Stigma Against Mental Illness: The Influence of Empathy, Perspective-taking, Exposure to and Familiarity with Mental Illness

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STIGMA AGAINST MENTAL ILLNESS: THE INFLUENCE OF EMPATHY, PERSPECTIVE-TAKING, EXPOSURE TO AND FAMILIARITY WITH MENTAL ILLNESS

by

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Abstract


Stigma is thought to be the combination of stereotypic beliefs, prejudicial attitudes, and discriminatory actions directed towards a particular group of people. A wide range of negative consequences, ranging from restricted employment and housing opportunities (Manning & White, 1995) to lowered self-esteem and social status (Ritscher, Otilingam, & Grajales, 2003) are associated with stigma. Researchers maintain that people with mental illnesses are among the most stigmatized groups in the world (Hinshaw & Stier, 2008). Though growing efforts to combat stigma against mental illness continue (Sartorius & Schulze, 2005), many researchers claim that public perceptions of mental illness are in fact worsening (Abbey et al., 2011). Despite the numerous studies that have elucidated some characteristics common to a stigmatizing disposition (e.g., Silton, Flannelly, Milstein, & Vaaler, 2011), the field still lacks clear knowledge about which factors or characteristics may be contributing to a less stigmatizing disposition toward the mentally ill. Research indicates that individuals high in interpersonal skills such as empathy and perspective-taking have significantly improved attitudes towards other historically marginalized and oppressed groups (Dovidio, Pagotto, & Hebl, 2011). Other theorists suggest that familiarity with and exposure to mental illness is associated with improved attitudes towards the mentally ill (Steele, Maruyama, & Galynker, 2010). This study investigated whether a participants’ ability to empathize and perspective-take as well as their intimacy with and exposure to mental illness had any influence on their stigma towards mental illness. Data from 299
participants were analyzed using multiple regression procedures. Results indicated that individuals who have some level of intimacy with and exposure to mental illness also tend to have fewer feelings of anxiety when around someone with a mental illness; fewer concerns that mental illness causes troubles for relationships; more positive beliefs about the prognosis of mental illnesses; and more positive beliefs about the appearance and physical self-care of the mentally ill. Empathy and perspective-taking did not uniquely account for a significant amount of the variance in stigma towards mental illness among participants. Implications for the field of counseling psychology, limitations of the study, as well as future directions are discussed.
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Chapter 1

Introduction

Mental illnesses are widespread, costly, incapacitating, and often chronic conditions that can be potentially fatal (WHO, 2001). In the United States alone, the percentage of adults diagnosed with a mental illness within a twelve month period is 26.2%, with a lifetime prevalence rate of 46.4% (Kessler, Chui, Demler, Merikangas, & Walters, 2005). This means that each year one in four adults in the United States is diagnosed with one or more mental disorders. Consequently, the probability of personally knowing or coming into contact with someone with a mental illness is high. Most Americans will likely either personally know, personally experience, or come into contact with an individual with a mental illness at some point in their life. However, this contact unfortunately has not led to positive outcomes.

Historically, public attitudes towards individuals with mental illnesses have been negative and stigmatizing; leading many to avoid, fear, and marginalize persons with mental illnesses (Phelan & Link, 2004; Sears, Pomerantz, Segrist, & Rose, 2011). Not surprisingly, these negative attitudes unduly impact individuals with mental illnesses, leading them to experience difficulties in finding and maintaining employment (Corrigan, Roe, & Tsang, 2011; Satcher, 2000), housing (Corrigan et al., 2011; Page, 1977), and seeking treatment for the mental illness (Bathje & Pryor, 2011; Vogel, Wade, & Hackler, 2007; Wahl, 2012; WHO, 2001). As a result, the stigma associated with having a mental illness can, for many individuals, be more destructive and debilitating than the mental illness itself (Hinshaw & Stier, 2008). Despite efforts to change public perceptions about mental illness (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000; Sartorius & Schulze,
2005), a number of researchers have noted that public attitudes seem to be worsening (Abbe et al., 2011; Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Phelan, Link, Stueve, & Pescosolido, 2000).

It is clear that other groups have suffered from the negative effects of stigmatization. For example, the homeless (Batson et al., 1997), drug addicts (Batson, Chang, Orr, & Rowland, 2002), the obese (Turner & West, 2012), African Americans (Vescio, Sechrist, & Paolucci, 2003), Asians (Shih, Wang, Bucher, & Stotzer, 2009), people with intellectual and/or physical disabilities (Cooney, Jahoda, Gumley, & Knott, 2006; Dovidio, Pagotto, & Hebl, 2011), and individuals with AIDS (Batson et al., 1997), have all suffered from being stigmatized. In an effort to better understand why people are being stigmatized, researchers have begun to explore the particular characteristics of the people who are actually doing the stigmatizing.

Researchers have found that individuals who endorse a narcissistic personality also tend to hold more stigmatizing and prejudicial attitudes in general, with findings indicating a strong positive correlation between the use of narcissistic defenses and the tendency to stigmatize (Kemal, 2005). Additionally, level of education, age, gender, and race (Corrigan & Watson, 2007; Silton, Flannelly, Milstein, & Vaaler, 2011), have all been identified in the literature as variables known to predict prejudice and stigmatizing attitudes towards mental illness. For example, Corrigan and Watson (2007) found that less educated, older, non-white, males tended to endorse more negative attitudes toward individuals with mental disorders. Similarly, Silton et al. (2011) found that individuals who were better educated, younger, and white tended to hold less stigmatizing attitudes towards mental illness.
Other research indicates that those individuals high in interpersonal skills such as empathy and perspective-taking have significantly improved attitudes towards other historically marginalized and oppressed groups like the homeless (Batson et al., 1997), individuals with intellectual and/or physical disabilities (Cooney, Jahoda, Gumley, & Knott, 2006; Dovidio, Pagotto, & Hebl, 2011), drug addicts (Batson, Chang, Orr, & Rowland, 2002), the obese (Turner & West, 2012), African Americans (Vescio, Sechrist, & Paolucci, 2003), Asians (Shih, Wang, Bucher, & Stotzer, 2009), and people with AIDS (Batson et al., 1997). Also, empathy and perspective-taking have been found to increase prosocial behaviors (Bengtsson & Johnson, 1992), cooperation during conflictual dilemmas (Galinsky, Gilin, & Maddux, 2011; Rumble, Van Lange, & Parks, 2010), as well as decrease stereotypic biases in general (Galinsky & Moskowitz, 2000). Empathy and perspective-taking are interpersonal skills characterized by an individual’s ability to set aside their own needs and values in order to consider and affectively connect with another’s perspective and plight, rather than passing judgment based on fixed, rigid, and often incorrect/inaccurate beliefs. In addition, an individual’s familiarity with mental illness (e.g., whether an individual has a mental illness themselves, or has a family member or friend with a mental illness, or is acquainted in some way with someone who has a mental illness) has been found to be inversely related to stigmatizing attitudes towards mental illness (Holmes, Corrigan, Williams, Canar, & Kubiak, 1999; Link & Cullen, 1986; Penn, Guynan, Daily, Spaulding, Garbin, & Sullivan, 1994).

Considering the fact that empathy and perspective-taking have been found to improve attitudes and biases towards other marginalized groups (e.g., the homeless, drug addicts, individuals with AIDS; Batson et al., 1997; Batson, et al., 2002), and that stigma
towards mental illness spawns a variety of negative effects that are often far more debilitating than the illness itself (Hinshaw, 2007; Hinshaw & Stier, 2008), it is relevant to note that no research has specifically investigated how pre-existing levels of dispositional empathy and perspective-taking might influence individual attitudes towards persons with mental illnesses. Further research suggests that familiarity with mental illness is related to less stigma towards the mentally ill. As a result, the proposed study will examine how much of the variance in mental illness stigma can be explained by the interpersonal skills of empathy and perspective-taking after accounting for the variance explained by familiarity with mental illness.

**Stigma against Mental Illness**

While stigma against mental illness has received widespread attention both nationally (Satcher, 2000; Silton et al., 2011) and internationally (Gaebel & Baumann, 2003; Reavley & Jorm, 2011; WHO, 2001), research indicates that public attitudes towards individuals with mental illness are generally negative (Hinshaw, 2007); with a large majority of the population believing that persons with mental illnesses are more dangerous and unpredictable when compared to the general population (Angermeyer & Matschinger, 2005; Arboleda-Florenz, 2003; Crisp et al., 2000).

A number of researchers maintain that individuals with mental illnesses are among the most stigmatized groups in the world (Hinshaw, 2007). Despite growing efforts to reduce the public’s stigmatizing perceptions of mental illness (Beldie et al., 2012; Gaebel & Baumann, 2003; Sartorius & Schulze, 2005), research suggests that public attitudes towards mental illness are worsening (Hinshaw & Stier, 2008; Phelan et al., 2000). For example, an investigation of attitudes towards mental illness in the United
States between the 1950s and 1996 revealed that public perceptions regarding the
dangerousness of individuals with mental illness has steadily increased rather than
decreased over this time (Silton et al., 2011). A similar study conducted in England and
Scotland analyzed trends in public attitudes towards individuals with mental illness
between the years of 1994 and 2003. Results from this study revealed a steady increase
in the public’s stigmatizing attitudes towards mental illness, particularly between the
years 2000 and 2003 (Mehta, Kassam, Leese, Butler, & Thornicroft, 2009). A number of
researchers suggest that this rise in the public’s stigmatizing attitudes towards mental
illness may be due in large part to the media’s negative depiction of mental illness (e.g.,
Benbow, 2012; Klin & Lemish, 2008; Nawkova et al., 2012).

For example, Nawkova et al. (2012) analyzed 450 articles pertaining to mental
illness that were published in widely read newspapers and magazines in 2007. According
to these authors, more than half of the articles included negative statements suggesting
stigma towards individuals with mental illness. The depiction of mental illness by the
media as being negative is common (Benbow, 2012) and has been posited to be a major
contributor to the perpetuation of the public’s stigmatization of mental illness (Benbow,

The negative effects of stigma on the stigmatized individual or group are well
documented (Corrigan & Shapiro, 2010; Corrigan & Wassel, 2008; Overton & Medina,
2008; Satcher, 2000). For example, the United States Surgeon General’s Report on
Mental Health (Satcher, 2000) points out a number of deleterious effects stigma against
mental illness has on the stigmatized individual. This report states that stigma against
mental illness can lead to people actively avoiding social situations that involve
interacting with individuals who have a mental illness, employing or working with an individual with a mental illness, or renting to or living near persons who have a mental illness (Satcher, 2000). Consequently, stigma against mental illness impacts individual’s with mental illness in a number of deleterious ways.

For example, just as stigma against mental illness can lead certain people to actively avoid social situations that involve interacting with individuals who have a mental illness (Satcher, 2000), stigma against mental illness can also lead some individuals with mental illness to minimize their exposure to social situations in an effort to avoid any further stigma or punishment (Dinos, Stevens, Serafty, Weich, & King, 2004; Socall & Holtgrave, 1992). As a result, many individuals with mental illness express difficulty maintaining social connection and intimate relationships (Dinos et al., 2004; Jones et al., 1984; Socall & Holtgrave, 1992). Additionally, stigma against mental illness impacts individuals with mental illness as it circumscribes the employment (Farina & Felner, 1973; Manning & White, 1995) and housing options and opportunities available to them (Corrigan, Roe, & Tsang, 2011; Dinos et al., 2004).

Research investigating the general effects of stigma on those stigmatized revealed that stigma negatively impacts self-esteem, social networks, and social status (Link, Mirotznik, & Cullen, 1991; Ritscher, Ottingam, & Grajales, 2003). In addition to these general effects, there are also specific effects that stigma has on individuals with mental illness. For example, Dickerson, Sommerville, Origoni, Ringel, and Parente (2002) interviewed 74 individuals with mental illness to ascertain whether or not stigma against mental illness has influenced them in anyway. Results from these interviews indicated that 70% of the participants expressed worry about being viewed unfavorably as a result
of their mental illness, 55% shared that they have been the target of offensive statements, and 58% of the participants expressed that they actively avoid sharing their diagnosis with others (Dickerson et al., 2002).

Additionally, a large body of research suggests that stigma against mental illness is a significant barrier to mental health treatment (Corrigan & Wassel, 2008; Overton & Medina, 2008), as 50 to 75% of those individuals who suffer from a mental illness that may benefit from mental health services, do not receive or seek out treatment or help for their condition (Corrigan & Shapiro, 2010). This view has been echoed by the U.S. Surgeon General who identified stigma as being one of the key reasons for the underutilization of treatment for mental health (Satcher, 2000). As a result, stigmatization of mental illness deprives individuals with mental illnesses from fully participating in society (Dickerson et al., 2002; Hinshaw, 2007), from seeking counseling and treatment for fear of further reprisals (Corrigan & Wassel, 2008; Overton & Medina, 2008), and ultimately undermines their quality of life (Hinshaw, 2007).

The propensity to attribute fixed, rigid, and often incorrect/inaccurate beliefs to individuals from out-groups/devalued groups is known as stereotyping (Kanahara, 2006). This, coupled with prejudice and discrimination, are thought to be the key components comprising stigma (Himshaw & Stier, 2008). Prejudice, or the negative affect that is activated by stereotypes of individuals, leads to discriminatory actions. As such, discrimination is a behavioral response to individuals or stigmatized groups that limits or restricts their rights and other life opportunities (Thornicroft & Kassam, 2008). Therefore, stigma can be defined as the categorizing/labeling of individuals based on rigid and often inaccurate information or beliefs (stereotypes), the negative emotional
affect that accompanies the stereotype (prejudice), and the devaluing, rejection, and curtailing of the rights of the stigmatized group (discrimination). A 2001 report issued by the World Health Organization (WHO) defined stigma as a “mark of shame, disgrace or disapproval which results in an individual being rejected, discriminated against, and excluded from participating in a number of different areas of society” (p. 16).

In addition to the harmful effects that public stigma has on individuals with mental illness, Goffman (1963) highlighted that individuals with mental illness often internalize these negative attitudes, resulting in a type of internalized stigma termed ‘self-stigma.’ In his theory of stigma, Goffman (1963) divided the stigmatized into two categories: those who have identities that are discredited, and those who have identities that are discreditable. Goffman (1963) argued that for those whose identities are discredited, the “identifying mark or characteristic” is obvious and easy to detect, as is the case of a person’s skin color or a physical disability; whereas for those whose identities are discreditable, this “identifying mark or characteristic” is less obvious and more easily concealed, as is the case with mental illness.

According to Goffman and other theorists (e.g., Hinshaw, 2007; Link et al., 1999), those who have identities that are discreditable (e.g., the stigma is “invisible” or concealable) are at higher risk for internalizing these negative perceptions, and thus tend to exert an enormous amount of energy in an effort to hide any symptoms that may identify them. Hinshaw and Stier (2008) argue that this state of constant vigilance and allocation of cognitive resources aimed to suppress any mental illness symptomology is often more debilitating than the mental illness itself. Link et al. (1999) further add that the self-stigma associated with the public stigma of mental illness often results in feelings
of shame, devaluation, and lower levels of self-esteem. Thus it is understandable why many individuals with mental illness remain secret about their illness and become more socially withdrawn in order to avoid any further reprisals. However, this understandable reaction to stigma often leads individuals with mental illness to miss out on the support and treatment that might actually be available to them (Bathje & Pryor, 2011; Vogel, et al., 2007; Wahl, 2012; WHO, 2001).

In terms of the instrumentation designed to assess attitudes towards mental illness, Day, Edgren, and Eshleman (2007) point out that researchers have generally utilized vignettes and social distancing scales to investigate levels of stigma in the general public (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Phelan, Link, Stueve, & Pescosolido, 2000). Additionally, some researchers have utilized Likert-type scales to assess stigma towards mental illness (Antonak & Livneh, 1988; Taylor & Dear, 1981), yet the construction of these scales have not been guided by research on stigma (Day, Edgren, & Eshleman, 2007). As a result, Day et al. (2007) developed the Mental Illness Stigma Scale (MISS) using the extant research on stigma to construct a scale that assesses the underlying factors that contribute to stigma against mental illness. In determining which factors to include in the MISS scale, Day et al. (2007) utilized Jones et al.’s (1984) theory of stigma to guide their decisions.

According to Jones et al. (1984), stigma is generally comprised of six common dimensions: concealability (e.g., whether or not the identities are discredited or discreditable); course (e.g., how the illness will evolve over time); disruptiveness (e.g., how debilitating the illness is in terms of activities of daily living); aesthetic qualities (e.g., whether characteristics or symptoms of the illness are pleasant or unpleasant);
origin (e.g., the origin and cause of the illness); and peril (e.g., the lethality of the illness both for the afflicted and for others). After conducting a factor analysis on 68 items developed using Jones et al.’s (1984) six common dimensions, seven main attitude dimensions were revealed, resulting in a 28-item scale. The seven main attitude dimensions assessed by the MISS are: interpersonal anxiety, relationship disruption, poor hygiene, visibility, treatability, professional efficacy, and recovery.

Despite the growing trend towards an increase in the public’s stigma against mental illness (Mehta et al., 2009; Silton et al., 2011), not all individuals hold stigmatizing attitudes towards individuals with mental illness (Batson et al., 1997; Batson et al., 2002). For example, Corrigan, Edwards, Green, Diwan, and Penn (2001) found that an individual’s familiarity with mental illness had an inverse relationship with stigma against mental illness in general—with those participants reporting greater familiarity with mental illness also tending to elect for less social distance when responding to a vignette about a person with mental illness. Similar results have been reported by other researchers (e.g., Holmes et al., 1999; Link & Cullen, 1986; Penn et al., 1994), thereby making this a robust finding throughout the literature on stigma against mental illness.

However, to date it has been difficult to find any research investigating other factors that may contribute to a non-stigmatizing attitude towards individuals with mental illness. Interpersonal skills may aid in elucidating which factors could help reduce the stigma of mental health, as some interpersonal skills such as empathy and perspective-taking have been shown to significantly improve attitudes towards other historically marginalized and oppressed groups (Batson et al., 1997; Batson et al., 2002; Shih et al., 2009); as well as decrease stereotypic biases in general (Galinsky & Moskowitz, 2000).
Empathy

Empathy is defined as “the ability to understand, predict, experience, and relate to others behaviors, feelings, attitudes, and intentions” (Losoya & Eisenberg, 2001, p. 21). Additionally, Davis (1983) highlights that empathy involves a strong affective component that includes feelings of warmth, concern, and compassion for others—especially in circumstances where others are in distress. Therefore, empathy allows the individual to consider and affectively connect with the experience of others (especially in distress) from a perspective of warmth and concern. As an interpersonal skill, empathy allows the individual to affectively connect with others in the environment and is an essential component to building and maintaining healthy relationships (Yalom, 2005).

Accordingly, empathy has been found to correlate with lower levels of prejudice and racism (Backstrom & Bjorklund, 2007; Finlay & Stephan, 2000), lower levels of aggression towards others (Miller & Eisenberg, 1988), a higher willingness to forgive others (McCullough, Worthington, & Rachal, 1997), a greater propensity for valuing another person’s welfare (Batson, Turk, Shaw, & Klein, 1995; Eisenberg, Spinard & Sadovsky, 2006), an increase in prosocial behaviors (Bengtsson & Johnson, 1992), a tendency towards cooperation during conflictual dilemmas (Galinsky et al., 2011; Rumble et al., 2010), and improved attitudes towards stigmatized out-groups (Batson et al., 1997).

As such, empathy is a variable of interest in attempting to better understand which factors contribute to a non-stigmatizing disposition. Considering that empathy has been found to improve attitudes towards other stigmatized groups (Batson et al., 1997), it follows that empathy may also be related to more positive attitudes towards individuals
with mental illness. However, it appears that no research to date has investigated whether or not empathy is related to more positive attitudes towards individuals with mental illness.

**Perspective-Taking**

Perspective-taking, on the other hand, has been defined as the “ability and propensity to contemplate other’s psychological experiences” (Todd, Bodenhausen, & Galinsky, 2012). As an interpersonal skill, perspective-taking seems to be the cognitive counterpart to empathy, as research suggest that perspective-taking often leads individuals to affectively connect (i.e., empathize) with another’s circumstance (Chambers & Davis, 2012; Galinsky & Ku, 2004; Galinsky & Moskowitz, 2000). In explaining this connection, researchers suggest that perspective-taking (i.e., contemplating an out-group member’s mental state and life circumstance) leads people to identify more strongly with that out-group member’s group as a whole, thereby imparting a sense of psychological connectedness between the perspective-taker and out-group member (Galinsky, Ku, & Wang, 2005).

