

Fall 2016

# The Effects of Injunctive and Descriptive Normative Influence on Stigmatizing Attitudes toward Individuals with Mental Illness

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THE EFFECTS OF INJUNCTIVE AND DESCRIPTIVE NORMATIVE INFLUENCE ON  
STIGMATIZING ATTITUDES TOWARD INDIVIDUALS WITH MENTAL ILLNESS

by

ERIN E. LAWSON

(Under the Direction of Karen Z. Naufel)

ABSTRACT

People often stigmatize individuals with mental illness (Corrigan, 2003; Weiss, 1994). The stigmatization of mental illness may be facilitated by socialization tools, such as the media, which send messages to the public that individuals with mental illness are fundamentally different and therefore should be excluded from the social majority (Klin & Lemish, 2008; Signorielli, 1989; Stout, Villegas, & Jennings, 2004). Understanding mental illness stigma as a social process may broaden theoretical understanding of how mental illness stigma develops and how it may be reduced. Theories regarding injunctive and descriptive norms may provide such insight. It is known that injunctive norms (what an individual's peer group believes "should" or "ought to" be with regard to public behavior, beliefs, and attitudes) and descriptive norms (the frequency with which an individual's peer group participates in a behavior or endorses a particular belief or attitude) can significantly predict behavioral intention and endorsement of particular attitudes and beliefs when manipulated in research with human subjects (Cialdini, Reno, & Kallgren, 1990). However, the role of injunctive and descriptive normative influence has not been considered in furthering understanding of mental illness stigmatization as a social process. To test the role of normative influence on the endorsement of mental illness stigma, 213 participants read mock data from research they believed was conducted with students from their

university. Data were in accordance with definitions of injunctive and descriptive norms and were manipulated to reflect stigmatizing or non-stigmatizing attitudes depending on participant condition. Participants then completed self-report measures of stigma and a behavioral measure of stigma. Participants who read data which suggested that university students hold negative attitudes toward mental illness were predicted to hold more stigmatizing attitudes toward mental illness on measures. In contrast, participants who read data which suggested that university students hold positive attitudes toward mental illness were predicted to endorse less stigmatizing attitudes towards mental illness on measures. Results were non-significant for effects of normative influence on stigmatizing attitudes toward mental illness both on self-report measures and a behavioral measure. Potential reasons for these findings and possible directions for future research are discussed in detail.

**INDEX WORDS:** Stigma, Mental illness, Injunctive norm, Descriptive norm

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B.S., Georgia Southern University, 2011

M.S., Georgia Southern University, 2014

A Dissertation Submitted to the Graduate Faculty of Georgia Southern University in Partial

Fulfillment of the Requirements for the Degree

DOCTOR OF PSYCHOLOGY

STATESBORO, Georgia Southern University

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Electronic Version Approved:  
December 2016

## ACKNOWLEDGEMENTS

This dissertation would not exist if it weren't for the love, encouragement, and support of many people, including my dissertation committee, my family, and several close friends. Particularly deserving of my gratitude is my dissertation chair, Dr. Karen Naufel. Thank you so much for giving me a chance as an undergraduate to do research with your lab, and thank you for the countless times along the way that you've kept giving me chances to learn and grow. Thanks also to Dr. Jeff Klibert and Thresa Yancey for serving on my committee, reading several drafts and providing suggestions on how I could improve the style, grammar, and flow of the document. To all three of you, I cannot thank you enough for all the support, encouragement, and kindness you've shown me during this time and throughout my training at GSU.

I also want to express my appreciation to my family for their continuous love and support. To my mother and father, Catherine and Stephen Lawson, thank you for your endless patience, steadfast prayers, warm hugs, and delicious comfort food throughout this experience. I will always be grateful for our closeness and for all the ways you've gone above and beyond to support my dreams. To my sister, Caitlin, thank you for letting me vent my frustrations and for your humor which always made me feel better during times of stress. To my grandmother, Leona McGlamery, thank you for all the ways you have helped me get to this point in my education and for your continuous examples of generosity, faith, and commitment to hard work. To my grandfather, Walter McGlamery, thank you for being my hero.

I also want to thank Joe Christie, Danielle Seal, Tim Curran, Laura Miller, Morgan Ikner, Corie Terwilliger, Rachel Christie-Adamson, and Fresno Pacific University for their individual contributions. Lastly, thank you to my cohort members. I'm so happy to have shared this time of growth and learning with you!

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## CHAPTER 1: INTRODUCTION

Mental illness has been shown to be one of the most stigmatized conditions within society (Corrigan, 2003; Weiss, 1994). The stigma associated with mental illness has long been shown to have a marked, adverse impact on multiple aspects of personal functioning. Individuals with mental illness are less likely to be hired by potential employers (Bordieri & Drehmer, 1987; Farina & Felner, 1973; Link, 1987) less likely to be leased apartments (Alisky & Iczkowski, 1990; Page, 1977), more likely to have a decreased socioeconomic status (Corrigan & Penn, 1999; Hinshaw & Cicchetti, 2000; Pachankis, 2007), and more likely to have charges pressed against them for violent crimes when they are known to be mentally ill (Sosowsky, 1980; Steadman, 1981). More recent studies indicate that over one-fourth of sampled employers indicated that they would not hire someone who had previously undergone psychiatric treatment, or would dismiss an employee who developed a mental illness while employed (Manning & White, 1995).

The public stigmatization against those with mental illness also impacts the self-worth of those with mental illness (Goffman, 1963), which leads to an internalization of negative public views that has the potential to adversely affect physical health and functioning (Hinshaw & Stier, 2008; Meyer, 2003). Over time, this internalization of stigma results in the individual endorsing a devalued identity (Inzlicht, McKay, & Aronson, 2006), decreased psychological resources, and a diminished ability to regulate emotion (Gross & Munoz, 1995; Miller, Chen, & Parker, 2011; Repetti, Taylor, & Seeman, 2002). This loss of resilience often results in the development of maladaptive coping behaviors, such as alcohol and tobacco use (Paradies, 2006; Williams, Neighbors, & Jackson, 2008). Given these detriments, it is important to isolate variables responsible for these discrepancies so that they may be resolved.

Public stereotypes of individuals as dangerous, violent, or personally responsible for their mental illness increase stigmatizing attitudes (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003). These stereotypes of individuals with mental illness are further solidified in society by their dissemination to the public through media outlets within popular culture, such as television or movies (Klin & Lemish, 2008; Signorielli, 1989; Stout et al., 2004) as well as children's programming (Wahl et al., 2003). It has been long established that mass media can serve to establish and reinforce social norms (McQuail, 1977; Yankovitzky & Stryker, 2001). Therefore, it is important to study the mechanisms by which these social norms are perpetuated through media outlets.

Injunctive and descriptive norms, which are a part of public intentions, may provide insight into the motivations that contribute to human behavior (Cialdini et al., 1990). Injunctive norms are messages that indicate how much a person's peer group believes that a behavior should or ought to be carried out, whereas descriptive norms are messages that indicate the frequency with which a person's peer group actually participates in the behavior in question. For example, an injunctive norm regarding underage drinking from the perspective of a teenager may be the extent to which a teenager's peer group believes that other teenagers should or ought to participate in alcohol use a descriptive norm regarding underage drinking from this same perspective would involve an understanding of the frequency with which the peer group participates in underage drinking themselves. The manipulation of public perception of injunctive and descriptive norms has been shown to influence the frequency and intensity with which peer groups endorse particular behaviors under study. These manipulations have been used to predict behaviors related to protecting the environment, such as littering (Cialdini et al., 1990), and conservation (Göckeritz et al., 2010) as well as health related behaviors, such as

organ donation (Park & Smith, 2007), cancer screening (Smith-McLallen & Fishbein, 2008) and alcohol use (Neighbors et al., 2008; Park, Klein, Smith, & Martell, 2009.) Injunctive and descriptive normative influence, however, has not yet been studied with regard to determining their effects on stigmatizing attitudes and behaviors toward individuals with mental illness. As perceptions of stigmatizing attitudes serve as a primary barrier to help-seeking among individuals with mental illness (Barney, Griffiths, Jorm, & Christensen, 2006; Thornicroft, Brohan, Kassam, & Lewis-Holmes, 2008; Wrigley, Jackson, Judd, & Komiti, 2005), it is imperative to determine the causes behind the development and exacerbation of stigmatizing attitudes toward individuals with mental illness.

The long term goal of this research was to create an empirically supported anti-stigma intervention which incorporates information on normative influence. The current objective was to identify the extent to which injunctive and descriptive norms can be used to predict stigmatizing attitudes toward individuals with mental illness. The central hypothesis was that the manipulation of perceived injunctive and descriptive norms would affect the levels of stigmatization toward individuals with mental illness in a sample of college students. Because little to no research exists to support the manipulation of injunctive and descriptive norms to predict stigmatizing attitudes, these findings may increase the knowledge of how normative influence may be best utilized to inform future intervention strategies for de-stigmatization efforts. Thus, project objectives were:

- **Aim 1: Objectively determine the extent that injunctive and descriptive norms affect stigmatizing attitudes toward mental illness**

Societal understanding of mental illness is derived from collective perceptions of the mentally ill as a group (Hamilton & Sherman, 1994). Based on research that suggests that

the social influence on perceptions is further influenced by descriptive and injunctive normative influence (Cialdini et al., 1990), it was predicted that that the manipulation of descriptive and injunctive norms would affect the likelihood of stigmatizing behaviors toward individuals with mental illness in a college participant sample.

