PUBLIC ATTITUDES TOWARD MENTAL ILLNESS: AN EXPERIMENTAL DESIGN EXAMINING THE MEDIA’S IMPACT OF CRIME ON STIGMA

DISSERTATION

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By

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ABSTRACT

Mental health consumers encounter numerous barriers that complicate their lives such as housing, employment, social support, and resulting low self-esteem. Stigma has been found to be a primary deterrent for individuals who need mental health services as well as impacting those already receiving services (Hinshaw, 2007). What has not been clear in the research is how stigma varies across psychiatric disorders. Also, the deinstitutionalization movement has led to increase in the number of consumers who live in the community so consequently, a better conceptualization of the attitudes held by the general public toward mental health consumers is critical in understanding how these consumers are ultimately treated by others. Studies have shown that the public learns about mental illness primarily through the media, particularly newspapers (Corrigan, 2005; Wahl, 1995). Negative stories far outnumber positive ones and the message being delivered to the public is that people with mental illness are dangerous and are to be feared.

The current study used deception by not informing respondents as to the true purpose of the study until debriefing and measuring their impression management to control for self-selection and socially desirable responses. This study simulated a phenomenon popular in media today: a newspaper article featuring a man with mental illness who committed murder. Six vignettes were created and all featured a fictitious person who assaulted another man who later died from head trauma. The perpetrator had
a wife, children and a part-time job and was being charged with murder. The only
difference between vignettes was the diagnostic label (schizophrenia, bipolar disorder,
panic disorder without agoraphobia, major depressive disorder, cancer, and control) of
the perpetrator. The independent variable was vignette type, and dependent variables
were the Social Distance Scale and the four subscales (authoritarianism, benevolence,
social restrictiveness, community mental health ideology) of the Community Attitudes
toward Mental Illness (CAMI).

Labeling theory has been utilized as a framework to explain the impact of the
label “mental illness” through the works of Scheff and Goffman and more recently, Link.
By varying only the diagnostic label in this study, it provided further evidence as to the
power of a psychiatric label to affect attitudes which serve as a proxy for behavior.

A convenience sample of adults (N=313) was obtained from a public science
center in a large Midwestern city. Participants were randomly assigned to read one of six
vignettes and were presented a packet with materials in the following order: vignette,
CAMI, Social Distance Scale, Impression Management Scale, and a demographics
questionnaire. MANCOVA analyses revealed no difference between vignette type on any
of the four subscales of the CAMI. However, there was a statistically significant
difference between groups on the Social Distance Scale, and post-hoc analyses found that
panic disorder without agoraphobia and major depressive disorder were different. Major
depressive disorder was associated with the highest social distance indicating least
favorable attitudes whereas panic disorder without agoraphobia was associated with the
most favorable attitudes. Results suggest that there may be different factors contributing to social distance other than fear.
Dedicated to my parents, Barry and Pam Locke.
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I first began my collegiate journey as a computer science major at a small community college near my hometown. I soon realized that sitting behind a computer in a cubicle and typing code was not going to lead to a fulfilling career, nor was it going to fit well with my personality. Like most college students, I decided to switch my major and obtained a bachelor’s degree in psychology at Wright State University. At the age of 21, a friend helped me to get a job at a local psychiatric hospital as a mental health technician. Although I had a genuine interest in the mental health field, I had no way of knowing that this experience would have such a lasting impact on me and ultimately shape my dissertation and trajectory of my research. I have found social work to be an ideal fit for me and my way of looking at the world.

Because my practice experience in an inpatient hospital has been so influential in my career as a social worker thus far, I would like to thank my coworkers and colleagues, Nancy, Cheryl, and the distinguished Dr. Duncan for their continued support. In addition, Claudia and Connie have been very supportive as well as my “old” coworkers from second shift: Rhoda, Sandy, and Dan. My friend and colleague Becky has also been helpful in providing a unique way to view this long, arduous process.
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CHAPTER 1

INTRODUCTION

About one-fourth of American adults age 18 and older will experience a diagnosable mental disorder in a given year (Kessler, Chiu, Demler, & Walters, 2005). This amounts to 57.7 million Americans, with 6% of the population suffering from serious mental illness. Thus, at some point most citizens will come into contact with mental illness in some capacity whether it is through their own direct experiences or by interacting with others such as family, friends, coworkers, neighbors, significant others, etc. In the United Kingdom, the lifetime risk of developing mental health distress is one in six (Putman, 2008) and risk of experiencing a significant mental health problem is as high as one in three (Department of Health, 2006). Other international estimates in the European countries of Belgium, France, Germany, Italy, Spain, and the Netherlands, through an investigation with over 21,000 respondents, discovered that one in four reported a lifetime history of mental illness (Alonso et al., 2004). Collectively, the Lancet Global Mental Health Group (2007) found 12-month estimates of mental illness worldwide to be about 30% which further illustrates that this is not merely a concern within the U.S. only but a global one. Given the overwhelming number of individuals that will have encounters with mental illness, it is imperative that significant attention is devoted to understanding how the public views those with mental illness.

In the United States, the prevalence of mental illness combined with the deinstitutionalization of mental health consumers has led to a greater increase in the
amount of contact the public has with these clients. This same phenomenon has been echoed worldwide including Great Britain (Bagley & King, 2005). Consequently, it is critical that measures are taken to better understand public attitudes which will in turn lead to a more complete comprehension of how they would think, feel, and behave towards consumers (Philo, 1996). In a thorough review of the literature, Hinshaw and Stier (2008) found that the general public has an often negative outlook on these individuals resulting in a stigma associated with mental illness.

Although knowledge about mental illness has apparently increased over the years (Pescosolido, Monahan, Link, Stueve, & Kikuzawa, 1999) Americans continue to fear those with mental illness. Other studies found that 63% of respondents would feel comfortable around a person with depression, 48% near someone who had attempted suicide, 45% with bipolar or schizophrenia, and 43% toward someone with alcohol or drug problems (Mental Health America, 2007). Results from the same study indicated that 20% of participants would be comfortable having a teacher with bipolar disorder or schizophrenia, 23% a romantic partner, and 29% an elected official. Interestingly, when comparing these figures to interactions with individuals who have traditional medical illnesses, the results are quite different. The level of comfort expressed by respondents toward a friend with cancer or diabetes was 98%, for a neighbor it was 98%, co-worker was 93%, and a similar pattern for a teacher, intimate partner, and elected official. In a similar study, Corrigan et al. (2005) examined attitudes of adolescents towards a peer depicted in vignettes and diagnosed with either mental illness, leukemia, mental illness caused by a brain tumor, or alcohol abuse. Consistent with the above findings, adolescents overall were more likely to be accepting towards a peer with leukemia and
less interested in associating with a peer suffering from mental illness although having a brain tumor mediated some of the effects.

Negative Effects of Stigma

There are numerous negative effects of stigma on consumers such as difficulties obtaining housing, discrimination among employers’ hiring practices, loss of family and social support, and self-stigma. The amount of stigma experienced is so powerful that some consumers report it is more debilitating than the illness itself (Wilkinson, 1995). Essentially, the way people perceive and treat mental health clients is worse than the psychiatric symptoms they experience.

Other than perhaps HIV/AIDS, this phenomenon seems almost unrivaled by any other illness in existence. For example, it seems rather unlikely that someone would state that the way he or she is treated due to people knowing about lung cancer is far worse than how lung cancer affects the person’s body. Link, Struening, Rahav, Phelan, and Nuttbrock (1997) found that even during treatment with dual diagnosis clients, stigma was still apparent and was an obstacle. In a rare longitudinal study examining stigma, Link and colleagues stated that although there are positive effects that emerge from treatment through linkage of services and improved functioning, stigma is still present and counteracts some of the positive aspects.