As such, perspective-taking has been found to reduce common stereotypes (Galinsky & Moskowitz, 2000; Todd, Bodenhausen, & Galinsky, 2012), reduce intergroup prejudice (Todd, Bodenhausen, Richeson, & Galinsky, 2011), and increase positive evaluations of stigmatized groups (Batson et al., 1997; Dovidio et al., 2004). As such, perspective-taking is a variable of interest in attempting to better understand which factors contribute to a non-stigmatizing disposition. Considering that perspective-taking has been found to improve attitudes towards other stigmatized groups (Batson et al., 1997; Dovidio et al., 2004), it logically follows that perspective-taking may also improve
attitudes towards individuals with mental illness. However, it appears that no research to date has investigated whether or not perspective-taking is related to more positive attitudes towards individuals with mental illness.

**Familiarity with Mental Illness**

A number of researchers (e.g., Holmes et al., 1999; Link & Cullen, 1986; Penn et al., 1994) contend that individuals who have more familiarity with mental illness tend to endorse less stigmatizing attitudes towards the mentally ill. Corrigan et al. (2001) define familiarity with mental illness as “knowledge of and experience with mental illness” (p. 220). As such, an individual’s knowledge of and experience with mental illness may vary widely from little or minimal knowledge and experience (as is often the case with media exposure), to a great deal of knowledge and experience (as is often the case with having a relative or friend with a mental illness, or personally having a mental illness).

In a study designed to assess the influence that individual experience with mental illness has on participants perceptions regarding the dangerousness of a fictitious person with mental illness described in a vignette, Link and Cullen (1986) found that participant’s self-reported experience of personal contact with individuals with mental illness correlated with lower ratings of perceived dangerousness. This finding was later replicated by Penn et al., 1994, indicating that familiarity and experience with mental illness is robust indicator of a less stigmatizing disposition towards mental illness in general. In this way, the degree of familiarity with mental illness is an important variable in predicting prejudicial attitudes about mental illness (Corrigan et al., 2001).
As a result, the present study will examine how much of the variance in mental illness stigma can be explained by the interpersonal skills of empathy and perspective-taking after controlling for the influence of participant familiarity with mental illness.

**Research Questions**

Based on the rationale provided above, the following research questions and hypotheses were generated:

1. Are there significant group differences between participants that have familiarity with mental illness and those who do not have familiarity with mental illness on their dispositional level of empathy, perspective-taking, and stigma towards mental illness?

2. How much of the variance in the MISS attitude dimension ‘interpersonal anxiety’ (i.e., feelings of anxiety, nervousness, uneasiness, and fear of physical harm when around someone with a mental illness) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

3. How much of the variance in the MISS attitude dimension ‘relationship disruption’ (i.e., concerns that mental illness causes disruptions to normal and meaningful relationships) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

4. How much of the variance in the MISS attitude dimension ‘poor hygiene’ (i.e., negative beliefs about the appearance and physical self-care of the mentally ill) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?
5. How much of the variance in the MISS attitude dimension ‘visibility’ (i.e., beliefs about one’s ability to recognize the symptoms of mental illness in others) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

6. How much of the variance in the MISS attitude dimension ‘treatability’ (i.e., reflects beliefs about the prognosis of mental illness- that is, how treatable a mental illness is) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

7. How much of the variance in the MISS attitude dimension ‘professional efficacy’ (i.e., beliefs about the efficacy of mental health professionals in treating mental illness) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

8. How much of the variance in the MISS attitude dimension ‘recovery’ (i.e., beliefs about the potential for recovery from mental illness- that is, beliefs about whether or not a mental illness can go into full remission or not) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?
Chapter 2

Literature Review

According to the World Health Organization (2001), mental illness is an omnipresent problem, yearly affecting 450 million people worldwide. In the United States alone, one in four adults meet the criteria for a mental illness diagnosis each year (Kessler et al., 2005). As a result, it is not surprising that throughout one’s lifetime it is highly likely that one will either personally encounter or hear/read about an individual with a mental illness. Additionally, there is a one in four possibility that an individual will develop some form of a mental illness in their lifetime. Therefore, it is highly probable that most individuals will have some experience with mental illness at some point in their lives. Despite the widespread prevalence of mental illness, beliefs about and reactions to the mentally ill are generally negative (Phelan & Link, 2004; Sears et al., 2011), with research revealing that stigma towards mental illness is both a national (Satcher, 2000; Silton et al., 2011) and an international problem (Barke, Nyarko, & Klecha, 2011; Gaebel & Baumann, 2003; Reavley & Jorm, 2011; WHO, 2001).

Hinshaw and Stier (2008) point out that stigma is comprised of three separate yet interconnected components: stereotypes, prejudices, and discrimination. According to Hinshaw and Stier, stereotypes involve making attributions and generalizations about an individual or group based on beliefs that are often incorrect and dehumanizing. Stereotypes are the cognitive component of stigma because they help individuals quickly categorize others into groups based on a certain belief or attribute. This quick categorization (e.g., cognitive short-cut) allows the individual to also predict another’s actions and behaviors based on their membership in the group that they have been
ascribed to (Thornicroft & Kassam, 2008). However, once a stereotype takes on an affective valence (i.e., the stereotype is no longer just a means to quickly categorize, but rather an emotional response to a group/person that is value-laden), it becomes a prejudice. Corrigan et al. (2011) maintain that “agreeing with stereotypes is the definition of prejudice” (p. 29). Prejudices, in turn, impact an individual’s behavior, which results in discrimination, or the behavioral response to members of stigmatized groups that systematically circumscribes their rights and life opportunities (Thornicroft & Kassam, 2008). In terms of stigma towards mental illness specifically, a number of researchers maintain that individuals with mental illnesses are among the most stigmatized groups in the world (Hinshaw, 2007). Therefore, the impact of stigma on individuals with mental illness may be more pronounced than for other historically stigmatized groups of individuals.

Despite growing efforts to combat the stigma against mental illness (e.g., Beldie et al., 2012; Chan, Mak, & Law, 2009; Kakuma et al., 2010), research indicates that negative public attitudes towards mental illness are steadily increasing rather than decreasing (Hinshaw & Stier, 2008; Phelan et al., 2000). The impact of stigma on those with mental illness is well documented throughout the literature, with studies suggesting that stigma of mental illness leads to decreased self-esteem, social networks, and social status for those stigmatized (Link et al., 1991; Ritshcer et al., 2003). As a result of this stigma, individuals with mental illness experience greater difficulties in finding gainful employment (Corrigan et al., 2011; Dinos et al., 2004; Satcher, 2000), adequate housing (Corrigan et al., 2011; Dinos et al., 2004), and appropriate treatment services (Bathje & Pryor, 2011; Vogel et al., 2007; Wahl, 2012).
However, research suggests that not all individuals hold stigmatizing views towards mental illness, as findings point out that people who have familiarity with mental illness also tend to hold less stigmatizing attitudes towards the mentally ill (Corrigan et al., 2001). Additionally, individuals who are dispositionally high in interpersonal skills such as empathy and perspective-taking tend to have significantly improved attitudes towards other historically stigmatized groups like the homeless (Batson et al., 1997), drug addicts (Batson et al., 2002), and individuals with AIDS (Batson et al., 1997). Moreover, empathy and perspective-taking have been found to increase collaboration during conflict resolution (Galinsky et al., 2011), as well as decrease stereotypic biases in general (Galinsky & Moskowitz, 2000). Characteristic of empathy and perspective-taking is the ability to set aside one’s own needs and values in order to consider and affectively connect with another’s needs and values, rather than making judgments based on fixed, inflexible, and often incorrect/inaccurate beliefs.

Considering that empathy and perspective-taking have been found to improve attitudes and biases towards other stigmatized groups (Batson et al., 1997; Batson et al., 2002), it is conceivable that empathy and perspective-taking may also improve attitudes towards mental illness, another stigmatized group. Moreover, given that stigma towards mental illness generates a variety of deleterious effects that are often far more destructive than the mental illness itself (Hinshaw, 2007; Hinshaw & Stier, 2008), it is relevant to note that current research has not focused on the relationship between empathy and perspective-taking in regards to mental illness stigma. This chapter will describe the literature on the present state of stigma against mental illness, empathy, perspective-taking, and familiarity with mental illness.
The Stigma of Mental Illness

A number of authors (Goffman, 1963; Jones et al., 1984) refer to stigma as a “mark” which serves to brand an individual as different, abnormal, or deviant in some way. Jones et al. (1984) point out that the stigmatized “mark” may or may not be physical, adding that “it may be embedded in behavior, biography, ancestry, or group membership” (p. 6). As such, stigma has been defined as a mark that is deeply discrediting while also generating negative and often aggressive/hostile reactions from the general public (Goffman, 1963). Using Goffman’s (1963) definition, for stigma to occur, some sort of a ‘mark’ or attribute must be present that the majority of the public concedes to be negative, shameful, or abnormal. Such an attribute or mark can be easily detected, as is the case with physical disabilities, drug addiction, and race. Goffman (1963) argued that individuals with an obvious stigmatized attribute (e.g., skin color, physical disability, etc.) have identities that are “discredited.” According to Goffman (1963), an individual with a “discredited” identity is an individual who might have otherwise been accepted/received in everyday social interactions without prejudice or discrimination; however, because they possess an obvious trait or characteristic that is socially determined to be abnormal or undesirable (e.g., skin color, physical disability, etc.) they are instead stigmatized and discriminated against. For these individuals, all aspects of their identities are thus “discredited” by society at large because of the stigmatizing “mark” they bear.

However, such an obvious ‘mark’ or attribute need not be present for an individual to be stigmatized, as is the case of mental illness. For these individuals, Goffman (1963) asserts that their identities are “discreditable;” that is, the attributes are
concealable and have yet to be discredited. Goffman (1963) illustrates this point in the following passage: “… for the ex-mental patient [i.e., someone who at some point has been diagnosed with a mental illness] the problem can be quite different… he must face unwitting acceptance of himself by individuals who are prejudiced against persons of the kind he can be revealed to be. Wherever he goes his behavior will falsely confirm for the other that they are in good company of what in effect they demand but may discover they haven’t obtained, namely, a mentally untainted person like themselves” (p. 42).

Common “Cues” Associated With Mental Illness

Due to the fact that “discreditable identities” are concealable, and thus not readily apparent, various theorists point out that the general public must infer the ‘mark’ of mental illness from a number of “common cues” which are frequently associated with mental illness (Corrigan & Kleinlein, 2005; Jones et al., 1984). Corrigan and Kleinlein (2005) describe four of these common cues (i.e., psychiatric symptoms, social skills deficits, physical appearance, and labels). According to the Diagnostic and Statistical Manual of Mental Disorders, 4th ed. (DSM-IV) (American Psychiatric Association (APA), 1994), the psychiatric symptoms that accompany some mental illnesses (especially in cases of severe mental illness) can include bizarre mentation, inappropriate behaviors, auditory or visual hallucinations, inappropriate affect, and dysfunction of mood regulation. Research indicates that these types of psychiatric symptoms are highly stigmatized by the public at large (Link, Cullen, Frank, & Wozniak, 1987; Socol & Holtgraves, 1992), and have led to generalized fears that individuals with mental illness are unpredictable and dangerous (Angermeyer & Matschinger, 2005; Arboleda-Florenz, 2003; Crisp et al., 2000).
Corrigan and Kleinlein (2005) point out that deficits in social skills, which often result from or accompany many psychiatric symptoms, is another cue that can lead the public to hold stigmatizing attitudes towards individuals with mental illness. For example, research indicates that deficits in eye contact and body language, two nonverbal social skills that provide important social and emotional information (Knapp & Hall, 1992), are pronounced for certain individuals with mental illnesses (Bellack, Morrison, Mueser, & Wade, 1989). Considering Mehrabian’s (1981) finding that 55% of the meaning in any message comes from body language, eye contact, and other nonverbal cues, it seems likely that individuals who lack these important social skills may also be avoided by the public at large due to the potential for unclear communication and difficulties connecting. As such, it is reasonable to assume that deficits in these kinds of social skills may lead many individuals to stigmatize (e.g., actively avoid, and thereby discriminate against) those who possess these deficiencies. Additionally, a large body of research indicates that personal appearance may lead others to perceive an individual as having a mental illness (Corrigan, 2000; Farina, 1998; Schumacher, Corrigan, & Dejong, 2003).

A study by Schumacher et al. (2003) illustrates how psychiatric symptoms, social skills deficits, and physical appearance influence the public’s stigmatizing attitudes towards mental illness. In their study, Schumacher et al. (2003) investigated public attitudes towards mental illness using four vignettes about the actions of a man on a bus or train that varied on two sets of cues: positive versus negative symptoms, and unkempt versus a clean appearance. Positive symptoms generally refer to distortions of normal functioning and can include hallucinations and delusions. When describing the behaviors
of the man for the positive symptoms variation of the vignette, participants read “He is speaking incoherently and loudly.” In contrast, negative symptoms generally refer to a lack or diminution of normal emotional or thought processes and can include blunted affect, a lack of motivation, and poverty of speech. When describing the behaviors of the man for the negative symptoms variation of the vignette, participants responded to the following cue: “He is sitting on a nearby bench, staring down at the pavement, very quiet.” The man’s appearance was manipulated by presenting him as either unkempt (“He does not appear to have changed his clothes or showered in quite a few days”), or as clean (“He is very clean and well-groomed”). One hundred and seventeen participants rated the fictitious character in the vignettes on three questions: “How dangerous is the person?”, “How threatening is the person?” and “Would you attempt to avoid the person.”

Results indicated that participants were more likely to avoid the person depicted in the vignette with positive symptoms (i.e., “He is speaking incoherently and loudly”), suggesting that people exhibiting positive symptoms may experience greater stigma when compared to others exhibiting negative symptoms. Schumacher et al. (2003) also reported that participant’s ratings on the appearance of the character in the vignette were mediated by whether or not the character exhibited positive or negative symptoms; with participant’s rating the fictitious character who was both unkempt and exhibited negative symptoms (i.e., “He is sitting on a nearby bench, staring down at the pavement, very quiet”) more harshly by rating him as more dangerous and threatening than the unkempt character exhibiting positive symptoms. Additionally, women tended to stigmatize the characters in the vignette described as unkempt more severely by rating them as more
dangerous and threatening when compared to male participants (Schumacher et al., 2003). Despite evidence showing the relationship between psychiatric symptoms, social skills deficits, physical appearance and public attitudes towards mental illness, Corrigan and Kleinlein (2005) caution that there is a potential for misattributing someone as being mentally ill on the basis of these three cues (e.g., making a false-positive judgment error).

For example, Corrigan and Kleinlein point out that nonpathogenic behavior that is eccentric does not necessarily equate to mental illness. Similarly, deficits in social skills can often be attributable to individual temperament - as is the case with an individual that is shy, introverted, or socially reserved. Again, exhibiting these cues does not necessarily imply mental illness, despite the fact that these cues often accompany a diagnosis of mental illness. Additionally, Corrigan and Kleinlein assert that physical appearance can also lead individuals to make false-positive judgment errors. For example, many individuals incorrectly assume that untidy and disheveled individuals who live on the streets are all mentally ill, when in reality many are poor and homeless with no mental illness (Koegel, 1992).

In fact, a 2006 report published by the national Coalition for the Homeless indicated that only 20 to 25% of homeless individuals meet criteria for a serious mental illness. Just as psychiatric symptoms, social skills deficits, and physical appearance can lead individuals to make false-positive judgment errors with regards to mental illness, an absence of these cues can also lead individuals to make false-negative judgment errors. For example, some individuals with mental illness have learned strategies to help conceal their psychiatric symptoms; others have learned to compensate for their social skills deficits; while still others may work to keep a tidy physical appearance so as not to “tip
others off” about their condition. In this way, individuals may not suspect another person of having a mental illness because they do not exhibit any of the “cues” commonly associated with mental illness. While “passing” may seem to be a positive factor for some, feeling that one can only be accepted if they are not truly “known” can come with its own difficulties. This potential for making a false-negative judgment error is akin to Goffman’s (1963) concept of the discreetible identity as mental illness is a concealable ‘mark,’ and is therefore easy to miss/overlook under certain circumstances.

The last cue used by the general public to deduce mental illness is the actual label of mental illness itself (Corrigan & Kleinlein, 2005). Some theorists (e.g., Becker, 1963; Kitsuse, 1962; Scheff, 1974) posited that the label of mental illness itself actually engenders mental illness in people (i.e., the label of mental illness causes mental illness), however this idea, termed Labeling Theory (Scheff, 1974), received wide criticism and has been discredited (Corrigan, 2005; Corrigan & Kleinlein, 2005; Link et al., 1989; Link et al., 1987; Link et al., 1999). Despite the fact that the label of mental illness does not create mental illness, the label of mental illness may, in effect, engender negative emotions/reactions from the public at large. As such, a number of researchers concede that the label of mental illness itself may be the most predictive variable in determining the public’s stigma towards mental illness (Corrigan & Kleinlein, 2005; Jones et al., 1984; Link et al., 1987). For example, Martin, Pescosolido, and Tuch (2000) analyzed the results from the MacArthur Mental Health Module portion of a survey conducted in 1996 by Davis and Smith (1996) in which participants were asked to respond to one of five vignette conditions that they were randomly assigned to. Four of the five vignette conditions described a person that meets DSM-IV criteria for one of the following mental
illnesses: schizophrenia, major depression, alcohol dependency, and drug dependency. The fifth vignette described an individual with sub-clinical mental health problems, and was used primarily as a baseline/reference category variable (Martin et al., 2000). After reading the randomly assigned vignette, participants were asked to indicate, among other things, their desire to avoid various types of social interactions with persons who have the condition described in the vignette.

Martin et al. (2000) utilized six social distance items to assess participant’s willingness to engage in various types of social interactions with the person described in the vignette. Results from this study indicated that 68.4% of the 1,444 participants stated that they were unwilling to have a person with a mental illness marry into their family. An additional 58.1% shared that they were unwilling to work closely with a person with a mental illness, 38.2% expressed that they would be unwilling to be friends with a person that has any type of mental illness, and 56% reported that they were unwilling to spend an evening socializing with a person with a mental illness (Martin et al., 2000).

Furthermore, 48.4% of the respondents reported that they were “probably unwilling to interact” with- or would “definitely” not interact with an individual with schizophrenia; whereas 37.4% of the respondents indicated that they were “probably unwilling to interact” with- or would “definitely” not interact with a person suffering from an episode of major depression (Martin et al., 2000).

In a similar study designed to test whether or not the label of mental illness was in itself a stronger predictor of stigmatizing attitudes towards the mentally ill above and beyond another commonly hypothesized predictor cue (i.e., positive psychiatric symptomology), Link et al. (1987) found that participants tended to stigmatize the person
labeled as mentally ill in a vignette - even in the absence of any positive psychiatric symptomology. Link et al. (1987) measured stigma by asking participants to respond to the randomly assigned vignette using seven social distance questions on a 4-point Likert-scale (e.g., how willing participants were to socially engage with the person described in the vignette). Similar findings have been replicated by a number of other studies (Link et al., 1991; Link et al., 1999), leading many researchers to conclude that members of the general public are likely to stigmatize a person labeled mentally ill even if this person displays no other ‘cue’ or attribute that would suggest the possibility of a mental illness.

As a result, Link, Cullen, Struening, Shrout, and Dohrenwend (1989) put forth a modified labeling theory which asserts that “even if labeling does not directly produce mental disorder, it can lead to negative outcomes” (p. 106). Link et al. (1989) maintained that labeling an individual mentally ill can actually lead the labeled individual to internalize societal conceptions of what it means to be labeled mentally ill, consequently impacting this labeled individual’s behaviors (e.g., become more secretive and withdrawn for fear of reprisal), and as a result prolonging and/or worsening the mental illness symptoms/condition which may have otherwise been manageable without the added negativity resulting from the label.

Modified labeling theory (Link et al., 1989) has garnered support from various theorists and researchers (Corrigan & Kleinlein, 2005; Hinshaw, 2007; Hinshaw & Stier, 2008; Mechanic, McAlpine, Rosenfield, & Davis, 1994). For example, Hinshaw and Stier (2008) maintain that the stigma associated with the label of mental illness can often be more debilitating than the mental illness itself. This assertion is echoed by a number of qualitative reports conducted with individuals labeled mentally ill (Dickerson et al.,
Each of these qualitative reports highlight how the label of mental illness has impacted the lived experience of these individuals with mental illness.