Additionally, research suggests that a higher prevalence of stigmatization may occur in rural areas due to decreased anonymity of individuals, including those with mental illness (Smalley, Warren, & Rainer, 2012). Rural areas are also associated with increased endorsement of negative attitudes toward mental illness as well as reluctance to seek help for mental health issues (Link, Cullen, Frank, & Wozniak, 1987). However, recent data have suggested that this stigma may not be as prevalent as originally found (Watson-Johnson et al., 2013). The present study investigated the extent that rural vs. urban upbringings predict stigmatizing attitudes. Thus, the second aim of the study was as follows:

- **Aim 2: Determine the differences in stigmatizing attitudes among rural and urban-dwelling individuals.**

Based on previous research (Nicholson, 2008), it was predicted that individuals from rural areas would endorse more stigmatizing attitudes toward mental illness than individuals from urban areas.

#### Definition of Terms.

Stigma - A social concept involving affixed attributes to a person or group of people sharing a characteristic trait which separates that person or group from the larger portion of society in a manner which results in a loss of status or privileges for that person or group (Link & Phelan, 2001). Within the current study, stigma was examined as a dependent variable and measured

using self-report surveys. It was predicted that levels of stigma would change as a result of the manipulation of injunctive and descriptive norms.

**Injunctive norm** - The extent to which a particular peer group believes a behavior should or ought to be endorsed by others within that peer group (Cialdini, et al. 1990). Within the current study, injunctive normative influence was manipulated as an independent variable. It was predicted that injunctive norms reflecting positive attitudes toward mental illness would result in less stigmatizing attitudes as measured by self-report surveys, and that injunctive norms reflecting negative attitudes toward mental illness would result in more stigmatizing attitudes as measured by self-report surveys.

**Descriptive norm** - The frequency with which members of a particular peer group participate in a particular behavior (Cialdini et al., 1990). Within the current study, descriptive normative influence was manipulated as an independent variable. It was predicted that descriptive norms reflecting positive attitudes toward mental illness would result in less stigmatizing attitudes as measured by self-report surveys, and that descriptive norms reflecting negative attitudes toward mental illness would result in more stigmatizing attitudes as measured by self-report surveys.

**Rurality**- There are many definitions of rurality which may describe a rural area as a location limited in size, population density, or available resources (Hart, Larson, & Lishner, 2005).

Within the current study, however, rurality will be defined by participant self-report, as subjective reports of rurality have been shown to be associated with stronger reported differences and predictive power within statistical analyses (Miles, Peoeschold-Bell, & Puffer, 2011). It was predicted that individuals from rural areas would endorse more stigmatizing attitudes than individuals from urban areas.

## CHAPTER 2: LITERATURE REVIEW

### Understanding Stigmatization

Stigma is a social construct. Stigma, in modern terms, is defined as an affixing of attributes to a person or group of people sharing a characteristic trait which separates that person or group from the larger portion of society in a manner which results in a loss of status or privileges for that person or group (Link & Phelan, 2001). Stigmatization has its roots in ancient Greece, where slaves were tattooed with a pointed instrument that was used to prick the skin and leave a mark known as a “stigma.” Hence, stigmatization is a word derived from the ancient Greek word, “stig,” meaning “to prick” (Falk, 2001). Although it may seem that the historical and modern day definitions are unrelated, both stigmatization in historical times and stigmatization today each affect society by supplying a method of easily determining who belongs to an exclusive group of “insiders” and who falls within an “outcast” social category.

Emile Durkheim described the notion of stigma in 1895 when writing about the social purpose of stigmatization; Durkheim suggested that the spirit of community could be fostered through a general consensus of who belonged within the community and who did not. Durkheim ultimately suggested that the presence of stigmatized individuals within a community strengthens both the cohesiveness of the majority group as well as the pressure to conform to a social standard (Durkheim, 1895, as cited by Falk, 2001).

Goffman (1963) furthered understanding of stigma as a social concept by conceptualizing stigma as a “spoiled identity,” meaning that stigmatized people experience discrepancy between their understanding of self and how society perceives them. This discrepancy, according to Goffman, causes many stigmatized individuals to develop low self-esteem, to be more likely to devote energy to acting as if they do not possess the characteristics of a member of the



stigmatized group to which they belong, and developing rules for how to conduct themselves around non-stigmatized individuals. To members of the social majority, individuals seen as possessing a stigmatizing characteristic are discredited, and their failures to perform according to societal expectations are seen as a confirmation of their handicap. Non-stigmatized members of the social majority who have greater knowledge and personal understanding of the stigmatized group are less likely to see those stigmatized as not discredited. Interestingly, Goffman asserted that, in society, stigmatization is a social process in which individuals sometimes play the role of the stigmatized, and sometimes play the role of the “normal” (p. 133); both roles are necessary for the continuation of the social process, and both can be fluid (Goffman, 1963).

Stigmatization has been further defined more recently by Link and Phelan (2001), who sought to clarify the concept after several decades of its varied use and application within the social sciences. A large component of this new definition firmly rests on a change from Goffman’s description of stigma as an attribution to stigmatized individuals (Goffman, 1963) to Link and Phelan’s understanding of stigma as a label placed on stigmatized individuals (Link & Phelan, 2001). This difference reaffirms the notion of stigma as a social concept; stigmatized individuals are therefore not stigmatized because of inherent attributes that they possess, but are stigmatized because of a wider, social understanding of a label that has been developed by group expectations and affixed to them.

According to Link and Phelan (2001), stigmatization is a process that develops as a result of interplay among four related concepts. The first of these concepts, *distinguishing and labeling differences*, requires that groups are recognized by society as a result of oversimplification of common group characteristics, which has been previously referred to as stereotyping (Fiske, 1998). The second concept, *associating human differences with negative attributes*, involves a

linkage of the person with the potential to be stigmatized to undesirable characteristics, which results in the formation of a stereotype which can then be easily retrieved by members of the social majority when making automatic judgments (for instance, the belief that individuals with schizophrenia are violent and unpredictable). The third concept, *separating 'us' from 'them,'* continues the process of stigmatization by linking the label affixed to “them,” the group of individuals outside of the social majority, to undesirable characteristics that are different from how “we,” the social majority, carry out daily activities. The fourth concept, *status loss and discrimination,* involves the individual being placed downward in the social hierarchy; this downward placement can be made evident in interpersonal interactions as well as in institutional practices whenever a stigmatized individual fails to meet performance expectations of a social majority. The working relationships among these four constructs serve to highlight the importance of understanding stigmatization as a social concept.

### **Stigmatization: Process and Implications**

Link and Phelan (2001) assert that processes of stigmatization occurs within a multitude of social groups; these processes are not limited to the social majority. As such, distinct cultural groups are able to form ideas about and affix labels to members of other distinct groups efficiently and to a great degree. However, only certain stigmatizing attitudes prevail strongly throughout society. The authors explain that the development and perpetuation of stigmatizing attitudes is dependent on power differences; individuals in positions of power have the privilege of determining who is socially stigmatized. Corrigan and Lam (2007) assert that this process, which they call “*structural stigmatization*” (p. 54) can manifest in intentional ways (for instance, institutional policies which restrict the rights or resources of minority groups, such as Jim Crow laws did decades ago) and unintentional ways (for instance, the tendency of college admissions

to grant acceptance to only those who score the highest on the SAT results in a disproportionate amount of white students to minority students, as they tend to score higher on such assessments). The process by which power differences determine which groups become stigmatized can easily be seen through a quick assessment of which social groups control institutions, housing, and health care, among other services and opportunities. With regard to mental illness, it has been found that approximately 40% of states limit marriage rights in some capacity for individuals with mental illness; 50% limit child custody for parents with mental illness. Additionally, 1/3 of U.S. states withhold the rights of individuals with mental illness to vote, serve on a jury, or hold an elected office (Hemmens, Miller, Burton, and Milner, 2002). Understanding which social group is most powerful is an important distinction to make, as it determines how attitudes will prevail and how resources will be allocated. In this respect, it is important to remember that structural discrimination reaches beyond policies and law but extends to other industrial organizations, such as sources of media. Corrigan, Markowitz, and Watson (2004) evidenced this with the assertion that the power of media to influence social understanding of minority groups often results in negative portrayal of minority groups, which increases the likelihood of these groups to face prejudice and discrimination from the social majority.

This theory of stigmatization as a social process suggests that the outward, public stigma and internalized stigma of mental illness can combine to exacerbate the amount of missed opportunities and resources of individuals with mental illness. Indeed, this is shown throughout literature regarding the disadvantages experienced by individuals with mental illness. As a result of reduced income, status loss, and a fear of rejection from others, individuals with mental illness continue to have lowered self-esteem (Wright, Gronfein, & Owens, 2000), increased levels of stress (Link, 2006), and a reluctance to seek treatment, which is evident in discrepancies between

the estimated need for mental health services and statistics regarding the actual investment in health services of government institutions (Patel et al., 2010). Individuals with mental illness indicate that they often feel the most discrimination from family members, co-workers and employers, and when seeking mental health services. Additionally, approximately 20% of one sample indicated that they encountered discrimination from financial institutions and believed this discrimination was due to mental illness (Sharac, McCrone, Clement, & Thornicroft, 2009).

The stigmatization of mental illness continues to be pervasive today. For example, a recent Canadian study revealed that 46% of individuals believed that the use of the term, “mental illness” was simply an excuse for bad behavior and 27% indicated that they were fearful of individuals with severe mental illness (Centre for Addiction and Mental Health, 2013). In the United States, one study found that 54% of the polled sample was unsure if treatment was possible for mental illness and 61.7% were unsure about the dangerousness of individuals with mental illness. Additionally, only 52% believed that discrimination occurs and an overwhelming majority endorsed high levels of rejection toward potential babysitters, job applicants, tenants, coworkers, and neighbors with mental illness (Field Research Corporation, 2012). Several studies have also found that stigmatizing attitudes may vary with regard to location; rural-dwelling individuals tend to endorse more stigmatizing attitudes toward mental illness and mental health services (Link et al., 1987; Nicholson, 2008). These attitudes then have been shown to invoke fears of social exclusion, which serve as a barrier to seeking mental health treatment (Boyd et al., 2008). Additionally, it has been shown that stigmatizing attitudes in rural areas also decrease familial support in seeking mental health services (Heflinger & Christen, 2006) due to decreased anonymity of individuals with mental illness in rural areas (Smalley et al., 2012).

