08	.43	.15*	.24, 1.93		
Comorbidity	1.10	.53	.13*	.06, 2.13		
First Time Experience	.71	1.06	.04	-1.37, 2.80		
State Shame	.07	.73	.01	-1.36, 1.50		
Shame Proneness (PFQ-2)	.33	.09	.30***	.15, .51		
Shame Proneness (TOSCA)	-.09	.07	-.10	-.23, .05		
Shame Aversion	-.044	.05	-.07	-.13, .06		
Insight	-.36	.72	-.04	-1.77, 1.05		
Centrality	1.76	.41	.32***	.96, 2.57		
Valence	-.61	.48	-.09	-1.56, .33		
Social Support	-.68	.44	-.11	-1.55, .18		
Self-Compassion	.14	.99	.01	-1.81, 2.09		
Model 4					.368	.015
Alcohol Use	1.12	.43	.15*	.27, 1.96		
Comorbidity	1.07	.54	.13	-.01, 2.14		
First Time Experience	1.01	1.07	.06	-1.11, 3.12		
State Shame	-.05	.73	-.01	-1.49, 1.39		
Shame Proneness (PFQ-2)	.35	.09	.31***	.16, .53		
Shame Proneness (TOSCA)	-.08	.07	-.09	-.22, .06		

Table 3 (continued)				
Shame Aversion	-.04	.05	-.08	-.13, .05
Insight	-.44	.73	-.04	-1.88, 1.00
Centrality	1.80	.42	.33***	.98, 2.62
Table 3 (continued)				
Valence	-.61	.48	-.09	-1.56, .33
Social Support	-.78	.44	-.13	-1.65, .10
Self-Compassion	.23	1.01	.02	-1.76, 2.22
Centrality * Valence	-.13	.27	-.03	-.65, .40
SP (PFQ-2) * SA	-.00	.01	-.06	-.01, .01
SP (TOSCA) * SA	.01	.00	.14	.00, .02
* p <.05, ** p <.01, *** p <.001				

Specifically to test H1, risk and protective factors were examined simultaneously in Step 3. H1 was partially supported: shame proneness (b = .34, *SEB* = .10, p = .00), measured by the PFQ-2, and centrality (b = 1.78, *SEB* = .41, p = .00) were significant predictors of internalized stigma; such that, higher levels of shame proneness and centrality predicted the process of internalized stigma among those diagnosed with a mental illness. Contrary to H1, the other risk factors (e.g., state shame, shame aversion, insight, and valence) and protective factors (e.g., self-compassion and social support) did not predict the internalization of mental illness stigma. To test H2 and H3, interactive terms were examined in Step 4. H2 was not supported: the relationship between centrality and internalized stigma was not moderated by valence. H3 was not support supported: the relationship between shame-proneness (e.g., PFQ-2 or TOSCA-3) and internalized stigma was not moderated by shame aversion.

Table 4 displays the main (H1) and moderating effects (H2 and H3) of the risk and protective factors the *experience* of internalized mental illness stigma (i.e., the ISMI scale). The hierarchical multiple regression revealed that when the risk factors were entered in Step 2 the R^2 change was significant, $F(7, 197) = 40.50$, $p = .00$, with risk factors accounting for 42.0% of variance in the experience of internalized mental illness stigma. When the protective factors were

entered in to Step 3 the R^2 change was significant, F (2, 195) = 5.70, p = .00, with protective factors accounting for only 1.6% of variance in the experience of internalized mental illness stigma. When the interactive terms were entered in to Step 4 the R^2 change was not significant, F (3, 192) = 1.52, p = .21, with the interactive terms accounting for only 0.6% of variance in the experience of internalized mental illness stigma.

Table 4.
Hierarchical Regression Analysis Summary for Variables Explaining ISMI: AMT (n = 215)

Variable	B	SEB	β	95% CI	R^2	” R^2
Model 1					.288	
Sexual Orientation	-.01	.04	-.02	-.09, .067		
Trauma	-.22	.09	-.15*	-.39, -.027		
Comorbidity	.14	.04	.26***	.07, .205		
ADD/ADHD Diagnosis	-.25	.11	-.14*	-.46, .035		
First Time Experience	.15	.07	.13*	.00, .288		
Reoccurrence Likelihood	-.43	.08	-.32***	-.59, -.261		
Model 2					.708	.420***
Sexual Orientation	-.03	.03	-.05	-.09, .02		
Trauma	-.06	.06	-.04	-.18, .05		
Comorbidity	.06	.02	.12*	.02, .11		
ADD/ADHD Diagnosis	-.04	.07	-.02	-.19, .11		
First Time Experience	.02	.05	.01	-.08, .11		
Reoccurrence Likelihood	-.05	.06	-.04	-.18, .07		
State Shame	.09	.03	.15**	.03, .15		
Shame Proneness (PFQ-2)	.02	.00	.32***	.02, .03		
Shame Proneness (TOSCA)	-.00	.00	-.02	-.01, .01		
Shame Aversion	.00	.00	.07	-.00, .01		
Insight	-.01	.03	-.02	-.08, .06		
Centrality	.12	.02	.32***	.08, .16		
Valence	-.14	.02	-.29***	-.18, -.09		
Model 3					.724	.016**
Sexual Orientation	-.04	.03	-.06	-.09, .01		
Trauma	-.05	.06	-.03	-.16, .06		
Comorbidity	.06	.02	.12*	.02, .11		
ADD/ADHD Diagnosis	-.05	.07	-.03	-.19, .10		
First Time Experience	.01	.05	.01	-.09, .10		
Reoccurrence Likelihood	-.05	.06	-.04	-.17, .08		
State Shame	.06	.03	.09	-.01, .12		
Shame Proneness (PFQ-2)	.02	.00	.32***	.02, .03		
Shame Proneness (TOSCA)	-.00	.00	-.01	-.01, .01		
Shame Aversion	.00	.00	.08	-.00, .01		

Table 4 (continued)						
Insight	-.01	.03	-.01	-.07, .06		
Centrality	.12	.02	.32***	.08, .15		
Valence	-.12	.02	-.26***	-.16, -.08		
Social Support	-.07	.02	-.16**	-.10, -.03		
Self-Compassion	.03	.04	.05	-.05, .12		
Table 4 (continued)						
Model 4					.731	.006
Sexual Orientation	-.04	.03	-.07	-.10, .01		
Trauma	-.05	.06	-.04	-.16, .07		
Comorbidity	.06	.02	.11*	.00, .10		
ADD/ADHD Diagnosis	-.03	.07	-.02	-.16, .12		
First Time Experience	.00	.05	.00	-.09, .10		
Reoccurrence Likelihood	-.06	.06	-.05	-.20, .05		
State Shame	.05	.03	.09***	-.01, .12		
Shame Proneness (PFQ-2)	.02	.00	.31	.02, .03		
Shame Proneness (TOSCA)	-.00	.00	-.01	-.01, .01		
Shame Aversion	.00	.00	.08	-.00, .01		
Insight	-.01	.03	-.02***	-.09, .05		
Centrality	.12	.02	.33***	.08, .15		
Valence	-.12	.02	-.25**	-.16, -.07		
Social Support	-.06	.02	-.16	-.10, -.03		
Self-Compassion	.02	.05	.03	-.07, .11		
Centrality * Valence	-.01	.01	-.04	-.04, .01		
SP (PFQ-2) * SA	.00	.00	.03	.00, .00		
SP (TOSCA) * SA	.00	.00	.04	.00, .00		
* p <.05, ** p <.01, *** p <.001						

Specifically to test H1, risk and protective factors were examined simultaneously in Step 3. H1 was partially supported: shame proneness (b = .02, SEB = .00, p = .00), measured by the PFQ-2, centrality (b = .12, SEB = .02, p = .00), valence (b = -.119, SEB = .41, p = .00), and social support (b = -.06, SEB = .02, p = .00) were significant predictors of the experience of internalized stigma; such that higher levels of shame proneness, mental illness as more central to the self, and more negative valence predicted internalization of stigma among those diagnosed with a mental illness, whereas more social support predicted less internalization of mental illness stigma. Contrary to H1, the other risk factors (e.g., state shame, shame aversion, and insight) and protective factors (e.g., self-compassion) did not predict the internalization of mental illness

stigma. To test H2 and H3, interactive terms were examined in Step 4. H2 was not supported: the relationship between centrality and internalized stigma was not moderated by valence. H3 was not supported: the relationship between shame-proneness (e.g., PFQ-2 or TOSCA-3) and internalized stigma was not moderated by shame aversion.

In summary, there were several similarities and differences among risk and protective factors of the *process* and the *experience* of internalized mental illness stigma within the sample collected using AMT. Two risk factors, shame proneness and centrality, predicted the internalization of mental illness stigma across measurements (i.e., *process* and *experience* of internalized mental illness stigma); thus, being more prone to shame and mental illness as more central to the self predicted the *process* and *experience* of internalized mental illness stigma. One risk factor, valence, predicted the internalization of mental illness as measured by the ISMI, but not the *Stereotype Self-Concurrence* subscale of the SSMIS; thus, negative valence predicted the *experience* of mental illness stigma. Additionally, one protective factor, social support, predicted the internalization of mental illness as measured by the ISMI, but not the *Stereotype Self-Concurrence* subscale of the SSMIS; thus, more reported perceived social support predicted the *experience* of mental illness stigma.

Facebook

Preliminary analyses were conducted to examine demographic variables (e.g., age, gender, sexual orientation, race/ethnicity, education level, rurality, mental health, physical health, alcohol use, tobacco use, prescription drug use for non-medical purposes, illegal drug use, health insurance, relationship status, employment status, religious denomination, attendance of religious services, past trauma, mental illness diagnosis, years diagnosed, first time diagnosis, number of comorbid diagnoses, symptom severity, reoccurrence likelihood, cause of mental

illness, medication treatment, psychotherapy treatment, alternative forms of treatment, and cognitive insight) as possible covariates. A linear regression analysis was conducted for each internalized stigma outcome: the *process* of internalization (e.g., the *Stereotype Self-Concurrence* subscale of the Self-Stigma of Mental Illness Scale-Short Form [SSMIS-SF]) and the subjective *experience* of internalized stigma (e.g., the Internalized Stigma of Mental Illness Scale [ISMI]). The linear regression analysis revealed main effects of mental health status and alcohol use on the *process* of internalizing mental illness stigma (e.g., the *Stereotype Self-Concurrence* subscale of the SSMIS-SF); therefore, these variables were retained as covariates for the analyses with the *process* of internalizing mental illness stigma as the outcome. The next linear regression analysis revealed main effects of mental health status and Eating Disorder diagnosis on the *experience* of internalized mental illness stigma (e.g., the ISMI); therefore, these variables were retained as covariates for the all analyses with the *experience* of internalized stigma as the outcome.