For example, Dickerson et al. (2002) interviewed 74 individuals with mental illness to ascertain whether or not stigma against mental illness had influenced them in anyway. The authors reported that 70% of the participants expressed worry about being viewed unfavorably as a result of their mental illness, 55% shared that they have been the target of offensive statements, and 58% of the participants expressed that they actively avoid sharing their diagnosis with others (Dickerson et al., 2002). Lai et al. (2001) reported similar findings from a study with 300 psychiatric outpatients. In this study, Lai et al. (2001) found that 52% of the patients with schizophrenia reported lowered self-esteem as a result of perceived stigma due to their mental illness diagnosis. For outpatients with depression, 57% reported lower self-esteem as a result of perceived stigma due to their mental illness diagnosis. Fifty one percent of the outpatients with schizophrenia and 28% of the outpatients with depression reported that they expected to be socially rejected due to their mental illness diagnosis. Additionally, 78% of the outpatients with schizophrenia and 44% of outpatients with depression reported difficulties finding employment as a result of their mental illness diagnosis.

Dinos et al. (2004) also reported similar findings from a study using narrative interviews of 46 individuals labeled mentally ill. In conducting these interviews, Dinos et al. stated that they consciously avoided using the word stigma when asking participants about how their mental illness diagnosis impacted their work and private lives because they did not want to “lead the participants” (p. 176). According to Dinos et al. participant
responses were “context analysed” and coded based on the themes that emerged from the data. Results from this analysis indicated that stigma was a major concern for almost all (41 out of the 46) of the participants (Dinos et al., 2004).

For those participants who expressed stigma to be a major concern, Dinos et al. reported that these individuals identified the psychiatric label itself, and the consequent behavioral reactions of others that often accompany knowledge of a psychiatric label, as the main cause of their distress. An excerpt from one interview with an African-Caribbean woman aged 41 helps to illustrate the distress so many individuals labeled as mentally ill experience: “Schizophrenic is the worst diagnosis because I’ve heard it in the newspapers and on TV, that they are really mad schizophrenic people. They are very dangerous to society, they’ve got no control. So obviously I came under that category” (Dinos et al., 2004, p. 177).

This excerpt helps convey the often painful and distressing reality that individuals labeled with a mental illness face. Additionally, this excerpt highlights how common it is for individuals with mental illness to internalize negative stereotypes (i.e., that individuals with mental illness (and in particular, individuals with schizophrenia) are dangerous and unpredictable) that are often perpetuated by the public at large. Additionally, Dinos et al. (2004) reported that 29 of the 46 participants shared personal stories of overt discrimination, reporting experiences of physical and verbal harassment, violence, and social exclusion as a result of their mental illness diagnosis. In terms of the subjective experience of stigma, most participants expressed feelings of anger, depression, fear, and anxiety. In addition, many participants shared that the negative feelings arising from the stigma of mental illness also led them to feelings of isolation,
guilt, and embarrassment (Dinos et al., 2004). According to Link, Yang, Phelan, and Collins (2004), feelings of embarrassment, shame, and fear are characteristic of the internalized self-stigma that is often accompanied by the public’s stigmatizing attitudes towards individuals with mental illness.

**Six Common Dimensions of Mental Illness Stigma**

In addition to Corrigan’s (2005) four common cues the public uses to infer mental illness in an individual, Jones et al. (1984) explain that stigma against mental illness can also be influenced by six common dimensions: concealability (e.g., whether or not the identities are discredited or discreditable); course (e.g., how the illness will evolve over time); disruptiveness (e.g., how debilitating the illness is in terms of activities of daily living); aesthetic qualities (e.g., whether characteristics or symptoms of the illness are pleasant or unpleasant); origin (e.g., the origin and cause of the illness); and peril (e.g., the lethality of the illness both for the afflicted and others).

Jones et al. (1984) explain that the ability to conceal a mental illness (i.e., how easily the symptoms of the mental illness can be hidden) is an important characteristic that can determine whether or not an individual experiences stigma as a result of their mental illness. Similar to Corrigan’s (2005) ‘psychiatric symptoms’ cue, the concealability of a mental illness will depend on how severe the symptoms of the mental illness are. For example, research indicates that certain types of psychiatric symptoms (e.g., bizarre mentation, inappropriate behaviors, auditory or visual hallucinations, and inappropriate affect) are highly stigmatized by the public at large (Link et al., 1987; Socall & Holtgraves, 1992). However, not all mental illnesses are characterized by these types of symptoms.
Despite the stigma attached to severity of symptoms, Hinshaw and Stier (2008) argue that less severe forms of mental illness may in fact incur greater stigma specifically because they are concealable. Hinshaw and Stier (2008) reason that if individuals with mental illness “look, act, and seem “normal” much of the time but show problems only in certain situations… the attribution may emerge that they are willfully acting out during the selected time periods” (p. 376). Hinshaw and Stier (2008) further add that “the sporadic presentation of the symptoms, along with the recognition that the individual is not pervasively disturbed, could engender higher expectations and a consequent increase in stigma when deviance does emerge” (p. 376).

Therefore, Jones et al.’s (1984) concealability dimension captures the stigma of mental illness with regards to psychiatric symptoms along a spectrum; from the severe symptoms (e.g., bizarre mentation, inappropriate behaviors, auditory or visual hallucinations, and inappropriate affect) that are difficult to conceal and heavily stigmatized, to those symptoms that are easier to conceal and perhaps even more stigmatized (Hinshaw & Stier, 2008).

A related dimension to the concealability of mental illness is the course of the mental illness. According to Jones et al. (1984), how the mental illness evolves over time will have a dramatic impact on an individual’s attitude towards the mental illness and thus the individual with the mental illness. This can be particularly true for chronic mental illnesses (e.g., schizophrenia), which are often accompanied by symptoms that are difficult to manage (and therefore difficult to conceal). In support of the course dimension, researchers contend that mental illnesses which are believed to be untreatable,
tend to be met with more stigma and negative attitudes (Link et al., 2004), perhaps due to the perception that the condition is hopeless.

Jones et al.’s (1984) disruptiveness dimension has to do with how debilitating the illness is in terms of activities of daily living (that is, the effect on the person’s ability to engage in basic daily activities such as cleaning, cooking, carrying on a conversation, etc.). Many mental illnesses are characterized by deficits in activities in daily living, and in fact, one overarching criteria for diagnosing a mental disorder using the fourth edition of the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (2000) is that the symptoms of the mental illness are “associated with present distress (e.g., painful symptom) or disability (i.e., impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom” (p.xxxi). Therefore, it can be expected that many individuals with mental illnesses experience some level of disruptiveness (i.e., significant distress or impairment in social, occupational, or other important areas of functioning) as a result of their mental illness. Furthermore, Link et al. (2004) point out that “interaction with people with mental illness is sometimes experienced as disruptive by others because of a fear of unexpected behavior by individuals with mental disorders” (p. 512).

The ‘aesthetic qualities’ dimension described by Jones et al. (1984) refers to whether or not characteristics or symptoms of the mental illness are pleasant or unpleasant. An example of an aesthetic quality is a person’s physical appearance (e.g., whether or not the individual grooms themselves, dresses appropriately, etc.). As mentioned earlier, a large body of research indicates that personal appearance may lead
others to perceive an individual as having a mental illness (e.g., Corrigan, 2000; Farina, 1998; Schumacher et al., 2003), with individuals appearing disheveled or unkempt receiving more negative reactions from the public at large (Schumacher et al., 2003).

Beliefs about the origin and cause of the mental illness comprises Jones et al.’s (1984) ‘origin’ dimension. Origin refers to how the condition came into being. For example, many individuals maintain that mental illnesses are strictly biologically based, whereas others believe that mental illnesses develop as a result of social and environmental factors (Bandura, 1986). As a result, the dimension of origin is closely related with the concept of personal responsibility. Link, Yang, Phelan, and Collins (2004) point out that “perceived responsibility for the condition carries great influence in whether others will respond with unfavorable views and/or punishment toward the identified offender” (p. 512).

Research suggests that an individual’s belief about the origin (cause) of the mental illness (e.g., that it is biologically based, or resultant from environmental causes) influences the attitude one has about the individual (Mehta & Farina, 1997; Phelan, 2005). For example, Phelan (2005) found that individuals who endorsed beliefs for a genetic basis for mental illness also endorsed more stigmatizing views of mental illness in general. For this study, Phelan (2005) presented participants with vignettes of individuals with mental illness and measured stigma by asking participants to rate how much social distance they desired in response to the individual in the vignette.

Phelan (2005) concluded that the “genetic attributions increased the perceived seriousness and persistence of the mental illness and the belief that siblings and children would develop the same problem” (p. 307). Similar findings have been replicated by
other researchers (Mehta & Farina, 1997; Phelan, 2002; Read & Law, 1999), indicating that beliefs about the origin and cause of mental illness is an important factor in understanding stigma towards mental illness.

Jones et al.’s (1984) last dimension is ‘peril.’ Jones et al., (1984) describe the peril dimension as the lethality of the mental illness both for the afflicted and for others. In an effort to understand the public fear of peril associated with mental illness (e.g., that individuals with mental illness are unpredictable and dangerous, therefore a threat), Link et al. (2004) point out that threat and peril in this sense can refer either to: an actual perceived threat of physical danger, as can be the case when an individual actually threatens to harm another person or themselves; or an emotional threat due to being exposed to uncomfortable feelings, as can be the case when an individual experiences feelings of uneasiness or guilt resulting from watching an person with a mental illness negotiate a particular situation with great difficulty.

This dimension has perhaps received the most empirical support as negative stereotypes such as ‘individuals with mental illness are dangerous and unpredictable,’ are particularly widespread and commonly endorsed by the public at large (Angermeyer & Matschinger, 2005; Arboleda-Florenz, 2003; Crisp et al., 2000), thereby instilling and perpetuating fear and thus avoidance of individuals with mental illnesses (Phelan & Link, 2004; Sears et al., 2011). As a result, public perceptions regarding the lethality or peril of mental illness is an important dimension to consider when trying to understand stigma of mental illness.
Mental Illness Stigma and Treatment Utilization

In addition to feelings of isolation, guilt, and embarrassment, which many individuals with mental illness experience as a result of stigma, research suggests that many individuals with mental illness also avoid seeking appropriate help as a result of internalized stigma (Vogel et al., 2007; Wahl, 2012). An excerpt from a 43 year old white British male diagnosed with anxiety and depression helps to illuminate this point: “I regret not going to the hospital. I listened to too many people and I suddenly thought I am going to be labeled a loony. I wasn’t aware obviously because it hadn’t happened to me before so I was… yes it did stop me from going there” (Dinos et al., 2004, p. 178).

This excerpt highlights how the stigma associated with the label of mental illness can actually influence individual behavior in terms of seeking needed treatment. The relationship between the stigma of mental illness and the avoidance of mental health treatment by individuals labeled mentally ill has been well documented (Bathje & Pryor, 2011; Corrigan & Wassel, 2008; Overton & Medina, 2008; Vogel et al., 2007; Wahl, 2012) and remains a major barrier to recovery from mental illness for many individuals (Satcher, 2000; WHO, 2001).

The U.S. Surgeon General identified stigma of mental illness as being one of the key reasons for the underutilization of treatment services for mental health (Satcher, 2000). This assertion has gained empirical support by a number of research studies (Bathje & Pryor, 2011; Corrigan & Wassel, 2008; Overton & Medina, 2008; Vogel et al., 2007; Wahl, 2012). For example, in a study designed to assess the role that stigma against mental illness plays in determining whether or not individuals utilize psychological counseling services, Vogel et al. (2007) employed the following
independent variables: perceived public stigma, self-stigma, attitudes toward seeking professional help, and willingness to seek counseling for psychological and interpersonal concerns. Results from a sample of 680 college students revealed that individual views regarding the perceived public stigma of mental illness influenced participant’s self-stigma and willingness to seek out professional help for a mental illness (Vogel et al., 2007). These findings suggest that perceived public stigma is positively related to self-stigma (i.e., internalization of public attitudes towards mental illness), and that self-stigma significantly influences individual attitudes towards and willingness to utilize psychological services, as the authors report that self-stigma accounted for 57% of the variance in help-seeking attitudes (Vogel et al., 2007).

Similar findings are reported throughout the literature, indicating that the stigma of mental illness is a strong predictor of mental health treatment utilization (Bathje & Pryor, 2011; Corrigan & Wasse, 2008; Overton & Medina, 2008; Vogel et al., 2007; Wahl, 2012). As a result, stigmatization of mental illness deprives individuals with mental illnesses from getting the help they need (WHO, 2001), and ultimately undermines their quality of life (Hinshaw, 2007).

**Mental Illness Stigma and Employment/Housing**

In addition to the pernicious effects stigma has on an individual’s willingness to seek psychological treatment, stigma towards mental illness also curtails other important life opportunities for those afflicted by mental illness. As Krupa, Kirsh, Cockburn, and Gewurtz (2009) point out, “stigma is one of the most profound barriers to the full social inclusion and community participation of persons with mental illness. A powerful process of social control, stigma denies access to important community social roles and to
equity and full participation in those roles” (pp. 413-114). In terms of the parity of full participation in important community social roles for individuals with mental illnesses, a number of studies have consistently found that individuals with mental illness are disproportionately unemployed, with rates three to four times higher than individuals with no mental illness (Anthony & Blanch, 1987; Strum, Gresecz, Pacula, & Wells, 1999).

A nationwide Substance Abuse and Mental Health Services Administration (SAMHSA) study puts these unemployment numbers into context as their report indicates that 60% of individuals with mental illnesses are unemployed, and nearly one quarter live below the poverty line (Willis, Willis, Male, Henderson, & Manderscheid, 1998). In what has been described as a ‘classic study’ on the impact of mental illness in obtaining employment (Corrigan & Kleinlein, 2005), Farina and Felner (1973) had an allegedly unemployed male confederate apply for jobs with 32 different employers. The confederates work history was identical for each job interview except for one basic manipulation: for half of the interviews, the confederate disclosed a past episode of having been hospitalized for psychiatric reasons. Results from this study indicated that the employers were markedly less sociable and supportive of hiring the confederate when a past psychiatric hospitalization was mentioned (Farina & Felner, 1973).

Similar discrimination in terms of employment has been reported in other studies. For example, in a study designed to assess employer attitudes about hiring individuals with mental illnesses, Manning and White (1995) analyzed the responses of 120 personnel directors from public limited companies using a 17-item self-report questionnaire. Results indicated that half of the employers were unwilling to hire an
individual with ‘an active’ mental illness (Manning & White, 1995). Employers’ unwillingness to hire an individual with mental illness also increased based on the mental illness, with 54% of the employers indicating that they would be unwilling to hire an individual with depression, and 66% indicating that they would be unwilling to hire an individual with schizophrenia (Manning & White, 1995).

Similar to the discrimination that individuals with mental illness experience in terms of employment, research indicates that individuals with mental illness also experience discrimination in terms of housing. For example, the Robert Wood Johnson Foundation conducted a nation-wide survey investigating the general public’s attitudes towards individuals with mental illness, utilizing data from telephone surveys of 1,326 Americans (Goldman, 1989). Results from this study indicated that one in three participants expressed worry about property devaluation when asked whether or not they would be willing to have a group home or apartments for people with mental illness located in their neighborhood (Goldman, 1989). Furthermore, Goldman (1989) reported an inverse relationship between participant household income and their willingness to have a mental health facility in their neighborhood.

More specifically, Goldman (1989) reported that participants with lower (under $15,000 annually) to moderate ($15,000–$24,999 annually) household incomes tended to be more accepting of having mental health facilities in their neighborhoods, whereas participants with higher annual incomes (i.e., annual household income of $50,000 or more) reported greater resistance to having any type of mental health facility in their neighborhoods. However, in total, 48% of participants in this survey reported that they would not “welcome” any type of mental health facility into their neighborhoods.
(Goldman, 1989). Similar findings of discrimination towards individuals with mental illness in regards to finding housing have been reported elsewhere in the literature (Corrigan et al., 2011; Dinos et al., 2004; Page, 1977). For example, Page (1977) conducted a study to investigate whether or not persons who identified themselves with the mental illness label would be refused or offered accommodations/housing. The sample for this study consisted of 180 individuals who had advertised furnished rooms in two major Canadian newspapers. Page (1977) randomly assigned each of these landlords into one of six experimental conditions: in three of the conditions the caller made reference to being a patient in a mental hospital. For the remaining three conditions, the caller stated that they were calling on behalf of their brother who was allegedly in jail at the moment.

Additionally, Page (1977) reported that in the first experimental condition, the caller was instructed to say the following line: "Yes, my name is Jan Miner. I should tell you that I am a patient now in a mental hospital, but I'm going to leave in a day or two, and I'm calling to find out if your room is still for rent or not" (p. 87). The caller was then instructed to simply thank the landlord if their response was negative. If the landlord’s response was positive, callers were instructed to say: "OK, thanks, I'll maybe call you back later" (p. 87). The other experimental conditions followed the same structure except for the following minor changes/variations: in the second condition, the caller stated that they would be “released soon” from being involuntary committed; in the third condition the caller inquired about when they could actually come to see the apartment and meet the landlord; in the fourth condition no reference was made to mental illness at all, and instead the caller asked about renting the apartment for their brother.
who was allegedly being released from prison soon and needed housing; and finally, in the fifth condition the caller interacted with the landlords in the same manner as in the fourth condition but also asked when their brother (the ostensible inmate) could come in person to see the apartment (Page, 1977). Page (1977) also included a control condition in which the caller simply called to ask about the room with no mention of “criminal” or “mental illness” information.

Results from this study reveal that the caller was much more likely (83% more likely) to receive a positive response when no “mental illness” or “criminal” information was provided (Page, 1977). Additionally, Page (1977) reported that for those conditions in which mental illness were primed, the callers were more than three times as likely to be denied housing by the landlords. Similar results were found for the “criminal” condition, indicating that mental illness and criminality may be perceived in equally negative terms by the general public.

**Factors Influencing a Non-Stigmatizing View of Mental Illness**

Despite the fact that public attitudes and beliefs about mental illness are generally negative (Hinshaw, 2007) and that stigma towards mental illness is increasing rather than decreasing (Hinshaw & Stier, 2008; Phelan et al., 2000), Corrigan, Watson, and Barr (2006) point out that it is important to note that not all members of the public endorse or agree with the generally supported stigma of mental illness. For this reason, Corrigan et al. (2006) suggest making a distinction between the awareness of public stigma against mental illness and the endorsement of public stigma against mental illness. In applying Corrigan, Watson, and Barr’s (2006) distinction between awareness and endorsement of stigma, it is plausible that individuals with unbiased attitudes towards other stigmatized
populations may be aware of the stigma associated with these groups, yet fail to endorse (e.g., agree with) them. Research suggests that individuals with some familiarity with mental illness tend to not endorse stigmatizing attitudes towards mental illness (e.g., Holmes et al., 1999; Link & Cullen, 1986; Penn et al., 1994). Additionally, individuals with dispositionally high interpersonal skills such as empathy and perspective-taking also tend to have significantly improved attitudes towards other historically stigmatized groups like the homeless (Batson et al., 1997), drug addicts (Batson et al., 2002), and individuals with AIDS (Batson et al., 1997).

Considering that empathy and perspective-taking have been found to improve attitudes and biases towards other stigmatized groups (Batson et al., 1997; Batson et al., 2002), it is plausible that empathy and perspective-taking may also improve attitudes towards mental illness, another highly stigmatized group (Hinshaw, 2007). Furthermore, because stigma towards mental illness creates a variety of harmful effects often far more damaging than the mental illness itself (Hinshaw, 2007; Hinshaw & Stier, 2008), it is pertinent to note that current research has not focused on the relationship between empathy and perspective-taking in regards to mental illness stigma.

**Interpersonal Skills: Empathy and Perspective-taking**

Many researchers and theorists refer to empathy and perspective-taking as interpersonal skills because they are individual dispositions that allow a person to effectively connect with others and navigate the social environment (Davis, 1980; Rentsch, Gunderson, Goodwin, & Abbe, 2007; Riggio, Tucker, & Coffaro, 2002). Furthermore, it has been posited that these interpersonal skills are essential components to building and maintaining healthy relationships (Yalom, 2005). Although empathy and
perspective-taking are both interpersonal skills, they are in fact two distinctly separate phenomena: empathy is an affective reaction to others, and therefore the outcome of some process; whereas perspective-taking is a cognitive process that allows others to infer the cognitive or emotional state of others without necessarily experiencing an emotional reaction (Davis, 1996; Duan & Hill, 1996).