Several theories serve as plausible explanations for the perpetuation of mental illness stigma. Several researchers postulate that power differences are largely responsible for the maintenance of stigmatizing attitudes. Specifically, those in positions of authority have power over which ideas and sources of information are disseminated in the media, which policies are enforced in corporations and institutions, and which particular types of people are allowed to participate and hold importance in social organizations (Goffman, 1963; Link & Phelan, 2001). Although many cultures and social groups hold stigmatizing attitudes, it is the viewpoints of those in positions of authority that are projected onto society at large, and therefore those viewpoints are the ones that pervade over time and circumstance (Corrigan et al., 2004; Corrigan & Lam, 2007; Link & Phelan, 2001; Corrigan, Markowitz, & Watson, 2004). In this vein, stigmatization is seen as a product of social influence.

Another theory of stigmatization, postulated by Corrigan et al (2003), explains the continuation of stigmatizing attitudes by examining patterns in public perception of those with mental illness. These authors use previous work on attribution theory (Weiner, 1995) to create a conceptualization of stigma. According to Corrigan et al. (2003), stigmatization of mental illness varies, and this variation is dependent on what larger society attributes mental illness to according to circumstance. More specifically, inferences will be made about an individual's personal responsibility for the development of mental illness depending on the degree to which society believes that the person had control over the condition's root cause. These inferences result in varying emotional reactions, which may range from anger to pity depending on the circumstance (e.g., mental illness resulting from substance abuse may cause anger, where mental illness resulting from being the victim of an assault may invoke pity). The emotions of members of the larger society will influence their subsequent behavioral reactions to the individual with

mental illness, which may include providing help or punishment. Research of this model indicates that society largely attributes mental illness brought on by substance abuse to be under the control of the individual with mental illness, which results in subsequently negative emotional reactions and punishing behaviors, which in turn may include loss of opportunities (Corrigan et al., 2003). Additionally, the authors indicated that societal perception of dangerousness within individuals suffering from mental illness also influences discriminatory responses. This perception of dangerousness may explain why many members of society tend to endorse more stigmatizing attitudes towards individuals with more severe mental illness often characterized by violent behavior (Penn & Martin, 1998). Conversely, the authors found that familiarity with mental illness, including knowledge of mental illness and previous encounters with those who have mental illness, may reduce stigmatizing attitudes; this includes (Corrigan et al., 2003).

Generally speaking, characteristics of individuals with mental illness are matched up with societal expectations, or norms, and varying degrees of stigmatization occur as a result of this normative influence. Measurements of stigmatization toward mental illness and individuals with mental illness are often informed by aspects of these theories. For instance, the Day's Mental Illness Stigma Scale (MISS) and Community Attitudes Toward the Mentally Ill scale (CAMI), measure attitudes regarding the extent to which society or government should control individuals with mental illness (e.g., "Anyone with a history of mental problems should be excluded from taking public office," from the CAMI), a characteristic found in the notion of how power differences control which social groups receive social sanctions, as suggested by several authors (Corrigan et al., 2004; Corrigan & Lam, 2007; Link & Phelan, 2001). Additionally, both measures include items which measure the extent to which interpersonal relationships may

influence the reduction or exacerbation of mental illness symptoms (e.g., “It would be difficult to have a close meaningful relationship with someone with a mental illness,” from the MISS), similar to aspects of Allport’s Interpersonal Contact Theory on reducing stigmatization through positive contact (Allport, 1954). Lastly, both measures also include items regarding fear and benevolence toward individuals with mental illness (e.g., “Residents have nothing to fear from people coming into their neighborhood to obtain mental health services,” from the CAMI and, “I feel anxious and uncomfortable when I’m around someone with a mental illness,” from the MISS). Fear and benevolence are characteristic of Corrigan and colleagues’ (2003) and Penn and Martin’s (1998) theoretical understanding of how perceived violence or dangerousness within individuals with mental illness can contribute to increased stigmatizing attitudes toward these individuals.

The influence of social norms begins to shape the perceptions of individuals within a social group from an early age, often beginning in early childhood. Simply through observation, children are able to gain an understanding of how society operates, including which groups receive social sanctions from individuals from the social majority (Link & Phelan, 2001). As a result, children are quickly able to infer what the implications are of having a mental illness and the general expectations of how others will treat individuals who have a mental illness. Societal exclusion of mental illness is evident to children from an early age through messages received through media outlets. This powerful tool of socialization includes children’s television programming, movies, news stories, and social networking that work together to provide mass information to the public. Studies of media portrayals have shown that children are quickly subjected to unflattering examples of what it means for a person to have a mental illness. Many studies have provided evidence for a media link between characters with mental illness and

violence (Signorielli, 1989; Wahl & Roth, 1982). For instance, when characters were portrayed in television or movie programming as having a mental illness, these characters were much more likely to hurt or kill others and be identified as socially unconnected. Other studies have examined depictions of characters with mental illness in children's movies. Wahl, Wood, Zaveri, Drapalski, and Mann (2003) examined 49 G and PG rated films and concluded that characters with mental illness were depicted as threatening, frightening, violent, aggressive, and unable to benefit from intervention. Additionally, these characters were usually referred to by slang terms such as 'crazy,' 'psycho,' and 'lunatic.' Similar findings were revealed by Wilson et al. (1999), who examined the television programming on New Zealand television channels for portrayals of mental illness. The authors found that terms used to describe mental illness included 'mad,' 'crazy,' 'losing your mind,' 'nuts,' and 'deranged' as well as gestures to indicate mental illness (e.g., twirling a finger close to the head). Characters with mental illnesses in television programming were mainly in comic roles or portrayed as evil villains. They were illustrated to be unattractive (e.g., having rotten teeth, unkempt hair, narrow eyes, thick eyebrows, and bad breath). These characters were portrayed as behaving irrationally which amused other characters. In this study, the authors were unable to find any positive qualities of mental illness portrayed in the television programming. The aforementioned studies provide a great deal of insight into how children's programming may establish and enforce social norms; however, research is largely correlational in nature.

Similar findings are evident in studies of adult media. For example, simply viewing television for longer periods of time has been positively associated with intolerant attitudes toward individuals with mental illness (Granello, Pauley, & Garmichael, 1999). News coverage of stories regarding individuals with mental illness typically center on violence (Angermeyer &



Schulze, 2001) and are often sensationalized (Levin, 2011). Journalists report stories of individuals with schizophrenia who violently and intentionally attack others, which reinforces the notion that all individuals with mental illness are violent and unpredictable (Philo, 1997; Wahl, 2004). Adult television programs often portray individuals with mental illness as violent, unpredictable, victimized, and unable to keep a job (Bryne, 1999; Kerson, Kerson, & Kerson, 2000; Signorielli, 1989). Additional studies reveal that many television programs tend to suggest that deinstitutionalization is to blame for the tragedies associated with violence among those with mental illness (Rose, 1998). Although two studies reviewed (Granello et al., 1999; Klin & Lemish, 2008) found correlations which suggest that a relationship exists between exposure to media outlets and increased intolerant attitudes among viewers, research has not yet sought to establish the impact of media messages regarding mental illness on actual stigmatizing behaviors in the larger population. As a result, direct inferences about the sources of stigmatizing attitudes cannot be made. The impact of media information on actual stigmatizing responses among members of society remains an untapped source of research, the implications of which may aid in determining the best potential avenues for stigma intervention in the future. As these implications have not yet been explored, the current study will serve to provide understanding of how media messages can influence and predict future stigmatizing behaviors among viewers.

### **Reducing Stigmatization: Current Programs**

Over the years, research regarding theories of stigmatization has influenced the creation and implementation of several programs, specifically designed to reduce negative attitudes and public discrimination against individuals with mental illness. Several of these interventions have relied heavily on Allport's (1954) Interpersonal Conflict Theory to inform program development. This theory postulates that prejudice toward a stigmatized group can be reduced through

specialized contact which includes four important components: equal status (in group settings, members of each group expect equal group status coming into an encounter), common goals (members of each group rely on each other to accomplish a common goal), intergroup cooperation (group members must work together to achieve aforementioned common goals), and support of laws and authorities (cooperation is facilitated by social sanction against discord among groups). Additionally, programs have also relied on the distribution of information to increase mental health literacy and encouragement of increased social contact among those with and without mental illness in order to reduce stigma and improve general knowledge regarding the nature of mental illness within the intervention groups (Corrigan et al., 2006; Mann & Himelein, 2008). Such programs have been implemented for adult populations in London (Henderson & Thornicroft, 2013), Canada (MCHH, 2011), New Zealand (Vaughan & Hansen, 2004), Nigeria (Eaton & Agomoh, 2008), and Denmark (Henderson, Evans-Lacko, & Thornicroft, 2013). Interventions directed toward child and adolescent populations have been implemented in Germany (Schulze, Richter-Werling, Matschinger, & Angermeyer, 2003), the United Kingdom (Lund et al., 2012) and China (Yau, Pun, & Tang, 2011) with similar results. For example, two national programs, “Time to Change” in England, and “See Me....” in Scotland, have both used social marketing materials to educate the public about mental illness. Both incorporate a strong push for psychoeducation regarding mental illness, and their impact is measured via follow-up surveys at preset time intervals. Adolescent interventions, such as Germany’s “Crazy? So what!” and China’s “Put Up Your New Glasses” also incorporated some educational intervention, but were more focused on encouraging interpersonal contact between individuals with mental illness and high school students. Additionally, these programs differed in size. Specifically, adolescent interventions were more small-scale and primarily isolated to one

school per study, whereas national interventions had larger participant pools. Overall, programs on both a national and local scale initially were found to reduce stigmatizing attitudes toward individuals with mental illness, but these results were not evident at follow-up periods (Henderson & Thornicroft, 2013; Schulze et al., 2003; Yau et al., 2011). Additionally, problems existed with regard to dissemination of information. On local levels, schools were unable to spread the interventions to other areas for lack of funding (Lund et al., 2012), and larger interventions experienced difficulties in implementing interventions to meet national objectives to local areas in a way that was efficient, cost-effective, and measurable (Collins et al., 2012).