In order to address the primary study aim of examining risk and protective factors associated with internalized mental illness stigma (H1, H2, and H3) among the sample collected from Facebook, a four step moderated multiple regression analysis was conducted separately for the dependent variables of the *process* of internalization (i.e., the *Stereotype Self-Concurrence* subscale of the SSMIS-SF) and the experience of internalized mental illness stigma. Covariates were entered at Step 1, risk factors (e.g., state shame, shame proneness, shame aversion, insight, centrality, and valence) were entered at Step 2, protective factors (e.g., social support and self-compassion) were entered at Step 3, and the interactive terms (e.g., shame proneness X shame aversion and centrality X valence) were entered at Step 4 of the regression model. To assess

multicollinearity among predictor variables, tolerance and variance inflation factor statistics were examined for each regression model; all values were within acceptable range.

Table 5 displays the main (H1) and moderating effects (H2 and H3) of the risk and protective factors on the *process* of internalizing mental illness stigma (e.g., the *Stereotype Self-Concurrence* subscale of the SSMIS-SF). The hierarchical multiple regression revealed that when the risk factors were entered in Step 2 the R^2 change was significant, $F(7, 141) = 5.19$, $p = .00$, with risk factors accounting for 16.1% of variance in the process of internalizing mental illness stigma. When the protective factors were entered in to Step 3 the R^2 change was not significant, $F(2, 139) = .50$, $p = .64$, with protective factors accounting for only 0.4% of variance in the process of internalizing mental illness stigma. When the interactive terms were entered in to Step 4 the R^2 change was not significant, $F(3, 136) = .52$, $p = .67$, with the interactive terms accounting for 0.7% of variance in the process of internalizing mental illness stigma.

Table 5.
Hierarchical Regression Analysis Summary for Variables Explaining Stereotype Self-Concurrence subscale of SSMIS-SF: Facebook (n = 153)

Variable	B	SEB	²	95% CI	R^2	” R^2
Model 1					.216	
Mental Health Status	-3.66	.60	-.45***	-4.85, -2.48		
Alcohol Use	1.48	.60	.18*	.30, 2.66		
Model 2					.376	.161***
Mental Health Status	-1.20	.73	-.15	-2.64, .24		
Alcohol Use	1.94	.56	.24*	.84, 3.04		
State Shame	-.06	.80	-.01	-1.64, 1.51		
Shame Proneness (PFQ)	-.02	.10	-.02	-.23, .18		
Shame Proneness (TOSCA)	.02	.08	.03	-.13, .17		
Shame Aversion	.04	.05	.09	-.06, .15		
Insight	.75	1.09	.05	-1.41, 2.92		
Centrality	2.13	.51	.40***	1.13, 3.12		
Valence	-.94	.54	-.12	-2.01, .13		

Table 5 (continued)

Model 3					.380	.004
Mental Health Status	-1.04	.75	-.13	-2.52, .45		
Alcohol Use	1.86	.57	.23**	.73, 2.99		
State Shame	-.21	.85	-.02	-1.90, 1.47		
Shame Proneness (PFQ-2)	-.03	.10	-.03	-.24, .17		
Shame Proneness (TOSCA)	.02	.08	.02	-.13, .17		
Shame Aversion	.01	.07	.01	-.13, .14		

Table 5 (continued)

Insight	.77	1.10	.05	-1.40, 2.94		
Centrality	2.07	.52	.39***	1.05, 3.09		
Valence	-.87	.55	-.12	-1.97, .22		
Social Support	-.14	.48	-.03	-1.09, .80		
Self-Compassion	-1.20	1.42	-.12	-4.01, 1.61		
Model 4					.388	.007
Mental Health Status	-1.15	.77	-.14	-2.67, .37		
Alcohol Use	1.91	.58	.24**	.77, 3.06		
State Shame	-.28	.86	-.03	-1.97, 1.42		
Shame Proneness (PFQ-2)	-.02	.11	-.02	-.23, .19		
Shame Proneness (TOSCA)	.00	.08	.00	-.16, .16		
Shame Aversion	.02	.07	.03	-.12, .15		
Insight	.80	1.16	.06	-1.49, 3.09		
Centrality	2.03	.52	.38***	.99, 3.06		
Valence	-.97	.58	-.13	-2.12, .19		
Social Support	-.07	.49	-.01	-1.04, .91		
Self-Compassion	-1.39	1.47	-.13	-4.30, 1.52		
Centrality * Valence	-.10	.36	-.02	-.82, .62		
SP (PFQ-2) * SA	.01	.01	.10	-.01, .02		
SP (TOSCA) * SA	-.00	.00	-.05	-.01, .01		

* p <.05, ** p <.01, *** p <.001

Specifically to test H1, risk and protective factors were examined simultaneously in Step 3. H1 was partially supported: centrality (b = 2.07, SEB = .52, p = .00) was a significant predictor of internalized stigma;, mental illness as more central to one's identity predicted the process of internalized stigma among those diagnosed with a mental illness. Contrary to H1, the other risk factors (e.g., state shame, shame proneness, shame aversion, insight, and valence) and protective factors (e.g., self-compassion and social support) did not predict the internalization of mental illness stigma. To test H2 and H3, interactive terms were examined in Step 4. H2 was not

supported: the relationship between centrality and internalized stigma was not moderated by valence. H3 was not supported: the relationship between shame-proneness (e.g., PFQ-2 or TOSCA-3) and internalized stigma was not moderate by shame aversion.

Table 6 displays the main (H1) and moderating effects (H2 and H3) of the risk and protective factors the *experience* of internalized mental illness stigma (i.e., the ISMI scale). The hierarchical multiple regression revealed that when the risk factors were entered in Step 2 the R^2 change was significant, $F(7, 142) = 20.66$, $p = .00$, with risk factors accounting for 32.4% of variance in the experience of internalized mental illness stigma. When the protective factors were entered in to Step 3 the R^2 change was significant, $F(2, 140) = 5.47$, $p = .00$, with protective factors accounting for 2.3% of variance in the experience of internalized mental illness stigma. When the interactive terms were entered in to Step 4 the R^2 change was not significant, $F(3, 137) = .141$, $p = .94$, with the interactive terms accounting for only 0.1% of variance in the experience of internalized mental illness stigma.

Table 6.
Hierarchical Regression Analysis Summary for Variables Explaining ISMI: Facebook (n = 153)

Variable	B	SEB	β	95% CI	R^2	” R^2
Model 1					.359	
Mental Health Status	-.28	.04	-.52***	-.35, -.21		
Eating Disorder (ED) Diagnosis	.43	.12	.23**	.19, .68		
Model 2					.682	.324***
Mental Health Status	-.04	.03	-.07	-.10, .03		
ED Diagnosis	.31	.09	.16**	.13, .49		
State Shame	.15	.04	.25***	.08, .22		
Shame Proneness (PFQ)	.01	.01	.12	.00, .02		
Shame Proneness (TOSCA)	.01	.00	.12	-.00, .01		
Shame Aversion	.00	.00	.00	-.01, .01		
Insight	.03	.05	.03	-.07, .13		

Table 6 (continued)						
Centrality	.10	.02	.31***	.06, .15		
Valence	-.14	.03	-.29***	-.19, -.09		
Model 3					.705	.023**
Mental Health Status	-.01	.03	-.02	-.08, .06		
ED Diagnosis	.27	.09	.14**	.09, .45		
State Shame	.10	.04	.17**	.03, .18		
Table 6 (continued)						
Shame Proneness (PFQ-2)	.01	.01	.11	-.00, .02		
Shame Proneness (TOSCA)	.01	.00	.12	.00, .01		
Shame Aversion	-.00	.00	-.05	-.01, .00		
Insight	.04	.05	.04	-.06, .13		
Centrality	.10	.02	.30***	.06, .15		
Valence	-.13	.02	-.27***	-.18, -.08		
Social Support	-.06	.02	-.17**	-.10, -.02		
Self-Compassion	-.06	.06	-.09	-.18, .06		
Model 4					.706	.001
Mental Health Status	-.01	.04	-.02	-.08, .06		
ED Diagnosis	.25	.10	.13**	.06, .44		
State Shame	.10	.04	.17*	.02, .178		
Shame Proneness (PFQ-2)	.01	.01	.11	-.00, .02		
Shame Proneness (TOSCA)	.01	.00	.12	-.00, .0		
Shame Aversion	-.00	.00	-.05	-.01, .00		
Insight	.03	.05	.03	-.07, .13		
Centrality	.10	.02	.30***	.06, .15		
Valence	-.13	.03	-.27***	-.18, -.08		
Social Support	-.06	.02	-.17**	-.10, -.02		
Self-Compassion	-.07	.06	-.10	-.19, .06		
Centrality * Valence	-.00	.02	-.00	-.03, .03		
SP (PFQ-2) * SA	.00	.00	.03	.00, .00		
SP (TOSCA) * SA	.00	.00	.00	.00, .00		
* p <.05, ** p <.01, *** p <.001						

Specifically to test H1, risk and protective factors were examined simultaneously in Step 3. H1 was partially supported: state shame (b = .10, *SEB* = .04, p = .00), centrality (b = .10, *SEB* = .02, p = .00), valence (b = -.13, *SEB* = .02, p = .00), and social support (b = -.06, *SEB* = .02, p = .00) were significant predictors of the *experience* of internalized stigma; such that, higher levels of state shame, mental illness as more central to identity, and more negative valence predicted internalization of stigma among those diagnosed with a mental illness, whereas more

social support predicted less internalization of mental illness stigma. Contrary to H1, the other risk factors (e.g., shame proneness, shame aversion, and insight) and protective factors (e.g., self-compassion) did not predict the internalization of mental illness stigma. To test H2 and H3, interactive terms were examined in Step 4. H2 was not supported: the relationship between centrality and internalized stigma was not moderated by valence. H3 was not supported: the relationship between shame-proneness (e.g., PFQ-2 or TOSCA-3) and internalized stigma was not moderated by shame aversion.

In summary, there were several similarities and differences among risk and protective factors of the *process* and the *experience* of internalized mental illness stigma within the sample collected using Facebook. One risk factor, centrality, predicted the internalization of mental illness stigma across measurements (i.e., *process* and *experience* of internalized mental illness stigma); thus, mental illness as more central to the self predicted the *process* and *experience* of internalized mental illness stigma. Two risk factors, state shame and valence, predicted the internalization of mental illness as measured by the ISMI, but not the *Stereotype Self-Concurrence* subscale of the SSMIS; thus, more shame experiences and negative valence predicted the *experience* of mental illness stigma. Additionally, one protective factor, social support, predicted the internalization of mental illness as measured by the ISMI, but not the *Stereotype Self-Concurrence* subscale of the SSMIS; thus, more reported perceived social support predicted the *experience* of mental illness stigma.