While stigma certainly impacts quality of life in many different areas, stigma itself has been cited as the primary reason why individuals do not seek out services when they are needed (Chandra & Minkovitz, 2007; Hinshaw & Cicchetti, 2000). In a compelling account of adolescent voice in a qualitative study, Chandra and Minkovitz (2007) quoted a participant regarding the perception by others of seeking mental health
services: “I think they’d treat people differently if they had like mental health [problem] because like when you break your arm people know it’s not your fault usually and like it’ll get better and stuff; but mental health, people are like, I don’t know if that’s gonna get better” (p.770). Related to beliefs about treatment, an international study conducted in Australia found that the general public had varying levels of confidence in the ability of mental health professionals to aid in improving the lives of consumers (Jorm et al., 1997). From a sample of 2,031, 83% viewed general practitioners as helpful, counselors (74%), psychiatrists (51%), and psychologists (49%).

Financial resources are also compromised as a result of stigma tied to unemployment, and it also contributes to the difficulty participating in much needed services (Overton & Medina, 2008). Authors note that due to consumers’ mental illness, they may not have the ability to hold a job thereby affecting their financial situation. However, discrimination related to employment is also a major barrier to improving finances. Often times a lack of funding available for job training programs is another setback for consumers who wish to obtain employment. Treatment services that are essential for consumers’ recovery are not accessed by clients particularly if there is little to no social support from friends and family. All of these failed attempts to improve functioning further influence stigma.

Link, Struening, Neese-Todd, Asmussen, and Phelan (2001) argue that one of the most damaging parts of stigma is the impact on self-esteem of the clients. One of the ways in which this is manifested is through discrimination such as in an employment setting or through macro channels like structural stigma and discrimination. The authors used a devaluation-discrimination measure along with a stigma-withdrawal instrument
and found that they predicted consumer self-esteem at 6-month and 24-month follow-up even when controlling for baseline scores. It is also common for clients to feel blamed for their illness and reluctant to disclose their struggles to others for fear of reaction (Wahl, 1999). Blame towards the family was even evident in many abnormal psychology textbooks in the mid-1980’s when Wahl (1989) found references to the schizophrenogenic parenting as a primary cause of schizophrenia in children. Essentially, parents were the cause of their children developing the disorder; this was being taught in various schools across the United States despite the research at the time that disconfirmed this hypothesis.

Not all evidence of stigma occurs on a smaller, micro level. Stigma is very much present within the macro arena of institutions, organizations, and policies. A national survey conducted by Corrigan, Watson, Heyrman, et al. (2005) examined structural discrimination in state legislation and found that while some states in the U.S. have passed legislation to protect mental health consumers from discrimination, there are still a considerable number of states that have discriminatory laws enacted. In Ohio, medications that are used to treat mental illness are exempt from the drug rebate program. Another example of discrimination in the state of Ohio is the existence of a law that restricts firearms to individuals with current or a previous history of mental illness. Corrigan et al. (2005) notes that nationwide states introducing legislation related to mental illness are typically connected to funding, not as much devoted to liberties. Other examples of structural stigma include the prevalence of newspaper articles that frequently link crimes committed by mental health consumers with their psychiatric history. Corrigan, Watson, Gracia, et al. (2005) discovered that 39% of U.S. newspaper stories
sampled during 2002 mentioned dangerousness and violence in connection with consumers, and most of these were near the front of the newspaper.

The experiences of those with mental illness are further compounded when they belong to minority populations such as race, ethnicity, sexual orientation, and religion (Sanders Thompson, Noel, & Campbell, 2004). Consumers that reported an increase in discrimination due to race also acknowledged greater symptoms related to depression and anxiety (Klonoff, Landrine, & Ullman, 1999). Similarly, Hershberger and D’Augelli (1995) stated that a relationship exists between antigay discrimination and risk of mental health problems.

Because public attitudes are a key part of the stigma puzzle, it seems logical to examine how these attitudes develop and where they originate. Wahl (1995) found that most Americans report getting the majority of their information about mental illness through the media. Although one could argue that not all of these images contained negative content (i.e., someone with schizophrenia committed a crime versus someone with depression graduated college), the overall perception expressed by respondents was not a positive one. In their newly released and appropriately titled book *Harm and offence in media content*, Hargrave and Livingstone (2009) perfectly capture the impact of media in their passage “The potential complicity of the media in misinformation is questioned in many studies.... It is argued that the potential of harm that may occur not only affects the individual but also has broader consequences for society” (p. 19). The authors argue that although media content that is offensive versus illegal has been differentiated, this boundary has been blurred. More specific to mental illness, Zimmerman (2003) states that “…the mentally disturbed person has been a frequent
object of exploitation in the movies. In appearance, gesture, and speech, the insane person has been portrayed as an outsider and, at the worst, an alien who fascinates and horrifies the audience” (p.xiv).

It is no surprise that Americans are bombarded by media images everyday. Although there is a seemingly infinite supply of social problems affected by the media, the stigma of mental illness will be the focus here. What varies is the medium in which the media is conveyed and absorbed by the person and the degree to which he or she is actively engaged in the media (i.e., reading a newspaper article depicting mental illness for 5 minutes compared to a 2 hour movie).

International Research on Stigma

Given the obvious cultural differences between the United States and other countries, there is a considerable amount of research that has been conducted internationally targeting stigma from a wide variety of angles which may prove beneficial for the American conceptualization of stigma. Most notably Australia, New Zealand, Canada, Germany, and the United Kingdom account for the majority of stigma research globally. This further lends support to the desire for countries to eliminate stigma and its resulting consequences for clients. In Germany, Schulze and Angermeyer (2005) investigated the source of knowledge about mental illness with a sample of secondary school students. Almost two-thirds of the sample indicated that they have acquired the most information about mental illness from the media, with television being the highest, magazines second, and newspapers the third highest form of media.
Labeling Theory

In order to further understand the connection between stigma, mental illness, and the affected consumers, it is necessary to identify a framework from which to operate. Labeling theory has been applicable to multiple apparent deficiencies in members of society ranging from those afflicted with HIV/AIDS and cancer patients (Fife & Wright, 2000), skin conditions (Thornicroft, 2006), those on welfare (Rogers-Dillon, 1995), the homeless (Phelan, Link, Moore, & Stueve, 1997), and individuals suffering from mental illness (Link, Cullen, Frank, & Wozniak, 1987; Tringo, 1970). The latter group will be the focus of this paper as the author will illustrate the effects of labeling on mental health consumers, and as will be articulated later, those friends, family members, neighbors, co-workers, and others who interact with these individuals. Labeling theory has been cited as one of the major theories that have helped explain the struggles faced by those with mental illness.

Goffman (1963) has been cited as one of the first to describe stigma in relation to mental illness. He describes the relationship between an attribute and a stereotype resulting in eventual group differences between the “discredited” and the “discreditable.” He also noted that social norms dictate what is acceptable and what is not. Violations of the norms can lead to subsequent labeling in the form of mental illness. Goffman (1963) states that those who are stigmatized are not only living in a society where they are the minority, but it is especially hard for an individual to come to terms with a recent psychiatric diagnosis because he or she had been one of the “normals” until that point. Attempts to cope with the label typically result in avoidance or increased anxiety around others who may not be as understanding. There is also the pressure to not act like a
patient and blend in with the others. In addition, some consumers may utilize the
“sympathetic others” in their life who could be either other consumers or family members
who are supportive.