Because these short-term interventions appear to possess several flaws in their implementation and efficacy, particularly with inconsistent efficacy, stigma-reduction efforts may be in need of empirically-supported renovation. To remedy the limitation of time-sensitive effects, it may be beneficial for future interventions to include the manipulation of more long-standing social processes. Another possible limitation of stigma interventions may be the presences of extraneous variables, including consistent exposure to social norms through outside sources (e.g., sources of media information) during and after the intervention period (Collins et al., 2012). Efforts to educate participants about mental illness may have been thwarted by more pervasive social norms seen in media outlets. An intervention which uses manipulations similar to the ways in which media information influences the public may increase understanding of how stigmatizing attitudes can be maintained. Therefore, efforts to reduce mental illness stigma may be more successful if social norms, like those perpetuated through media information, become the target for future intervention.

## **Role of Injunctive and Descriptive Norms on Social Influence**

The influence of social norms on the ways in which people perceive and interact with others has long been viewed and understood through two theories: the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB). Originally, the TRA (Fishbein & Ajzen, 1975) was used to predict whether or not a person intended to perform a behavior (behavioral intention) by examining their attitudes toward the behavior as well as the influence of the person's social environment (subjective norms). Over time, however, this theory was replaced due to its inability to explain human behavior when an individual perceived themselves to have limited control over behavior. To accommodate this, the TPB was developed, which postulates that people's perceived control over their behavior is combined with personal attitudes toward a behavior and subjective norm influences regarding the behavior. These three variables, taken together, assist the individual in developing an intention to either perform or not perform a given behavior, which is then carried out into action (Ajzen, 1985). According to this theory, high levels of behavioral intention (influenced by perceptions of social pressure, perceptions of control, and personal attitudes) will likely be followed by behavioral engagement (Ajzen, 1991). An example of the TPB can be seen by examining research on sleep hygiene behaviors (Kor & Mullan, 2011). In this study, researchers were able to accurately predict the sleep hygiene behaviors of participants (how conducive the individual's environment and nighttime behaviors were to a restful sleep) by examining participant attitudes (e.g., measuring the extent to which participants believed that making their bedrooms restful would make it easier to fall asleep), subjective norms (e.g., measuring the extent to which the person's immediate contacts believed they should avoid stressful activities before bedtime), intentions (e.g., measuring the extent to which participants intended to make their bedrooms more restful over the next week), and past

behaviors (e.g., measuring how many days participants had performed sleep hygiene behaviors in the past week). Having an accurate understanding of these variables, then, is helpful in determining whether or not an individual will participate in a given behavior. Both the TRA and TPB rely on the notion of subjective norms, the individual's perception about the particular behavior that can be influenced by the opinions of significant others, including parents, peers, teachers, or friends (Amjad & Wood, 2009).

Research also suggests that the subjective norm can further be broken down into two distinct types of normative influence: injunctive norms and descriptive norms (Manning, 2010; Ravis & Sheeran, 2003). Descriptive norms, by definition, refer to perceived popularity of a particular behavior within the greater social institution. In other words, this refers to how frequently a typical behavior or action is performed by the social majority according to an individual's perception. Injunctive norms refer to overall social approval of the behavior in question; this involves whether or not performing a certain behavior will be met with social approval or social sanction (Cialdini et al., 1990). For example, if researchers were interested in understanding the influence of norms on alcohol consumption among an undergraduate population (see Neighbors et al., 2008; Park et al., 2009), descriptive norms may be measured as the perception of undergraduates regarding the frequency with which their peers (other undergraduate students) also consumed alcohol. Injunctive norms could be measured as an undergraduate's perception that peers would approve or disapprove of their own alcohol consumption. In other words, the injunctive norm would inform the undergraduate's beliefs about whether or not social approval or social sanctions would come as a result of consuming alcohol. In past studies, researchers have measured descriptive and injunctive norms in order to predict future behavior, as Park and Smith (2007) did by measuring participant intent to sign an

organ donor registry and speak with family members about organ donation following a manipulation of descriptive and injunctive norms. In this study, participants completed a survey which measured personal and societal injunctive and descriptive norms regarding signing an organ donation registry and talking with family members about organ donation. Personal injunctive norms included items such as, “Most people whose opinion I value would approve of my talking with my family about organ donation” (p. 218). Personal descriptive norms included items such as, “Most people who are important to me have talked with their family about organ donation” (p. 218). Social injunctive norms included items such as, “A majority of people in the United States approve of talking with family about organ donation” (p. 218). Social descriptive norms included items such as, “A majority of people in the United States have talked with their family about organ donation” (p. 218). Measuring these factors allowed researchers to predict whether or not participants would then sign an organ donation registry and talk with their families about organ donation. Within this study, it was found that personal descriptive norms best predicted behavioral intention (Park & Smith, 2007).

Additionally, it has been said that the manipulation of these norms serves as a form of social control. Cialdini (2007) argues that descriptive norms can send the message, “If a lot of people are doing this, it’s probably a wise thing to do” while injunctive norms can send the message, “If I do this, I will face social sanctions, so this may not be a wise thing to do” (p. 266). In one study (Goldstein, Cialdini, & Griskevicius, 2008), cards were placed in the guestrooms of a hotel to encourage towel reuse. Guestrooms received cards which read one of the four following messages: “HELP SAVE THE ENVIRONMENT,” “HELP SAVE RESOURCES FOR FUTURE GENERATIONS,” “PARTNER WITH US TO HELP SAVE THE ENVIRONMENT,” and “JOIN YOUR FELLOW CITIZENS IN HELPING TO SAVE THE

ENVIRONMENT” (p 473-474). Although the first three messages were not effective at reducing towel usage, the final message (a descriptive norm) significantly increased towel reuse by 28.4%. Some research found that being subjected to injunctive normative influence increases desire to conform to a greater extent than descriptive normative influence by way of increased internal conflict, which suggests that the influence of injunctive norms may be more salient than that of descriptive norms (Goldstein et al., 2008).

Additionally, the source of descriptive and injunctive norms is also important with regard to how the message is perceived by others. To illustrate how perception may influence participant behavior, Smith and Louis (2008) performed two studies in which university students were asked for an opinion of current campus issues. In the first study, students were asked about their level of support with regard to signing political petitions and given the impression that either many other students did or did not approve of the behavior (injunctive norm manipulation) and that many other students did or did not sign political petitions (descriptive norm manipulation). When the perceived support and action of peers were high, students endorsed more favorable attitudes and greater intent to participate in the behavior. The second study measured the same action, but they were told that the students referenced as supporting or participating in the behaviors were from another university. When student attitudes were measured according to their perception that those students supporting and participating in signing political petitions were from another school, the participants did not appear to endorse similar attitudes. Additionally, supportive injunctive outcomes for both studies resulted in more extreme attitudes, suggesting that injunctive normative influence may be more pervasive and a farther reaching form of social influence.

Social influence by way of injunctive and descriptive norms has been measured in many instances. In addition to the aforementioned studies, researchers have gained a greater understanding of the social processes behind academic pursuit and adjustment (Hamm, Schmid, Farmer, & Locke, 2011) and sexual activity (Barriger & Vázquez-Blasini, 2013). Manipulation of injunctive and descriptive norms has been used to decrease littering and environmental theft (Cialdini et al., 1990), increase public participation in recycling programs (Göckeritz et al., 2010), increase enrollment in an organ donation registry (Park & Smith, 2007), and increase cancer-prevention behaviors (Smith-McLallen & Fishbein, 2008). Each of these behaviors, and their manipulation in the aforementioned studies, may be seen as a social phenomenon. More specifically, individual perceptions of how frequently their specific peer group perform the behavior in question (descriptive normative influence) combined with their perceptions of whether the peer group will reward or sanction their participation in that behavior (injunctive normative influence) will directly affect the individual's decision to perform or not perform the behavior. To measure the influence of these norms, researchers ask participants to rate their perceptions of how often their peer group participates in the behavior and what their perception is of social reward or sanction for participating in the behavior.

One such study of particular interest here is that of Jacobson, Mortenson, and Cialdini (2011). In this study, participants were asked to complete an online activity and were told that the experimental session often ended approximately 20-25 minutes early, and they would have the option to either leave the lab early or stay to complete extra questionnaires. Participants were told that they would be asked to indicate their choice to take or not take surveys after the experiment was complete. Participants in the descriptive norm condition then read, "In past instances in which study sessions have ended early, most students have chosen to stay for the full



hour and complete extra surveys.” Participants in the injunctive norm condition read “In a survey conducted last semester, most students indicated that, in instances in which study sessions end early, they felt that participants should be willing to stay for the full hour and complete extra surveys.” They then began the experiment, then read a short message that indicated they had completed 1/3 of the experiment and reminded them that they could complete additional surveys after the experiment. Those in the descriptive norm condition read “Roughly nine out of ten former participants have decided to complete the optional surveys while one out of ten has decided to leave early.” Those in the injunctive norm condition read, “Roughly nine out of ten former participants indicated that they thought others should stay to complete the optional surveys while one out of ten has thought this isn’t necessary.” The participants then proceeded to complete another measure, then received a second reminder message that the experiment was 2/3 complete and that they had the option to complete additional surveys after the primary study. The participants then continued the study until its completion, but no actual surveys were given at the primary study’s completion. Results indicated that injunctive normative influence (e.g., the finding that past participant belief that others should stay to complete additional surveys) had a greater effect on present participants agreeing to take the additional surveys. This effect was facilitated by a higher self-reported conflict to conform to normative influence. In the present study, it was predicted that injunctive norm influence would have the same effect in that participants reading that members of their peer group believe that others should or ought to participate in stigmatizing behaviors toward individuals with mental illness would, in turn, conform to these same beliefs to a greater extent than those exposed to the descriptive normative influence condition.