CHAPTER 4

DISCUSSION

People who have been diagnosed with a mental illness are devalued by society (e.g., public stigma) and may believe and apply this societal devaluation to themselves (e.g., internalized mental illness stigma). Internalized mental illness stigma is problematic because it is associated with negative consequences, such as feeling devalued and shameful (Corrigan, 1999), decrements to self-esteem and self-efficacy (Corrigan & Watson, 2002), less treatment adherence (Fung et al., 2008; Sirey et al., 2001), and health disparities (Quinn & Chaudoir, 2009; Stuber et al., 2008). Yet, not all individuals with mental illness internalize stigma and experience these deleterious effects (e.g., Chamberlin, 1998; Corrigan, 2002; Crocker & Major, 1989; Deegan, 1990). The purpose of the current dissertation was to examine risk and protective factors of internalized mental illness stigma in order to better understand the variability in experience. I hypothesized that the risk and protective factors of shame, shame proneness, shame aversion, insight, centrality, valence, perceived social support, and self-compassion would explain variance in internalized stigma (See Figure 1). Additionally, I hypothesized that the valence and shame proneness would moderate the relationship between centrality and internalized stigma. These hypotheses were examined in relation to two measures of internalized stigma, one on the *process* and the other on the *experience* of internalized stigma. Results from two studies (reported separately below as AMT and Facebook) of individuals self-reporting a mental illness indicated partial support for study hypotheses (see Figures 2 and 3).

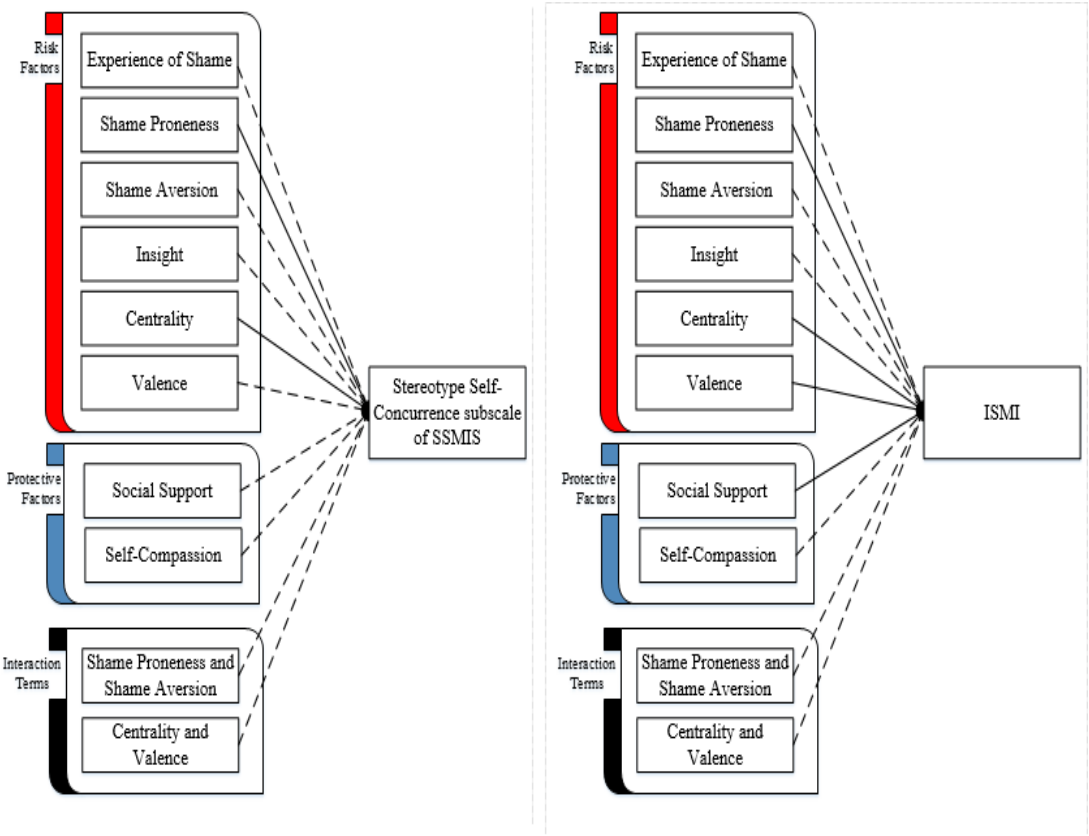

Figure 2: Results of the Moderated Regression Analyses Among Participants Recruited from AMT. Among participants recruited through AMT, findings suggest that more shame proneness and mental illness as more central to the self were significant predicted the process of internalization of mental illness stigma (measured by the *Stereotype Self-Concurrence* subscale of the SSMIS). Among participants recruited through AMT, findings suggest that more shame proneness, mental illness as more central to the self, and negative valence toward mental illness predicted the experience of internalized stigma (measured by the ISMI); whereas, more social support predicted less internalization of mental illness stigma.(Solid lines indicate significant predictors of internalized mental illness stigma, whereas dotted lines represent non-significant relationships between predictors and internalized mental illness stigma.)

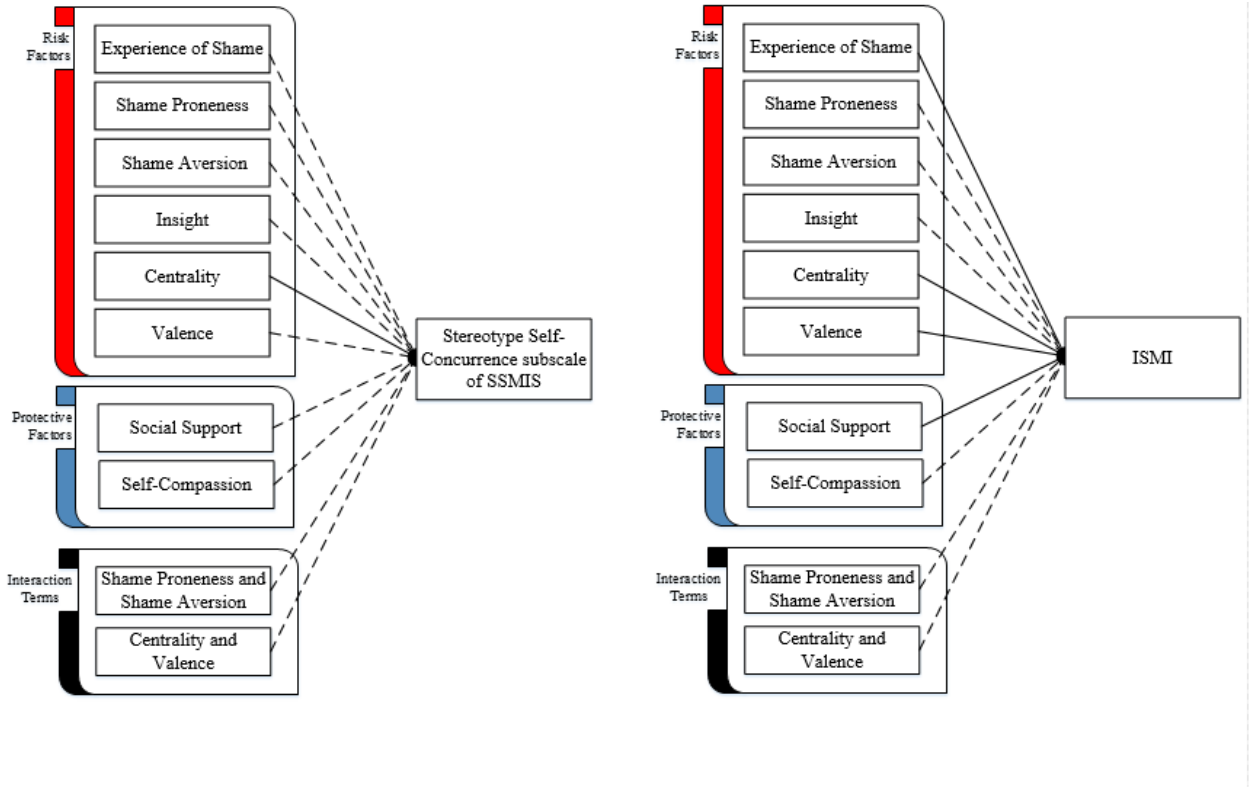

Figure 3: Results of the Moderated Regression Analyses Among Participants Recruited from Facebook. Among the participants recruited from Facebook, mental illness as more central to the self was a significant predictor of process of the internalization of mental illness stigma (measured by the *Stereotype Self-Concurrence* subscale of the SSMIS). Among the participants recruited through Facebook, more state shame, mental illness as more central to the self, and more negative valence predicted the experience of internalized stigma (measured by the ISMI); whereas, more social support predicted less internalization of mental illness stigma. (Solid lines indicate significant predictors of internalized mental illness stigma, whereas dotted lines represent non-significant relationships between predictors and internalized mental illness stigma.)

Among participants recruited from AMT, shame proneness (measured by the PFQ-2) and centrality served as statistically significant risk factors in the process of internalizing mental illness stigma (i.e., *Stereotype Self-Concurrence* subscale of the SSMIS-SF), such that the more prone to experience shame and the more central mental illness is to one's identity, the more participants applied society's devaluation of mental illness to the self. However, the other risk (i.e., state shame, shame aversion, insight, and valence) and protective (i.e., social support and self-compassion) factors did not predict the process of internalizing mental illness stigma.

Similarly, shame proneness (measured by the PFQ-2) and centrality served as statistically significant risk factors in the experience of internalized mental illness stigma (i.e., ISMI). However, unlike results for the process of internalized stigma, valence served as an additional risk factor and social support served as a protective factor of the experience of internalized stigma. In other words, higher levels of shame proneness, mental illness as more central to identity, and more negative valence predicted internalization of stigma among those diagnosed with a mental illness, whereas more social support predicted less internalization of mental illness stigma. Other potential risk (i.e., state shame, shame aversion, and insight) and protective (i.e., self-compassion) factors did not significantly predict the *experience* of internalized mental illness stigma. Additionally, the hypothesized moderating effects (i.e., shame proneness X shame aversion and centrality X valence) were not supported for either the *process* or the *experience* of internalized mental illness stigma.

Among participants recruited from Facebook, centrality served as a statistically significant risk factor in the process of internalizing mental illness stigma (i.e., *Stereotype Self-Concurrence* subscale of the SSMIS-SF), such that the more central mental illness was to the self the more likely participants were to apply society's devaluation of mental illness to the self. However, other potential risk (i.e., state shame, shame proneness, shame aversion, insight, and valence) and protective (i.e., social support and self-compassion) factors did not predict the process of internalizing mental illness stigma. Similar to results for the process of internalizing stigma, centrality was a statistically significant risk factor for the experience of internalized mental illness stigma (i.e., ISMI). However, unlike results for the process of internalizing stigma, state shame and valence served as additional risk factors and social support served as a protective factor for the *experience* of internalized stigma. In other words, higher levels of state shame,

mental illness as more central to identity, and more negative valence predicted internalization of stigma among those diagnosed with a mental illness, whereas more social support predicted less internalization of mental illness stigma. Other risk (i.e., shame proneness, shame aversion, and insight) and protective (i.e., self-compassion) factors did not predict the experience of internalized mental illness stigma. Additionally, the hypothesized moderating effects (i.e., shame proneness X shame aversion and centrality X valence) were not supported for either outcome variable (i.e., the process or the experience of internalized mental illness stigma).