The works of Scheff (1966) have been instrumental in bringing about the tenets of
labeling theory. He challenged the existing psychoanalytic paradigm which suggested
that environmental influences were largely irrelevant when treating a mental health client.
One of the more radical arguments argued by Scheff (1966), and the one that has been
criticized the most, is the power of the label to dictate future psychiatric symptoms. In
other words, the label itself is the primary predictor of future behavior. Scheff (1966) also
describes attempts by patients to return to a “normal” level of functioning again, only to
be met by criticism and skepticism by family and friends thereby reinforcing the patients’
place in society. Stereotyped imagery through early childhood experiences, language, and
media influences are also a crucial part of Scheff’s (1966) theory. They encourage the
playful jokes and imitations of acting “crazy.”

One of the most vocal opponents of Scheff’s (1966) theory is Gove (1970, 200
4) who argues that the label has virtually no impact on how consumers are treated by those
in the environment, but rather, it is the behavior of the clients that dictate how others treat
them. For example, Gove (2004) would argue that the general public views clients as
dangerous because they are indeed violent; therefore, citizens have a justified need to be
cautious when interacting with consumers.

Modified Labeling Theory

Combining some components of the earlier works by Scheff and Goffman, Link,
Cullen, Struening, Shrout, and Dohrenwend (1989) created a more contemporary theory
to explain the stigma of mental illness, modified labeling theory. Link et al. (1989) did not believe that labels had the ability to create mental illness, and focused more on the relationship between the label and consequences of stigma such as the resulting devaluation and discrimination that is experienced. Similarly, Link et al. (1989) describes a process where consumers are labeled, attempt to deal with it by employing coping mechanisms which usually do not translate to better outcomes, experience discrimination, and typically become more vulnerable to future psychiatric problems as a result.

Cycle of Stigmatization

The complexity of stigma has been an obstacle when attempting to formulate a model or explanation as to how stigma is created and reinforced. Based on the works of Goffman (1963), Sartorius and Schulze (2005) created a cycle of stigmatization for the individual (see Figure 1.1) that was adopted and by the World Psychiatric Association Global Programme against Stigma and Discrimination because of Schizophrenia. The cycle demonstrates that a person is identified by an abnormality or marker, and this is loaded with past knowledge from the media or others sources about mental illness. At this point, stigma occurs which may lead to discrimination or acts that limit individual freedoms based on perceptions about the illness. Disadvantages result from the discrimination (i.e., unsatisfactory housing, difficulty finding a job, etc.) which contributes to low self-esteem or self-stigma in the individual. Consequently, the barriers to recovery are even greater resulting in more disability and less resistance or ability to fight back or advocate. This process is a cycle indeed in that it can be interrupted at various points through an intervention to stop the cycle from continuing.
The conceptualization of stigma put forth by Link and Phelan (2001) is another commonly cited understanding of this process. One of the main components added by their model is that of emotional reactions. The authors declare that all parts of stigma are a matter of degree. For example, some consumers face substantial barriers to employment whereas others have been hired by more accepting employers. A few clients may claim that their families and friends judge them based on their illness; however, others may report being surrounded by very supportive and compassionate individuals. Similar to the model mentioned above, the initial stage of the process devised by Link and Phelan (2001) is that of labeling which is due to characteristics that make a person different than others. This is then linked to an undesirable quality or stereotype about the person (i.e., the neighbor has schizophrenia so he must be dangerous), leading to a separation of groups based on the label and stereotype (i.e., no longer interacting with the neighbor). Emotional reactions then become relevant because not all members of the general public will behave the same way toward the consumers; their emotional reactions may mediate this behavior. In fact, it would be hypocritical to claim that mental health clients are unique but those around them are all the same. The end result is a loss of status and discrimination in the form of employment, housing, finances, structural stigma, and self-esteem. Link and Phelan (2001) also argue that power is critical when examining stigma. Some groups simply do not possess a large degree of power socially or politically in which to inflict consequences. For example, a consumer labeling and avoiding a psychiatrist is different than the reverse where the psychiatrist labels and ignores the client. Psychiatrists and other groups with higher status have more power and ability to impose discriminatory behaviors if they so choose.
The impact of a psychiatric label and its effect on those who are diagnosed can be easily seen in the classic and controversial study by Rosenhan (1973) where the author and eight colleagues fabricated psychotic symptoms so that they could be admitted to an inpatient psychiatric hospital. The appropriately named “pseudopatients” all reported hearing voices during intake at different psychiatric hospitals, some of which were quite prestigious. Rosenhan’s (1973) primary purpose of the study was to challenge the notion that normal people can be distinguished from abnormal. That is, if seemingly normal professionals intentionally admitted themselves, would they be detected as normals or would the hospital staff correctly identify them as such and not admit them? The findings were shocking. All pseudopatients were diagnosed with schizophrenia and upon admission to the hospital ceased reporting the auditory hallucinations. Interestingly, behavior exhibited by these individuals that would be considered normal, everyday activities was attributed to their psychopathology by the hospital staff. For example, nurses charted that these pseudopatients were taking notes as if to imply it was obsessive and reflective of their disorder. Also, one pseudopatient’s uneventful childhood was framed in a manner consistent with the diagnosis rather than the reverse. One of the more striking findings was when each patient discharged from their respective hospital (length of stay range was 7-52 days) he or she still carried the diagnosis of schizophrenia. In other words, the label had remained despite immediate elimination of symptoms. Rosenhan (1973) states: “Such labels, conferred by mental health professionals, are as influential on the patient as they are on his relatives and friends, and it should not surprise anyone that the diagnosis acts on all of them as a self-fulfilling prophecy. Eventually, the
patient himself accepts the diagnosis, with all of its surplus meanings and expectations, and behaves accordingly’ (p. 254).

International examples further demonstrate the impact of labeling on consumers. In Japan, a particular university hospital changed the name of their outpatient treatment center from “Department of Psychiatry and Neurology” to “Mental Clinic” and, after the name change, discovered an increase in the number of consumers who participated in services (Hirosawa, Shimada, Fumimoto, & Arai, 2002). Clients indicated that the previous name was stigmatizing and reinforced negative beliefs about what it means to be a “psychiatric” patient. A study conducted in Singapore compared the stigma experienced by patients in an outpatient setting in a state psychiatric hospital with that of a university hospital (Chee, Ng, & Kua, 2005). The results were mixed; some patients found the university hospital setting more stigmatizing whereas others believed the state hospital was much more influential on stigma. The authors state that perhaps there are differences between stigma of particular disorders that could account for these variations. Although these studies are from Asia and would certainly have cultural differences as compared to the United States, they still reflect the pervasiveness of stigma and provide insight into how hospitals should articulate the name of their department and its impact on consumers.

Interventions to Reduce Stigma

A clearer understanding of how media intersects with the general public’s view of particular mental health disorders will hopefully lead to more specific intervention and prevention efforts to overcome stigma. Attempts to counteract stigma have focused primarily on one of the three main approaches: protest, education, and contact (Arboleda-
Flórez & Sartorius, 2008; Corrigan, 2005; Corrigan & Gelb, 2006). Protest refers to the idea of defending rights of consumers by advocating for an individual or family or on a more large scale effort. One part of the approach is to have people not think about or endorse popular stereotypes. However, Couture and Penn (2003) argue that this can sometimes result in a rebound effect when people feel as though they are being told how to think and behave. Evidence to support the efficacy of protest is modest at best; some individual efforts have led to creating change but these are fairly uncommon.

Education is a very popular tactic to challenge stigma which at least partially stemmed from the notion that stigma is a result of inadequate information being delivered to the general public; therefore, if knowledge about mental illness increases, stigma decreases (Corrigan, 2005). Unfortunately, this has not necessarily been the case. Although some studies have shown fairly immediate improvements on attitudes following an intervention from pretest to posttest, this change in attitudes is typically not stable over time. In fact, mental health professionals, one could reasonably conclude would know more about mental illness than the average person, have been found to endorse more stigmatizing attitudes than the public (Corrigan, 2002; Hugo, 2001).