## **Statement of Problem**

The aforementioned studies suggest that injunctive and descriptive norms are powerful tools when used to examine, predict, or manipulate social behavior. Although injunctive and descriptive norms have been used to gain understanding about a wide variety of social behaviors, a search of relevant literature failed to bring up any previous use of injunctive and descriptive norms to gain an understanding about social influence as it pertains to the stigmatization of mental illness. Although stigmatization has long been understood as a social construct (Goffman, 1963; Link & Phelan, 2001), it has not been previously studied in the context of injunctive and descriptive norms.

The problem of stigmatization toward individuals with mental illness is pervasive, as it serves as one of the main impediments to treatment of mental illness (DHHS, 1999) and often works as an obstacle that keeps those with mental illness distanced from adequate resources (Link, 2006). As such, appropriate interventions should be implemented to reduce the stigmatization of mental illness and decrease the disparity of resources and reduced quality of life experienced by many suffering from mental illness. However, some evidence suggests that pervasive social norms seen in larger socialization agents, such as in television and movies, continue to create and disseminate the message that those with mental illness are different than the social majority, possibly even violent or dangerous, and should be avoided (Klin & Lemish, 2008). Therefore, it appears to be imperative to study methods that can be used to reduce the stigmatization of those with mental illness from the framework of social psychology. Because the dissemination of stigmatizing messages is a social construct, it may be most appropriate to combat these messages with known social theory research informed by social psychological components.

Therefore, the present study sought to understand stigmatization as it is influenced by injunctive and descriptive norms. In this study, participants were presented with research findings that they were told summarize the beliefs of other university students regarding individuals with mental illness. Participants saw either injunctive normative information that suggested that peers believe individuals with mental illness should not be treated differently than other people, injunctive normative information that suggested that peers believe individuals with mental illness should be treated differently than other people, descriptive normative information which suggested that peers do not treat individuals with mental illness differently than other people, or descriptive normative information that suggested that peers do indeed treat individuals with mental illnesses differently than other people. Participants then completed measures that assess stigmatizing attitudes toward individuals with mental illness. It was predicted that participants who read that their peers at the university do not believe that they should be treated differently than other people (“injunctive positive” condition) and do not treat those with mental illness differently (“descriptive positive” condition) would endorse fewer stigmatizing attitudes than participants who read that their peers at the university believe they should be treated differently than other people (“injunctive negative” condition) and do treat those with mental illness differently (“descriptive negative” condition). Second, it was predicted that analyses would reveal that injunctive norm manipulation would result in more pronounced stigmatizing attitude endorsement than descriptive norm manipulation, as seen in previous research on injunctive and descriptive norms (Smith & Louis, 2008). It was predicted that the differences in endorsement of stigmatizing attitudes toward mental illness would be influenced by the internal conflict of participants to conform to social norms, as seen in previous research (Jacobsen et. al., 2011).

Additionally, rurality was examined to determine the extent to which having lived in an urban or rural area before attending college would influence endorsement of stigmatizing attitudes toward individuals with mental illness. It was predicted that participants from rural areas would hold more stigmatizing attitudes toward individuals with mental illness than participants from urban areas as shown in previous research (Link et al., 1987).

## CHAPTER 3: METHOD

### Participants

Participants were 213 undergraduate students from a university in the southeastern United States. The number of participants needed was based on a power analysis that utilized a MANOVA with five levels (injunctive positive, injunctive negative, descriptive positive, descriptive negative, control condition; Cohen, 1992). The ages of the sample ranged from 18 to 30 with an average age of 18.78. Seventy-one (33.3%) participants identified as men, 136 (63.8%) identified as women, and one participant (0.5%) identified as transgender. Five participants (2.3%) did not respond to the gender prompt. Additionally, 29 participants (13.6%) reported being from an urban area, 109 (51.2%) from a suburban area, 47 (22.1%) from a small town, and 23 (10.8%) from a rural area. Six participants (2.3%) did not respond to the demographic prompt. One hundred and twenty participants identified as Caucasian (56.3%), 57 (26.8%) as African-American, 12 as Hispanic, nine (4.2%) as Asian-American, 5 (2.3%) as Bi-racial, and four (1.9%) as another race. An additional six participants (2.8%) did not respond to the race prompt.

Participants were recruited through the Psychology Department Research Pool as a requirement for undergraduate coursework or for extra credit in undergraduate courses. Research procedures ensured that all participants were treated in accordance with the “Ethical Principles of Psychologists and Code of Conduct” (American Psychological Association, 2002). All participants gave informed consent prior to beginning the study, and completed all materials in-person in a research lab.

## **Design and Materials**

This study utilized a between-subjects experimental design with random assignment. The study's independent variable, norm type, had five levels. To manipulate norm type, participants read mock data from students attending the university about opinions on people with mental illness (see Appendix A). These mock data were based on previous manipulations of injunctive and descriptive norms within literature (Smith & Louis, 2008), but adapted for the topic of mental illness. These findings were partially presented in print and partially presented as audio clips of participants giving responses in an interview (See Appendix A). A similar manipulation has previously been used in the literature as a way to measure descriptive and injunctive in-group norms (Smith & Louis, 2008) and served as the basis for the development of our modified method.

## **Stigma Measures**

**Day's Mental Illness Stigma Scale (MISS).** The MISS is a questionnaire designed by Day, Edgren, and Eshleman (2007) which is comprised of 28 statements participants read and then indicated the degree to which they agreed with the statements using a 7-point Likert-type scale (1 = Completely Disagree, 7 = Completely Agree). This scale consists of seven different subscales of attitudes and beliefs which others may hold about individuals with mental illness: anxiety, relationship disruption, hygiene, visibility, treatability, professional efficacy, and recovery.

The MISS has previously been widely used with college-student samples (Herscher, 2013) and has been used with a college student sample to measure personal attitudes toward individuals with mental illness (Stone & Merlo, 2011) and was most recently used in a study using theatre as a method of reducing stigmatization of mental illness (Michalak et al., 2014).

Although the MISS is relatively new, it was chosen for this study due to its specificity toward college-student samples, its ability to measure personal attitudes toward individuals with mental illness, and its measurement of five separate but related factors regarding mental illness and individuals with mental illness. Higher scores are reflective of greater overall stigma. In the current study, Cronbach's alpha was acceptable for the MISS ( $\alpha = .82$ ) as were the internal consistencies for the individual subscales (see Table 1). However, the internal consistencies of the subscales were not as reliable as the total score. Since previous research has examined stigmatization using individual subscales (Day et al., 2007) as well as an overall score (Michalak et al., 2014), analyses of the overall score as well as the individual subscale scores were performed to determine the effects of normative influence on each separate subscale of the MISS. It is important to note that one item (item #3: "I would find it difficult to trust someone with a mental illness") was unintentionally left out of the survey. The error was discovered after data collection was complete, so data analysis continued without the missing item.

**Community Attitudes toward Mental Illness (CAMI).** The CAMI is a 40-item questionnaire designed as an adaptation of the Opinions of Mental Illness Scale (OMI; Cohen & Struening, 1962) which was originally used to gain information regarding the attitudes of health care personnel toward individuals with mental illness. The CAMI was developed by Taylor and Dear (1981) to address community attitudes toward deinstitutionalization and the treatment of individuals with mental illness living in the community, which was not covered by the original OMI (Link, Yang, Phelan, & Collins, 2004). Items include statements about the presentation and treatment of mental illness which participants rate on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). This scale includes four different subscales on different beliefs regarding mental illness: authoritarianism (viewing individuals with mental illness as inferior,

requiring supervision, and needing to be coerced into appropriate behaviors), benevolence (endorsing a humanistic view of individuals with mental illness), social restrictiveness (endorsing beliefs that individuals with mental illness should be isolated from society, as they threaten society), and community mental health ideology (accepting mental health services in the community, as well as integration of individuals with mental illness into the community). Each subscale is comprised of 10 questions, with half of the items on each subscale being reverse-scored (scores range from 10 to 50). High overall scores on the CAMI, as well as on its subscales, indicate endorsement of more stigmatizing attitudes. Within the current study, the internal consistency for overall scores on CAMI was Cronbach's  $\alpha = .88$ . Internal consistency for the subscales of the CAMI were also relatively consistent, but not to the extent of the overall combined measure (see Table 2). For this reason, analyses were performed on both the overall score and subscale scores to determine the effects of normative influence, which has previously been done elsewhere (Browne, 2010; Lowder, 2007). The CAMI has been used to measure the personal attitudes toward individuals with mental illness held by nursing students (mental health professionals and trainees; Smith & Cashwell, 2011) as well as the general public (Ng, Martin, & Romans, 1995; Wolff, Pathare, Craig, & Leff, 1996). It has been used in multiple cultural settings (Cotton, 2004; Högberg, Magnusson, Ewertzon, & Lützèn, 2008; Igbinomwanhia, James, & Omoaregba, 2013), hospital settings (Sevigny et al., 1999; Vibha, Saddichha, & Kumar, 2008; Ukpong & Abasiubong, 2010) and university settings (Hinkelman & Granello, 2003; Thornton & Wahl, 1996).