Taking both the AMT and Facebook samples into consideration, the findings suggests that centrality emerged as a consistent risk factor in the internalization of mental illness stigma across samples and measurements, such that mental illness as central to the self was predictive of the process and the experience of internalized mental illness stigma. Although there is limited work on centrality relative to mental illness stigma, these findings support recent literature which suggests that centrality may be linked to negative outcomes among those with a concealable identity, such as mental illness (e.g., Quinn & Chaudoir, 2009). However, for those with a visible stigma (e.g., racial stigma), high centrality serves as a protective factor against psychological distress (e.g., Sellers et al., 2003; Sellers et al., 1998; Yip et al., 2006). The difference between racial stigma and mental illness stigma may be explained by ethnic pride and support from like-others. For example, a person's racial identity may promote pride and community connectedness (e.g., Pasupathi, Wainryb, Twali, 2012), whereas being diagnosed with a mental illness elicits shame without the benefits of social support. Yet, in the context of sexual minority stigma, which also is concealable, centrality has been linked to more positive outcomes and less internalization of stigma (Meyer, 2003). The difference for mental illness stigma may therefore be the lack of an identity-specific community and related support which may limit a person's opportunities to

share experiences, discuss more effective ways to confront and handle stigma, and share ideas on how to address stigma problems (Dudley, 2000). Given that past research examining centrality was in line with the current findings, it is likely that centrality plays an important role in the lives of those who have been diagnosed with a mental illness and this construct may provide an avenue to differentiate people at risk for internalizing mental illness stigma.

Taking both the AMT and Facebook samples into consideration, the findings suggest that valence emerged as a risk factor in the experience of internalized mental illness stigma across samples, such that more negative valence toward one's mental illness identity was predictive of experiencing internalized mental illness stigma. Although there is limited work on valence relative to mental illness stigma, these findings support the racial identity literature which suggests that more negative valence is related to decreased self-esteem and more reported symptoms of depression (Yip et al., 2006). Given that valence may impact internalized stigma, self-esteem, and symptomology of depression, it is possible that changing a person's perspective on mental illness (i.e., shifting a negative valence to a more positive one) may improve the subjective experience of those diagnosed with a mental illness.

Among the sample collected from AMT, shame proneness served as a risk factor for both the process and the experience of internalized mental illness stigma. This finding is in line with the literature examining shame proneness among those diagnosed with a mental illness, such that people who are more prone to shame internalize stigma more readily relative to those who are not prone to shame (Hasson-Ohayon et al., 2012; Rusch et al., 2006). Among the sample collected from Facebook, state shame served as a risk factor for the experience of internalized stigma, but not the process of internalizing mental illness stigma. Although there is little work on internalized stigma as it relates specifically to state shame, the link between shame and mental

illness is well supported, such that those who have been diagnosed with a mental illness report experiencing more shame relative to those not diagnosed with a mental illness (Gilbert, 2000; MacAulay & Cohen, 2014). Moreover, it is unclear why shame proneness was a significant predictor of both measures of internalized stigma for the AMT sample but not for the Facebook sample and why state shame was a significant predictor of the experience of internalized stigma (measured by the ISMI) for the Facebook sample but not for the AMT sample. It is possible that shame proneness was a predictor of internalized mental illness stigma among those recruited from AMT, rather than state shame, because of the anonymity of the recruitment strategy. For example, clicking the link posted on Facebook, a site created to enhance social connections, may have elicited shame among the Facebook sample. If shame was elicited from the Facebook sample because of the nature in which the sample was recruited, it may explain why state shame served as a predictor of the experience of internalized stigma in this sample. Additionally, shame proneness as a predictor of the internalization of mental illness stigma may suggest that a person diagnosed with a mental illness may not need to readily experience shame to be at risk for internalizing stigma; rather, being prone to experiencing shame may increase his or her risk of internalizing mental illness stigma. Whether it be shame proneness or state shame, shame is a fundamental component of stigma which can negatively impact the lives of those who are stigmatized (e.g., Scheff, 1998) and future research should further explore trait and state shame among those diagnosed with a mental illness.

Taking both the AMT and Facebook samples into consideration, the findings suggest that social support emerged as a protective factor in the experience of internalized mental illness stigma across samples, such that more perceived social support mitigated the negative experiences of internalized mental illness stigma. This finding is in line with the literature on

social support among those diagnosed with a mental illness, such that people who report higher levels of social support are less likely to internalize mental illness stigma (Adewuya et al., 2010; Chronister et al., 2013). Moreover, this work also aligns with previous work that has demonstrated the importance of social support in the recovery process for those diagnosed with a mental illness (Albert et al., 1998; Hogan, 2003; Lam & Rosenheck, 1999). Thus, people struggling with a mental illness may be able to harness resilience in the form of social support.

Contrary to the hypotheses, two of the risk factors (e.g., shame aversion and insight) and one protective factor (e.g., self-compassion) were not supported as significant predictors of internalized mental illness stigma in either of the samples. Because the link between these predictors and internalized mental illness stigma has not been demonstrated in prior stigma literature, examining shame aversion and self-compassion was exploratory in nature. Therefore, even though this study did not find evidence for their importance as direct predictors, more research is needed on these constructs in relation to mental illness stigma. The absence of the relationship between insight and internalized mental illness stigma was unexpected because insight has been linked previously to internalized mental illness stigma in the literature, such that, paradoxically, more insight is typically related to more internalization (e.g., Adewuya et al., 2010; Cavelti et al., 2012; Hasson-Ohayon et al., 2012; Lysaker et al., 2007; Mak & Wu, 2006; Norman et al., 2011). One possible explanation for the absence of this relationship is that the current study used an adapted version of The Scale to Assess Unawareness of Mental Disorders (SUMD; Amador et al., 1993) which has not been validated. Because of the low internal validity of the measure created for this dissertation, it is possible that the validity of the adapted version was compromised, such that measurement error could have resulted in an assessment of insight that was not related to internalized mental illness stigma. Future research should examine insight

as a risk factor in the internalization of mental illness stigma, but assess insight with a validated scale to determine the true nature of this relationship. Additionally, it would be beneficial for future researchers to develop an insight scale that is not clinician-reported; however, a self-reported insight scale may be problematic because a person that is experiencing a mental illness may not be able to identify the absence of insight. Another possible explanation for the non-significant effect of insight is that participants overall scored at the upper range of insight. Indeed, the mean level of insight for both the AMT and Facebook samples were 4.10 and 4.48, respectively, on a scale that went to 5.0. It may be that individuals with different types of disorders (e.g., schizophrenia) may have more variability in the amount of insight about mental illness.

Also contrary to the hypotheses, the moderating effects proposed (e.g., shame proneness X shame aversion and centrality X valence) were not significant predictors of internalized mental illness stigma for either sample. Although the proposed moderating effects played a role in previous research examining the psychiatric symptomology reported among those who had been diagnosed with a personality disorder (e.g., Schoenleber & Berenbaum, 2010, 2012) and African American women (e.g., Settles et al., 2010), these effects do not impact internalized mental illness stigma above and beyond the main effects of the risk and protective factors explored in this study. There are several plausible explanations for why these moderating effects were not present. It is possible that the relationship between shame proneness and internalized mental illness stigma was not moderated by shame aversion in the current study because most of the participants in this study reported a mood or anxiety-related diagnosis. For example, individuals with other diagnosis (e.g., schizophrenia) may be more prone and averse to experiencing shame which ultimately may influence internalized stigma differently than demonstrated in the current

dissertation. Future research should explore the relationship between shame proneness, shame aversion, and internalized mental illness stigma among individuals with other diagnoses to examine if differences exist among diagnostic groups. Additionally, although several main effects of centrality and valence emerged, the relationship between centrality and internalized mental illness stigma was not moderate by valence. It is plausible that identity characteristics (e.g., centrality and valence) may work differently among other stigmatized groups, such that higher centrality has been associated with lower levels of psychological distress among racial minorities (e.g., Sellers et al., 2003; Sellers et al., 1998; Yip et al., 2006). Future research should examine how risk and protective factors may vary, not only for other stigmatized conditions (e.g., racial minorities), but also within mental illness diagnoses. Moreover, given that there is limited research relative to internalized stigma and the moderating effects proposed in this dissertation, more research is needed to determine whether these effects are related to the internalization of mental illness stigma.

Within the stigma literature, there is limited work that differentiates between the two measurements of internalized mental illness stigma (e.g., the *Stereotype Self-Concurrence* subscale of the SSMIS-SF and the ISMI). Thus, this aspect of the dissertation was exploratory in nature. Although these measurements are widely used in the literature, an examination of the subscales within each suggests that the two measurements may assesses different aspects of internalized stigma. The *Stereotype Self-Concurrence* subscale of the SSMIS-SF (Corrigan et al., 2006) assesses the process by which public stigma becomes internalized, or applied to the self; whereas the ISMI (Boyd Ritsher et al., 2003) assesses the subjective experience of internalized mental illness stigma (e.g., alienation, stereotype endorsement, discrimination experiences, social withdrawal, and stigma resistance). Across both samples and internalized mental illness

measurements, centrality was the only construct that significantly predicted internalized mental illness stigma. Additionally, valence and social support were significant predictors of the experience of internalized mental illness stigma, but not the process of internalizing across both samples. It is possible that the items included in the *Stereotype Self-Concurrence* subscale of the SSMIS-SF (e.g., "Because I have a mental illness I am dangerous," "Because I have a mental illness I am unable to take care of myself" and "Because I have a mental illness I will not recover or get better") mirror items included in the ISMI ("Mentally ill people tend to be violent," "Because I have a mental illness, I need others to make most decisions for me," and "People with a mental illness cannot live a good, rewarding life"), which may explain why the risk factors that predicted the *Stereotype Self-Concurrence* subscale of the SSMIS-SF, also predicted the ISMI in both samples collected (see Figures 2 and 3). Although the items mentioned above are worded differently in each scale, these items may capture similar aspects of internalized stigma, in that they assess whether a person struggling with a mental illness has applied stereotypes about mental illness to the self. It is important to note, however, that although these items may capture the same component of internalized mental illness stigma (e.g., the "apply" component), each scale also contributes uniquely to the understanding of the complexity that is "internalized mental illness stigma". For example, the SSMIS (Corrigan et al., 2006) captures the cognitive process of internalized stigma, where stereotypes held by the general public eventually are applied to the self, which results in self-esteem decrements. The ISMI (Boyd Ritsher et al., 2003) captures what life is like (i.e., the subjective experience) for those who struggle with a mental illness, which includes being alienated socially, endorsing stereotypes about mental illness, discrimination experiences, withdrawing socially to avoid being rejected, and resisting the negativity associated with mental illness stigma. For researchers and clinicians it is important to

be aware of, understand, and address both components, the cognitive process and the subjective experience, of internalized mental illness stigma.