Of the three approaches, contact has demonstrated the most promise in improving stigma towards mental health consumers (Overton & Medina, 2008). Typically, it has been found that the more contact a person has with someone with a mental illness, the more accepting the attitudes toward them (Phelan & Link, 2004). It is believed that this contact lessens the group difference mentality (i.e., they are different than us). Comparing the approaches of education and contact in reducing stigma, Corrigan, Larson, Sells,
Niessen, and Watson (2007) concluded that education provided little impact on reduction of negative attitudes but contact was effective even at one-week follow up.

The three stigma reduction approaches outlined above have been supported by empirical research to some degree; however, stigma continues to exist despite these efforts. One possible explanation may the inadequate conceptualization of stigma and understanding how these attitudes develop over time. Innovative and developmentally appropriate interventions needs to be employed to test their effectiveness and offer new hope. For example, Pitre, Stewart, Adama, Bedard, and Landry (2007) utilized hand puppets among students in grades 3-6 to perform plays in which characters were depicted as mentally ill. Pretest-posttest scores yielded positive results; children were overall more accepting. Studies like this and others must continue to challenge existing interventions and rethink public stigma, including the impact of the media.

Objectives of Current Study

The objectives of this study are to better understand the media’s influence of crime on public attitudes toward adults with mental illness by varying psychiatric labels and examining community attitudes and social distance. This study adds several critical components to the overall comprehension of the degree to which media influences attitudes. First, there has been a lack of rigorous methodology examining media and stigma; the existing literature has consisted primarily of survey research using descriptive statistics and frequencies which lessen the ability to control and manipulate variables of interest. Secondly, there has been a tendency to use very specific types of participant samples (i.e., college students, all men, etc.) which limits the generalizability of the results to the population.
Independent Variable

In addition, this is the first study to investigate public attitudes toward a person (depicted in a vignette as someone who committed a crime) with major depressive disorder, panic disorder without agoraphobia, bipolar disorder, and schizophrenia. The independent variable in the study is the diagnostic label assigned to the vignette. These labels represent the major diagnostic categories and arguably the most severe and debilitating of the disorders within each category: mood disorders (major depressive disorder and bipolar disorder), anxiety disorders (panic disorder without agoraphobia) and psychotic disorders (schizophrenia). For comparison, there are two additional conditions. One has the label of “cancer,” and the other is a control group with no label. Although substance use and dependence have been shown to be highly stigmatized (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999), they will not be used in the current study because the researcher’s intent was to compare mental health disorders without the inclusion of substance use vignettes.

Fictitious vignettes will be utilized in the study to create a typical scenario that is all too common in the media; newspapers reporting a violent offense such as murder and disclosing the assailant’s psychiatric diagnosis as if to imply that is why the crime occurred. Vignettes allow the researcher the ability to create a rich description of an individual rather than simply refer to the person as a “mental patient” or a broader term such as “mental illness” (Link, Yang, et al., 2004). In addition, they permit manipulation of the independent variable, a rare opportunity in social work research. Because attitudes have been shown to be unique to particular disorders, it is worthwhile to better understand these differences based on psychiatric labels and incorporate some of the
more frequently diagnosed disorders (i.e., bipolar). The following represents the schizophrenia vignette:

Mental Patient Charged with Murder

May 4, 2009

*Springfield, Montana* – Tony Rafenna, a 42 year-old man was charged with murder yesterday following an attack on another man, 38 year-old Bobby Mills. It was reported that Mr. Rafenna assaulted the man around 4:30 pm causing head trauma to Mr. Mills who died a few hours later on the way to the hospital close to 5:45 pm.

According to doctors, Mr. Rafenna had been diagnosed with schizophrenia for the past 9 years. He had been having hallucinations of seeing objects that weren’t really there and at times had delusions that people were out to hurt him. Mr. Rafenna has been married to his wife Amy Rafenna for the past 12 years, and they have two children together, a 3 year-old son, and a 5 year-old daughter. He also had been working a part-time job. Mr. Rafenna is currently in jail and awaiting trial.

Dependent Variables

Three dependent variables will be measured: the Community Attitudes toward Mental Illness (CAMI), social distance scale, and Impression Management (IM). The CAMI was originally developed to investigate the attitudes of the general public.
regarding the potential location of a group home in their neighborhood (Taylor & Dear, 1981; Taylor, Dear, & Hall, 1979). The instrument will measure the attitudes of the participants on four separate but related subscales that make up the CAMI:

authoritarianism, benevolence, social restrictiveness, and community mental health ideology.

The Social Distance Scale is the second dependent variable which will determine the distance socially that respondents are comfortable engaging mental health consumers (Arboleda-Flórez & Sartorius, 2008; Link, Cullen, Frank, & Wozniak, 1987). Some relationships require a greater deal of intimacy and comfort level. For example, asking respondents about how willing they would be to have someone like the person depicted in the vignette for a co-worker may be different than the respondents’ desire to have that same person marry their child. If respondents are not willing to participate in the former scenario, the latter seems unlikely as well. Thus, this scale adds to the information gained through the use of the CAMI by understanding the degree of distance that participants are willing to accept regarding mental health consumers in social situations.

The Impression Management instrument will be administered primarily due to concerns in social science research, and particularly when examining public attitudes on certain topics, that participants may alter their true responses to manage the impressions they give (Paulhus, 1984, 1991, 2002). Statements focus on common situations in everyday life that would typically be considered deviant (i.e., stealing as a child, pretending to be sick to avoid work) yet most people have done these at some point. Therefore, the scores on this measure will be correlated with the previous two
instruments to determine if there is a high degree of impression management throughout
the sample which may affect interpretation and generalizability of the results.

Demographic variables such as race, age, sex, income, social political affiliation,
geographic location, marital status, highest level of education completed, whether the
respondent is a parent, and whether the person is a resident of the state of Ohio and/or the
county will be asked. Statistical analyses will be conducted to determine if the predictor
variables explain variance in the criterion variables. Also, information will be obtained in
regards to what sources have informed participants’ knowledge about mental illness. For
example, friends, family, school, books, and media (movies, television, magazines) all
play varying roles in how information is disseminated to the general public.

Research Questions

The following research questions will be investigated:

1. Is there a difference in attitudes toward those with mental illness among the
six conditions (schizophrenia, bipolar disorder, panic disorder without agoraphobia,
major depressive disorder, cancer, and control) on the four subscales of the CAMI
(authoritarianism, benevolence, social restrictiveness, and community mental health
ideology)?

2. Is there a difference in social distance among the six conditions
(schizophrenia, bipolar disorder, panic disorder without agoraphobia, major depressive
disorder, cancer, and control)?
Figure 1.1. Cycle of stigmatization for the individual.
CHAPTER 2
LITERATURE REVIEW

This section will discuss and summarize many different components of stigma and its impact on consumers. First, a definition is critical when conceptualizing the stigma of mental illness. Also, a thorough analysis will be conducted of the studies investigating the media’s role in transmitting stigmatizing images, language, and instilling fear in its viewers. Particular mediums are also relevant to explore such as television, movies, magazines and, the most relevant to the current study being proposed, newspapers.