### **Behavioral Measure**

As stated previously, differences exist between stigmatization measures that are either explicit (e.g., questionnaires) or behavioral in nature. More specifically, behavioral measures are



able to more accurately determine automatic discriminatory behavior compared to questionnaires, likely providing a more precise measure of stigmatization (Hinshaw & Stier, 2008). Therefore, it was decided to incorporate a behavioral measure of mental illness stigmatization within the present study via willingness of participants to assist in making the decision to hire an incoming graduate teaching assistant with mental illness (see Appendix B).

### **Demographics and Primary Area of Origin (Rurality) Measure**

A demographic measure was included to assess participant age, gender, ethnicity, and status as an individual from a rural or urban area (see Appendix C). Primary area of origin was assessed by asking participants to describe the town where most of their lives were spent before attending college (urban, suburban, small town, rural). This measure was used to determine if any differences existed with regard to endorsement of stigmatizing attitudes between participants from more rural and or more urban areas. All other demographic information collected (e.g., age, gender) was used for descriptive purposes only and was not included as part of the manipulation.

### **Manipulation Check**

A manipulation check was utilized to assess whether participants were aware of the normative influences present in each of the experimental conditions. This manipulation check was constructed by the researcher, and asked a question about the material the participant read in order to assess comprehension (see Appendix D).

### **Procedure**

Participants came to a research lab after signing up to participate online. The participants went over the informed consent document with the researcher before being exposed to the manipulation. After signing the informed consent sheet, participants read a brief sentence of mock data from a study they were told occurred at the university in 2013. Depending on the

condition to which they were randomly assigned (injunctive negative, injunctive positive, descriptive negative, descriptive positive, control) they received different information about the results of this study. Participants then listened to audio clips which they were told were taken from interviews performed during the 2013 data collection; the audio clips they heard were congruent with the normative messages in the mock data they read. Participants in the control condition did not read mock data findings and did not listen to audio clips.

After participants read the mock data and listened to the audio clips, they completed the MISS, CAMI, the behavioral measure, the manipulation check, and a demographics form (see Appendix B). After completing these measures, participants viewed a page on the computer that displayed debriefing information which described the deception within the study and explained that the information presented did not represent the actual opinions of university students (see Appendix E). At the bottom of this page, they were directed to answer two questions to indicate they understood the data were fabricated and that the data were not the actual opinions of university students. If participants answered these questions correctly, data collection was complete. If participants did not answer both questions correctly, the computer screen displayed a red error message and instructed them to notify the researcher. At that time, the researcher read a longer, more detailed script describing the nature of the deception used in the study and the reason deception was used. After the researcher finished reading the script, the participant was instructed to answer the two questions again. Participants were debriefed in this manner until they answered both questions correctly on the computer screen.

## CHAPTER 4: RESULTS

### Data Cleaning

Data was converted from Qualtrics software to SPSS Statistics (version 21) for analysis. In preparation for data analysis, it was discovered that approximately 38 (17.4%) participants did not answer one or more items on either the MISS or CAMI. For these instances, item replacement was used based on 90 percent criteria. More specifically, if an individual missed one or more items on a measure but responded to 90 percent or more of the items, a mean score for that item was used to replace the missing score (rounded to the nearest whole number, if a decimal). If the individual completed fewer than 90 percent of the items, participant data were removed from analysis<sup>1</sup>. In total, five participants' data were removed from analysis due to insufficient responses. Data was analyzed using 213 participant responses.

### Manipulation Check

A chi-square analysis was performed to determine whether participants were attentive to the normative information presented within their condition. It was revealed that  $\chi^2(16) = 165.70$ ,  $p < .001$ . This suggests that participants were attentive to the manipulation within each condition. However, out of 212 participants, 154 (72.3%) answered the manipulation check question correctly. Because 27.7% of participants did not answer the manipulation check correctly, all analyses were presented twice: once with all participants and once with participants who completed the manipulation check correctly.

### Effects of Norm Type on Stigma

Means and standard errors for each measure by condition are listed in Table 3. A Multivariate Analysis of Variance (MANOVA) was conducted to determine the effect of

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<sup>1</sup> There are known limitations to using this data analysis technique (Shlomer, Bauman, & Card, 2010). However, this method was used at the request of a committee member.

normative influence prompt (Injunctive: Negative, Positive; Descriptive: Negative, Positive; Control) on scores on the measures of mental illness stigmatization (MISS, CAMI, behavioral measure; see Table 4). The MANOVA revealed no significant multivariate effect for condition (Wilks'  $\lambda = 0.96$ ,  $F(12, 545.32) = 0.73$ ,  $p = .72$ )<sup>2</sup>

To ensure that overall effects were not compromised by the number of participants who failed the manipulation check, additional analyses were conducted excluding cases in which participants did not correctly answer the manipulation check. A follow-up MANOVA revealed that normative influence prompt still had no significant effect on mental illness stigmatization (Wilks'  $\lambda = 0.94$ ,  $F(12, 389.22) = 0.82$ ,  $p = .63$ ; see Table 4). Effects of the normative influence prompt were non-significant on both the stigmatization measures and the behavioral measure even after selecting data for those who passed the manipulation check.

### **Primary Area of Origin as a Predictor of Stigma**

To test if area of origin predicts stigmatization, a MANOVA was performed to determine the relationship of primary area of origin (urban, suburban, rural, small town) on stigmatization as determined by scores on the MISS, CAMI, and behavioral measure (see Table 5). It was revealed that Wilks'  $\lambda = 0.97$ ,  $F(9, 491.77) = 0.61$ ,  $p = .79$ ) suggesting that there was no significant relationship between primary area of origin and stigmatization scores. After excluding cases in which the participants did not answer the manipulation check correctly, it was determined that Wilks'  $\lambda = 0.95$ ,  $F(9, 353.04) = 0.86$ ,  $p = .56$ .

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<sup>2</sup> Additional analyses were performed to determine if normative influence had any effect on individual subscales of the MISS and CAMI (see Table 6). These analyses were also non-significant with the exception of the visibility subscale of the MISS. This significance is likely the result of multiple analyses, which may have increased the likelihood of achieving a Type I error (Simmons et. al, 2011).

### **Additional Analyses**

Despite the diminished internal consistency of some subscales of the MISS and CAMI found within the current study (see Tables 1 and 2), the majority of research using the MISS and CAMI assess stigmatizing attitudes using the individual subscales of each measure (Day et al., 2007; Taylor & Dear, 1981). To keep consistent with previous research and to determine the effects of normative influence on stigmatizing attitudes by individual subscales on the MISS and CAMI, MANOVAs were conducted. MANOVAs for the subscales of the MISS and CAMI (see Table 4) were non-significant.

It is also important to note the frequency with which process debriefing was needed in order to fully explain the study to participants at the conclusion of data collection. Descriptive statistics revealed that 36.5% ( $n = 77$ ) of participants required process debriefing at the end of the data collection, as they did not answer the two debriefing questions correctly.

## CHAPTER 5: DISCUSSION

The primary purpose of the current study was to better understand the role of injunctive and descriptive normative influence on mental illness stigmatization as a social process. To accomplish this, the present research examined whether presenting normative data suggesting that individuals in one's social group held negative attitudes toward mental illness would result in endorsement of more stigmatizing attitudes toward mental illness, or if presenting normative data suggesting individuals in one's social group held positive attitudes toward mental illness would result in endorsement of less stigmatizing attitudes toward mental illness. The present research also examined whether differences in endorsing stigmatizing attitudes would be explained by exposure to injunctive or descriptive normative information. Additionally, this study aimed to determine if primary area of origin (rural, small town, suburban, urban) upbringing would predict the level of stigmatization toward mental illness one may demonstrate within the manipulation.

Results indicated that there were non-significant differences in endorsement of mental illness stigmatization, as measured by overall scores on the MISS and CAMI and their subscales, regardless of which normative message was received. These results are inconsistent with previous research indicating behavioral change can occur when individuals are subjected to injunctive or descriptive normative influence (Goldstein et al., 2008; Neighbors et al., 2008; Park et al., 2009; Smith & Louis, 2008.)

For a more comprehensive understanding of the non-significant findings of the current study, it may be helpful to reconsider the Theory of Planned Behavior (TPB). To review, TBP postulates that one may predict an individual's intention to engage in a behavior by examining the level of normative influence experienced by that individual, the individual's perceived

control over the behavior, and the individual's personal attitudes regarding the behavior. Some previous researchers have examined personal attitudes and beliefs when making predictions of behavioral engagement (Kor & Mullan, 2011; Park & Smith, 2007,) but the majority of reviewed literature did not take personal attitudes into account. The primary focus of the current study was to isolate the role of normative behavior, and not the other aspects of TPB. For this reason, the current study only examined the normative aspect of TPB and therefore did not include an examination of pre-existing personal attitudes or perceived behavioral control of participants with regard to mental illness stigmatization. The current study also did not include a measure that would have assessed personal participant beliefs or perceived behavioral control at the time the data was collected. Given that personal beliefs and perceived behavioral control are important in predicting behavioral intentions according to the TPB (Ajzen, 1985), it may be that norms alone are not enough to change attitudes. Instead, positive injunctive and descriptive normative messages may need to be combined with personal attitudes and messages of self-efficacy in order to elicit measurable change. In hindsight, a consideration of the personal attitudes held by participants, as well as the extent to which they felt as if they had the capability to endorse such beliefs may have provided important information possibly influencing responses.