Overall, the results suggest that risk and protective factors of internalized stigma can be identified among those who self-report a mental illness diagnosis, particularly among those who report mood or anxiety-related diagnoses, but these factors vary slightly based on the measurement of internalized mental illness stigma (e.g., the SSMIS-SF or the ISMI) and the recruitment strategy implemented (e.g., AMT or Facebook). Shame (e.g., state shame or shame proneness depending on the measurement of internalized mental illness stigma), centrality, valence, and social support significantly predicted changes in the internalization of mental illness stigma regardless of the recruitment strategy implemented.

Implications of the Findings

For other stigmatized identities (e.g., racial minorities), high centrality can serve as a protective factor that mitigates negative outcomes; however, the findings of this dissertation are aligned with work that suggests this may not be the same for people with a concealable identity, such as mental illness (Quinn & Chadior, 2009). One possible reason for the difference between visible and concealable identities is the lack of community support surrounding mental illness, which potentially limits a person's ability to connect with others who are also struggling with a mental illness. Thus, for those dealing with a mental illness, high centrality ultimately means internalization of stigma without having the benefits of a supportive social network. One way for clinicians to combat the negative effect of internalized stigma may be to have clients proudly self-identify with their mental illness. For example, Corrigan, Kosyluk, and Rüsch (2013) recently have examined identity characteristics, such as pride and disclosure, as mechanisms to enhance personal empowerment and reduce stigma among people struggling with mental illness.

The “Coming Out Proud” program is aligned with other research which suggests that enhancing personal empowerment, among those diagnosed with a mental illness, may be one strategy to reduce internalized mental illness stigma (Corrigan & Catabrese, 2005). Moreover, the “Coming Out Proud” program is grounded in sexual minority stigma research that suggests disclosing one’s stigmatized status may have beneficial outcomes, such as increased empowerment and self-esteem, while reducing the harm caused by internalized stigma (for further review see, Corrigan et al., 2013). If focusing on identity characteristics improves outcomes for those struggling with a mental illness, then it possible that clinicians can use the “Coming Out Proud” program to promote self-identification and pride surrounding one’s mental illness and ultimately reduce the negative effects of high centrality and negative valence demonstrated in this dissertation. Although the relationship between identity characteristics, mental illness, and stigma is complex, more research is needed to examine how proudly and openly identifying as a person with mental illness influences the lives of those who are struggling with a mental illness. Another potential avenue to reduce internalized mental illness stigma may be for clinicians to suggest that their clients seek support groups pertaining to their mental illness. For example, an individual struggling with mental illness can seek support anonymously through online support groups, such as the National Alliance of Mental Illness (NAMI). NAMI is “the nation’s largest grassroots mental health organization dedicated to building better lives” for people with mental illness (National Alliance for Mental Illness [NAMI], 2014). Moreover, NAMI includes links to mental health-related forums and allows individuals to search for local in-person support groups. Additionally, future mental illness stigma interventions should consider social support as an important aspect of reducing stigma and a means to harness resiliency among those diagnosed

with a mental illness. Indeed, results of this dissertation also highlight the potential protective role of social support in the lives of those with mental illness.

Limitations and Future Directions

Several study limitations should be considered when interpreting the results presented here. Although the directionality of the relationships between predictors (e.g., risk and protective factors) and internalized mental illness stigma are discussed, the cross-sectional nature of the study design does not permit testing the temporal relations. Longitudinal studies are necessary to determine the directionality of the proposed relationships between the risk and protective factors and internalized mental illness stigma and these types of methodological designs should be employed by future research. For example, researchers could collect information about risk/protective factors and internalized mental illness stigma at the onset of illness or first diagnosis, perhaps at an outpatient clinic, and subsequently follow their participants over time to see whether changes in these constructs predict changes in internalized stigma. Additionally, the use of advanced statistical techniques (e.g., Structural Equational Modeling or Hierarchical Linear Modeling) would allow a researcher to assess these types of changes over time and develop a more complex model of how risk and protective factors contribute to the internalization of mental illness stigma.

A second potential limitation of the current study surrounds the recruitment strategies implemented in this dissertation. Within the sample collected through AMT, 29 participants were excluded from main study analyses because of the low quality of data and 23 participants were excluded because they did not complete the necessary scales for main study analyses, which was assessed using the IMC questions (e.g., “Please select on the number “3”. Do not click on any of the other answer choices”). Because individuals recruited through AMT were paid $0.50 to

complete the questionnaire packet (which is the suggested and accepted rate for long AMT survey tasks; Buhrmester et al., 2011), participants may have been motivated to finish the task quickly and move on to another task. One strategy for future research is to conduct a screener questionnaire on AMT to identify those within the population of interest and then pay a higher amount for individuals who meet the necessary criteria to complete the questionnaire packet in its entirety. Within the Facebook sample, there was less of a problem with quality but more attrition, such that 47 participants were excluded from the main study analyses because they did not complete all necessary scales. One possible explanation for the rate of attrition is the length of time it took participants to complete the study survey (e.g., approximately 30 minutes). A difference between AMT and Facebook participants was that those recruited through Facebook were not paid for participation, but rather they had an option to enter a raffle and win monetary prizes. Thus, the length of the survey compiled with little incentive to complete it may have influenced the attrition rate. Additionally, using the "boost" feature to recruit people from Facebook with an interest in mental health may have limited recruitment to high functioning individuals or for whom mental illness is more central to their identity. Future research could still utilize the "boost" feature, but rather than boosting to those with an interest in mental health, boost to all individuals who are 18 years of age and older so the sample is more representative of all individuals who have been diagnosed with a mental illness. Although quality of data and attrition rate are often concerns when enlisting online recruitment strategies, these strategies often must be used when assessing stigmatized populations that can conceal the identity of interest, such as mental illness.

A third limitation of the current study is the homogeneity of the sample relative to mental illness diagnosis; thus, the findings in the current dissertation should be interpreted with caution

when generalizing to individuals with disorders that are not mood and/or anxiety-related. Because most participants in each sample reported a mood-related and/or anxiety-related diagnosis (See Table 1), the internalized mental illness stigma reported (as well as the amount of insight about mental illness, as mentioned previously) may have been impacted. There is limited research that examines level of stigma relative to mental illness diagnosis, but it is plausible that different mental illness diagnoses are accompanied by varying degrees of stigma. For example, a mood-related diagnosis, such as depression, may be more accepted and less devalued by society than a psychotic disorder, such as schizophrenia. Thus, it is possible that the participants recruited for this study may have to navigate less societal devaluation because mood and anxiety-related disorders may be more accepted in our society. Future research examining mental illness stigma should explore the differences among diagnoses, especially considering that risk and protective factors of internalized mental illness stigma may also vary relative to diagnosis.

Conclusion

The current study was the first to simultaneously examine multiple risk and protective factors of internalized mental illness stigma. Results indicated that risk and protective factors of internalized stigma can be identified among those who self-report a mental illness diagnosis, particularly mood and anxiety-related diagnoses, but these factors vary slightly based on the measurement of internalized mental illness stigma (e.g., the SSMIS or the ISMI) and the recruitment strategy implemented (e.g., AMT or Facebook). Aspects of shame (e.g., state shame or shame proneness depending on the measurement of internalized mental illness stigma), centrality, valence, and social support significantly predicted changes in the internalization of mental illness stigma depending on the recruitment strategy implemented and whether the experience or process of internalizing stigma was measured. Contrary to the hypotheses, several

risk (e.g., insight and shame aversion) and protective factors (e.g., self-compassion) did not significantly predict the internalization of mental illness stigma. Moreover, the moderating effects proposed (valence and shame-aversion would moderate the effect of centrality) did not predict changes in the internalization of mental illness stigma. It is possible that the current dissertation may help to differentiate individuals at particular risk for internalization and ultimately to harness resilience for those diagnosed with a mental illness. Future research should replicate the findings of the current study and expand upon the risk and protective factors examined in this work.

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APPENDICES

Appendix A

Participant Demographic Questionnaire

1. How old are you (in years)?

_____

2. Please indicate your gender (choose all that apply).

_____ Female

_____ Male

_____ Transgender Male to Female

_____ Transgender Female to Male

_____ Other (Please indicate) _____

3. Please indicate your sexual orientation.

_____ Heterosexual (straight)

_____ Homosexual (gay, lesbian)

_____ Bisexual

_____ Other (Please indicate) _____

4. What is your primary language?
   _____ English
   _____ Spanish
   _____ Arabic
   _____ Italian
   _____Russian
   _____Korean
   _____German
   _____Vietnamese
   _____French
   _____Portuguese
   _____Chinese
   _____Other (Please Indicate) _____

5. Please indicate your race/ethnicity.

_____ Alaskan Native/Native American

_____ Asian/Asian-American

_____ Black/African-American

_____ Caucasian/White

_____ Hispanic

_____ Pacific Islander

_____ Other (Please indicate) _____

6. Please indicate what kind of area you currently live in.

_____ Urban (over 100,000 residents)

_____ Suburban (10,000-100,000 residents)

_____ Rural (less than 10,000 residents)

7. Please indicate what state you currently live in.

_____

10. Please indicate your level of education.

_____ Some high school, no diploma

_____ High school graduate or GED

_____ Currently enrolled as a college student.

_____ Some college (not currently enrolled), no diploma

_____ Bachelor's Degree

_____ Advanced Degree (Masters, Professional Degree, Doctoral Degree)

11. How would you rate your mental health?

_____ 5 - excellent

_____4 - very good

_____3 – good

_____2 – fair

_____1 - poor

12. How would you rate your physical health?

_____ 5 - excellent

_____4 - very good

_____3 – good

_____2 – fair

_____1 - poor

13. Do you have health insurance?

_____ Yes

_____ No

14. In the past year, how often have you used the following?

a. Alcohol (For men, 5 or more drinks a day. For women, 4 or more drinks a day):
_____Never _____Once or Twice _____Monthly _____Weekly _____Daily or Almost Daily

b. Tobacco products:
_____Never _____Once or Twice _____Monthly _____Weekly _____Daily or Almost Daily

c. Prescription drugs for non-medical reasons:
_____Never _____Once or Twice _____Monthly _____Weekly _____Daily or Almost Daily

d. Illegal Drugs
_____Never _____Once or Twice _____Monthly _____Weekly _____Daily or Almost Daily

15. Please describe your current relationship status.

_____ Single

_____ In a relationship

_____ Cohabitating

_____ Separated

_____ Married

_____ Domestic Partnership

16. Are you currently working a paid job?

_____ Yes

_____ No

17. What is your total annual household income (include total income of all adults living in your household?

_____Less than $25,000
_____$25,000 to $49,999
_____$50,000 to $74,999
_____$75,000 to $99,999
_____$100,000 to $149,999
_____$150,000 or more

18. Please select the number "3". Do not select any of the other answer choices. This is just to screen random clicking.

_____ 1
_____ 2
_____ 3
_____4
_____ 5

19. Including yourself, how many persons are in your household?

_____ One
_____ Two
_____ Three
_____Four
_____ Five or more

20. My religious denomination is…

_____ Protestant (e.g., Baptist, Church of Christ, Lutheran, etc.)

_____ Catholic

_____ Jewish

_____ Muslim

_____ Buddhist

_____ Hindu

_____ I am non-religious

_____ Other (Please indicate) _____

21. How often do you attend religious services?
    a. never/rarely
    b. several times a year
    c. once or twice a month
    d. once a week
    e. more than once a week

22. In your life, have you experienced any emotional, sexual, or physical trauma?

_____ Yes
_____ No

23. In your life, have you experienced a mental disorder/illness, psychiatric problem, or emotional difficulties?

_____ Yes
_____ No

If you answered "yes" to question 14, please answer questions **14A – 15D** (If "no" skip to question 15).