Definition of Stigma

The definition of the word “stigma” varies considerably depending on the source and population being examined; however, most trace its origin to the days of ancient Greece meaning to mark someone (Brown & Bagley, 2002). In the United Kingdom, Bagley and King (2005) explain that stigma is defined globally to include the negative attitudes held by the general public, the stereotypes and how they influence discrimination, and how the consumers themselves experience the stigma as a result of these actions. Similarly, Overton and Medina (2008) cite the Merriam-Webster Dictionary’s definition of mental illness as “mentally disordered, mad, or crazy” (p.143). Arboleda-Florez and Sartorius (2008) further define stigma as “a negative differentiation attached to some members of society who are affected by some particular condition or state” (p.4). Gherman, Predescu, Iftene, and Achimas Cadariu (2008) cite the Romanian
Explanatory Dictionary’s definition: “to stigmatize means to openly characterize or mark as shameful; to express strong disapproval; to mark with a stigma or stigmata; to dishonor” (p.227). These authors provide examples of how stigma is manifested such as through the use of derogatory language (i.e., insane, loony, crazy, nuts, psycho, etc.), defining the person by his or her disorder (i.e., he’s a schizophrenic), negative attitudes toward consumers or avoiding them, and blatant discrimination or other acts to limit their rights and freedoms. In Great Britain, Philo (1996) provided a list of over 100 disparaging words that are commonly used to refer to those with mental illness.

It is important to note that there are many variations in how those who have a mental illness should be referenced and some are more stigmatizing than others. However, it is also important to capture the language used by particular authors as well. Therefore, terms such as mental health client, mental health consumer, sufferer of mental illness, the mentally ill, mental patients, and ex-patients will all be used throughout to reflect the voice of the author as well as for readability purposes. Some authors note that the proper terminology has been confusing and cumbersome (Corrigan & Lundin; Wahl, 1999) and still others claim that the more widely acceptable term “consumer” is disparaging (Hensley, 2006).

Variation of Stigma by Disorder

There is a growing consensus among stigma researchers that stigma appears to vary according to the disorder in question. Bipolar disorder is seemingly diagnosed more often now than 10 years ago yet there is little research specifically investigating attitudes toward this particular disorder. Perlick et al. (2001) tested Goffman’s theory related to the tendency for mental health clients to avoid social interaction outside the home in an
attempt to cope with stigma. Consequently, these consumers rely on family inside of the household more than those outside the home. The sample consisted of clients over age 16 who had recently been discharged from a psychiatric facility and were diagnosed with bipolar I or II or schizoaffective disorder, bipolar type. Results indicated that concerns about stigma significantly impacted their social functioning thus providing support for Goffman’s theory. A study by Hayward, Wong, Bright, and Lam (2002) found mixed evidence for the impact of stigma and self-esteem with clients suffering from bipolar disorder. Some clients reported a significant decrease in self-esteem whereas others reported minimal relevance.

Using participatory action research (PAR), Stip, Caron, and Mancini-Marie (2006) incorporated the voice of consumers and family members to create the instrument administered to a large sample of the general public in Canada. Compared to bipolar disorder, attitudes were less favorable and less tolerant toward schizophrenia. Another international study in Germany sampled vocational college students and technical secondary school students who read either a depression or bipolar vignette and then responded to statements related to attitudes. Results indicated that participants expressed more negative attitudes towards a person with bipolar disorder compared to depression. This difference was even greater when respondents were asked what most other people would think. The authors qualify the findings by stating that this does not suggest that attitudes are more favorable for depression than in past studies.

Smith, Sapers, Reus, and Freimer (1996) conducted an interesting study with medical students, psychiatry residents, and consumers with bipolar disorder assessing attitudes toward hypothetical situations related to genetic testing of a fetus. The decision
to terminate a pregnancy was related to the fetus likely developing bipolar disorder, the course of the illness, and the severity. Almost half of the sample stated they would terminate the pregnancy if it was confirmed that the fetus would definitely develop some type of bipolar disorder. Related to severity, participants were more likely to abort the fetus if they knew it would have a severe case of the illness as opposed to a more mild form. Those in the sample who identified as consumers were the least likely to endorse beliefs about termination.

Although there has been a dearth of research examining attitudes toward bipolar disorder, depression has received a considerable amount of attention in the stigma literature. Blumner and Marcus (2009) compared the attitudes toward depression from the 1996 General Social Survey to 2006 in a representative sample of adults in the U.S. Results showed an increase in beliefs about a biological explanation of depression and biological treatment. However, authors also concluded that there was no decrease in non-biological causes of depression such as bad character. This theme of blame continues to be popular in the minds of the general public providing further evidence of stigma. Other studies focusing on depression and public attitudes will be discussed thoroughly in the following sections.

Media and Stigma

The media undoubtedly has an influence on American society for better or worse; unfortunately most of the depictions of mentally ill persons in the media are inaccurate, negative, and framed in a biased manner (Wahl, 1995). Yankelovich (1990) found that the mass media is the single largest source of information about mental illness absorbed by the general public in the United States.
Stout, Villegas, and Jennings (2004) proclaim in their thorough review of gaps in research on the media and stigma that there are three primary areas lacking attention: how is mental illness portrayed in the media, how do the media images impact attitudes about mental illness, and how can the media be utilized to reduce stigma. The current study proposed seeks to add to the existing literature by providing more evidence to fill this void. The first and second areas will be addressed by the design of this author’s study. The proposed study will create a fairly typical newspaper article featuring a person with mental illness committing a crime which is very much in line with the research findings that crime and mental illness are frequently paired together (Wahl, 2003). Essentially, the attitudes given by respondents, based on this article, will provide support for understanding the media’s impact on attitudes. In addition, it would be reasonable to conclude that if the media perpetuates stigma it could also serve as a mechanism to reduce or prevent stigma. This will be one of the end products of the study, to provide some more insight into how positive and accurate messages can be channeled through media outlets.

**Newspapers and Stigma**

The different sources of media demonstrate varying degrees of influence on respondents and the general public, and these levels have evolved over time. Television, radio, newspapers, movies, advertisements, novels, and other forms of media all affect attitudes but the impact of each has shifted over time with certain types being more potent than others. Significant attention will be devoted to past research that discussed stigma in the context of newspapers because that is the medium used for the proposed
study. Wahl (1992) reviewed the media and stigma literature at the time and concluded that one of the primary contributors is television. However, Wahl (2003a) later noted that newspapers are one of the most powerful media contributors of stigma and found that after scrutinizing nearly 2,000 newspaper articles mentioning mental illness, dangerousness was the most common theme. One such newspaper headline appearing in the *New York Times* (April 30, 1999) read “History of Schizophrenia Detailed for Man Held in Subway Attack.” The *Washington Post* (December 6, 1999) provided a similar account of mental illness, “Escaped Killer from Mental Hospital is Shot, Apprehended.” It is often tempting to argue that headlines such as these were popular decades ago when the public and professionals were less knowledgeable about mental illness, effective treatment, and prognosis. However, it is important to note that the newspaper articles referenced above were printed only 10 years ago. These types of articles and sensationalized headlines are still very much present in current newspapers. Duckworth, Halpern, Schutt, and Gillespie (2003) surveyed newspaper articles where schizophrenia was used as a metaphor and postulated that schizophrenia has become the new cancer. The stock market, the nation’s perspectives on drugs, abortion rights issue, and the weather are a few examples where each of these were referred to as “schizophrenic.” Most of these references linked schizophrenia with multiple personalities or “Jekyll and Hyde,” one of the most common misconceptions about the disorder.

In addition to the prevalence of these negative and highly-charged headlines, another missing piece is the lack of credible persons interviewed in the newspapers. Wahl, Wood, and Richards (2002) found that when professionals were asked to comment on a particular story, medical doctors made up the majority of those who participated.
Some of these individuals had very little background or expertise in mental health thereby providing a fairly erroneous opinion. A more relevant and empowering approach would be to include the voice, literally and figuratively, of those who experience the stigma firsthand – the consumers. If a story appears in print regarding a person with bipolar disorder, it is extremely rare that journalists speak with a consumer afflicted with the same disorder. Although it could be argued that not everyone with bipolar disorder would have the same experiences, it would at least be a step in the right direction to obtain more client-based accounts. When consumers are not available to be interviewed, perspectives from family members will also be beneficial (Wahl, Wood, & Richards, 2002). Similarly, Jamison (2006) has noted that what the public sees through newspaper accounts are the deficits in consumers and not the doctors, lawyers, and teachers that have successfully overcome these obstacles, continue to fight, and excel at what they do. Perhaps the largest hurdle with the journalist reports in the newspaper is the incredibly unbalanced proportion of negative stories related to mental illness compared to positive ones. Thus, even though a story about someone with schizophrenia who committed a crime may be more appealing on the surface, a headline describing a family’s successful battle with overcoming depression would be equally provocative, albeit for a different reason. Furthermore, Wahl (1996) states newspaper articles have the potential to disseminate information about new and innovative treatment approaches to the public that might otherwise be limited to scholarly journals.