Along the same lines, it is important to note that previous stigmatization research suggests that individuals with more familiarity with and knowledge of mental illnesses are less likely to hold stigmatizing attitudes than others (Corrigan et al., 2003). Research, too, suggests that college undergraduates, especially from western, industrialized, and democratic societies, provide the least representative information for generalizing results to general populations (Henrich, Heine, & Norenzayan, 2010). Therefore, the personal attitudes of the undergraduate sample used in this study may have been significantly influenced by previous knowledge gained

in introductory psychology courses and may have been largely uncharacteristic of the attitudes held by a more representative sample. If participants' personal attitudes toward mental illness ran counter to the manipulation, it is possible that the manipulation would have little to no effect on responses to the stigmatization measures used in the current study. However, this may not be the case, as mean scores on both the CAMI and MISS are reflective of average responding. That is, participants tended to select items toward the middle of the Likert scales rather than at the beginning, suggesting participants had an inclination to endorse some stigmatizing beliefs on occasion (see Table 3).

Additionally, participants may not have felt capable of endorsing highly stigmatizing attitudes, and therefore did not perceive that they had sufficient personal control over their behavioral intentions during data collection. More specifically, participants may have perceived barriers to openly endorsing stigmatizing attitudes toward individuals with mental illness. These barriers may have included cultural messages set forth by the psychology department, lessons learned in introductory classes, or perceptions of the data collection experience (e.g., researcher attitudes, the ability to receive course credit after endorsing such attitudes). Therefore, it may have been helpful to have included a measure of perceived behavioral control in order to determine if participants felt capable of engaging in the endorsement of such attitudes invoked by the manipulation. Future research may benefit from including measures of personal attitudes as well as perceived behavioral control in addition to normative influence in order to address all three facets of the TPB.

Another separate, but related, possible contributor to the non-significance of findings with regard to normative information may stem from the influences of another set of injunctive norms unintentionally set forth by the nature of the data collection and research participation



processes. As aforementioned, injunctive norms provide individuals with important information about what the relevant peer group believes should or ought to be done with regard to a particular social behavior. Additionally, injunctive norms send messages regarding the implied social sanctions that may arise from not conforming to the ideals of a relevant peer group (Cialdini, 2007.) As Smith and Louis (2008) found, university students' behavior can be shaped by the information they receive about what other students at their university are indicating should or ought to be done. Therefore, the current study predicted, in turn, that students receiving messages suggesting that other college students believed individuals with mental illness should be treated differently would then adopt the beliefs of this relevant peer group. However, these students, enrolled in an introductory psychology course and in need of receiving course credit through research participation, may have been socialized to the norms and expectations of a smaller peer group—other psychology students—through continued participation in research projects and attendance of psychology lectures. Therefore, other injunctive normative information (e.g., “one should advocate for individuals with mental illness”) may have been imparted throughout the course of the semester, and therefore their more longstanding beliefs and attitudes about mental illness may have withstood the brief manipulation experienced during their participation in the current study. It may have been the case that the peer group described in the mock data was not adequately similar to the current sample, and describing the beliefs of a more representative sample through the mock data may have revealed different results; it has been shown that more closely representative peer groups are more influential when manipulating normative information to predict behavior (Cialdini et al., 1990). If the current study presented information which suggested that Georgia Southern University psychology students (as opposed

to Georgia Southern University students with unspecified interests) expressed certain beliefs about individuals with mental illness, the participants may have responded differently.

Results also indicate that there was no significant effect of normative information presented (negative or positive injunctive norm, negative or positive descriptive norm, control condition) on responses to the behavioral measure. Participants were not any more or less likely to recommend hiring a graduate student with a mental illness based on the type of normative information they received during the manipulation. It is important to note that participants were also given an opportunity to elaborate on the reasons why they would or would not recommend hiring an individual with a mental illness. Although participants were mostly in favor of hiring the graduate assistant, a look at the qualitative responses revealed some hesitation in arriving to that decision. Most often, participants indicated that their decision to recommend the graduate assistant would largely depend on the severity of the potential employee's mental illness and status of recovery. It was frequently reported that the participant would not be in favor of hiring a graduate student with a more serious mental illness (e.g., schizophrenia,) especially if the individual were not receiving treatment for the illness. Additionally, it was common for these elaborations to include a stipulation that the graduate assistant be qualified for the job to the extent that their qualifications surpassed those of other applicants. Although this information is qualitative in nature, it is consistent with research which suggests that individuals tend to hold more negative attitudes toward individuals with mental illness when the mental illness is perceived to be dangerous and severe (Corrigan et al., 2003; Penn & Martin, 1998.) To gain a more robust understanding of mental illness stigma through behavioral measures, it may be beneficial for future research to identify other methods of collecting behavioral data that may return less ambiguous results.

### **Differences in Primary Area of Origin/Rurality**

Another aim of the current study was to examine the extent to which living in more rural or more urban areas reveals differences accounted for variation in stigmatization of mental illness. Overall, results indicated there were non-significant differences in stigmatization endorsement with regard to rurality. The lack of rural differences found in the current study is counter-indicated by research which suggests that individuals in rural areas hold more negative attitudes toward mental illnesses, as well as more negative attitudes for receiving mental health treatment (Link et al., 1987; Nicholson, 2008.)

One explanation for this inconsistent finding might be found in the lack of an objective measurement of rurality within demographic data collection. Participants were instructed to give a subjective account of the type of area in which they were raised—urban, suburban, small town, or rural—however, no definitions of what constituted urban or rural areas were given to help participants make the distinction between the options. It is possible that confusion and subjective guessing regarding the area in which participants were raised contributed to the lack to rural differences found in the current study.

Additionally, rural differences may have been diluted by experiences afforded to participants by college living. Living and actively participating in a college atmosphere may do much to reduce cultural messages adopted while living in rural and non-rural areas. In particular, attending college may present students with an opportunity to meet new people, learn about new cultures, and expose themselves to experiences and ways of living that their former places of residence would not have provided. The new perspectives learned from these opportunities may, in turn, have influenced the identity and attitudes of college students participating in the current study to a greater extent than the beliefs they once held while living in rural or urban areas

(Milem, 1998). In order to gain a more comprehensive understanding of how rural or urban differences may influence stigmatization of mental illness, future research may benefit from selecting a sample of individuals dwelling solely within rural or urban areas who are not currently living in a college environment. However, the lack of rural differences found in this sample may be encouraging for clinicians, as this may mean fewer rural individuals are experiencing stigmatization from others due to mental illness or mental health concerns. In turn, this could signify that more individuals from rural areas feel comfortable with seeking mental health services than mental health professionals may expect. Future research is still needed to determine the extent that rural residents feel capable of seeking help.

### **Other Limitations**

It may be important to note some other facets of data collection and the design of the current study, as these elements may have contributed to the inconsistencies between the current non-significant results found and the significant body of research supporting the predictions and aims of the current study. The manipulation used within the current study sought to emulate the normative messages often conveyed through media outlets, as a link between media messages and intolerant attitudes toward mental illness had been previously explored (Klin & Lemish, 2008; Signorielli, 1989; Stout et al., 2004.) However, previous studies explored the relationships among stigmatizing attitudes toward mental illness and media messages via video and television. Ethical considerations made it necessary for the current study to use audio clips rather than video footage of individuals making statements about mental illness and people with mental illness. More specifically, video recording research assistants as they make stigmatizing statements about individuals with mental illness may result in harmful implications from their participation, particularly the possibility of later coming into contact with former participants who believe they

actually hold stigmatizing attitudes toward those with mental illness (Naufel & Beike, 2013). Although it was necessary to protect research assistants from this possibility, it is possible that the manipulation using audio clips was not strong enough to influence participant attitudes to the extent that previous research has suggested may occur after exposure to these messages via television and video. Future studies should incorporate video footage, rather than audio clips, as part of the manipulation to determine if differences exist between visual and auditory information presented.

Another limitation may come from the length of time participants were exposed to normative influences. For each participant, data collection lasted no longer than 30 minutes and the manipulation was only responsible for a small portion of the time period. Although it was hypothesized that media influence, such as the audio clips presented in the current study, provide important normative information which influences behavioral intent, the manipulation may not have been sufficient enough to influence participant stigmatization of mental illness. Recent research suggests that traditional college-aged Americans (the demographic population which most closely reflects the sample used in this study) spend approximately 113.5 hours each month watching television and an additional 13 hours monthly watching video on the internet or mobile phones (Nielsen, 2014.) Therefore, the short amount of time that participants were exposed to the manipulation of the current study may have been vastly insufficient when compared to the time in which other information may influence attitudes and beliefs. It would be important for future research to take this into consideration, both when designing a study and when performing follow-up analyses to determine how long the effects of such a manipulation last. The normative influences, then, would need to be more pervasive, longer lasting, and consistently administered than was possible for the current study.

Additionally, it is important to note that for 36.5 percent of participants did not answer debriefing questions correctly and required a more extensive debriefing to ensure full understanding of the deception used in the study. If a large portion of participants were not attentive to the words and ideas conveyed by the debriefing page, it stands to reason that participants may have been inattentive while completing other measures during the data collection period. This inattentiveness could have resulted in careless or incorrect responding. Future research may benefit from investigating alternative ways of measuring inattentive responding to account for these variations in results.

### **General Conclusions**

The results of the current study suggest that injunctive and descriptive normative information may not influence mental illness stigmatization in the ways originally predicted via an extensive review of relevant literature. These results may have been influenced by the personal attitudes of participants within our sample, interfering injunctive normative influence, participant desire for social desirability, inattentiveness to items on the measures, or an inability to use video footage as part of the manipulation. Future research may benefit from addressing these factors within study design in order to determine the extent of any effects that normative information may elicit on mental illness stigmatization.