Therefore, perspective-taking is a cognitive process that can result in the affective experience of empathy, whereas empathy can be the outcome of a process such as perspective-taking. As such, perspective-taking has been referred to as an empathy-related process, while the affective response (e.g., feelings associated with empathy such as sympathy, compassion, and tenderness) have been referred to as an empathy-related outcome (Davis, 1996).

In considering empathy and perspective-taking as individual dispositions (e.g., a prevailing tendency or temperamental makeup), Davis (1996) argues that “all observers bring certain characteristics to an episode which have the potential to influence both processes and outcomes. One such characteristic is the simple capacity for empathy” (p. 14). Davis further argues that empathy and perspective-taking “represent stable characteristics of the individual which influence the likelihood of engaging in an empathy-related process or experiencing an empathy-related outcome during any particular empathy episode” (p. 14). As such, this study will investigate the relationship between dispositional empathy and perspective-taking in relation to attitudes towards individuals with mental illnesses.
Empathy

Empathy has been defined as the ability to know what another is thinking and feeling coupled with the ability to respond with sensitivity and care to the suffering of another (Batson, 2009). Hatfield, Rapson, and Le (2009) point out that empathy requires three distinct skills: “the ability to share the other person’s feelings, the cognitive ability to intuit what another person is feeling, and a “socially beneficial” intention to respond compassionately to that person’s distress” (p. 19).

As an interpersonal skill, empathy allows the individual to affectively connect with others in the environment and is an essential component to building and maintaining healthy relationships (Yalom, 2005). As such, empathy is the ability to address the needs of another person through the intuiting and experiencing of the others feelings, which leads to experiencing feelings like sympathy, compassion, and tenderness, which in turn motivate the individual to relieve the suffering of the other person for whom the empathy is felt.

Researchers have utilized various methods for assessing empathy, from self-report measures of dispositional empathy (Davis, 1983) to perspective-taking manipulations designed to elicit an empathy-related outcome (e.g., affective response) from participants (Batson et al., 1997; Batson, Turk, Shaw, & Klein, 1995). Despite similarities between perspective-taking and empathy, most theorists and researchers agree that empathy is different from perspective-taking in that empathy is characterized by a strong affective component (i.e., feelings of sympathy, compassion, and tenderness), whereas perspective-taking is characterized by a strong cognitive component (Batson et al., 1997).
Empathy has been correlated with lower levels of prejudice and racism (Backstrom & Bjorklund, 2007; Finlay & Stephan, 2000), lower levels of aggression towards others (Miller & Eisenberg, 1988), a higher willingness to forgive others (McCullough, Worthington, & Rachal, 1997), a greater propensity for valuing another person’s welfare (Batson et al., 1995; Eisenberg et al., 2006; Eisenberg et al., 2004), an increase prosocial behaviors (Bengtsson & Johnson, 1992), a tendency towards cooperation during conflictual dilemmas (Galinsky et al., 2011; Rumble et al., 2010), and improved attitudes towards stigmatized out-groups (Batson et al., 1997). Additionally, low levels of empathy have been found to correlate with difficulties sympathizing with others and psychopathic tendencies (Blair, 1999).

Higher levels of empathy have been found to correlate with lower levels of prejudice in general (Backstrom & Bjorklund, 2007; Finlay & Stephan, 2000). For example, Backstrom and Bjorklund (2007) found that low dispositional empathy tended to be related to both an anti-egalitarian worldview and higher levels of prejudice in general, and that higher levels of dispositional empathy correlated with lower levels of prejudice and concern for others welfare. As a result of these findings, Backstrom and Bjorklund (2007) stated that “empathy should be considered one of the main predictors of individual differences in prejudice” (p. 16).

The effect of empathy on prejudice has also been tested experimentally by inducing participants to empathically connect with a character described in a vignette. For example, in a study designed to test the influence of an empathy-induction on racial attitudes, Finlay and Stephan (2000) gave a sample of 141 Anglo American students a vignette describing an incidence of discrimination against an African American person.
For this experiment, half of the participants were randomly assigned to one of two conditions: an empathy-inducing condition (for which participants were told to put themselves in the shoes of the person in the vignette), and a control condition (for which participants were told to read the vignette objectively).

Results from this study indicated that individuals in the induced-empathy condition had lower levels of prejudice toward African Americans (Finlay & Stephan, 2000). Similar results have been reported by other researchers (Batson et al., 1997; Dovidio et al., 2004). For example, Dovidio et al.’s (2004) found that participant attitudes towards African Americans in general improved significantly when they were instructed to take the perspective of an African American man experiencing discrimination (empathy-induction).

Empathy has also been correlated with lower levels of aggression (Giancola, 2003; Phillips & Giancola, 2007; Stanger, Kavussanu, & Ring, 2012), a common behavioral outcome that can result from the discrimination engendered by stigma (Dinos et al., 1994; Hinshaw, 2008). For example, Giancola (2003) found that alcohol consumption increased participant aggressive responses for those participant’s with low dispositional levels of empathy, yet not for participants with high dispositional levels of empathy. Similarly, Stanger et al. (2012) tested the relationship between aggression and empathy in 71 undergraduate students.

For this study, Stanger et al. (2012) randomly assigned participants to either a high-empathy or a low-empathy condition. Before participants were given a vignette to read that was designed to stimulate a competitive-aggressive reaction, they were first experimentally induced into either a high or low-empathy condition. After reading the
vignette, participants were instructed to indicate how likely they were to aggress the person in the vignette on a 7-point Likert-scale from not at all likely to very likely. Stanger et al. (2012) reported that participants in the high-empathy group reported a lower likelihood to aggress than did those in the low-empathy condition. These findings, along with others (Giancola, 2003; Jolliffe & Farrington, 2004; Miller & Eisenberg, 1988; Phillips & Giancola, 2007) suggest that empathy may aid in reducing aggressive behaviors, a common behavioral outcome that can result from the discrimination engendered by stigma.

Empathy has also been correlated with a greater propensity for valuing another person’s welfare (Batson et al., 1995; Eisenberg et al., 2006; Eisenberg et al., 2004). For example, Batson et al. (1995) found that participants reported greater levels of empathy when presented with a vignette of a person in distress – even when the person in the vignette was a member of an out-group. In a similar study, Batson et al. (1997) found that feeling empathy for a member of a stigmatized group (in this case, an individual with AIDS, a homeless person, and a person convicted of murder) improved attitudes towards the group as a whole – even when the member of the stigmatized group was responsible for the condition. To arrive at this conclusion, Batson et al. (1997) conducted three separate experiments, each of which included a prerecorded mock-interview with a fictitious member from a stigmatized group. For the first experiment, participants were divided into two groups: one group listened to a mock-interview with a person who contracted AIDS from a blood transfusion (this was the victim-not-responsible condition); whereas the other group listened to the same mock-interview with a person
who contracted AIDS from having unprotected sex (this was the \textit{victim-responsible} condition).

In addition, prior to hearing the mock-interview, participants were randomly assigned to either a \textit{high-empathy} condition, in which they were instructed to “imagine how the woman who is interviewed feels about what has happened and how it has affected her life” (Batson et al., 1997, p. 108); or a \textit{low-empathy} condition in which they were instructed to “take an objective perspective towards what is described” (Batson et al., 1997, p. 108). Participants in this study were asked to complete questionnaires regarding their attitudes towards people with AIDS. Batson et al. (1997) reported that participants in the \textit{high-empathy} condition reported greater empathy for both the \textit{victim-responsible} and the \textit{victim-not-responsible} conditions, when compared to participants in the \textit{low-empathy} condition. The authors further concluded that 70\% of this effect could be attributed to participant self-reported empathy (Batson et al., 1997)- indicating that dispositional levels of empathy may correlate with lower levels of stigmatizing attitudes towards traditionally denounced groups and individuals. Batson et al. (1997) report similar findings for both the ‘homeless person’ and ‘convicted murder’ experiments. Taken together, these three experiments suggest that inducing empathy in people can lead not only to more favorable attitudes towards individuals of a stigmatized group, but also to more favorable attitudes for the group in general.

In light of the fact that empathy has been found to reduce prejudice (Backstrom & Bjorklund, 2007; Finlay & Stephan, 2000), improve attitudes towards stigmatized out-groups (Batson et al., 1997), reduce aggression towards others (Miller & Eisenberg, 1988), as well as increase an individual’s valuing of another person’s welfare (Batson et
al., 1995; Eisenberg et al., 2006; Eisenberg et al., 2004); it is reasonable to presume that empathy may be a likely contributor in determining whether or not an individual possess a non-stigmatizing disposition towards individuals with mental illnesses. However, no research to date has investigated whether or not empathy is related to more positive attitudes towards individuals with mental illness.

**Perspective-Taking**

According to Davis (1996), perspective-taking is a cognitive process characterized by an individual’s attempt to comprehend another’s perspective by endeavoring to conceive the other’s viewpoint. Davis (1996) goes on to add that “it is typically an effortful process, involving both the suppression of one’s own egocentric perspective on events and the active entertaining of someone else’s” (p. 17). Perspective-taking is a term used to refer to other similar concepts such as role taking and role perception (Davis, 1996; Galinsky, 2002). Perspective-taking has been defined as a dispositional cognitive process (Davis, 1996), suggesting that perspective-taking is idiosyncratic and that individuals most likely vary in terms of their ability to engage in perspective-taking.

As an interpersonal skill, perspective-taking has been referred to as the cognitive counterpart to empathy (Davis, 1996), as research suggests that perspective-taking often leads individuals to affectively connect (i.e., empathize) with another’s circumstance (Chambers & Davis, 2012; Galinsky & Ku, 2004; Galinsky & Moskowitz, 2000). In explaining this connection, researchers propose that perspective-taking (i.e., the ability to entertain the perspective of another) leads a person to identify more strongly with another, thereby imparting a sense of psychological connectedness between the
perspective-taker and the other (Galinsky, Ku, & Wang, 2005). Todd, Bodenhausen, and Galisky (2012) echo this claim by asserting that “contemplating an out-group member’s mental states and life circumstances leads people to identify more strongly with that person’s group as a whole” (p. 739).

As such, perspective-taking has been found to reduce common stereotypes (Galinsky & Moskowitz, 2000; Todd et al., 2012), decrease prejudice towards minority and other out-groups (Shih, Wang, Bucher, & Stotzer, 2009; Todd et al., 2011; Vescio et al., 2003), and increase positive perceptions of stigmatized groups (Batson et al., 1997; Dovidio et al., 2004; Shih et al., 2009; Vescio et al., 2003). For example, Shih et al. (2009) found that asking participants to engage in perspective-taking not only improved their attitudes towards a member of a minority/out-group, but also their attitudes towards the minority/out-group in general. To arrive at this conclusion, Shih et al. (2009) ran two separate experiments. For the first experiment, participants (84 non-Asian undergraduate students) were randomly assigned to one of two conditions: the perspective-taking condition, and a control condition. Participants were then shown a clip from *The Joy Luck Club* and asked to write a paragraph about their thoughts of the movie based on the condition they were assigned to (i.e., perspective-taking or control). They were then instructed that the second part of the study was to commence.

For this part of the study, participants were again randomly assigned to one of two conditions: an *Asian* college application or *White* college application. They were then asked to review and evaluate the application they were randomly assigned to, and to consider whether the applicant would be a good candidate for admission to the University of Michigan. The volunteers then read a packet containing a completed admission
application, transcripts, and an essay. They were then asked to rate this applicant on a 7-point Likert-scale based on how much they liked the applicant, how well they felt they knew the applicant, and how likely they would be to accept the applicant to the University of Michigan. Shih et al. (2009) reported that participants in the perspective-taking condition expressed more empathic feelings in the written paragraphs about the Joy Luck Club character when compared to participants in the control condition. Additionally, those volunteers in the perspective-taking condition reported greater liking for the Asian applicant when compared to the volunteers in the control condition (Shih et al., 2009).

These findings led Shih et al. (2009) to investigate the following question: if attitudes towards an Asian American are increased by instructing participants to put themselves in this person’s shoes (i.e., perspective-take), can instructing participants to engage in perspective-taking for an Asian American also improve their attitudes towards other minority/out-groups such as African Americans? Thus, for the second experiment, Shih et al. (2009) were interested in testing whether or not the improved attitudes and increase in empathic feelings observed for those in the perspective-taking condition in the first experiment would generalize to members of a different minority/out-group.

To test this hypothesis, Shih et al. (2009) utilized the same protocol as in the first experiment with some minor alterations. Eighty-eight undergraduate students were randomly assigned to one of two conditions prior to viewing The Joy Luck Club movie clip. Participants in the perspective-taking condition were given the exact same instructions as in the first experiment. However, instead of asking participants in the control condition to view the movie clip from the perspective of a news reporter (as in the
first experiment), participants were asked to “simply watch the movie” (Shih et al., 2009, p. 569). As in the first experiment, after viewing the movie clip, participants were asked to write a paragraph about their thoughts of the movie based on the condition they were assigned to (i.e., perspective-taking or control). After this portion of the experiment was completed, participants were again randomly assigned to one of three conditions (as opposed to the two conditions (Asian and White) used in the first experiment): Asian, White, or African American. Participants were then asked to review and rate the same college application used in the first experiment. Shih et al. (2009) reported that participants in the perspective-taking condition expressed more empathic feelings in their paragraphs about the character in the Joy Luck Club movie clip when compared to participants in the control condition.

Additionally, just as in the first experiment, participants in the perspective-taking condition exhibited an increase in the reported liking for the Asian applicant when compared to participants in the control condition. However, Shih et al. (2009) reported that neither the perspective-taking nor the control condition had a significant effect on participant’s reported liking for the fictitious African American applicant (or the white applicant). Taking the results of the first and second experiment, Shih, Wang, Bucher, and Stotzer (2009) concluded that perspective-taking increased participants positive attitudes towards individuals from minority/out-groups and their target minority/out-group in general, but not necessarily for individuals from other minority/out-groups.

Vescio et al. (2003) reported similar findings when investigating whether or not perspective-taking increased positive attitudes towards minority/out-groups. In their study, Vescio et al. (2003) presented participants with a segment of an interview in which
an African American male discussed the difficulties experienced as a result of his membership in a minority/stereotyped group. For this study, sixty-six participants were randomly assigned to one of two conditions: a perspective-taking condition and a control condition.

Participants were then asked to listen to a segment of an interview in which an African American discussed the difficulties experienced as a result of his membership in a minority/stereotyped group. Immediately after listening to the interview segment, participants were asked to complete an emotional response questionnaire to assess the extent that participants experienced any emotion/affect while listening to the interview. After filling out a lengthy survey, which served as a distractor task, participants were then asked to rate African Americans along 15 dimensions (8 of which, were “stereotype relevant”). Results from this study indicated that participants in the perspective-taking condition reported greater empathy, greater attributional complexity, as well as more positive attitudes towards African Americans in general when compared to participants in the objective and detached condition (Vescio et al., 2003).

Considering that perspective-taking has been found to reduce common stereotypes (Galinsky & Moskowitz, 2000; Todd et al., 2012), decrease prejudice towards minority and other out-groups (Shih et al., 2009; Todd et al., 2011; Vescio et al., 2003), and increase positive perceptions of stigmatized groups (Batson et al., 1997; Dovidio et al., 2004; Shih et al., 2009; Vescio et al., 2003); it follows that perspective-taking may be an important variable to consider in determining which factors contribute to a non-stigmatizing disposition with regards to individuals with mental illness. However, it appears that no research to date has investigated whether or not dispositional levels of
perspective-taking contributes to a less stigmatizing attitude towards mental illness in general. Therefore, the current study will investigate whether perspective-taking contributes to a non-stigmatizing disposition in relation to attitudes towards mental illness.

**Familiarity with Mental Illness**

Despite the fact that a majority of the research investigating the impact of stigma against mental illness has focused mainly on those who are stigmatized (i.e., those individuals who actually have the mental illness), researchers have begun to recognize that many people associated with individuals with a mental illness are experiencing the effects of mental illness stigma as well—especially family members (Chang & Horrocks, 2006; Lefley, 1989; Steele, Maruyama, & Galynker, 2010). For many families, having a member suffer from a mental illness can lead to feelings of shame, isolation, and secrecy about the mental illness (Byrne, 2000). Lefley (1989) further points out that many of the behaviors exhibited by individuals with mental illness can often further isolate the family by damaging its reputation and endangering relationships with friends and neighbors.

Goffman (1963) describes this stigma-by-association experienced by families as “courtesy stigma.” Corrigan and Miller (2004) explain that courtesy stigma “is defined vis-à-vis relationship to a person with mental illness which may suggest that the family member is somehow “tainted” by his or her association with relatives with the disorder” (p. 538). In their article reviewing a number of studies that investigated the impact of courtesy stigma on family members, Corrigan and Miller (2004) found that the majority of these studies indicated that parents were often blamed by the general public for producing a mental illness in the family member and that siblings and spouses were often
blamed for not ensuring that the mentally ill family member followed treatment plans. This courtesy stigma also has the unfortunate effect of straining relationships both within the family as well as relationships outside of the family.

As a result, many families who have a member suffering from a mental illness experience greater isolation and strained relationships due to the impact of courtesy stigma. The following response by a mother with a son suffering from a mental illness helps to illustrate the impact of courtesy stigma: “last year, I cried for three hours straight when good friends withdrew an invitation to a holiday dinner because we wanted to bring our son with us” (Lanquetot, 1988, p. 340).

Similar experiences have been documented in other qualitative studies investigating the impact of courtesy stigma. For example, Veltman, Cameron, and Stewart (2002) published the following excerpt of a family explaining the social avoidance they experience as a result of courtesy stigma: “we have lost many friends, one by one they’ve backed off from us… my girls were very upset… they would come to me and say, ‘why do they pretend not to see us?’” (p. 110). These excerpts help illuminate the painful experiences many families face as a result of mental illness stigma. However, isolation is only one of the many detrimental consequences of mental illness stigma for family members. Another common outcome of courtesy stigma is secrecy. For a number of families, the shame of a mental illness leads them to conceal or hide the fact that a member of their family has a mental illness.

For example, in a study of 156 parents and spouses of individuals with mental illness, over half of the participants reported that they had made efforts to conceal the mental illness of their family members from others (Phelan, Bromet, & Link, 1998). In
this way, an individual’s familiarity with mental illness is an important variable in understanding mental illness stigma, as it impacts individual’s perceptions of mental illness in a number of ways.

As such, familiarity with mental illness has also been correlated with improved attitudes towards persons with mental illness (Corrigan et al., 2001) as well as a tendency to endorse less social distance from individuals with mental illnesses (Holmes et al., 1999; Link & Cullen, 1986; Penn et al., 1994). Researchers hypothesize that individual experience with mental illness likely affords people the opportunity to debunk certain misconceptions and stereotypes commonly associated with persons with mental illness, thereby reducing stigmatizing attitudes (Alexander & Link, 2003). In a study designed to assess the relationship between familiarity with mental illness and stigmatizing attitudes about mental illness, Angermeyer, Matchinger, and Corrigan (2004) found that respondents who were familiar with mental illness were less likely to agree that people with schizophrenia or major depression were dangerous.

In a similar study designed to examine the influence that individual experience with mental illness has on participants perceptions regarding the dangerousness of a fictitious person with mental illness described in a vignette, Link and Cullen (1986) found that participant’s self-reported experience of personal contact with individuals with mental illness correlated with lower ratings of perceived dangerousness. Additionally, using data from 62 randomly selected individuals, Trute and Loewen (1978) found that the participant’s personal experience with people with mental illness was significantly correlated with positive attitudes towards the mentally ill in terms of sharing social activities and social responsibility.
In sum, the degree of familiarity with mental illness is an important variable in understanding individual attitudes about mental illness; as individuals who are relatively more familiar with mental illness (either through personally having a mental illness or through having experiences with peers and family members with mental illnesses) tend not to endorse stigmatizing attitudes towards individuals with mental illness (Corrigan et al., 2001). As a result, the present study will examine how much of the variance in mental illness stigma can be explained by the interpersonal skills of empathy and perspective-taking after controlling for participant familiarity with mental illness.