*Stigma’s Impact on Children*

Aside from newspaper portrayals of adults, some studies have investigated the relevance for children. Wahl (2003b) found that cartoon, television shows, films, and
other media are fairly commonplace in children’s media and, similar to adult media, most of the portrayals are negative. In cartoons, for example, a villain is usually depicted and referred to as a “madman” or “psycho” and is shown to be violent and unpredictable. Wahl, Hanrahan, Karl, Lasher, and Swaye (2007) surveyed hundreds of hours of children’s television programs and found disparaging language about mental illness in over half. Regarding children’s films, two-thirds of the 49 videos examined contained material about mental illness (Wahl, Wood, Zaveri, Drapalski, & Mann, 2003). Characters were typical Caucasian, male, single, and were referred to my pejorative labels rather than legitimate diagnoses.

Slopen, Watson, Gracia, and Corrigan (2007) looked at both groups of children and adults by analyzing over 2,000 articles that referenced mental illness in some manner. Authors found that based on cohort, stories related to children overall tended to focus more on treatment relevant information and less stigmatizing articles as compared to the adults where dangerousness and crime were the most common themes. Slopen and colleagues praised journalists for responsible reporting for child-related articles but to also shift this paradigm to adults as well.

Magazines and Stigma

Two studies by Wahl (2000) and Wahl, Borostovik, and Rieppi (1995) focused on magazine content by surveying the Reader’s Guide to Periodical Literature to find articles that mentioned obsessive-compulsive disorder and schizophrenia. Out of the 107 articles that were captured in the search for the obsessive-compulsive disorder, only 37 dealt specifically with the disorder (Wahl, 2000). Most of these were fairly accurate; however, the more interesting finding was that the others were connected to stalking and
fans of famous individuals. Although the study did not employ a rigorous methodology, this is one of the few attempts to explore stigma related to anxiety disorders. When Wahl, Borostovik, and Rieppi (1995) searched for schizophrenia, delusions and hallucinations were the most common symptoms associated with the stories. Furthermore, the authors found 10 consumer-delivered accounts in a 15 year search span. Also, heredity and brain chemistry were the most cited causes of the illness with medications being the most common theme for treatment. The link between etiology and stigma has been explored in several studies and has largely been found to be disorder specific. Schnittker (2008) found that a genetic explanation for depression was associated with more favorable attitudes whereas genetic arguments regarding schizophrenia were positively correlated with increased dangerousness. In Australia, Jorm and Griffiths (2008) found that genetic causation was unrelated to social distance.

Community Attitudes toward Mental Illness

While there are numerous instruments that seek to understand specific components related to stigma, one that has been administered to the general public to capture these attitudes is the Community Attitudes toward the Mentally Ill (CAMI) measure. The scale was initially created to examine the attitudes of the community members in response to the possibility of a mental health group home being constructed in their neighborhood (Taylor & Dear, 1981; Taylor, Dear, & Hall, 1979). This topic was of particular interest to the authors, who were Canadian researchers in a Geography Department, because public attitudes often impact the degree to which new facilities integrate into communities. Taylor, Dear, and Hall (1979) claim that opposition can be due to tangible factors such as traffic congestion, or more importantly for the present
discussion, intangible characteristics such as fear and crime related to the users of the new facility. For mental health consumers, the public perception of these users is particularly important. Three primary factors have been identified as explanations of the public’s response to mental health facilities: physical and social characteristics of the host neighborhood, public attitudes toward those with mental illness, and the physical characteristics of the facility itself. The impact of demographics, values and beliefs, and socio-economic status on these attitudes combined with the factors above result in a behavioral response to the mental health entity (see Figure 2.1).

Upon further examination of Figure 2.1, it is apparent that there are some similarities with Figure 1.1 and the illustration of how stigma forms as a product of signals and subsequent stereotypes. Moreover, the attitudes in both models are influenced by internal and external forces and they, in turn, lead to stereotypes (attitudes toward the mental health facility) and discrimination (behavior). Taylor, Dear, and Hall (1979) note the influence of the neighborhood characteristics on the attitudes toward the structure, and in some suburban communities a facility can be perceived as an eyesore and a barrier to respectable property values. The characteristics of the facility itself, consisting of the type of facility, degree of noxiousness, and the scale of the facility, can be influential on attitudes as depicted in the model (see Figure 2.1). The type of structure, defined as a “community mental health facility,” would certainly conjure up different attitudes and beliefs than other types of facilities. The services provided within may also have a bearing on attitudes. For example, community residents may be curious as to the extent to which users of the facility would be visiting the establishment; residential services would likely contain a specified number of individuals existing in a home-like atmosphere and
outward appearance whereas an outpatient clinic would provide services to a larger number of persons who may come and go frequently. The degree to which the facility would be seen as “noxious” would likely pertain to its users. Of course, this user portrayal cannot always be separated from the establishment. If a user attends the facility to receive brief services for something transitory, he or she may be viewed as identical to a user who has been struggling with schizophrenia for 50 years. Thus, the fact that someone is using services there implies that they are all the same.

The CAMI was formulated by combining items primarily from the Opinions about Mental Illness (OMI), the Community Mental Health Ideology (CMHI) scales, and to a lesser extent the Custodial Mental Illness Ideology Scale (Gilbert & Levinson; Taylor & Dear, 1981). Originally the OMI was developed by Cohen and Struening (1962) to assess attitudes toward mental illness by hospital personnel, and the scale is comprised of five subscales: authoritarianism, mental health hygiene ideology, benevolence, social restrictiveness, and interpersonal etiology. The subscales were defined as follows: authoritarianism refers to the notion that persons with mental illness are substandard people who need to be controlled by others in society; mental health hygiene etiology portrays mental illness as an illness like any other, reflective of the medical model; benevolence views the mentally ill in a paternalistic, sympathetic manner; social restrictiveness depicts those with mental illness as a threat and danger to society; and interpersonal etiology posits that mental illness stems from interpersonal experience. The OMI included some items from the CMHI, the California F-scale (Adorno, Frenkel-Brunswick, Levinson, & Sanford), and the scale created by Nunnally (1961). Currently, the OMI has 51 Likert-type items and has been used extensively when measuring stigma.
The other instrument used to construct the CAMI, the Community Mental Health Ideology (CMHI) was created by Baker and Schulberg (1967) in an attempt to measure the individual’s extent of beliefs about community mental health. Three subscales form the instrument including total population, community involvement, and primary prevention. The subscale total population refers to the general population not just consumers, community involvement is the degree to which community resources are utilized in treatment, and primary prevention includes prevention attempts in the environment. The CMHI consists of 38 opinion statements.

The Community Attitudes toward Mental Illness scale currently consists of 40 Likert-type questions that load on four factors: authoritarianism, benevolence, social restrictiveness, and community mental health ideology. Note that the first three subscales originated from the OMI and the fourth is the CMHI. Each subscale contains 10 items each. Out of the 40 total items used to create the CAMI, only 7 items are from the OMI and the CMHI. In addition, four items came from the Custodial Mental Illness Ideology Scale (CMI). The decision to delete particular items and include others to develop the final product of the CAMI was due in part to ensure that the instrument was measuring community attitudes and not mental health personnel attitudes (Taylor & Dear, 1981; Taylor, Dear, & Hall, 1979). The latter was the original intent behind the creation of the OMI; therefore, the CAMI was modified and also restricted to only 40 items to decrease the likelihood of rater fatigue because it was to be administered to the general public.