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Table 1

*Cronbach's Alpha for Subscales of the Day's Mental Illness Stigma Scale*

<b>Subscale</b>	<b>Cronbach's Alpha</b>
Anxiety	.92
Relationship Disruption	.81
Hygiene	.83
Visibility	.80
Treatability	.67
Professional Efficacy	.90
Recovery	.75
Overall Measure	.82

Table 2

*Cronbach's Alpha for Subscales of the Community Attitudes toward Mental Illness Scale*

<b>Subscale</b>	<b>Cronbach's Alpha</b>
Authoritarianism	.63
Benevolence	.81
Social Restrictiveness	.74
Community Mental Health Ideology	.52
Overall Measure	.88



Table 3

*Means and Standard Errors for Each Measure by Condition*

	<b>IN Mean (SE)</b>	<b>IP Mean (SE)</b>	<b>DN Mean (SE)</b>	<b>DP Mean (SE)</b>	<b>C Mean (SE)</b>
<b>MISS (n = 27)</b> <i>Likert Scale: 1 -7</i>	3.50 (0.94)	3.64 (0.98)	3.66 (0.10)	3.54 (0.08)	3.47 (0.84)
Anxiety (n = 7)	2.74 (0.19)	2.77 (0.19)	2.95 (0.21)	2.89 (0.17)	2.67 (0.16)
Relationship Disruption (n = 5)	2.61 (0.18)	2.56 (0.18)	2.72 (0.20)	2.62 (0.16)	2.53 (0.15)
Hygiene (n = 4)	2.32 (0.13)	2.42 (0.19)	2.65 (0.18)	2.24 (0.15)	2.16 (0.13)
Treatability (n = 3)	5.63 (0.19)	5.64 (0.16)	5.52 (0.16)	5.43 (0.16)	5.66 (0.12)
Visibility (n = 4)	3.86 (0.18)	4.55 (0.18)	4.18 (0.17)	4.16 (0.17)	3.80 (0.18)
Professional Efficacy (n = 2)	5.18 (0.21)	5.44 (0.20)	5.13 (0.21)	5.09 (0.20)	5.28 (0.20)
Recovery (n = 2)	5.21 (0.18)	5.12 (0.23)	5.20 (0.22)	5.11 (0.22)	5.45 (0.21)
<b>CAMI</b> <i>Likert Scale: 1 -5</i>	2.17 (0.06)	2.15 (0.07)	2.23 (0.07)	2.17 (0.06)	2.17 (0.06)
Authoritarianism (n =10)	2.18 (0.07)	2.17 (0.08)	2.21 (0.07)	2.17 (0.08)	2.15 (0.08)
Benevolence (n = 10)	1.85 (0.08)	1.91 (0.09)	1.96 (0.09)	2.03 (0.08)	1.89 (0.07)
Social Restrictiveness (n = 10)	1.92 (0.09)	1.95 (0.09)	2.07 (0.09)	1.94 (0.08)	1.97 (0.07)
CMH Ideology (n = 10)	2.74 (0.07)	2.55 (0.06)	2.67 (0.07)	25.43 (0.07)	26.48 (0.07)
<b>BEHAVIORAL MEASURE</b> <i>Likert Scale: 1-5</i>	2.45 (0.11)	2.20 (0.13)	2.20 (0.12)	2.28 (0.12)	2.27 (0.14)

Table 4

*Main Effects of Normative Condition on Stigmatizing Attitudes as Measured by Behavioral Measure, MISS, CAMI, and Subscales*

<b>Measure</b>	<b>Exclusions</b>	<b>Wilks' <math>\lambda</math></b>	<b><i>F</i></b>	<b>Hypothesis df</b>	<b>Error df</b>	<b>Sig</b>
<b>Overall Measures</b>	All Participants	0.96	0.73	12.00	545.32	.72
	Passed Manipulation Check	0.94	0.82	12.00	389.22	.63
<b>Subscales</b>	All Participants	0.81	0.91	48	760.91	.64
	Passed Manipulation Check	0.72	1.00	48	533.63	.47

Table 5

*Rural Differences in Responding to Normative Condition*

	<b>Wilks' <math>\lambda</math></b>	<b><i>F</i></b>	<b>Hypothesis df</b>	<b>Error df</b>	<b>Sig</b>
All Participants	0.97	0.61	9.00	491.77	.79
Passed Manipulation Check	0.95	0.86	9.00	353.04	.56

Table 6

*Effects of Normative Condition on Stigmatizing Attitudes as Measured by MISS and CAMI**Individual Subscales*

<b>Stigma Measure</b>	<b>Subscale</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
<b>MISS</b>	Anxiety	2.21	4	0.55	0.37	.82
	Relationship Disruption	0.93	4	0.23	0.18	.95
	Hygiene	6.21	4	1.56	1.41	.23
	Treatability	1.62	4	0.41	0.38	.82
	Visibility	15.66	4	3.92	2.96	.02
	Professional Efficacy	3.62	4	0.90	0.52	.72
	Recovery	3.32	4	0.83	0.43	.79
<b>CAMI</b>	Authoritarianism	0.67	4	0.17	0.68	.99
	Benevolence	0.80	4	0.20	0.64	.63
	Social Restrictiveness	0.56	4	0.14	0.47	.76
	Community Mental Health Ideology	1.12	4	0.28	1.46	.21

## Appendix A: Mock Survey Findings Heard by Participants

**A survey was conducted in the spring of 2013 among undergraduate students at Georgia Southern University. Students were asked to give their opinions on mental illness and psychological disorders. Please read the following findings from the survey and listen to the audio clips that follow.**

### Injunctive Positive:

9 out of 10 students believe that people with mental illness should not be treated differently than other people.

*“I think companies should work hard to include people with mental illness as employees.”*

*“Everyone should be friendly to people with mental illness. There is no reason to treat them any differently.”*

*“I think the media should stop depicting people with mental illness as violent and dangerous.”*

*“A teacher with mental illness should be able to work with children in school.”*

*“I think you should be supportive of family members with mental illness and not think of them any differently.”*

### Injunctive Negative:

9 out of 10 students believe that people with mental illness should be treated differently than other people.

*“I think companies should keep people with mental illness from working there.”*

*“I don’t think you should be too friendly to people with mental illness. They’re different from the rest of us.”*

*“I think the media should do more to let people know about how violent and dangerous people with mental illness can be.”*

*“A teacher who is mentally ill shouldn’t be allowed to work with children at school.”*

*“I think you should really protect yourself from family members with mental illness because someone could seriously get hurt.”*

Descriptive Positive:

90% of students said that they do not treat people with mental illness differently than other people.

*“If I was an employer, I’d gladly hire someone with a mental illness.”*

*“I’m friends with several people that have mental illness.”*

*“I think the media is way too harsh on people with mental illness. They’re no different from anyone else.”*

*“I’d trust a teacher who has a mental illness to teach my children.”*

*“I have a family member with a mental illness, and I don’t avoid him. I don’t see him any differently than other people in my family.”*

Descriptive Negative:

90% of students said that they treat people with mental illness differently than other people.

*“If I was an employer, I would not hire someone with a mental illness.”*

*“I avoid being friends with people who have a mental illness.”*

*“According to what I’ve seen in the media, people with mental illness could be violent and dangerous. Either way, they’re different from people like me.”*

*“I don’t trust a teacher who has a mental illness to teach my children.”*

*“I have a family member with a mental illness, and I stay away from him. He’s different from the other people in my family.”*

## Appendix B: Demographic Information

Please complete the following form to best represent your own demographic information.

What is your age? (in years) \_\_\_\_\_

What is your gender?

- Male
- Female
- Transgender
- Rather not say

What is your ethnicity?

- African American
- Asian American
- Hispanic
- White
- Bi-Racial
- Other (please specify)

How would you best describe the area that you spent most of your life in before attending this university?

- Urban
- Suburban
- Small town
- Rural

### Appendix C: Behavioral Measure

Currently, the Georgia Southern University Psychology Department is considering employing new graduate assistants. One of these applicants is qualified but has been diagnosed with a mental illness. The graduate student will be responsible for such duties as academic advisement for undergraduates, teaching undergraduate courses, assisting faculty with research, and conducting independent research. Our student opinions are greatly important to us and assist us in making appropriate hiring decisions. Please indicate below whether or not you support hiring this student and please provide us with an explanation of your answer. This feedback will greatly assist us in making current and future departmental decisions.

- I strongly recommend that this person be hired as a new graduate assistant.
- I recommend that this person be hired as a new graduate assistant.
- Overall, I recommend that this person be hired as a new graduate assistant, but I have some reservations about hiring the applicant.
- I do not recommend that this person be hired as a new graduate assistant.
- I strongly recommend that this person not be hired as a new graduate assistant.

Explain your recommendation below:



#### Appendix D: Manipulation Check

According to the data found from this survey, participants polled believed that people with mental illnesses should be treated \_\_\_\_\_ compared to people without a mental illness.

- a. the same as
- b. differently than
- c. I don't remember.
- d. I didn't pay attention

## Appendix E: Debriefing

Thank you for your participation in this study. We value your time and your responses.

Please know that the statistics that you have read as part of this study were made up for the purposes of this exercise. They do not necessarily reflect the attitudes of Georgia Southern University students, nor do they necessarily reflect the attitudes of any other population. In other words, it is hard to identify the **exact percentage** of people that hold such attitudes. There are many different opinions of mental illness that vary by individual, by culture, and by many other factors that hold influence over belief.

If you would like to learn more about stigma towards mental illness, please visit the National Alliance on Mental Illness at [www.nami.org](http://www.nami.org) or the National Institute of Mental Health at [www.nimh.org](http://www.nimh.org).

I understand.

### Quiz:

Do the statistics you have read accurately reflect the attitudes of Georgia Southern University students or any other population?

- Yes
- No

Were the statistics you read made up for the purposes of this exercise?

- Yes
- No