**Summary**

Mental illness is a major problem both nationally (Satcher, 2000; Silton et al., 2011) and internationally (Gaebel & Baumann, 2003; Reavley & Jorm, 2011; WHO, 2001). According to a number of researchers and theorists, stigma against mental illness negatively affects those with mental illnesses by restricting their ability to both find and maintain employment (Corrigan et al., 2011; Satcher, 2000) and housing (Corrigan et al., 2011; Page, 1977). Furthermore, the stigma against mental illness has been cited as a major barrier for the mentally ill in seeking out treatment for their condition (Bathje & Pryor, 2011; Vogel et al., 2007; Wahl, 2012; WHO, 2001). Consequently, the stigma associated with having a mental illness can, for many individuals, be more debilitating than the mental illness itself (Hinshaw & Stier, 2008). Despite efforts to reduce stigma (Crisp et al., 2000; Sartorius & Schulze, 2005), many researchers point out that stigmatizing attitudes towards the mentally ill are increasing rather than decreasing (Link et al., 1999; Phelan et al., 2000).
As a result, it seems pertinent to investigate possible factors that may contribute to more positive attitudes towards individuals with mental illness. Research indicates that those individuals with dispositional interpersonal skills such as empathy and perspective-taking have significantly improved attitudes towards other historically marginalized and oppressed groups like the homeless (Batson et al., 1997), drug addicts (Batson et al., 2002), the obese (Turner & West, 2012), African Americans (Vescio et al., 2003), Asians (Shih et al., 2009), and individuals with AIDS (Batson et al., 1997). Additionally, empathy and perspective-taking have been found to increase prosocial behaviors (Bengtsson & Johnson, 1992), cooperation during conflictual dilemmas (Galinsky et al., 2011; Rumble et al., 2010), as well as decrease stereotypic biases in general (Galinsky & Moskowitz, 2000). Therefore, seeing as empathy and perspective-taking have been found to increase positive attitudes and decrease biases towards other marginalized groups (Batson et al., 1997; Batson et al., 2002), and that stigma towards mental illness engenders a multitude of negative consequences that are often far more devastating than the illness itself (Hinshaw, 2007; Hinshaw & Stier, 2008), the present study will examine how much of the variance in mental illness stigma can be explained by the interpersonal skills of empathy and perspective-taking after taking familiarity with mental illness into account.
Chapter 3

Methods

This study investigated the impact that empathy (i.e., empathic concern), perspective-taking, intimacy with mental illness, and level of exposure to mental illness had on stigma towards mental illness. The study employed previously validated questionnaires to assess the dependent (stigma towards mental illness) and independent variables (empathic concern, perspective-taking, intimacy with mental illness, exposure to mental illness, stigma against mental illness) and social desirability. A demographic questionnaire was utilized to observe the characteristics of the sample population.

Participants

Of the 306 volunteers for the study, only the 299 who completed the full survey were included in the final analysis. All 299 participants in this study were over the age of 18 and endorsed a willingness to participate in the study prior to completing the set of questionnaires (Appendix A). No incentive was provided for participation in this study. The demographic data collected on the participants included their level of education, age, gender, and race (Appendix B). In addition, participants were asked about their familiarity with mental illness utilizing the Level of Contact Report (Holmes, Corrigan, Williams, Canar, & Kubiak, 1999; Appendix C). Requests for participation in this study were circulated via social networking sites (e.g., Facebook), e-mails were sent to various campus organizations, listservs, as well as through professors at two universities, who indicated they would share the link and information on the survey with their students. In addition, a snowball sampling method was utilized to recruit participants by encouraging volunteers to recruit other participants for the study.
Demographic Measure and Assessments

**Demographics.** The average age of the participants was 42.47 (SD = 15.822), with a range from 19 to 84. In terms of the racial make-up of the sample, the participants predominantly identified as Caucasian (79.1%, n = 239), followed by African American (7.6%, n = 23), Latino/Hispanic (1.3%, n = 4), Asian/Pacific Islander (4.6%, n = 14), Multiracial (3.6%, n = 11), and Biracial (1.0%, n = 3). Additionally, 4 participants (1.3%) identified as “Other.” More specifically, these 4 participants reported that they identified as Persian, West Indian, Japanese American, European, and African/Caribbean. With regards to gender, the sample population was predominantly female (n = 204, 67.5%) when compared to their male counterparts (n = 97, 32.1%). Also, 96.7% of the participants reported not having a disability.

In terms of income, the population was varied. The highest percentage of participants reported making between $100,000 and $200,000 a year (14.9%, n = 45), and the next highest percentage of participants indicated earning less than $20,000 a year (13.9%, n = 42). Looking between the two extreme wage brackets, 22 participants indicated they made an annual income between $20,000 and $30,000 (7.3%), 27 earned between $30,000 to $40,000 (8.9%) annually, 27 indicated an yearly income between $40,000 and $50,000 (8.9%), 28 endorsed an annual income between $50,000 and $60,000 (9.3%), 15 reported that they made between $60,000 and $70,000 (4.6%) annually, 14 indicated an yearly income between $70,000 and $80,000 (4.6%), 15 indicated having an income between $80,000 and $90,000 (5.0%) annually, 17 reported an yearly income between $90,000 and $100,000 (5.6%), and finally, 8 participants
indicated that their annual income was above $250,000. Additionally 42 participants indicated that they would “rather not say” what their income was (13.9%).

In order to classify the occupations of the participants, the Bureau of Labor Statistics 2010 Standard Occupational Classification list was employed. Seventeen major classification groups were identified in the data (Table 1). In addition, 12 occupations were not classified in the Standard Occupational Classification list, and where therefore classified as “Miscellaneous.” Examples of some of the responses specified for the “Miscellaneous” category include: “Entrepreneur, Homemaker, Small business owner, Retired, and Unemployed.”

<table>
<thead>
<tr>
<th>Occupational Classification Group</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Scientists and Related Workers</td>
<td>48</td>
<td>16</td>
</tr>
<tr>
<td>Education, Training, and Library</td>
<td>33</td>
<td>11</td>
</tr>
<tr>
<td>Management</td>
<td>29</td>
<td>9.7</td>
</tr>
<tr>
<td>Life, Physical, and Social Science Occupations</td>
<td>26</td>
<td>8.7</td>
</tr>
<tr>
<td>Computer and Mathematical Occupations</td>
<td>25</td>
<td>8.4</td>
</tr>
<tr>
<td>Arts, Design, Entertainment, and Media</td>
<td>25</td>
<td>8.4</td>
</tr>
<tr>
<td>Healthcare Support</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Healthcare Practitioners and Technical Occupations</td>
<td>14</td>
<td>4.7</td>
</tr>
<tr>
<td>Students</td>
<td>13</td>
<td>4.3</td>
</tr>
<tr>
<td>Entertainers, Performers, and Related Workers</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Sales and Related Workers</td>
<td>10</td>
<td>3.3</td>
</tr>
<tr>
<td>Business and Financial Operations</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Architecture and Engineering</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Legal</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Office and Administrative Support</td>
<td>5</td>
<td>1.7</td>
</tr>
<tr>
<td>Food Preparation, Serving, and Related Workers</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Transport and Material Moving</td>
<td>2</td>
<td>.68</td>
</tr>
</tbody>
</table>

Note: N = 299.
With regards to highest level of education achieved, the majority of participants reported that they had either a four year Bachelor’s degree \((n = 104, 34.4\%)\) or a Master’s degree \((n = 103, 34.1\%)\). The next most frequently reported level of education was a Professional Degree \((n = 46, 15.2\%)\), followed by “some college, no degree” \((n = 32, 10.6\%)\), then by a High School diploma \((n = 8, 2.6\%)\), and lastly a two year degree \((n = 7, 2.3\%)\). Additionally, 8 participants endorsed the option “other (please specify)” when asked about information regarding their occupation.

**Interpersonal Reactivity Index** (IRI, Davis, 1980). The Interpersonal Reactivity Index (IRI, Davis, 1983) is a 28 question self-report measure. A Likert-type scale from 1 to 5 is utilized for each question; with 1 denoting, “does not describe me well,” and 5 denoting, “does describe me well.” Davis (1980) developed the IRI using an initial 50 question-items with a sample of 201 males and 251 females \((N = 452)\). The initial factor analysis revealed four distinct factors using 28 of the question-items: perspective-taking, empathic concern, fantasy, and personal distress.

The remaining 12 items were dropped from the scale since they did not load on any of the four factors (Davis, 1980). Davis (1980) reexamined the factor structure of the IRI by replicating the previously mentioned study using all 50 question-items on a sample of 579 males and 582 female \((N = 1,168)\). The second factor analysis of the IRI revealed a 28 question-item set that loaded on the same four factors. Just as in the initial factor analysis, Davis (1980) dropped those question-items that did not load heavily on one of the four factors. As a result, the final IRI scale consists of 28 questions, with each subscale containing 7 question-items. Two of the four subscales (perspective-taking and empathic concern) were used in the current study.
The empathic concern subscale consists of seven question-items that can be answered on a 5-point Likert-type scale, with answers ranging from 1 (“does not describe me well”), to 5 (“does describe me well”). According to Davis (1983), the empathic concern subscale “measures the tendency to experience feelings of warmth, compassion, and concern for other people” (p. 117). Items on the empathic concern subscale include such items as “I am often quite touched by things that I see happen” and “I often have tender, concerned feelings for people less fortunate than me.” Davis (1980) reported an internal consistency reliability of .72 for male respondents (N = 579) and an internal consistency reliability of .70 for female respondents (N = 582). Additionally, Davis (1980) reported test-retest reliabilities (with 60 to 75 days between the first and second administration of the IRI) on this subscale of $r = .72$ and $r = .70$ for male and female participants, respectively. The internal consistency reliability for the present study was .76, which is consistent with the estimates reported by Davis (1980).

The perspective-taking scale consists of 7 question-items that can be answered using a 5-point Likert-type scale, ranging from 1 (“does not describe me well”), to 5 (“does describe me well”). According to Davis (1983), the perspective-taking subscale “measures the tendency to adopt the point of view of other people in everyday life” (p. 117). Example question-items from the perspective-taking subscale include: "When I'm upset at someone, I usually try to "put myself in his shoes" for a while," and "Before criticizing somebody, I try to imagine how I would feel if I were in their place." Davis (1980) reported an internal consistency reliability of .75 for the perspective-taking subscale for male respondents (N = 579). For female respondents (N = 582), the internal consistency reliability for the perspective-taking subscale was .78 (Davis, 1980).
Additionally, Davis (1980) reported test-retest reliabilities on this subscale of $r = .61$ and $r = .62$ (male and female participants, respectively) for the same sample (the interval between the first and second administration of the IRI was between 60 and 75 days). For the current study, the internal consistency reliability was .77, consistent with Davis’s (1980) estimates.

**Mental Illness Stigma Scale** (MISS, Day, Edgren, & Eshleman, 2007). The MISS is 28 question self-report measure that utilizes a Likert-type scale from 1 to 7, with 1 denoting, “completely disagree,” and 7 denoting, “completely agree.” The MISS was originally developed by Day, Edgren, and Eshleman (2007) using the six dimensions of stigma identified by Jones et al. (1984) to assess the general public’s attitudes toward people with mental illness. Day et al. (2007) developed the MISS using an initial 68 items with a sample of 298 males and 430 females ($N = 728$) from an undergraduate institution, a community college, and a two church organizations.

The initial factor analysis revealed seven distinct attitude dimensions measured by 28 of the items: interpersonal anxiety, relationship disruption, poor hygiene, visibility, treatability, professional efficacy, and recovery. The remaining 40 items were dropped from the MISS because they either did not meet the minimum factor loading of .35, or they loaded on more than one factor, or they were the only item that loaded on a particular factor (Day et al., 2007). As a result, the final MISS scale consists of 28 items, with seven distinct attitude dimensions.

The interpersonal anxiety attitude dimension consists of seven items that can be answered on a 7-point Likert-type scale, with answers ranging from 1 (“completely disagree”), to 7 (“completely agree”). Items on the interpersonal anxiety attitude
dimension reflect “affective feelings of anxiousness, nervousness, uneasiness, and fear of physical harm when around someone with a mental illness” (Day et al., 2007, p. 2197). The interpersonal anxiety attitude dimension includes such items as “I feel anxious and uncomfortable when I’m around someone with a mental illness” and “I don’t think that I can really relax and be myself when I’m around someone with a mental illness.” Day et al. (2007) reported that the interpersonal anxiety attitude dimension accounted for 27.04% of the variance in the model, with factor loadings on each of the seven items between .50 - .91, and an internal consistency reliability of .90. A similar internal consistency reliability (.92) was found for the present study.

The relationship disruption attitude dimension consists of six items that can be answered on a 7-point Likert-type scale, with answers ranging from 1 (“completely disagree”), to 7 (“completely agree”). Items on the relationship disruption attitude dimension reflect “concerns about illness-related disruptions to normal, meaningful relationships” (Day et al., 2007, p. 2197). The relationship disruption attitude dimension includes such items as “Mental illnesses prevent people from having normal relationships with other” and “I don’t think that it is possible to have a normal relationship with someone with a mental illness.” Day et al. (2007) reported that the relationship disruption attitude dimension accounted for 10.66% of the variance in the model, with factor loadings on each of the six items between .48 - .82, and an internal consistency reliability of .84. For the current study, the internal consistency reliability was .87, which is consistent with estimates found in previous research (Day et al., 2007)

The poor hygiene attitude dimension consists of four items that can be answered on a 7-point Likert-type scale, with answers ranging from 1 (“completely disagree”), to 7
Items on the poor hygiene attitude dimension reflect “beliefs about the appearance and physical self-care of the mentally ill” (Day et al., 2007, p. 2197). The poor hygiene attitude dimension includes such items as “People with mental illnesses tend to neglect their appearance” and “People with mental illnesses need to take better care of their grooming (bathe, clean teeth, use deodorant).” Day et al. (2007) reported that the poor hygiene attitude dimension accounted for 9.22% of the variance in the model, with factor loadings on each of the four items between .63 - .87, and an internal consistency reliability of .83. The current study found a similar internal consistency reliability of .88.

The visibility attitude dimension consists of four items that can be answered on a 7-point Likert-type scale, with answers ranging from 1 (“completely disagree”), to 7 (“completely agree”). Items on the visibility attitude dimension reflect “beliefs about one’s ability to recognize the symptoms of mental illness in others” (Day et al., 2007, p. 2197). The visibility attitude dimension includes such items as “I can tell that someone has a mental illness by the way he or she talks” and “I probably wouldn’t know that someone has a mental illness unless I was told” (reverse-scored). Day et al. (2007) reported that the visibility attitude dimension accounted for 5.83% of the variance in the model, with factor loadings on each of the four items between .54 - .85, and an internal consistency reliability of .78. For the current study, the internal consistency reliability was .76.

The treatability attitude dimension consists of three items that can be answered on a 7-point Likert-type scale, with answers ranging from 1 (“completely disagree”), to 7 (“completely agree”). Items on the treatability attitude dimension reflect “beliefs about
treatments for mental illnesses” (Day et al., 2007, p. 2197). The treatability attitude dimension includes such items as “There are effective medications for mental illnesses that allow people to return to normal productive lives” and “There is little that can be done to control the symptoms of mental illness” (reverse-scored). Day et al. (2007) reported that the treatability attitude dimension accounted for 5.22% of the variance in the model, with factor loadings on each of the three items between .55 - .69, and an internal consistency reliability of .71. For the current study, a similar internal consistency reliability of .79 was found.

The professional efficacy attitude dimension consists of two items that can be answered on a 7-point Likert-type scale, with answers ranging from 1 (“completely disagree”), to 7 (“completely agree”). Items on the professional efficacy attitude dimension reflect “beliefs in the ability of mental health professionals to effectively treat mental illness” (Day et al., 2007, p. 2198). The two professional efficacy attitude dimension items are: “Mental health professionals, such as psychiatrists and psychologists, can provide effective treatments for mental illnesses” and “Psychiatrists and psychologists have the knowledge and skills needed to effectively treat mental illness.” Day et al. (2007) reported that the professional efficacy attitude dimension accounted for 4.55% of the variance in the model, with factor loadings on each of the two items at .70 and .95, and an internal consistency reliability of .86. For the current study, the internal consistency reliability was .85.

The recovery attitude dimension consists of two items that can be answered on a 7-point Likert-type scale, with answers ranging from 1 (“completely disagree”), to 7 (“completely agree”). Items on the recovery attitude dimension reflect “beliefs about the
potential for recovery from a mental illness” (Day et al., 2007, p. 2198). Both of the two recovery attitude dimension items are reversed scored: “Once someone develops a mental illness, he or she will never be able to fully recover from it” and “People with mental illnesses will remain ill for the rest of their lives.” Day et al. (2007) reported that the recovery attitude dimension accounted for 3.58% of the variance in the model, with factor loadings on each of the two items at .66 and .75, and an internal consistency reliability of .75. For the current study, the internal consistency reliability was .78, similar to Day’s reported estimates.

**Level of Contact Report** (Holmes et al., 1999). The Level of Contact Report is a 12 item self-report measure adapted from other scales used in stigma research. To complete the measure, participants are instructed to place a check mark by the items that best depict their level of exposure to individuals with mental illness. The Level of Contact Report was developed by Holmes et al. (1999) using items from other scales commonly used in stigma research. To validate the items, Holmes et al. (1999) consulted a panel of experts adept in severe mental illness and psychiatric rehabilitation. Items were then ranked by this panel in terms of intimacy of contact.

According to Holmes et al. (1999), the inter-rater reliability for the mean rank order correlations was 0.83. Items on the Level of Contact Report include “I have watched a movie or television show in which a character depicted a person with mental illness” and “A friend of mine has a mental illness.” Holmes et al. (1999) reported that the index for familiarity with mental illness is the rank score of the most intimate item endorsed by the participant. Additionally, a score for the variable ‘exposure to mental
illness’ was derived by summing the number of items each participant endorsed on the Level of Contact Report, with scores ranging from 1 to 11.

**Social Desirability** (Marlowe-Crowne Social Desirability Scale-Short Form C, M-CSDS) Reynolds, 1982). The M-CSDS is an abbreviated, 13-item instrument measuring socially desirable responding. The 13-items used in the abbreviated measure were taken from the original 33-item Marlow-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960). All items on the M-CSDS are dichotomous (e.g., True or False). Reynolds (1982) reported that the M-C SDS Form C was initially developed using a sample of 608 undergraduate students (239 males and 369 females).

According to Reynolds (1982), the principle components factor analysis yielded a clear single factor structure for the M-C SDS Form C. Only those items loading on the factor at .40 or higher were included in the M-C SDS Form C (Reynolds, 1982). Reynolds (1982) reported acceptable reliability for the 13-item M-C SDS Form C, and reported that the M-C SDS Form C demonstrates significant concurrent validity with the original M-C SDS ($r = .93$). In contrast to the longer M-C SDS, Reynolds (1982) points out that the M-C SDS Form C is a reliable and valid alternative measure of social desirability that is substantially shorter. For the current study, the internal consistency reliability was .71.

**Procedure**

Following approval by the university’s Internal Review Board (IRB), the survey questionnaires were entered into a web based survey tool ( surveymonkey.com ) and a survey link was created. Upon clicking the link, participants were provided with the informed consent for their participation. In order to continue with participation,
respondents agreed to the terms of the informed consent. Following agreement, participants completed the demographic portion of the survey, the Level of Contact (e.g., familiarity with mental illness survey), followed by the MISS, the IRI, and finally the M-C SDS-Short Form - C.
Chapter 4

Results

This chapter summarizes and describes the statistical analyses used to evaluate the research questions and hypotheses outlined in the previous chapter. SPSS 19.0 (PASW) was used to examine all variables of interest for accuracy in data entry, missing values, the normality of distributions, appropriate ranges and frequencies, and univariate outliers. Many researchers suggest that adjusting the $p$-value to protect against making a Type I error (that is, finding significance when in fact there is none) when performing several tests of statistical significance simultaneously is critical to ensuring statistical significance (Bender & Lange, 2001; Hinkle, Wiersma, & Jurs, 2003). Although making $p$-value adjustments when running multiple tests has become in many ways the “gold standard” for statistical significance (Bender & Lange, 2001; Feise, 2002), not all researchers agree with using these procedures (Nakagawa, 2004; Perneger, 1998; Rothman, 1990).

For example, many researchers content that although $p$-value adjustment procedures (e.g., the Bonferroni adjustment) do in fact protect against finding significance when in fact there is none, they also disproportionately inflate the possibility of making a Type II error (that is, not finding significance when in fact there is) (Nakagawa, 2004; Perneger, 1998; Rothman, 1990). Put plainly: $p$-value adjustments create a very conservative statistical benchmark for finding statistical significance, thereby increasing the risk of deeming truly important differences as not significant when in fact they are significant. As a result, the current analysis used a less conservative
approach to reduce the risk of type II error and provides the reader with effect sizes so comparisons can be made (Nakagawa, 2004; Perneger, 1998; Rothman, 1990).