Taylor and Dear (1981) used the CAMI to measure community attitudes of a sample comprised of adults in Toronto, Canada; 706 participants lived in areas where there was no mental health facility and 384 respondents lived in neighborhoods that
contained a facility. The authors sought to differentiate between the acceptors and rejectors of the facility. The CAMI was administered and the participants were instructed to answer the questions in response to community facilities, not specifically mental health facilities. For methodological reasons, it is important to note that Taylor and Dear (1981, p.227) defined “community mental health facilities” as “outpatient clinics, drop-in centers, and group homes which are situated in residential neighborhoods and serve the local community. Mental health facilities which are part of a major hospital are NOT [sic] included.” Also, the term “mentally ill” was described as “people needing treatment for mental disorders but who are capable of independent living outside the hospital” (Taylor & Dear, 1981, p.227). Participants were also given a three-item instrument with nine possible ratings for each ranging from “extremely desirable” to “extremely undesirable” to assess desirability of having a facility that was within 1 block of their residence, 2-6 blocks, and 7-12 blocks. The third questionnaire was given only to those respondents who stated that they lived within one-quarter mile of a facility, and they were asked to indicate if they were in favor of it, indifferent, or opposed to it. Correlations between the four CAMI subscales (authoritarianism, benevolence, social restrictiveness, and community mental health ideology) and the distance zone (less than 1 block, 2-6 blocks, and 7-12 blocks) revealed trends consistent with the researchers’ hypotheses. For community mental health ideology, the correlation increased as the distance zone decreased suggesting that respondents high on this subscale will be more accepting of facilities located nearby. Conversely, the low-moderate negative correlation of social restrictiveness increases in magnitude as distance decreases which implies that those who believe the mentally ill need to be controlled would be less willing to have facilities near
their home. The CAMI has been effective in assessing community attitudes; reliability and validity with respect to the instrument will be discussed in detail in the methods section.

Over 20 years later, Cotton (2004) aimed to compare the original results of the Taylor and Dear (1981) study with that of a sample of Canadian police officers. Citing the significant shift from hospitalization to community mental health treatment, Cotton (2004) acknowledged that police officers are on the front lines with mental health consumers out in the community, yet the officers’ attitudes have never been properly assessed. With a sample of over 500 officers, the researcher administered the CAMI and compared the results to the original study by Taylor and Dear (1981). Interestingly, the scores on the four subscales were quite similar for both populations and it may be plausible to argue that the attitudes of police officers are like those of the general public and do not differ on authoritarianism and social restrictiveness as one might expect given the role of an officer. However, it is important to point out that the response rate was 34%, and one might reasonably conclude that the attitudes of the 66% who did not respond may be different than those who participated. Although this is a common limitation in survey research, it is worthwhile to mention.

Another study utilizing this instrument was conducted Thornton and Wahl (1996) who administered the CAMI and two Fear and Danger Scales to 120 U.S. college students who were randomly assigned to one of four conditions. The purpose of the study was to explore attitudes toward mental illness related to newspaper articles, particularly the target article which depicts an actual event where a mental health client murdered a nine year-old girl. The conditions were as follows: Stigma group contained an article with
facts about mental illness and the target article; prophylactic-information group which
featured an article that corrected myths about mental illness and the target article;
prophylactic-media group was comprised of an article that challenged media distortions
of mental illness and the target article; and the control condition that contained only two
articles that were unrelated to mental illness or violence. A one-way ANOVA was
performed at $\alpha=.05$, and the Community Mental Health Ideology subscale of the CAMI
was found to be significantly different $F(3,116) = 8.01$ within groups. Consistent with
the authors’ hypotheses, the stigma group differed significantly from the control group. In
addition, the Social Restrictiveness subscale was significant $F(3,116) = 3.26$, with the
stigma group scoring lowest meaning that they felt people with mental illness should be
avoided. Similar trends were present when analyzing the Fear and Danger Scales. The
researchers concluded by equating the impact of newspapers with that of other forms of
media (i.e., television, etc.) on influencing the stigma of mental illness. Limitations of the
study were the lack of a pretest and the cross-sectional design.

Another U.S. study conducted by Wahl (1993) focused on the community
attitudes toward group homes for the mentally ill which is similar in principal to the
a sample of adults in Northern Virginia; some lived in neighborhoods already with a
group home (71; 57.7% response rate) and others lived in communities without a group
home (41, 63.9% response rate). For the purposes of this study, only 10 questions from
the CAMI (community mental health ideology subscale) were used to measure attitudes.
In addition, respondents were asked if there was a group home in their neighborhood, and
if so, what was their level of satisfaction. Similarly, if participants did not indicate that
they lived near a group home, what was their expected degree of satisfaction. Interestingly, there were 11 people who lived by a group home but were not aware of its existence, and 2 participants stated there was a group home nearby which was inaccurate. Results indicated that there were no statistically significant differences between the two groups on the 10 items of community mental health ideology. Consistent with prior research, Wahl (1993) found that those who already had a group home in their community stated that its impact on the neighborhood was negligible. In fact, several respondents noted that the well-kept group home improved the appearance of the community. However, those without a group home expressed greater concern about one being placed near them and other fears that were not founded by the community that already contained a group home. Also, the author argued that demographics were not different between the two groups and could therefore be ruled out as a possible explanation of the findings.

Wahl’s (1993) study provides some mixed support for the contact hypothesis which states that the more contact people have with mental health consumers the more favorable their attitudes (Corrigan, 2005; Corrigan & Gelb, 2006). Wahl (2003) did not find statistical significance when comparing groups. One could argue that this contradicts the contact hypothesis because those who lived near a group home should possess more favorable attitudes than those who do not live near one. However, there were several participants who incorrectly identified the presence or absence of a group home in their neighborhood. Also, most research testing the contact hypothesis exposes participants to a consumer directly as opposed to more general contact in the community or neighborhood. For example, it is hard to argue that a person living five miles from a
group home for consumers and someone who works alongside a consumer in the workplace are both the same degree of contact.

International Studies Examining Stigma

One international study in Great Britain was performed with two groups within the general public living on different streets in communities where a group home for the mentally ill was likely going to be located (Wolff, Pathare, Craig, & Leff, 1996). The CAMI was administered to both groups and multiple analyses were performed on the data. Factor analysis revealed that the data loaded on three factors, unlike the four subscales devised by Taylor and Dear (1981), which the authors called Fear and Exclusion (i.e., It is frightening to think of people with mental problems living in residential neighborhoods), Social Control (i.e., One of the main causes of mental illness is lack of self-discipline and willpower), and Goodwill (i.e., We have a responsibility to provide the best possible care for the mentally ill). The authors did note that the answers may have been socially desirable. Also, Wolff, Pathare, Craig, and Leff (1996) mentioned that about 1/3 of the respondents were aware of the possibility that their community may contain a group home thereby accentuating the Not In My Backyard (NIMBY) belief. This is the tendency for people to believe that the mentally ill should have housing as long as it is not in their backyard. Findings revealed that social class and ethnic origin had the greatest impact on Social Control scores. Additionally, education had the largest effect on Goodwill.