14A. How long did these experiences occur?

_____ Less than a year

_____ 1 – 2 years

_____ 3 – 5 years

_____ 5- 10 years

_____ More than 10 years

14B. Was this the first time you have experienced a mental disorder, psychiatric problem, or emotional difficulties?

_____ Yes
_____ No

14C. How bad or intense would you rate these experiences?

_____ Not at all
_____ Mild
_____ Moderate
_____ Severe
_____ Extreme

14D. Do you believe that these experiences will reoccur (continue to happen)?

_____ Yes
_____ No

24. Have you been diagnosed by a clinician or psychiatrist with a mental disorder/illness (such as, depression, anxiety disorders, PTSD, ADHD, bipolar disorder, OCD, schizophrenia, personality disorders, eating disorders, substance abuse, etc.)?

_____ Yes

If yes, please write the diagnosis?

_____

_____ No

If you answered "yes" to question 15, please answer questions **15A – 15H**.

15A. How long have you been diagnosed?

_____ Less than a year

_____ 1 – 2 years

_____ 3 – 5 years

_____ 5- 10 years

_____ More than 10 years

15B. Was this the first time you have experienced a mental disorder?

_____ Yes
_____ No

15C. How bad or intense would you rate the symptoms associated with the disorder?

_____ Not at all
_____ Mild
_____ Moderate
_____ Severe
_____ Extreme

15D. Do you believe that these experiences will reoccur (continue to happen)?

_____ Yes
_____ No

15E. What do you believe is the cause of your mental disorder? (Open ended)

_____
_____
_____
_____
_____
_____
_____

15F. Are you currently taking medication for your mental disorder/illness?

_____ Yes
_____ No

15G. Are you currently seeing a psychologist or psychiatrist for your mental disorder/illness?

_____ Yes
_____ No

15H. Are you using any alternative form(s) of treatment (such as exercise, meditation, nutritional changes, etc.) for your mental disorder/illness?

_____ Yes

If yes, please write the alternative form(s) of treatment:

_____
_____

_____ No

Appendix B

Self-Stigma of Mental Illness Scale – Short Form (SSMIS – SF)

(Corrigan, Michaels, Vega, Gause, Watson, & Rüsch, 2011)

There are many attitudes about mental illness. We would like to know what you think most of the public as a whole (or most people) believe about these attitudes. Please answer the following items using the 9-point scale below.

I strongly disagree			neither agree nor disagree					I strongly agree	not applicable
1	2	3	4	5	6	7	8	9	N/A

Section 1:

I think the public believes…

1. _____ most persons with mental illness are to blame for their problems.
2. _____ most persons with mental illness are unpredictable.
3. _____ most persons with mental illness will not recover or get better.
4. _____ most persons with mental illness are dangerous.
5. _____ most persons with mental illness are unable to take care of themselves.

Section 2:

Now answer the next 5 items using the agreement scale.

I strongly disagree			neither agree nor disagree					I strongly agree	not applicable
1	2	3	4	5	6	7	8	9	N/A

I think…

1. _____ most persons with mental illness are to blame for their problems.
2. _____ most persons with mental illness are unpredictable.
3. _____ most persons with mental illness will not recover or get better.

4. _____ most persons with mental illness are dangerous.

5. _____ most persons with mental illness are unable to take care of themselves.

Section 3:

Now answer the next 5 items using the agreement scale.

I strongly disagree		neither agree nor disagree				I strongly agree			not applicable
1	2	3	4	5	6	7	8	9	N/A

Because I have a mental illness…

1. _____ I am unable to take care of myself.

2. _____ I will not recover or get better.

3. _____ I am to blame for my problems.

4. _____ I am unpredictable.

5. _____ I am dangerous.

Section 4:

Finally, answer the next 5 items using the agreement scale.

I strongly disagree		neither agree nor disagree				I strongly agree			not applicable
1	2	3	4	5	6	7	8	9	N/A

I currently respect myself less…

1. _____ because I am unable to take care of myself.

2. _____ because I am dangerous.

3. _____ because I am to blame for my problems.

4._____ because I will not recover or get better.

5. _____ because I am unpredictable.

Appendix C

Internalized Stigma of Mental Illness Inventory (ISMI)

(Boyd Ritsher, Otilingam, & Grajales, 2003)

We are going to use the term "mental illness" in the rest of this questionnaire, but please think of it as whatever you feel is the best term for it.

For each question, please mark whether you strongly disagree (1), disagree (2), agree (3), strongly agree (4), or not applicable (N/A).

	Strongly disagree	Disagree	Agree	Strongly agree	Not Applicable
1. I feel out of place in the world because I have a mental illness.	1	2	3	4	N/A
2. Mentally ill people tend to be violent.	1	2	3	4	N/A
3. People discriminate against me because I have a mental illness.	1	2	3	4	N/A
4. I avoid getting close to people who don't have a mental illness to avoid rejection.	1	2	3	4	N/A
5. I am embarrassed or ashamed that I have a mental illness.	1	2	3	4	N/A
6. Mentally ill people shouldn't get married.	1	2	3	4	N/A
7. People with mental illness make important contributions to society.	1	2	3	4	N/A
8. I feel inferior to others who don't have a mental illness.	1	2	3	4	N/A
9. I don't socialize as much as I used to because my mental illness might make me look or behave "weird."	1	2	3	4	N/A
10. People with mental illness cannot live a good, rewarding life.	1	2	3	4	N/A
11. I don't talk about myself much because I don't want to burden others with my mental illness.	1	2	3	4	N/A
12. Negative stereotypes about mental illness keep	1	2	3	4	N/A

	Strongly disagree	Disagree	Agree	Strongly agree	Not Applicable
me isolated from the “normal” world.					
13. Being around people who don’t have a mental illness makes me feel out of place or inadequate.	1	2	3	4	N/A
14. I feel comfortable being seen in public with an obviously mentally ill person.	1	2	3	4	N/A
15. People often patronize me, or treat me like a child, just because I have a mental illness.	1	2	3	4	N/A
16. I am disappointed in myself for having a mental illness.	1	2	3	4	N/A
17. Having a mental illness has spoiled my life.	1	2	3	4	N/A
18. People can tell that I have a mental illness by the way I look.	1	2	3	4	N/A
19. Because I have a mental illness, I need others to make most decisions for me.	1	2	3	4	N/A
20. I stay away from social situations in order to protect my family or friends from embarrassment.	1	2	3	4	N/A
21. People without mental illness could not possibly understand me.	1	2	3	4	N/A
22. People ignore me or take me less seriously just because I have a mental illness.	1	2	3	4	N/A
23. I can’t contribute anything to society because I have a mental illness.	1	2	3	4	N/A
24. Living with mental illness has made me a tough survivor.	1	2	3	4	N/A
25. Nobody would be interested in getting close to me because I have a mental illness.	1	2	3	4	N/A
26. In general, I am able to live my life the way I want to.	1	2	3	4	N/A
27. I can have a good, fulfilling life, despite my mental illness.	1	2	3	4	N/A

	Strongly disagree	Disagree	Agree	Strongly agree	Not Applicable
28. Others think that I can't achieve much in life because I have a mental illness.	1	2	3	4	N/A
29. Stereotypes about the mentally ill apply to me.	1	2	3	4	

Appendix D

Experiential Shame Scale (ESS)

(Turner, 1998)

Please circle the numbers which best describe how you feel right now.

1. Physically. I feel:

Very Warm	1	2	3	4	5	6	7	Very Cool (R)
Normal Heartbeat Heartbeat	1	2	3	4	5	6	7	Rapid
Pale	1	2	3	4	5	6	7	Flushed

2. Emotionally. I feel:

Good	1	2	3	4	5	6	7	Bad
Clear	1	2	3	4	5	6	7	Confused
Content	1	2	3	4	5	6	7	Distressed
Calm	1	2	3	4	5	6	7	Highly Aroused

3. Socially. I feel like:

Hiding	1	2	3	4	5	6	7	Being Sociable (R)
Talking	1	2	3	4	5	6	7	Being Quiet
No one sees me	1	2	3	4	5	6	7	People are looking at me

Please rate the following statement according to how much you disagree or agree with the statement.

1	2	3	4	5	6	7	
Strongly	---->	---->	---->	---->	---->		Strongly
Disagree							Agree

4. I would be willing to discuss my mental illness with an acquaintance right now.

1 2 3 4 5 6 7 (R)

Appendix E

The Personal Feelings Questionnaire 2

(PFQ-2; Harder & Zalma, 1990)

For each of the following listed feelings, to the left of the item number, please place a number from 0 to 4, reflecting how common the feeling is for you.

A “4” means that you experience the feeling continuously or almost continuously.

A “3” means that you experience the feeling frequently but not continuously.

A “2” means that you experience the feeling some of the time.

A “1” means that you experience the feeling rarely

A “0” means that you never experience the feeling

1. Embarrassment _____
2. Mild guilt _____
3. Feeling ridiculous _____
4. Worry about hurting or injuring someone _____
5. Sadness _____
6. Self-conscious _____
7. Intense guilt _____
8. Euphoria _____
9. Feeling “stupid” _____
10. Regret _____
11. Feeling “childish” _____
12. Mild happiness _____
13. Feeling helpless, paralyzed _____
14. Depression _____
15. Feeling of blushing _____
16. Feeling you deserve criticism for what you did _____
17. Feeling laughable _____
18. Rage _____
19. Enjoyment _____
20. Feeling disgusting to others _____
21. Remorse _____

Appendix F
TOSCA-3
(Tangney et al., 2000)

Below are situations that people are likely to encounter in day-to-day life, followed by several common reactions to those situations.