**Preliminary Analyses**

In order to assure that the variables were suitable for running further analyses, the variables were examined to assure that the assumptions of multiple regression were met. To determine if outliers were influencing the data, separate multiple regressions were run on each of the subscales of the dependent variable stigma against mental illness and the results were examined to determine if any data points had a Mahalanobis distance of greater than 23.72 or a Cook D value greater than 1 (Stevens, 2002).

No data points in the dependent variable (stigma against mental illness) were found to exist outside of either the Mahalanobis distance or Cook D parameters. Additionally, no univariate outliers were found in the independent variables: social desirability, empathic concern, perspective-taking, intimacy with mental illness, and exposure to mental illness. Review of the histogram and scatterplot for stigma against mental illness, as measured by the MISS, revealed no curvilinearity issues within the data.

Furthermore, the scatterplot revealed no patterns indicative of a violation of the assumption of homoscedasticity. Review of the normal P-Plot of the regression standardized residual indicated that the assumption of normality was met. Upon examination of the histogram, there did not appear to be a violation of normality as all participant data appears to be distributed normally for the MISS subscales. See Table 2 for correlations for stigma towards mental illness for participants and see Table 3 for means and standard deviations for all dependent and independent variables.
Table 2

Correlations for the Mental Illness Stigma Scale Subscales for Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Treat.</th>
<th>Relation Disruption</th>
<th>Hygiene</th>
<th>Anxiety</th>
<th>Visibility</th>
<th>Recovery</th>
<th>Prof. Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>.15</td>
<td>-.08</td>
<td>-.10</td>
<td>-.10</td>
<td>.06</td>
<td>.11</td>
<td>.15</td>
</tr>
<tr>
<td>Empathy</td>
<td>.14</td>
<td>-.11</td>
<td>-.12</td>
<td>-.10</td>
<td>.14</td>
<td>.08</td>
<td>.10</td>
</tr>
<tr>
<td>Social D.</td>
<td>-.00</td>
<td>.01</td>
<td>.00</td>
<td>-.08</td>
<td>.00</td>
<td>.05</td>
<td>.00</td>
</tr>
<tr>
<td>Intimacy</td>
<td>.15</td>
<td>-.31**</td>
<td>-.31**</td>
<td>-.32**</td>
<td>-.01</td>
<td>.11*</td>
<td>.06</td>
</tr>
<tr>
<td>Exposure</td>
<td>.21**</td>
<td>-.28**</td>
<td>-.27**</td>
<td>-.34**</td>
<td>.04</td>
<td>.12*</td>
<td>.11</td>
</tr>
</tbody>
</table>

Note: N = 299. ** p < .01. * p < .05.

Table 3

Means and Standard Deviations for Dependent and Independent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perspective-Taking</td>
<td>(1-5)</td>
<td>3.86</td>
<td>.60</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>(1-5)</td>
<td>4.10</td>
<td>.57</td>
</tr>
<tr>
<td>Intimacy</td>
<td>(1-12)</td>
<td>9.03</td>
<td>2.51</td>
</tr>
<tr>
<td>Exposure</td>
<td>(1-11)</td>
<td>5.13</td>
<td>2.39</td>
</tr>
<tr>
<td>Treatability</td>
<td>(1-7)</td>
<td>5.84</td>
<td>.86</td>
</tr>
<tr>
<td>Relationship Disruption</td>
<td>(1-7)</td>
<td>2.97</td>
<td>1.18</td>
</tr>
<tr>
<td>Poor Hygiene</td>
<td>(1-7)</td>
<td>2.35</td>
<td>1.03</td>
</tr>
<tr>
<td>Interpersonal Anxiety</td>
<td>(1-7)</td>
<td>2.60</td>
<td>1.10</td>
</tr>
<tr>
<td>Visibility</td>
<td>(1-7)</td>
<td>3.82</td>
<td>1.11</td>
</tr>
<tr>
<td>Recovery</td>
<td>(1-7)</td>
<td>5.50</td>
<td>1.20</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>(1-7)</td>
<td>5.22</td>
<td>1.25</td>
</tr>
</tbody>
</table>

Note: N = 299.

Research Questions

1. Are there significant group differences between participants that have familiarity with mental illness and those who do not have familiarity with mental illness on their dispositional level of empathy, perspective-taking, and stigma towards mental illness?

The question of whether individuals with familiarity with mental illness and individuals without familiarity with mental illness differ in stigma towards mental illness
on levels of empathy, perspective-taking and MISS, could not be answered because there
were no participants that reported having no familiarity with mental illness.

2. How much of the variance in the MISS attitude dimension ‘interpersonal
anxiety’ (i.e., feelings of anxiety, nervousness, uneasiness, and fear of physical harm
when around someone with a mental illness) is explained by the combination of empathy,
perspective-taking, familiarity with mental illness, and exposure to mental illness?

For question 2, a multiple linear regression analysis was conducted to determine if
intimacy with mental illness, exposure to mental illness, empathy, perspective-taking, and
social desirability would account for a significant amount of the variance in the
interpersonal anxiety subscale of the MISS. The independent variables were all entered
simultaneously into the regression equation and an alpha level of $\alpha = .05$ was utilized to
assess significance for this procedure.

For the second step of analysis, exploratory analysis in the multiple regression
found no multicollinearity problems in the data as evidenced by variance inflation factors
(VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.72. In addition, the
histogram and scatterplot for interpersonal anxiety, as measured by the MISS, revealed
no curvilinearity issues within the data.

Furthermore, the scatterplot revealed no patterns indicative of a violation of the
assumption of homoscedasticity. Review of the normal P-Plot of the regression
standardized residual indicated that the assumption of normality was met. Upon
examination of the histogram, there did not appear to be a violation of normality as all
participant data appears to be distributed normally.
Results from the multiple linear regression analysis suggest that a significant proportion of the total variation in interpersonal anxiety with regards to mental illness (the DV) was predicted by the set of independent variables, $F(5, 292) = 10.204, p < .001$. In total, the set of independent variables explained 14.9% of the variability in participant interpersonal anxiety with regards to mental illness. Two of the five independent variables were found to uniquely contribute to the explanation of variance.

Exposure, or the number of different ways in which an individual has come into contact with mental illness (e.g., through media contact; having a friend with a mental illness; working with individuals who have mental illnesses) had the strongest influence on participant anxiety toward mental illness ($\beta = -.214, p < .01$). The second strongest influence on participant anxiety toward mental illness was intimacy ($\beta = -.192, p < .01$), or an individual’s familiarity/knowledge with mental illness. Taken together, these results indicate that the more exposure and intimacy a person has with mental illness, the more likely they are to experience less feelings of anxiety, nervousness and fear of physical harm when around someone with a mental illness. See Table 4 for the summary of multiple regression analysis for the Anxiety subscale of the Mental Illness Stigma Scale for participants.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>Beta</th>
<th>$T$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intimacy</td>
<td>-.084</td>
<td>-.192</td>
<td>-2.853*</td>
</tr>
<tr>
<td>Exposure</td>
<td>-.099</td>
<td>-.214</td>
<td>-3.195*</td>
</tr>
<tr>
<td>Perspective-Taking</td>
<td>-.143</td>
<td>-.078</td>
<td>-1.340</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>-.028</td>
<td>-.015</td>
<td>-.251</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>-.043</td>
<td>-.075</td>
<td>-1.388</td>
</tr>
</tbody>
</table>

*Note: * = $p < .01$. 

Table 4

Summary of Regression Analysis for the Anxiety subscale of the Mental Illness Stigma Scale
3. How much of the variance in the MISS attitude dimension ‘relationship disruption’ (i.e., concerns that mental illness causes disruptions to normal and meaningful relationships) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

For question 3, a multiple linear regression model was conducted to determine if intimacy with mental illness, exposure to mental illness, empathy, perspective-taking, and social desirability would account for a significant amount of the variance in the relationship disruption subscale of the MISS. A regression equation was estimated that included all independent variables and an alpha level of $\alpha = .05$ was utilized to assess significance for this procedure.

For the second step of analysis, exploratory analysis in the multiple regression found no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.72. In addition, the histogram and scatterplot for relationship disruption, as measured by the MISS, revealed no curvilinearity issues within the data. Furthermore, the scatterplot revealed no patterns indicative of a violation of the assumption of homoscedasticity. Review of the normal P-Plot of the regression standardized residual indicated that the assumption of normality was met. Upon examination of the histogram, there did not appear to be a violation of normality as all participant data appears to be distributed normally.

Results from the multiple linear regression analysis suggest that a significant proportion of the total variation in relationship disruption with regards to mental illness was predicted by the set of independent variables, $F(5, 292) = 7.695, p < .001$. In total, the set of independent variables explained 11.6% of the variability in participant
relationship disruption with regards to mental illness. Two of the five independent variables were found to contribute to the explanation of variance. Intimacy, or an individual’s familiarity/knowledge with mental illness, had the strongest influence on participant attitude about relationship disruption and mental illness ($\beta = -.226, p < .001$). The second strongest influence on participant attitude about relationship disruption and mental illness was exposure ($\beta = -.135, p < .05$), or the number of instances an individual has come across a mental illness and/or information related to mental illness (e.g., through media contact; having a friend with a mental illness; working with individuals who have mental illnesses).

In sum, these results suggest that the more exposure to and intimacy with mental illness a person has, the more likely it is that they will be less concerned about mental illnesses causing disruptions to private and public relationships. No other variables were found to be explaining a significant amount of the variance in relationship disruption.

See Table 5 for summary of multiple regression analysis for the Relationship Disruption subscale of the Mental Illness Stigma Scale for participants.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intimacy</td>
<td>-.106</td>
<td>-.226</td>
<td>-3.304**</td>
</tr>
<tr>
<td>Exposure</td>
<td>-.067</td>
<td>-.135</td>
<td>-1.983*</td>
</tr>
<tr>
<td>Perspective-Taking</td>
<td>-.116</td>
<td>-.059</td>
<td>-1.994</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>-.063</td>
<td>-.031</td>
<td>-.507</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>.015</td>
<td>.025</td>
<td>.453</td>
</tr>
</tbody>
</table>

*Note. ** = $p < .001$. * = $p < .05$.  

4. How much of the variance in the MISS attitude dimension ‘poor hygiene’ (i.e., negative beliefs about the appearance and physical self-care of the mentally ill) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

For question 4, a multiple linear regression model was conducted to determine if intimacy with mental illness, exposure to mental illness, empathy, perspective-taking, and social desirability would account for a significant amount of the variance in the poor hygiene subscale of the MISS. A regression equation was estimated that included all independent variables and an alpha level of $\alpha = .05$ was utilized to assess significance for this procedure. For the second step of analysis, exploratory analysis in the multiple regression found no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002).

The largest VIF was 1.72. In addition, the histogram and scatterplot for poor hygiene, as measured by the MISS, revealed no curvilinearity issues within the data. Furthermore, the scatterplot revealed no patterns indicative of a violation of the assumption of homoscedasticity. Review of the normal P-Plot of the regression standardized residual indicated that the assumption of normality was met. Upon examination of the histogram, there did not appear to be a violation of normality as all participant data appears to be distributed normally.

Results from the multiple linear regression analysis suggest that a significant proportion of the total variation in poor hygiene with regards to mental illness (the DV) was predicted by the set of independent variables, $F(5, 292) = 8.104, p < .001$. In total, the set of independent variables explained 12.2% of the variability in participant
endorsement of poor hygiene with regards to mental illness. Only intimacy, or an individual’s familiarity/knowledge with mental illness, with mental illness was found to contribute to the explanation of variance ($\beta = -.100, p < .001$).

More specifically, the results indicate that individuals with more intimacy with mental illness, are also less likely to endorse negative beliefs about the appearance and physical self-care of the mentally ill. No other variables were found to be explaining a significant amount of the variance in poor hygiene. See Table 6 for summary of multiple regression analysis for the Poor Hygiene subscale of the Mental Illness Stigma Scale for participants.

Table 6
Summary of Regression Analysis for the Poor Hygiene subscale of the Mental Illness Stigma Scale

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Beta</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intimacy</td>
<td>-.100</td>
<td>-.243</td>
<td>-3.568*</td>
</tr>
<tr>
<td>Exposure</td>
<td>-.050</td>
<td>-.114</td>
<td>-1.681</td>
</tr>
<tr>
<td>Perspective-Taking</td>
<td>-.138</td>
<td>-.081</td>
<td>-1.356</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>-.072</td>
<td>-.040</td>
<td>-.661</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>.007</td>
<td>.013</td>
<td>.230</td>
</tr>
</tbody>
</table>

*Note. * = $p < .001$.

5. How much of the variance in the MISS attitude dimension ‘visibility’ (i.e., beliefs about one’s ability to recognize the symptoms of mental illness in others) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

For question 5, a multiple linear regression model was conducted to determine if intimacy with mental illness, exposure to mental illness, empathy, perspective-taking, and social desirability would account for a significant amount of the variance in the visibility
subscale of the MISS. A regression equation was estimated that included all independent variables and an alpha level of $\alpha = .05$ was utilized to assess significance for this procedure. For the second step of analysis, exploratory analysis in the multiple regression found no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.72. In addition, the histogram and scatterplot for visibility, as measured by the MISS, revealed no curvilinearity issues within the data. Furthermore, the scatterplot revealed no patterns indicative of a violation of the assumption of homoscedasticity. Review of the normal P-Plot of the regression standardized residual indicated that the assumption of normality was met. Upon examination of the histogram, there did not appear to be a violation of normality as all participant data appears to be distributed normally. Results from the multiple linear regression analysis suggest that the set of independent variables did not predict a significant proportion of the total variation in visibility with regards to mental illness (the DV).

6. How much of the variance in the MISS attitude dimension ‘treatability’ (i.e., reflects beliefs about the prognosis of mental illness- that is, how treatable a mental illness is) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

For question 6, a multiple linear regression model was conducted to determine if intimacy with mental illness, exposure to mental illness, empathy, perspective-taking, and social desirability would account for a significant amount of the variance in the treatability subscale of the MISS. A regression equation was estimated that included all independent variables and an alpha level of $\alpha = .05$ was utilized to assess significance for
this procedure. For the second step of analysis, exploratory analysis in the multiple regression found no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.72. In addition, the histogram and scatterplot for treatability, as measured by the MISS, revealed no curvilinearity issues within the data. Furthermore, the scatterplot revealed no patterns indicative of a violation of the assumption of homoscedasticity. Review of the normal P-Plot of the regression standardized residual indicated that the assumption of normality was met. Upon examination of the histogram, there did not appear to be a violation of normality as all participant data appears to be distributed normally.

Results from the multiple linear regression analysis suggest that a significant proportion of the total variation in treatability with regards to mental illness (the DV) was predicted by the set of independent variables, $F(5, 292) = 4.173, p < .01$. In total, the set of independent variables explained 6.7% of the variability in participant endorsement of treatability with regards to mental illness. Only exposure, or the number of instances an individual has come across a mental illness and/or information related to mental illness (e.g., through media contact; having a friend with a mental illness; working with individuals who have mental illnesses), to mental illness was found to contribute to the explanation of variance ($\beta = .160, p < .05$). More specifically, the findings indicate that the more exposure a person has with mental illness, the more likely they are to endorse positive beliefs about the prognosis of a mental illness. No other variables were found to be explaining a significant amount of the variance in treatability. See Table 7 for summary of multiple regression analysis for the Treatability subscale of the Mental Illness Stigma Scale for participants.
Table 7

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Beta</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intimacy</td>
<td>.016</td>
<td>.046</td>
<td>.649</td>
</tr>
<tr>
<td>Exposure</td>
<td>.057</td>
<td>.160</td>
<td>2.279*</td>
</tr>
<tr>
<td>Perspective-Taking</td>
<td>.167</td>
<td>.117</td>
<td>1.918</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>.095</td>
<td>.064</td>
<td>1.032</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>-.007</td>
<td>-.016</td>
<td>-.282</td>
</tr>
</tbody>
</table>

*Note. * = p < .05.

7. How much of the variance in the MISS attitude dimension ‘professional efficacy’ (i.e., beliefs about the efficacy of mental health professionals in treating mental illness) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

For question 7, a multiple linear regression model was conducted to determine if intimacy with mental illness, exposure to mental illness, empathy, perspective-taking, and social desirability would account for a significant amount of the variance in the professional efficacy subscale of the MISS. A regression equation was estimated that included all independent variables and an alpha level of \( \alpha = .05 \) was utilized to assess significance for this procedure.

For the second step of analysis, exploratory analysis in the multiple regression found no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.72. In addition, the histogram and scatterplot for professional efficacy, as measured by the MISS, revealed no curvilinearity issues within the data. Furthermore, the scatterplot revealed no patterns indicative of a violation of the assumption of homoscedasticity.

Review of the normal P-
Plot of the regression standardized residual indicated that the assumption of normality was met. Upon examination of the histogram, there did not appear to be a violation of normality as all participant data appears to be distributed normally. Results from the multiple linear regression analysis suggest that the set of independent variables did not predict a significant proportion of the total variation in professional efficacy with regards to mental illness.

8. How much of the variance in the MISS attitude dimension ‘recovery’ (i.e., beliefs about the potential for recovery from mental illness - that is, beliefs about whether or not a mental illness can go into full remission or not) is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

For question 8, a multiple linear regression model was conducted to determine if intimacy with mental illness, exposure to mental illness, empathy, perspective-taking, and social desirability would account for a significant amount of the variance in the recovery subscale of the MISS. A regression equation was estimated that included all independent variables and an alpha level of $\alpha = .05$ was utilized to assess significance for this procedure.

For the second step of analysis, exploratory analysis in the multiple regression found no multicollinearity problems in the data as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). The largest VIF was 1.72. In addition, the histogram and scatterplot for recovery, as measured by the MISS, revealed no curvilinearity issues within the data. Furthermore, the scatterplot revealed no patterns indicative of a violation of the assumption of homoscedasticity. Review of the normal P-
Plot of the regression standardized residual indicated that the assumption of normality was met. Upon examination of the histogram, there did not appear to be a violation of normality as all participant data appears to be distributed normally. Results from the multiple linear regression analysis suggest that the set of independent variables did not predict a significant proportion of the total variation in recovery with regards to mental illness.

**Post-hoc Analysis**

A post-hoc multiple linear regression analysis was conducted to determine how much of the variance in the MISS subscales could be explained by those participants who did not endorse having a mental illness themselves ($N = 264$). All of the other independent variables (empathy, perspective-taking, and social desirability) were included in the model along with the modified intimacy variable (i.e., excluding those who endorsed personally having a mental illness). An alpha level of $\alpha = .05$ was utilized to assess significance for this procedure. Multiple regression analyses were used to test whether the independent variables of empathic concern, perspective-taking, social desirability, and the modified intimacy variable accounted for a significant amount of variance in each of the seven MISS subscales.

Preliminary exploratory analyses indicated there were no multicollinearity problems in any of the multiple regressions as evidenced by variance inflation factors (VIF) of less than 10 (Stevens, 2002). In addition, the histograms and scatterplots for each of the multiple regressions revealed no curvilinearity issues within the data and that the data appears to be distributed normally. Furthermore, the scatterplots revealed no patterns indicative of a violation of the assumption of homoscedasticity for any of the
regressions. Review of the normal P-Plot of the regression standardized residual indicated that the assumption of normality was met for each of the analysis. Results from the post-hoc multiple linear regression analysis suggest that removing those who identified as personally having a mental illness did not produce significantly different results than with the primary analyses. Possible interpretations, limitations, and future research are suggested in Chapter 5.
Chapter 5
Discussion

Despite growing efforts to combat stigma against mental illness (Crisp et al., 2000; Sartorius & Schulze, 2005), many researchers maintain that public perceptions of mental illness continue to be stigmatizing (Link et al., 1999) and are in fact worsening (Abbey et al., 2011; Phelan et al., 2000). Stigma is posited to be the combination of stereotypes (e.g., labeling of individuals based on rigid and often inaccurate information or beliefs), prejudice (e.g., the negative emotional affect that accompanies the stereotype), and discrimination (the devaluing, rejection, and curtailing of the rights of the stigmatized group). The stigma associated with mental illness often carries with it a host of other deleterious real-world manifestations, which systematically circumscribe the opportunities available to the stigmatized individual (Bathje & Pryor, 2011; Corrigan et al., 2011; Dinos et al., 2004; Farina & Felner, 1973; Manning & White, 1995; Link et al., 1991; Ritscher et al., 2003; Satcher, 2000).