As you read each scenario, try to imagine yourself in that situation. Then indicate how likely you would be to react in each of the ways described. We ask you to rate <u>all</u> responses because people may feel or react more than one way to the same situation, or they may react different ways at different times.

For example:

A. You wake up early one Saturday morning. It is cold and rainy outside.

a) You would telephone a friend to catch up on news. 1---2---3---4---5
not likely very likely

b) You would take the extra time to read the paper. 1---2---3---4---5
not likely very likely

c) You would feel disappointed that it's raining. 1---2---3---4---5
not likely very likely

d) You would wonder why you woke up so early. 1---2---3---4---5
not likely very likely

In the above example, I've rated ALL of the answers by circling a number. I circled a "1" for answer (a) because I wouldn't want to wake up a friend very early on a Saturday morning -- so it's not at all likely that I would do that. I circled a "5" for answer (b) because I almost always read the paper if I have time in the morning (very likely). I circled a "3" for answer (c) because for me it's about half and half. Sometimes I would be disappointed about the rain and sometimes I wouldn't -- it would depend on what I had planned. And I circled a "4" for answer (d) because I would probably wonder why I had awakened so early.

Please do not skip any items -- rate all responses.

1. <u>You make plans to meet a friend for lunch. At 5 o'clock, you realize you stood him up.</u>

a) You would think: "I'm inconsiderate." 1---2---3---4---5
not likely very likely

b) You would think: "Well, they'll understand." 1---2---3---4---5

not likely very likely

c) You'd think you should make it up to him as soon as possible. 1---2---3---4---5 not likely very likely

d) You would think: "My boss distracted me just before lunch." 1---2---3---4---5 not likely very likely

2. <u>You break something at work and then hide it.</u>

a) You would think: "This is making me anxious. I need to either fix it or get someone else to." 1---2---3---4---5 not likely very likely

b) You would think about quitting. 1---2---3---4---5 not likely very likely

c) You would think: "A lot of things aren't made very well these days." 1---2---3---4---5 not likely very likely

d) You would think: "It was only an accident." 1---2---3---4---5 not likely very likely

3. <u>At work, you wait until the last minute to plan a project, and it turns out badly.</u>

a) You would feel incompetent. 1---2---3---4---5 not likely very likely

b) You would think: "There are never enough hours in the day." 1---2---3---4---5 not likely very likely

c) You would feel: "I deserve to be reprimanded for mismanaging the project." 1---2---3---4---5 not likely very likely

d) You would think: "What's done is done." 1---2---3---4---5 not likely very likely

4. <u>You make a mistake at work and find out a co-worker is blamed for the error.</u>

a) You would think the company did not like the co-worker. 1---2---3---4---5 not likely very likely

b) You would think: "Life is not fair." 1---2---3---4---5
not likely very likely

c) You would keep quiet and avoid the co-worker. 1---2---3---4---5
not likely very likely

d) You would feel unhappy and eager to correct the situation. 1---2---3---4---5
not likely very likely

5. While playing around, you throw a ball and it hits your friend in the face.

a) You would feel inadequate that you can't even throw a ball. 1---2---3---4---5
not likely very likely

b) You would think maybe your friend needs more practice at catching. 1---2---3---4---5
not likely very likely

c) You would think: "It was just an accident." 1---2---3---4---5
not likely very likely

d) You would apologize and make sure your friend feels better. 1---2---3---4---5
not likely very likely

6. You are driving down the road, and you hit a small animal.

a) You would think the animal shouldn't have been on the road. 1---2---3---4---5
not likely very likely

b) You would think: "I'm terrible." 1---2---3---4---5
not likely very likely

c) You would feel: "Well, it was an accident." 1---2---3---4---5
not likely very likely

d) You'd feel bad you hadn't been more alert driving down the road. 1---2---3---4---5
not likely very likely

7. You walk out of an exam thinking you did extremely well. Then you find out you did poorly.

a) You would think: "Well, it's just a test." 1---2---3---4---5
not likely very likely

b) You would think: "The instructor doesn't like me." 1---2---3---4---5
not likely very likely

c) You would think: "I should have studied harder." 1---2---3---4---5
not likely very likely

d) You would feel stupid. 1---2---3---4---5
not likely very likely

8. <u>While out with a group of friends, you make fun of a friend who's not there.</u>

a) You would think: "It was all in fun; it's harmless." 1---2---3---4---5
not likely very likely

b) You would feel small...like a rat. 1---2---3---4---5
not likely very likely

c) You would think that perhaps that friend should have been there to defend himself/herself. 1---2---3---4---5
not likely very likely

d) You would apologize and talk about that person's good points. 1---2---3---4---5
not likely very likely

9. <u>You make a big mistake on an important project at work. People were depending on you, and your boss criticizes you.</u>

a) You would think your boss should have been more clear about what was expected of you. 1---2---3---4---5
not likely very likely

b) You would feel like you wanted to hide. 1---2---3---4---5
not likely very likely

c) You would think: "I should have recognized the problem and done a better job." 1---2---3---4---5
not likely very likely

d) You would think: "Well, nobody's perfect." 1---2---3---4---5
not likely very likely

10. <u>You are taking care of your friend's dog while they are on vacation and the dog runs away.</u>

a) You would think, "I am irresponsible and incompetent." 1---2---3---4---5
not likely very likely

b) You would think your friend must not take very good care of their dog or it wouldn't have run 1---2---3---4---5
not likely very likely

away.

c) You would vow to be more careful next time. 1---2---3---4---5
not likely very likely

d) You would think your friend could just get a new dog. 1---2---3---4---5
not likely very likely

11. <u>You attend your co-worker's housewarming party and you spill red wine on their new cream-colored carpet, but you think no one notices.</u>

a) You think your co-worker should have expected some accidents at such a big party. 1---2---3---4---5
not likely very likely

b) You would stay late to help clean up the stain after the party. 1---2---3---4---5
not likely very likely

c) You would wish you were anywhere but at the party. 1---2---3---4---5
not likely very likely

d) You would wonder why your co-worker chose to serve red wine with the new light carpet. 1---2---3---4---5
not likely very likely

Appendix G

The Shame Aversion Reactions Questionnaire

(ShARQ; Schoenleber & Berenbaum, 2010)

Please read the following statements and indicate how much you agree or disagree with each item along the 7-point scale below.

Strongly Disagree *Neither Disagree Nor Agree* *Strongly Agree*

1 ---------- 2 ---------- 3 ---------- 4 ---------- 5 ---------- 6 ---------- 7

_____ 1) It bothers me to think that I might be inferior to others.

_____ 2) I am comfortable acknowledging my imperfections.

_____ 3) I tend to keep away from situations in which I may feel incompetent.

_____ 4) I simply cannot stand to be ridiculed by others.

_____ 5) I am rarely troubled when my own shortcomings are exposed to me.

_____ 6) I can still feel comfortable even if I appear somewhat incompetent.

_____ 7) I am rarely concerned that I will be disgraced in public.

_____ 8) I always try to avoid situations in which I may be ridiculed by others.

_____ 9) It usually doesn't hurt me to feel like I am personally flawed.

_____ 10) I am generally not distressed when my defects are pointed out to me.

_____ 11) Feeling inadequate troubles me more than anything else.

_____ 12) I rarely dwell on how likely it is that I will feel inferior.

_____ 13) I am constantly concerned that I could be humiliated.

_____ 14) The most painful experience for me is when I recognize my own defects.

Appendix H

Adapted version of the Scale to Assess Unawareness of Mental Disorders (SUMD)
(Amador et al., 1993)

Symptom Checklist

Check whether you have experienced the follow symptoms in the past 12 months (P), in your lifetime (L), currently experiencing the symptoms (C), or not applicable (N/A).

1. Depressed mood	____ P	____ L	____ C	____ N/A
2. Racing thoughts	____ P	____ L	____ C	____ N/A
3. Excessive worry	____ P	____ L	____ C	____ N/A
4. Unable to enjoy activities	____ P	____ L	____ C	____ N/A
5. Impulsivity	____ P	____ L	____ C	____ N/A
6. Anxiety attacks	____ P	____ L	____ C	____ N/A
7. Sleep pattern disturbances	____ P	____ L	____ C	____ N/A
8. Increased risky behaviors	____ P	____ L	____ C	____ N/A
9. Avoidance	____ P	____ L	____ C	____ N/A
10. Loss of interest	____ P	____ L	____ C	____ N/A
11. Increased sex drive	____ P	____ L	____ C	____ N/A
12. Hallucinations	____ P	____ L	____ C	____ N/A
13. Concentration/forgetfulness	____ P	____ L	____ C	____ N/A
14. Decreased need to sleep	____ P	____ L	____ C	____ N/A
15. Suspiciousness	____ P	____ L	____ C	____ N/A
16. Change in appetite	____ P	____ L	____ C	____ N/A
17. Excessive energy	____ P	____ L	____ C	____ N/A
18. Excessive guilt	____ P	____ L	____ C	____ N/A
19. Increased irritability	____ P	____ L	____ C	____ N/A
20. Fatigue	____ P	____ L	____ C	____ N/A
21. Crying spells	____ P	____ L	____ C	____ N/A
22. Decreased sex drive	____ P	____ L	____ C	____ N/A
23. Increased risky behavior	____ P	____ L	____ C	____ N/A

Please read the following sentence carefully and indicate how much you agree with each statement by placing an X in the corresponding space in the column next to each statement.

1. I believe the symptoms I marked above are caused by my mental illness.

Do not agree at all Somewhat agree Agree completely

1___ 2___ 3___ 4____ 5____ N/A____

Below is a list of sentences about how people think and feel. Please read each sentence in the list carefully. Indicate how much you agree with each statement by placing an X in the corresponding space in the column next to each statement.

1. I am aware that I have a mental illness (psychiatric problems and/or emotional difficulties).

Do not agree at all Somewhat agree Agree completely

1___ 2___ 3___ 4____ 5____ N/A____

2. In thinking about mental illnesses (psychiatric problems and/or emotional difficulties), I am aware that treatment, such as medication, can reduce how severe symptoms are and how often they occur.

Do not agree at all Somewhat agree Agree completely

1___ 2___ 3___ 4____ 5____ N/A____

3. I believe that some experiences of mental illnesses (psychiatric problems and/or emotional difficulties) may lead to negative social consequences, such as involuntary hospitalization or being arrested.

Do not agree at all Somewhat agree Agree completely

1___ 2___ 3___ 4____ 5____ N/A____

Appendix I

Beck Cognitive Insight Scale (BCIS)
(Beck, Baruch, Balter, Steer, & Warman, 2004)

Below is a list of sentences about how people think and feel. Please read each sentence in the list carefully. Indicate how much you agree with each statement by placing an X in the corresponding space in the column next to each statement.

(1) At times, I have misunderstood other people's attitudes towards me.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(2) My interpretations of my experiences are definitely right.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(3) Other people can understand the cause of my unusual experiences better than I can.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(4) I have jumped to conclusions too fast.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(5) Some of my experiences that have seemed very real may have been due to my imagination.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(6) Some of the ideas I was certain were true turned out to be false.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(7) If something feels right, it means that it is right.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(8) Even though I feel strongly that I am right, I could be wrong.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(9) I know better than anyone else what my problems are.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(10) When people disagree with me, they are generally wrong.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(11) I cannot trust other people's opinion about my experiences.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(12) If somebody points out that my beliefs are wrong, I am willing to consider it.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(13) I can trust my own judgment at all times.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(14) There is often more than one possible explanation for why people act the way they do.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

(15) My unusual experiences may be due to my being extremely upset or stressed.

Do not agree at all	Agree slightly	Agree a lot	Agree completely
1___	2___	3___	4___

Appendix J

Centrality
(Quinn et al., 2014, adapted from the MIBI)

Below is a list of sentences about how people think and feel. Please read each sentence in the list carefully. Indicate how much you agree or disagree with each statement.

Strongly Agree						Strongly Disagree	N/A Not Applicable
1	2	3	4	5	6	7	

1. My mental illness is an important reflection of who I am.

   1 2 3 4 5 6 7 N/A

2. In general, my mental illness is an important part of the way I see myself.

   1 2 3 4 5 6 7 N/A

3. My mental illness defines who I am.

   1 2 3 4 5 6 7 N/A

4. It is impossible to understand me without knowing about my mental illness.

   1 2 3 4 5 6 7 N/A

5. I would be a different person without my mental illness.

   1 2 3 4 5 6 7 N/A

6. My mental illness is a central part of my self-definition.

   1 2 3 4 5 6 7 N/A

Appendix K

The Multidimensional Scale of Perceived Social Support (MSPSS)

(Zimet, Dahlem, Zimlet, & Farley, 1988)

Please answer the following question by picking the most applicable response listed below.

Very Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Very Strongly Agree
1	2	3	4	5	6	7

1. There is a special person who is around when I am in need.
2. There is a special person with who I can share my joys and sorrows.
3. My family really tries to help me.
4. I get the emotional help and support I need from my family.
5. I have a special person who is a real source of comfort for me.
6. My friends really try to help me.
7. I can count on my friends when things go wrong.
8. I can talk about my problems with my family.
9. I have friends with whom I can share my joys and sorrows.
10. There is a special person in my life who cares about my feelings.
11. My family is willing to help me make decisions.
12. I can talk about my problems with my friends.

Appendix L

Self-Compassion
(Neff, 2003a; Neff, 2003b)

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost never				Almost always
1	2	3	4	5

_____1. When I fail at something important to me I become consumed by feelings of inadequacy.
_____2. I try to be understanding and patient towards those aspects of my personality I don't like.
_____3. When something painful happens I try to take a balanced view of the situation.
_____4. When I'm feeling down, I tend to feel like most other people are probably happier than I am.
_____5. I try to see my failings as part of the human condition.
_____6. When I'm going through a very hard time, I give myself the caring and tenderness I need.
_____7. When something upsets me I try to keep my emotions in balance.
_____8. When I fail at something that's important to me, I tend to feel alone in my failure
_____9. When I'm feeling down I tend to obsess and fixate on everything that's wrong.
_____10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
_____11. I'm disapproving and judgmental about my own flaws and inadequacies.
_____12. I'm intolerant and impatient towards those aspects of my personality I don't like.

Appendix M

Valence

Private Regard subscale of the MIBI (Sellers, Rowley, Chavous, Shelton, & Smith, 1997)

Please read the following questions and indicate if you strongly agree or strongly disagree with each statement. (Scale of 1 to 7)

1 2 3 4 5 6 7 N/A
Strongly Disagree Strongly Agree Not Applicable

1) I feel good about other people with my mental illness.
2) I am happy with my mental illness.
3) I feel that people with my mental illness have made major accomplishments and advancements.
4) I often regret my mental illness. (R)
5) I am proud to be a member of my mental illness group.
6) I feel that my mental illness community has made valuable contributions to this society.

Appendix N

Table 7. *Correlations Among Main Study Variables: AMT (n = 212)*

	1	2	3	4	5	6	7	8	9	10	11
1. SSMIS-SF	--	.63**	.32**	.45**	.20**	.28**	.23**	.46**	-.17**	-.27**	-.31**
2. ISMI		--	.56**	.66**	.48**	.57**	.34**	.59**	-.46**	-.49**	-.57**
3. State Shame			--	.47**	.33**	.38**	.22**	.38**	-.30**	-.53**	-.53**
4. PFQ2				--	.46**	.61**	.30**	.38**	-.29**	-.34**	-.57**
5. TOSCA					--	.59**	.22**	.36**	-.32**	-.13*	-.48**
6. Shame Aversion						--	.26**	.42**	-.35**	-.30**	-.68**
7. Insight							--	.50**	.00	-.13*	-.36**
8. Centrality								--	.04	-.21**	-.39**
9. Valence									--	.37**	.44**
10. Social Support										--	.47**
11. Self-Compassion											--

* $p < .05$ ** $p < .01$

Appendix O

Table 8. *Correlations Among Main Study Variables: Facebook (n = 153)*

	1	2	3	4	5	6	7	8	9	10	11
1. SSMIS-SF	--	.53**	.27**	.30**	.27**	.34**	.27**	.53**	-.21**	-.23**	-.44**
2. ISMI		--	.60**	.55**	.44**	.54**	.26**	.61**	-.46**	-.54**	-.62**
3. State Shame			--	.44**	.23**	.44**	.07	.41**	-.32**	-.56**	-.51**
4. PFQ2				--	.54**	.56V	.15	.46V	-.17*	-.31**	-.56**
5. TOSCA					--	.68**	.21*	.35**	-.15	-.16	-.57**
6. Shame Aversion						--	.20*	.46	-.25**	-.29**	-.81**
7. Insight							--	.46**	-.02	-.03	-.22**
8. Centrality								--	-.09	-.26**	-.56**
9. Valence									--	.31**	.25**
10. Social Support										--	.42**
11. Self-Compassion											--

* p < .05 ** p < .01

Appendix P

Table 9. *Regression Analysis Summary for Diagnostic Variables (versus Mood) Explaining Centrality: AMT (n = 215)*

Variable	B	SEB	β	*T*	*p*
Anxiety	.40	.21	.13	1.91	.06
Psychotic	-1.20	.78	-.11	-1.54	.13
ADD/ADHD	.69	.33	.14	2.10	.04
Intellectual/Developmental/Cognitive	-.76	.88	-.06	-.86	.39
Borderline Personality Disorder	.95	.58	.11	1.65	.10
Other Personality Disorders	2.22	.78	.20	2.87	.01
Substance Abuse	.08	.54	.01	.15	.88
Eating Disorders	-.35	.75	-.03	-.46	.65
Other	1.79	1.50	.08	1.20	.23

Appendix Q

Table 10. *Regression Analysis Summary for Diagnostic Variables (versus Mood) Explaining Valence: AMT (n = 215)*

Variable	B	SEB	β	*t*	*p*
Anxiety	-.04	.16	-.02	-.25	.80
Psychotic	-1.07	.61	-.12	-1.77	.08
ADD/ADHD	.72	.25	.20	2.88	.00
Intellectual/Developmental/Cognitive	.28	.69	.09	.41	.68
Borderline Personality Disorder	-.42	.45	-.06	-.95	.34
Other Personality Disorders	.89	.60	.10	1.48	.14
Substance Abuse	-.54	.42	-.09	-1.29	.20
Eating Disorders	-.33	.58	-.04	-.56	.58
Other	-2.06	1.16	-.12	-1.78	.08

Appendix R

Table 11. *Regression Analysis Summary for Diagnostic Variables (versus Mood) Explaining Centrality: Facebook (n = 153)*

Variable	B	SEB	β	*t*	*p*
Anxiety	.16	.25	.05	.64	.52
Psychotic	.72	.54	.12	1.34	.18
ADD/ADHD	.79	.42	.15	1.87	.06
Intellectual/Developmental/Cognitive	3.13	1.45	.17	2.17	.03
Borderline Personality Disorder	.65	.44	.12	1.48	.14
Other Personality Disorders	.35	.84	.03	.41	.68
Substance Abuse	-.53	.62	-.07	-.85	.40
Eating Disorders	.71	.46	.13	1.55	.12
Other	1.15	1.06	.09	1.09	.28

Appendix S

Table 12. *Regression Analysis Summary for Diagnostic Variables (versus Mood) Explaining Valence: Facebook (n = 153)*

Variable	B	SEB	β	*t*	*p*
Anxiety	.09	.18	.04	.52	.60
Psychotic	-.60	.39	-.13	-1.54	.13
ADD/ADHD	.26	.31	.07	.84	.40
Intellectual/Developmental/Cognitive	-2.01	1.05	-.16	-1.91	.06
Borderline Personality Disorder	-.12	.32	-.03	-.36	.72
Other Personality Disorders	-.09	.61	-.01	-.15	.88
Substance Abuse	-.46	.45	-.09	-1.01	.31
Eating Disorders	-.28	.33	-.07	-.83	.41
Other	-1.03	.77	-.11	-1.34	.18

VITA

KATHLEEN A. KLIK

Education:

PhD Psychology, East Tennessee State University, Johnson City, Tennessee 2015

M.S. General Psychology, Morehead State University, Morehead, Kentucky 2012

B.A. Psychology, Emory & Henry College, Emory, Virginia 2008

B.S. Business Administration, Emory & Henry College, Emory, Virginia 2008

Professional Experience:

Graduate Assistant (Psychology Department), East Tennessee State University, Johnson City, Tennessee, 2012 – 2015

Graduate Assistant (Psychology Department), Morehead State University, Morehead, Kentucky, 2009 – 2011

Publications:

Butz, D. A., Klik, K. A., & Plant, A. E. (2013). When do negative response expectancies undermine interracial relations? The role of the Protestant work ethic. *Group Processes & Intergroup Relation,* 1-15.

Honors and Awards:

Graduate and Professional Student Association, Travel Award, 2014

Graduate Student Association in Psychology, Travel Award, 2014

Student Representative at Psychology Department Faculty Meetings, 2013-2014

Graduate Student Association in Psychology, elected Vice President (Experimental Concentration), 2013-2014

Graduate Student Association in Psychology, Travel Award, 2013

Outstanding General/Experimental Graduate Student, Morehead State University, Spring 2011

Graduate Academic and Research Excellence Award, Morehead State University, Fall 2010

Excellence in Research Award, Emory & Henry College, 2008