Some of the consequences resulting from these stigmatizing perceptions about individuals with mental illness include restricted employment (Farina & Felner, 1973; Manning & White, 1995) and housing opportunities (Corrigan et al., 2011; Dinos et al., 2004), lowered self-esteem and social status (Link, Mirotznik, & Cullen, 1991; Ritscher et al., 2003), as well as underutilization of mental health treatment services (Bathje & Pryor, 2011; Satcher, 2000). As a result, some researchers maintain that the stigma associated with having a mental illness can, for many individuals, be more debilitating than the symptoms of the mental illness itself (Hinshaw & Stier, 2008).
Common stereotypes associated with individuals who have a mental illness include that they are more dangerous and unpredictable when compared to the general population (Angermeyer & Matschinger, 2005; Arboleda-Florenz, 2003; Crisp et al., 2000), that they are generally unkempt and have poor hygiene standards (Schumacher et al., 2003), and that they have deficiencies in social skills (Corrigan & Kleinlein, 2005). While numerous studies have investigated and highlighted several reasons for why a person may hold stigmatizing attitudes towards individuals with mental illnesses (e.g., Corrigan & Watson, 2007; Silton et al., 2011), the field still lacks clear knowledge about which factors may be contributing to a less stigmatizing disposition toward the mentally ill.

A number of researchers suggest that familiarity with mental illness and exposure to mental illness is related to a less stigmatizing outlook towards the mentally ill (Chang & Horrocks, 2006; Lefley, 1989; Steele et al., 2010). Other research indicates that individuals high in interpersonal skills such as empathy and perspective-taking have significantly improved attitudes towards other historically marginalized and oppressed groups (Batson et al., 1997; Cooney et al., 2006; Dovidio et al., 2011).

The current study examined whether stigma towards mental illness was predicted by participants’ intimacy with and exposure to mental illness as well as their ability to set aside their own needs and values in order to consider and affectively connect with another’s perspective and plight (e.g., empathy and perspective-taking). The results of this investigation indicated that empathy and perspective-taking did not uniquely account for the variance in stigma towards mental illness among participants. However, both intimacy with mental illness and exposure to mental illness did uniquely account for a
significant amount of variance in participant stigma towards mental illness, with intimacy and exposure both acting as negative predictors of stigma towards mental illness among participants.

**Research Question 1**

*Are there significant group differences between participants that have familiarity with mental illness and those who do not have familiarity with mental illness on their dispositional level of empathy, perspective-taking, and stigma towards mental illness?*

The findings of the current study did not support the ability to carry out an analysis comparing group differences between participants that have familiarity with mental illness and those who do not have familiarity with mental illness because not a single participant endorsed not having had any familiarity with mental illness. Put simply: all participants in this study had some exposure to and intimacy with mental illness. There are many possible explanations for this finding. To begin, numerous researchers have cited that there have been growing efforts in the recent decade to combat stigma against mental illness (Crisp et al., 2000; Sartorius & Schulze, 2005) both at a national (Satcher, 2000; Silton et al., 2011) and international level (Barke et al., 2011; Gaebel & Baumann, 2003; Reavley & Jorm, 2011; WHO, 2001). For example, starting in the year 2000, the White House initiated a Conference on Mental Health to address the problem of stigma towards mental illness. Subsequently a 5-year campaign aimed at changing the publics’ perception about mental illness commenced. Foxhall (2005) published a report outlining the outreach efforts of this campaign and noted that “never before has an anti-stigma public service initiative used modern mass communication techniques over a sustained period of time” (p. 48). It is conceivable that these more
recent and sustained efforts to reduce the stigma associated with mental illness may be shaping public attitudes in this domain. In addition, information about mental illness is now ubiquitous and can be found in a multitude of media outlets including various news corporations (Pear, 2013; Schwartz, 2013), motion picture films (Cohen, Gigliotti, & Russell, 2012), and music (Moore, Gordon, Ranaldo, & Shelley, 2009; Smith, 2007).

It is also possible, that in general, the public has experienced an increase in both exposure to and intimacy with mental illness as a sheer result of this media saturation. Indeed, it is plausible that the increase in media coverage surrounding mental illness along with the anti-stigma campaigns are allowing for a more open public dialogue and debate about mental illness in general, while at the same time effectively making the once taboo topic of mental illness a more acceptable commonplace and less stigmatized subject. It is also relevant to note that while the data for this study were being collected, a national debate about mental illness, gun violence, and the need for tighter gun control was transpiring. It is possible that these current news events also impacted participant exposure and familiarity with mental illness.

In addition, it should be noted that the lifetime prevalence rate of adults diagnosed with a mental illness in the United States is 46.4% (Kessler et al., 2005), making the likelihood of personally having, knowing, or coming into contact with someone with a mental illness relatively high. The current finding helps to substantiate previous survey research which indicates that most Americans will likely either personally know, personally experience, or come into contact with an individual with a mental illness at some point in their life.
Research Question 2

How much of the variance in the MISS attitude dimension ‘interpersonal anxiety’ is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?

Results regarding how much of the variance in interpersonal anxiety is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness suggest that a significant proportion of the total variation in interpersonal anxiety with regards to mental illness was predicted by the set of independent variables (empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness).

However, only exposure to and intimacy with mental illness were found to be explain a significant amount of the variance in participants feelings of anxiety, nervousness, uneasiness, and fear of physical harm when around someone with a mental illness (i.e., interpersonal anxiety). More specifically, the findings indicate that participants with higher levels of exposure to and intimacy with mental illness, also tended to endorse feeling less apprehension, edginess, worry, and concern of physical harm when around someone with a mental illness.

While some research indicates that exposure to and intimacy with individuals with mental illness increases stigma towards mental illness (Byrne, 2000; Lefley, 1989), other studies indicate that familiarity and experience with mental illness is a strong indicator of a less stigmatizing disposition towards mental illness in general (Corrigan et al., 2001; Penn et al., 1994). The findings of the present study are consistent with the body of research indicating that exposure to and intimacy with mental illness tends to
decrease individuals’ feelings of anxiety, nervousness, uneasiness, and fear of physical harm when around someone with a mental illness (e.g., Holmes et al., 1999; Link & Cullen, 1986).

In considering possible explanations for this finding, it seems noteworthy to highlight the finding that having more exposure to and intimacy with people with mental illnesses can lead to more positive perceptions and less feelings of anxiety about individuals with mental illnesses in general. It is possible, for example, that having more intimacy with and exposure to mental illnesses can lead to more instances in which the person with a mental illness is observed as acting inconsistent with the common stereotypes associated with individuals with mental illnesses in general. In this way, exposure to and intimacy with people who have mental illnesses can trigger the need for an individual to resolve the discrepancy between the stereotype of how people with a mental illness “should be,” and what the actual observed behavior was (e.g., the action inconsistent with the stereotype). Specifically, resolving the discrepancy can often lead to a person discounting the stereotype, rather than discounting their own observations and experiences (Pettigrew, 2009).

A number of researchers maintain that positive exposure to an individual with a mental illness generally results in improved attitudes about that person specifically, but also tends to generalize to more positive attitudes towards individuals with mental illness as a whole (Couture & Penn, 2003; Pettigrew, & Tropp, 2006). Additionally, it is reasonable to conceive that national efforts aimed to combat stigma against mental illness (Crisp et al., 2000; Sartorius & Schulze, 2005) have shaped and changed public perceptions about mental illnesses in general, as many of the anti-stigma campaigns seek
to address and dispel any myths, fears, anxieties, or concerns that people may have about mental illnesses (Satcher, 2000; Silton et al., 2011). It is likely that these campaigns specifically address the stereotype that individuals with mental illnesses are ‘dangerous and unpredictable’ since this is one of the most common general public misconceptions about mental illness (Angermeyer & Matschinger, 2005; Arboleda-Florenz, 2003; Crisp et al., 2000).

**Research Question 3**

*How much of the variance in the MISS attitude dimension ‘relationship disruption’ is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?*

Results regarding how much of the variance in relationship disruption is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness suggest that a significant proportion of the total variation in relationship disruption with regards to mental illness was predicted by the set of independent variables (empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness). However, only exposure to and intimacy with mental illness explained a significant amount of the variance in participants concerns that mental illness cause disruptions to normal and meaningful relationships (i.e., relationship disruption). More specifically, the findings indicate that the more exposure to and intimacy with mental illness a person has, the more likely it is that they will be less concerned about mental illnesses causing disruptions to normal and meaningful relationships. Despite the fact that research has found that many individuals with a mental illness express difficulty in maintaining social connection and intimate
relationships (Dinos et al., 2004; Jones et al., 1984; Socal & Holtgrave, 1992), and other research suggests that many individuals report being unwilling to have an intimate relationship with an individual with a mental illness (Link et al., 2004; Martin et al., 2000), the results from the present study suggest that individuals with more exposure to and intimacy with mental illness also express less concern about mental illnesses causing disruptions to normal and meaningful relationships.

Before reflecting on possible reasons for this finding, it is important to underscore that having more exposure to and intimacy with individuals with mental illnesses can lead to more positive perceptions regarding the impact that mental illness can have on relationships both public and private. There seem to be several potential explanations for this result. To begin, similar to the argument made for the interpersonal anxiety subscale finding, it is possible that as an individual’s exposure to and intimacy with mental illness increases, so does the number of instances in which that individual is able to observe people with mental illnesses engage in stereotype-inconsistent ways.

As discussed earlier, it is probable that when individuals are presented with information that is contrary to the stereotype(s) held about people with mental illnesses, that they are forced to consider the veracity of the stereotype in light of the stereotype-inconsistent evidence. It seems highly probable that an individual’s concerns regarding the negative impact (e.g., disruption) that mental illness can have on relationships is quickly debunked as they are met with information and observations that are inconsistent with this stereotype. This assertion is supported by a meta-analysis of 713 independent samples from 515 studies which found that making contact with a member of a stigmatized group tends to reduce stigma and prejudice towards the individual from the
stigmatized group specifically, and also towards the stigmatized group in general (Pettigrew & Tropp, 2006). As such, it seems possible that increases in an individual’s exposure to and intimacy with mental illness can lead to less concern about mental illnesses causing disruptions to normal and meaningful relationships (a common stereotype and prejudice).

It is also likely that the media may be shaping public perceptions regarding what it is like to be in either a public or private relationship with an individual with a mental illness. For example, there are a number of motion picture films (Binder & Binder, 2007; Cohen et al., 2012; Giarraputo, Golin, Juvonen, & Segal, 2004; Jones, Lloyd, 2011), reality television programs (Bolicki, 2013), and talk shows (Winfrey, 2011; 2013) that focus heavily on some of the common struggles and joys of being in an intimate relationship with a person that has a mental illness. It is possible that these types of programs help shape peoples’ perceptions about mental illnesses in general, and more specifically with regards to the impact that mental illness may have on relationships both public and private.

**Research Question 4**

*How much of the variance in the MISS attitude dimension ‘poor hygiene’ is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?*

Results regarding how much of the variance in poor hygiene is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness suggest that a significant proportion of the total variation in poor hygiene associated with mental illness was predicted by the set of independent variables
(empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness). However, only intimacy with mental illness was found to be explaining a significant amount of the variance in participants’ beliefs about the appearance and physical self-care of the mentally ill (i.e., poor hygiene). More specifically, the finding indicates that participants who endorsed having more intimacy with mental illness, where also less likely to endorse negative beliefs about the appearance and physical self-care of the mentally ill.

Although a large body of research indicates that personal appearance may lead others to perceive an individual as having a mental illness (e.g., Corrigan, 2000; Farina, 1998; Schumacher et al., 2003), with individuals appearing disheveled or unkempt receiving more negative reactions from the public at large (Schumacher et al., 2003), the results of the present study suggest that the more intimacy a person has with mental illnesses, the less likely they are to support negative attitudes about the appearance and physical self-care of the mentally ill.

In considering possible explanations for this finding, it seems quite likely that once a person has had more intimate contact with an individual with a mental illness, this stereotype that all or most mentally ill people are disheveled and unkempt is debunked. It is also likely that the media may be helping to change public perceptions about mental illnesses in general, but also more specifically with regards to certain common stereotypes (e.g., mentally ill individuals exhibit poor hygiene).

For example, a recently released motion picture film (Cohen et al., 2012) chronicles one man’s struggle with Bipolar disorder as he tries to reintegrate back into society after a devastating separation from his wife that resulted in a psychotic break and
hospitalization. In this film, the man with Bipolar disorder is consistently portrayed as well-groomed and is also depicted as behaving in stereotype-inconsistent ways throughout the film; thereby defying many other common stereotypes associated with mental illness.

**Research Question 5**

*How much of the variance in the MISS attitude dimension ‘visibility’ is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?*

Results regarding how much of the variance in visibility is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness indicate that a significant proportion of the total variation in visibility, or one’s beliefs about their ability to recognize the symptoms of mental illness in others, was not predicted by the set of independent variables (empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness).

Although it seems logical to assume that both exposure to and intimacy with a person(s) with a mental illness would influence an individual’s beliefs about their ability to recognize the symptoms of mental illness, the results from the present study suggest that this is not the case. Neither exposure to nor intimacy with mental illness were found to be explaining a significant amount of the variance associated with one’s beliefs about their ability to recognize the symptoms of mental illness. One possible explanation for this finding has to do with Goffman’s (1963) distinction between stigmatized groups in terms of discredited and discreditable identities.
According to Goffman (1963) individual’s whose identities are discredited come from stigmatized groups in which the stigmatized “mark or characteristic” is evident and straightforward to detect (e.g., a person’s skin color or physical disability). In contrast, Goffman (1963) argues that individual’s whose identities are discreditable come from stigmatized groups in which the stigmatized “mark or characteristic” is not readily apparent and is thus more easily concealed (e.g., sexual orientation or mental illness). A number of researchers maintain that individuals from stigmatized groups whose identities are discreditable tend to exert an enormous amount of energy in an effort to hide any symptoms that may identify them (e.g., Hinshaw, 2007; Link et al., 1999). Furthermore, Byrne (2000) argues that the adaptive response to private and public stigma and the shame associated with it is secrecy. In this way, it seems likely that recognizing the symptoms of mental illness in others may be quite challenging for most people – especially without some prior training. It is also possible that despite gaining exposure to and familiarity with mental illness, an individual’s ability to recognize the symptoms of mental illness in others is often thwarted by efforts on the part of the individual with a mental illness to hide any symptoms that may identify them. Indeed, the present findings seem to point to this possibility as neither exposure to nor intimacy with mental illness were found to be explaining a significant amount of the variance associated with an individual’s beliefs about their ability to recognize the symptoms of mental illness.

**Research Question 6**

*How much of the variance in the MISS attitude dimension ‘treatability’ is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?*
Results regarding how much of the variance in treatability is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness suggest that a significant proportion of the total variation in treatability with regards to mental illness was predicted by the set of independent variables (empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness).

However, only exposure to mental illness was found to be explaining a significant amount of the variance in participants’ beliefs about the prognosis of mental illness (i.e., treatability). More specifically, the findings indicate that the more exposure a person has with mental illness, the more likely they are to endorse positive and optimistic beliefs about the prognosis of a mental illness.

In considering possible explanations for this finding, it seems probable that advancements in science and pharmaceutical drug manufacturing, along with the media exposure these innovations receive, may be helping to change public perceptions about mental illnesses in general - and more specifically with regards to its treatability (i.e., the publics’ beliefs about the prognosis of a mental illness). For example, in the United States it is not uncommon to see mass promotion of prescription drugs via Direct-To-Consumer (DTC) advertisements on the television.

Proponents of these advertisements argue that DTC ads can help educate the public about treatments available for important mental health issues, reduce stigmas associated with mental health conditions by openly speaking about them, and empower individuals to be more pro-active and responsible about their health care by encouraging them to speak with health care professionals about their problems (Holmer, 2002; Kelly, 2004). It is possible that these advancements in pharmaceutical psychiatric medications,
along with their mass promotion via the media, may be both exposing people to more information about mental illness, but also changing peoples’ beliefs about the prognosis and stigma associated with mental illnesses.

**Research Question 7**

*How much of the variance in the MISS attitude dimension ‘professional efficacy’ is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?*

Results regarding how much of the variance in professional efficacy is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness indicate that a significant proportion of the total variation in professional efficacy with regards to mental illness was not predicted by the set of independent variables (empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness). In other words, the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness were not significantly influencing an individual’s beliefs about the efficacy of mental health professionals in treating mental illness.

Despite the fact that there are numerous studies indicating that psychotherapy and counseling are often more effective for treating mental disorders when compared to medication only treatment (e.g., Dimidjian et al., 2006; Hollon, Stewart, & Strunk, 2006), the findings of the current study suggest that the general public remains uninformed about mental health professional’s competence and success in treating mental illnesses. One possible explanation for this finding is that mental health professionals cannot compete with the mass promotion and advertising that psychiatric prescription drug drugs
receive, and as a result, the information available about mental health professional’s
efficacy in treating mental illness is not as readily available for the public to access (e.g.,
it is not on television).

In addition, many of the messages that the general public receives via mass media
promotion seem biased towards psychiatric medications, with many advertisements
stating that psychiatric medications are the most, and in some cases, the only method of
effective treatment for mental illnesses. For example, in a recent study that coded 103
prescription drug advertisements aired during prime time television hours, the authors
found that none of the advertisements suggested lifestyle change to be a possible
alternative to prescription drugs, with some of the advertisements indicating that lifestyle
change was insufficient in treating conditions (Frosch, Krueger, Hornik, Cronholm, &
Barg, 2007). As a result, the general public may be receiving skewed and inaccurate
information with regards to the various effective approaches available for treating mental
illness. In addition, Philo (1994) argues that when information about mental health
professionals is presented in the media, it is often negative and inaccurate. This
misinformation may be contributing to the erroneous assumption/perception that mental
health professionals are not very effective in treating mental illness.

Another possible explanation for this finding may have to do with the public’s
changing perceptions regarding the etiology of mental illnesses. Over the past decade, a
number of anti-stigma campaigns have focused their attention on increasing the publics’
“mental health literacy” with regards to the biological origins of mental disorders
(Schomerus et al., 2012). Past research indicates that people are more likely to ascribe
responsibility and blame to a person (e.g., stigmatize) for a condition if they believe that
the condition is personally controllable (Schwarzer & Weiner, 1991). A number of researchers argue that by providing the public with information about the biological basis for mental disorders, individual attitudes towards persons with mental illnesses should improve because mental disorders will no longer be perceived as ‘personally controllable,’ that is, within one’s personal control, and therefore a person with a mental illness should not be blamed or held responsible for having the disorder (Corrigan, 2000).

Recently, a meta-analysis was conducted to determine whether these recent efforts aimed at educating the public about the biological basis of mental illness have in fact improved public understanding of mental illness (Schomerus et al., 2012). The results of this study indicated a consistent trend towards increased mental health literacy, and in particular, towards a biological model of mental illness (Schomerus et al., 2012). It is possible that this new understanding about the biological basis of mental disorders has also influenced the public’s perceptions regarding the effectiveness of non-medications based treatments (i.e., mental health professionals). It seems probable to assume that if an individual believes that a mental illness is purely biologically based, that they may also believe that the only way to effectively treat that mental illness is through psychiatric medication. In this way, an individual can at the same time endorse positive and optimistic beliefs about the prognosis of a mental illness thanks to psychiatric medications, while at the same time believe that mental health professionals are not very effective in treating mental illness.

It is worthy to note that recent advances in neuropsychology and neurochemistry have allowed researchers to begin accumulating substantive evidence in support of the efficacy of various therapy and counseling modalities in treating mental illnesses (Adler-
Tapia, 2012; Allen, 2000; Bergmann, 2012; Ecker et al., 2012; Phelps, 2008), thus calling into questions the argument that mental illness is solely a function of biology. It will be important to investigate if and how such research efforts will influence public perceptions regarding the efficacy of mental health professionals in treating mental illnesses in light of new research findings as they become available.

**Research Question 8**

*How much of the variance in the MISS attitude dimension ‘recovery’ is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness?*

Results regarding how much of the variance in recovery is explained by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness indicate that a significant proportion of the total variation in recovery with regards to mental illness was not predicted by the set of independent variables (empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness). In other words, individuals’ beliefs about the potential for recovery from mental illness - that is, individuals’ beliefs about whether a mental illness can go into full remission or not, were not significantly influenced by the combination of empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness.

Although it is conceivable that both exposure to and intimacy with a person(s) with a mental illness would influence an individual’s beliefs about the potential for recovery from mental illness, the results from the present study suggest that this is not the case. Neither exposure to nor intimacy with mental illness were found to be explaining a significant amount of the variance associated with one’s beliefs about whether a mental
illness can go into full remission or not. Before reflecting on possible explanations for this finding, it is helpful to consider the two items which comprise the Recovery subscale of the MISS: “once someone develops a mental illness, he or she will never be able to fully recover from it,” and “people with mental illnesses will remain ill for the rest of their lives.” In considering both of these items, it seems possible that many participants may have experienced difficulty answering these questions due to the lack of specificity regarding which mental illness one should consider in terms of recovery. Indeed, there are mental illnesses from which a person will never fully recover (e.g., Alzheimer’s), and other mental illnesses that have very promising prognoses for recovery (e.g., anxiety disorders).

As such, it is reasonable to assume that participants may have had trouble answering the Recovery subscale questions due to the actual variability in recovery from mental illnesses. Additionally, it is important to note that individual interpretations and definitions for what constitutes ‘recovery’ from a mental illness can vary widely from person to person. For example, for some people, recovery from a mental illness may be the ability to live a fulfilling and productive life. In contrast, others may interpret recovery to mean the reduction or complete remission of symptoms. Therefore, each participant’s subjective definition or interpretation of recovery may be influencing individuals’ beliefs about whether a mental illness can go into full remission or not.

Post-Hoc Analysis

A post-hoc multiple linear regression analysis was conducted to determine how much of the variance in the subscales of the Mental Illness Stigma Scale (MISS; interpersonal anxiety, relationship disruption, poor hygiene, and treatability) could be
explained by the combination of empathy, perspective-taking, familiarity with mental illness, exposure to mental illness, and an adapted intimacy variable which included only those participants who did not endorse having a mental illness themselves. Results from the post-hoc multiple linear regression analysis suggest that removing those who identified as personally having a mental illness did not produce significantly different results than with the primary analyses.

**Limitations**

Though the current study adds to the scientific understanding of how exposure to and intimacy with mental illness impact stigma towards mental illness, it is also important to consider several limitations of this study. To begin, because multiple regression procedures were utilized to answer the research questions for this study, the ability to draw any causal explanations for these findings was constrained. Multiple regression procedures are used in social sciences research to explain or predict a criterion variable (for this study the criterion variables were the different aspects of stigma against mental illness) with a set of predictor variables (for this study the set of predictor variables were empathy, perspective-taking, familiarity with mental illness, and exposure to mental illness). Despite this limitation, multiple regression is still accepted as a common form of statistical analysis within psychological research (Petrocelli, 2003; Wampold & Freund, 1987).

Another limitation of this study had to do with the demographic makeup of the participants. For the current study, the average age of participants was 42.47, 67.5% of the sample was female, the majority of participants reported either having a four year Bachelor’s degree (n = 104, 34.4%) or a Master’s degree (n = 103, 34.1%), and 79% of
participants identified predominantly as Caucasian. In addition, a current household net income level of $100,000 and $200,000 per year was the most commonly endorsed income bracket by participants in this study. In sum, the participants in the current study appear to be predominantly Caucasian females that are well educated and in an upper SES income bracket. Past research indicates that less educated, older, non-white, males tend to endorse more negative attitudes toward individuals with mental disorders (Corrigan & Watson, 2007), whereas other research suggests that individuals who are better educated, younger, and white tend to hold less stigmatizing attitudes towards mental illness (Silton et al., 2011). As a result, the demographic makeup of the participants in this study seems to be a limiting factor as it is quite possible that this study sample may hold less stigmatizing attitudes towards mental illness in general, which would be consistent with previous research findings (Silton et al., 2011).

An additional limitation of this study is that it relied exclusively on computer-based surveys to collect data. Therefore, in order for a person to participate in this study, they were required to have access to computer technology. Researchers often cite ‘access issues’ as a major limitation of web-based surveys because individuals who lack access to the internet and other computer technology are not able to participate in these studies (Garton, Haythornthwaite, & Wellman, 1999). Another commonly cited disadvantage associated with online survey research has to do with sampling issues (Birnbaum, 2004). Researchers argue that samples acquired from online recruitment may not necessarily represent the general population at large (Birnbaum, 2004; Schmidt, 1997), thereby further limiting the generalizability of these findings. While several disadvantages have been cited in the literature with regards to using online computer-based surveys for data
collection, there are also several studies citing the many advantages to using computer based methods for recruitment and administration of protocols (Riva, Teruzzi, & Luigi, 2003). Among these advantages, access to unique populations (Garton et al., 1999), the time saved in administration of the protocols (Gosling, Vazire, Srivastava, & John, 2004; Yun & Trumbo, 2000), as well as the savings in costs associated with online administration (Llieva, Baron, & Healey, 2002; Yun & Trumbo, 2000) are often the most cited in the literature. Additionally, there are a number of studies indicating no significant difference between paper-and-pencil and online surveys (Davidov & Depner, 2011; Vallejo, Jordan, Diaz, Comeche, & Ortega, 2007).

Lastly, another limitation of this study has to do with the subjective nature of how people define and understand mental illness. For example, for some people, the term “mental illness” may be reserved only for those individuals displaying severe disturbances, as is the case with more acute disorders like schizophrenia. While for others, the term “mental illness” may encompass a wide range of psychological problems with varying levels of severity (e.g., depression, anxiety disorders, etc.), and need not be reserved only for those presenting with severe pathology. In this way, an individual’s understanding of what constitutes a mental illness likely varies widely from person to person, thereby making it difficult to make firm inferences about public perceptions regarding mental illness in general.

**Implications for Counseling Psychology**

Although two of the main predictor variables in this study (i.e., empathy and perspective-taking) were not found to explain any significant variance in participant stigma towards mental illness, both exposure to mental illness (that is, the number of
instances an individual has come across a mental illness and/or information related to mental illness), and intimacy with mental illness (e.g., an individual’s familiarity/knowledge with mental illness) explained a significant amount of variance in a number of the subscales measuring participant stigma towards mental illness. Considering these findings, coupled with research indicating that interpersonal contact with individuals from traditionally marginalized and stigmatized groups has been found to lead to more positive attitudes towards the members of that group in general (Couture & Penn, 2003; Pettigrew & Tropp, 2006), it seems plausible that increasing the publics’ exposure to and intimacy with mental illness may be an effective way of changing public perceptions with regards to the stigma associated with mental illness.

In considering strategies to address ways of increasing public exposure to and intimacy with mental illness, a number of activities common to the field of counseling psychology come to mind. For example, outreach efforts aimed at engaging the public in dialogue about mental illness, mental health, and the resources available to the public can be found on nearly every major college campus in the United States (Bishop, 1990). As such, outreach efforts seem to be effective ways for increasing the publics’ exposure to and intimacy with mental illness. Additionally, counseling psychologists are often asked to present talks or workshops that are psychoeducational in nature. It is likely that many of the common stereotypes regarding mental illness are dispelled during these presentations and workshops. Therefore, just as with outreach efforts, presentations and workshops that are psychoeducational in nature seem to be effective ways of increasing the publics’ exposure to and intimacy with mental illness.
As a result, counseling psychologists seem well suited to help in these efforts, and indeed, these efforts are congruent with one of counseling psychology’s core commitments - social justice (Sue, Carter, Casas, Fouad, Ivey, et al., 1998). Vera and Speight (2003) point out that “a social justice perspective emphasizes societal concerns; including issues of equity, self-determination, interdependence, and social responsibility” (p. 254). As such, stigma towards mental illness is a social justice issue as these negative attitudes unduly impact individuals with mental illnesses, leading them to experience greater difficulties in finding and maintaining employment (Corrigan et al., 2011; Satcher, 2000), housing (Corrigan et al., 2011; Page, 1977), seeking treatment for the mental illness (Bathje & Pryor, 2011; Vogel et al., 2007; Wahl, 2012; WHO, 2001), as well as a whole host of other issues related to social inequity (e.g., Hinshaw & Stier, 2008).

Vera and Speight (2003) argue that issues of social justice cannot be sufficiently dealt with through counseling and psychotherapy alone. Instead, a number of researchers encourage counseling psychologists to be more engaged in a wide range of both direct and indirect services to clients that aid in bolstering human rights, increasing social equity, and improving access to resources (Atkinson, Thompson, & Grant, 1993; Lewis, Lewis, Daniels, & D’Andrea, 1998). Outreach efforts, making public presentations and lectures, serving as a consultant, performing program evaluations and needs assessments, as well as offering pro-bono or volunteer work are all examples of direct and indirect services that counseling psychologists can engage in to help in the efforts aimed at changing public perceptions regarding the stigma associated with mental illness.
Counseling psychologists can also work in therapy with clients to provide them with accurate psychoeducation regarding the symptoms, myths, and common fears associated with a particular mental illness. In addition, counseling psychologists can work with clients at identifying roadblocks they may encounter, possible difficult conversations they may be faced to have, as well as tips for engaging dialogue with loved ones and/or other intimate relationships about their mental illness condition. It is conceivable that these types of contact and experiences would allow clients to address and dispel any myths, fears, anxieties, or concerns the person may have about their condition, thereby reducing stereotypes and increasing both exposure to and intimacy with mental illness in others.

**Future Research**

While the results of this study provided backing for previous research on the relationship between exposure to and intimacy with mental illness on individuals’ stigma towards mental illness, future research is suggested in order to further clarify the role that exposure to and intimacy with mental illness plays in shaping individual attitudes regarding the stigma associated with mental illness. Specifically, due to the constrained range of demographic variables present in the current study, it would be important for future research to conduct a similar study on a larger sample in order to determine whether these results generalize. In addition to running a similar study using a larger sample, future research could focus efforts on recruiting participants with the particular demographic variables known to be associated with a stigmatizing attitude towards mental illness (see Corrigan & Watson, 2007), to assess the impact that exposure to and intimacy with mental illness has on participants with these specific demographic variables stigma towards mental illness.
Additionally, future studies could focus on whether group differences exist in terms of stigma towards mental illness and the type of exposure (e.g., exposure that is gained entirely through media outlets, versus exposure gained through working with individuals with mental illnesses) an individual has with mental illness. The same study could also assess whether differences in stigma towards mental illness exist in terms of the level of intimacy (e.g., knowing either an acquaintance or a friend or a family member with a mental illness) an individual has with mental illness. Other future studies could incorporate vignettes about various mental illnesses (e.g., bipolar disorder, schizophrenia, etc.) to assess whether exposure to and intimacy with mental illness has any impact on an individual’s stigma regarding specific mental disorders. Lastly, future studies could focus on utilizing qualitative methodologies to better understand individual’s perceptions about mental illnesses in general. Allowing participants to tell their personal stories and experiences with mental illnesses would likely provide future researchers with a more nuanced understanding of how individuals make sense of mental illnesses in general, but also how they understand and make sense of the stigma associated with mental illness.

Conclusions

Overall, the research questions of this study received partial support. Empathy and perspective-taking did not uniquely account for a significant amount of the variance in stigma towards mental illness among participants. In contrast, participants’ exposure to and intimacy with mental illness did account for a significant amount of variance in stigma towards mental illness. More specifically, the results suggest that individuals who have exposure to mental illness also tend to have fewer feelings of anxiety, nervousness,
uneasiness, and fear of physical harm when around someone with a mental illness; fewer concerns that mental illness causes disruptions to normal and meaningful relationships; and more positive beliefs about the prognosis of mental illnesses. In addition, the results also indicate that individuals with more intimacy with mental illness are also less likely to endorse negative beliefs about the appearance and physical self-care of the mentally ill. Lastly, the present findings indicate that the more exposure a person has with mental illnesses, the more likely they are to endorse positive beliefs about the prognosis of a mental illness.

Although stigma towards mental illness continues to be a major problem worldwide (Abbey et al., 2011), the results from the current study add to the growing body of literature which indicates that exposure to and intimacy with mental illness is related to more favorable attitudes about mental illness in general.
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prejudice towards general out-groups and specific individuals. *Group Processes

Has anything changed? Impact of perceptions of mental illness and dangerousness
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Appendix A

INFORMED CONSENT

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A. DESCRIPTION OF RESEARCH

You are invited to participate in an on-line survey aiding research investigating stigma against mental illness, empathy, perspective-taking, and familiarity with mental illness.

1. To qualify for the study you must be at least 18 years of age able to complete an on-line survey.

2. The entirety of your participation in the study consists of filling out one multi-sectional survey that should take approximately 10 - 20 minutes.

3. All information collected from participants will be anonymous and information collected will not be connected with the respondents in any way.
B. RISKS

The procedures in this study have no foreseeable associated risks. For more information and for referral services you can call the National Alliance on Mental Health hotline at 1(800) 950- 6264, Monday through Friday, 10 am- 6 pm, Eastern time. Or you can call Mental Health America at 1(800) 969-6642 which is open 24 hours a day.

If you need help finding a therapist you can call 1(800) 843-7274.

C. BENEFITS

Participants may benefit from the satisfaction of knowing they are contributing to research aimed at gaining knowledge about stigma against mental illness. Findings will be used as the basis for further research aimed at increasing understanding of stigma against mental illness.

D. CONFIDENTIALITY

All information provided by the participant will be handled in a confidential manner to the extent permitted by law. Although the anonymity of the participant is assured, all data may be reported in journals or other professional, scientific communications.

E. COMPENSATION

There is no compensation for participating in this study. The University of Memphis does not have funds budgeted for medical treatment, reimbursement for medical treatment, property damages, or reimbursement for lost wages. These policies are not meant to restrict whatever rights to which you are legally entitled.

F. ANSWERS TO QUESTIONS

If you have any questions or concerns at any point in this study, whether they are about the study or your rights as a research participant, please feel free to direct your questions
and comments to the principal investigator, Dr. Sara K. Bridges at (901) 678-2081. Questions about your rights as a research participant may also be directed to the Chair of the Committee for the Protection of Human Research Participants of the University of Memphis at (901) 678-2533.

G. TERMINATING

Participation in this study is voluntary. You may refuse to participate or withdraw from this study at any time.

By completing the survey acknowledge that I am at least 18 years of age, have read and understood the above statements, and have decided to take part in the study.
Appendix B

DEMOGRAPHIC INFORMATION

1.) What is your age:

2.) What is your gender: 1) Male; 2) Female; 3) Transgendered; 4) Other, please specify

3.) What is your ethnicity: 1) African American/Black; 2) Asian/Pacific Islander; 3) Latino/Hispanic; 4) Native American/Alaskan Native; 5) Caucasian/White; 6) Biracial; 7) Multiracial; 8) Other, please specify

5.) What is the highest level of education you’ve completed: 1) High School Degree; 2) Some college (no degree); 3) 2-year Degree; 4) 4-year Degree; 5) Master’s Degree; 6) Professional Degree (J.D., M.D., Ph.D, etc.); 7) Other, please specify

6.) Please place a check next to the annual income bracket that closest fits your current household net income level:

- o Less than $20,000
- o $20,000 - $30,000
- o $30,000 - $40,000
- o $40,000 - $50,000
- o $50,000 - $60,000
- o $60,000 - $70,000
- o $70,000 - $80,000
- o $80,000 - $90,000
- o $90,000 - $100,000
- o $100,000 - $200,000
- o Above $250,000
- o Would rather not say

7.) Do you have a disability? If yes, please specify.
Appendix C

LEVEL OF CONTACT REPORT

Holmes, Corrigan, Williams, Canar, & Kubiak, 1999

Please read each of the following statements carefully. After you have read all the statements below, place a check by the statements that best depict your exposure to persons with a severe mental illness.

- I have watched a movie or television show in which a character depicted a person with mental illness.
- My job involves providing services/treatment for persons with a mental illness.
- I have observed, in passing, a person I believe may have had a mental illness.
- I have observed persons with a mental illness on a frequent basis.
- I have a mental illness.
- I have worked with a person who had a mental illness at my place of employment.
- I have never observed a person that I was aware had a mental illness.
- My job includes providing services to persons with a mental illness.
- A friend of the family has a mental illness.
- I have a relative who has a mental illness.
- I have watched a documentary on the television about mental illness.
- I live with a person who has a mental illness.
Appendix D

MENTAL ILLNESS STIGMA SCALE

Day, 2003

Please indicate the extent to which you agree or disagree with the statements listed below using the following scale:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>completely disagree</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

___ 1. There are effective medications for mental illnesses that allow people to return to normal and productive lives.

___ 2. I don’t think that it is possible to have a normal relationship with someone with a mental illness.

___ 3. I would find it difficult to trust someone with a mental illness.

___ 4. People with mental illnesses tend to neglect their appearance.

___ 5. It would be difficult to have a close meaningful relationship with someone with a mental illness.

___ 6. I feel anxious and uncomfortable when I’m around someone with a mental illness.

___ 7. It is easy for me to recognize the symptoms of mental illnesses.

___ 8. There are no effective treatments for mental illnesses.

___ 9. I probably wouldn’t know that someone has a mental illness unless I was told.
10. A close relationship with someone with a mental illness would be like living on an emotional roller coaster.

11. There is little that can be done to control the symptoms of mental illness.

12. I think that a personal relationship with someone with a mental illness would be too demanding.

13. Once someone develops a mental illness, he or she will never be able to fully recover from it.

14. People with mental illnesses ignore their hygiene such as bathing and using deodorant.

15. Mental illnesses prevent people from having normal relationships with others.

16. I tend to feel anxious and nervous when I am around someone with a mental illness.

17. When talking with someone with a mental illness, I worry that I might say something that will upset him or her.

18. I can tell that someone has a mental illness by the way he or she acts.

19. People with mental illnesses do not groom themselves properly.

20. People with mental illnesses will remain ill for the rest of their lives.

21. I don’t think that I can really relax and be myself when I’m around someone with a mental illness.
22. When I am around someone with a mental illness I worry that he or she might harm me physically.

23. Psychiatrists and psychologists have the knowledge and skills needed to effectively treat mental illnesses.

24. I would feel unsure about what to say or do if I were around someone with a mental illness.

25. I feel nervous and uneasy when I’m near someone with a mental illness.

26. I can tell that someone has a mental illness by the way he or she talks.

27. People with mental illnesses need to take better care of their grooming (bathe, clean teeth, use deodorant).

28. Mental health professionals, such as psychiatrists and psychologists, can provide effective treatments for mental illnesses.
Appendix E

INTERPERSONAL REACTIVITY INDEX

Davis, 1983

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, fill in the letter on the answer sheet next to the item number. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

ANSWER SCALE:

A      B      C      D      E

DOES NOT          DESCRIBES ME
DESCRIBE ME       VERY
WELL              WELL

1. I daydream and fantasize, with some regularity, about things that might happen to me.

2. I often have tender, concerned feelings for people less fortunate than me.

3. I sometimes find it difficult to see things from the "other guy's" point of view.

4. Sometimes I don't feel very sorry for other people when they are having problems.

5. I really get involved with the feelings of the characters in a novel.

6. In emergency situations, I feel apprehensive and ill-at-ease.

7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.

8. I try to look at everybody's side of a disagreement before I make a decision.

9. When I see someone being taken advantage of, I feel kind of protective towards them.

10. I sometimes feel helpless when I am in the middle of a very emotional situation.
11. I sometimes try to understand my friends better by imagining how things look from their perspective.

12. Becoming extremely involved in a good book or movie is somewhat rare for me.

13. When I see someone get hurt, I tend to remain calm.

14. Other people's misfortunes do not usually disturb me a great deal.

15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.

16. After seeing a play or movie, I have felt as though I were one of the characters.

17. Being in a tense emotional situation scares me.

18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.

19. I am usually pretty effective in dealing with emergencies.

20. I am often quite touched by things that I see happen.

21. I believe that there are two sides to every question and try to look at them both.

22. I would describe myself as a pretty soft-hearted person.

23. When I watch a good movie, I can very easily put myself in the place of a leading character.

24. I tend to lose control during emergencies.

25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.

26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.

27. When I see someone who badly needs help in an emergency, I go to pieces.

28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.
Appendix F

M-C SDS Short Form C

Crowne & Marlowe, 1960; Reynolds, 1982

Directions: Please mark the answer to every question in the way that fits you best.

T = True  F = False

1. It is sometimes hard for me to go on with my work if I am not encouraged.
2. I sometimes feel resentful when I don’t get my way.
3. On a few occasions, I have given up doing something because I thought too little of my ability.
4. There have been times when I felt like rebelling against people in authority even though I knew they were right.
5. No matter who I'm talking to, I'm always a good listener.
6. There have been occasions when I took advantage of someone.
7. I'm always willing to admit it when I make a mistake.
8. I sometimes try to get even rather than forgive and forget
9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different from my own.
11. There have been times when I was quite jealous of the good fortune of other.
12. I am sometimes irritated by people who ask favors of me.
13. I have never deliberately said something that hurt someone's feelings.