A study conducted in New Zealand by Ng, Martin, and Romans (1995) used the CAMI in conjunction with a social distance scale (this scale will be discussed at length in subsequent paragraphs) and inquired as to what respondents believed constituted and
caused mental illness. Results indicated that certain demographics were significantly related to subscales of the CAMI: age was associated with authoritarianism, gender, age, and prior experience working with the mentally ill were related to benevolence, and those with higher education scored lower on the social restrictiveness subscale. Regarding social distance, participants expressed interest in less intimate relationships with a person who had mental illness. In other words, having a co-worker with mental illness was more preferable than having a son-in-law with the illness. The authors defined “mental illness” as the following: “When we use the term mental illness we mean people who have been in a mental hospital and now live in a community. They may need treatment (e.g., medication) for their mental disorder and are capable of living independently of a hospital” (Ng, Martin, & Romans, 1995, p.506). The primary causes of mental illness, as identified by the respondents, were (1) chemical imbalance, (2) everyday stress, (3) family, work, and friends, and (4) structural brain abnormality. When asked to classify particular behaviors as disorders, consistent with prior research, participants (95%) labeled schizophrenia as a mental illness. Anorexia (68%), depression greater than one month (57%), and alcoholism (32%) were not as readily characterized as a disorder.

Social Distance Scale

In addition to the CAMI, social distance scales have been one of the most commonly used measures of stigma particularly when examining public attitudes toward mental illness (Arboleda-Florez & Sartorius, 2008; Hayward & Bright, 1997; Link, Yang, Phelan, & Collins, 2004). Penn and Corrigan (2002) argue that although social distance is not a direct measure of behavior, it does serve as a proxy measure of social behavior. This type of measure has been used for decades with Bogardus (1925) first credited with
the creation of a social distance scale in which he applied it to race and ethnicity. Cummings and Cummings (1957) were the first to apply the scale in a mental health context by attempting to shift adult public attitudes about mental illness in a Canadian town. The authors reported that they received 540 questionnaires which represented approximately 60% of the adults in the community. The social distance scale intended to capture the closeness to which a respondent would tolerate a particular relationship (i.e., neighbor, roommate, coworker, etc.) with someone that had a mental illness. Questionnaires contained 23 items that tapped two dimensions of social distance (i.e., I can imagine myself falling in love with a person who had been mentally ill) and social responsibility (i.e., Those who live in communities from which mentally sick people come should be considered partially responsible for their breakdown). Interesting, Cummings and Cummings (1957) found no relationship between responses on the two scales.

Similarly, Whatley (1959) conducted a study in Louisiana where social distance was utilized to measure attitudes held by the public towards psychiatric patients in the community. As noted earlier, the increase in the number of consumers who live amongst the general public highlight the importance of understanding these societal beliefs. While controlling for sex, religion, home ownership, rural-urban residence, having visited a mental hospital, and reported cases of mental illness in the family, Whatley (1959) found that these variables were not correlated with social distance. However, there were six variables (listed in descending order starting with highest correlation) that were correlated with higher social distance scores indicating a greater desire to avoid those with mental illness: age, education, race, income, occupation, and marital status.
Another early study investigating public attitudes (n=300) toward the mentally ill measured social distance among various help sources that psychiatric patients would likely seek for assistance: physician, clergy, psychiatrist, and the mental hospital (Phillips, 1963). Each respondent was shown five different case abstracts featuring a patient with paranoid schizophrenia, simple schizophrenia, an anxious-depressed person, a “normal” person, and a phobic person with compulsive features. All abstracts except for the “normal” example were identical to those used in the classic study by Star (1955). Social distance was used as a proxy for rejection and was examined in relationship to help sources. Participants were randomly assigned to one of five conditions, and a Greco-Latin square was utilized to counteract ordering effects. Authors concluded that the behavior of the patient (case abstract) accounted for more variance of social distance than the help source. Also, specific to help source, patients who reportedly saw a psychiatrist accounted for the most rejection (i.e., highest social distance) with the mental hospital being the second highest. This provides further evidence about stigma not only related to mental illness but those professionals and treatment facilities that treat the patients. One major limitation concerns the sample demographics; the participants were all married white women in New England.

One of the most widely cited social distance scales to date was created by Link, Cullen, Frank, and Wozniak (1987). Their study aimed to further investigate the long-debated notion of whether the reactions of the general public towards the mentally ill are largely determined by the label itself (i.e., labeling theory as articulated by Scheff, 1966) or if the patients’ behavior is a more salient predictor of how they are perceived by others (Gove, 1975). Link, Cullen, et al. obtained a sample of 240 residents from Cincinnati,
Ohio who were randomly chosen from the phone book. The researchers manipulated vignettes in the study so as to portray a man who either had been in a “mental hospital” or had been hospitalized for a back problem and crossed this with different levels of objectionable behavior by the man. Participants were then given two instruments, a social distance questionnaire and a perceived dangerousness measure. There were seven items that comprised the social distance scale:

1. How would you feel about renting a room in your home to someone like [NAME]?
2. How about as a worker on the same job as someone like [NAME]?
3. How would you feel having someone like [NAME] as a neighbor?
4. How about as a caretaker of your children for a couple of hours?
5. How about having your children marry someone like [NAME]?
6. How would you feel about introducing [NAME] to a young woman you are friendly with?
7. How would you feel about recommending someone like [NAME] for a job working for a friend of yours?

This social distance measure consisted of a 4-point Likert format with responses of “definitely unwilling,” “unwilling,” “willing,” and “definitely willing” (Link, Cullen, et al., 1987). The responses were coded from 0=definitely unwilling to 3=definitely willing. Scores of all seven questions were summed for each respondent and divided by seven to give a composite social distance score ranging from 0-3 with higher scores indicating more likelihood of engaging in various social interactions with the individual. Conversely, lower composite scores reflected less interest interacting with the person. In addition, the authors state that the internal consistency reliability (Cronbach’s α) of the
scale was .92. The authors argue that when exploring the impact of the label, in this case it is the prior “mental hospital” admission, it is critical to include more general information about the individual in the vignette. In the study, the researchers described the man in the vignette as having a job, taking care of his grooming and appearance, and expressing a desire to date women. Results of the study revealed that the label of previous admission to a mental hospital contributes to greater social distance when the person is perceived as dangerous; however, there is less social distance when patients are not perceived as dangerous.

In an effort to rethink attitudinal measures and their connection to behaviors of the respondents, Link and Cullen (1983) provided a thoughtful framework for identifying four levels of public attitudes: the ideal level, the level of expressed attitudes, the level of attitudes as acted upon, and the deep level. The authors manipulated this level and label versus no-label conditions with a vignette to measure social distance among 153 community college students from the Midwest. The ideal level is defined as the socially expected response toward the mentally ill. The level of expressed attitudes is what respondents will give when asked directly. The level of attitudes as acted upon is what directly precedes behavior but these attitudes are hard to capture through questionnaires. The deep level, as the name implies, is the level where the attitudes that are entrenched in the culture. Sometimes this belief can be manifested in metaphors such as mental health professionals referring to inappropriate psychiatric hospital admissions as “dumping” which may convey an underlying meaning that consumers are waste products (Link & Cullen, 1983). The procedure consisted of showing a vignette depicting a “normal” or an “anxiety neurotic” and both conditions either had a label of a prior psychiatric
hospitalization or no label. Participants were asked to respond according to how they felt regarding social distance (level of expressed attitudes), how they thought most people would feel (deep level), and how they thought an ideal person would feel (ideal level). This notion of an “ideal” person was someone who possessed all of the qualities the respondent admired and none of the negative characteristics often observed in people. Difficulty in measuring the level of attitudes as acted upon prohibited the authors from including it. Results revealed that social distance scores were most influenced by the behavior described in the vignette (normal versus anxiety neurotic). Although this finding was perhaps not incredibly surprising, one interesting finding was that the normal vignette with the label of prior psychiatric hospitalization was met with higher social distance that the anxiety neurotic with hospitalization. Moreover, respondents expressed less desire to engage in social relationships with a person who had no history of mental illness but did require hospitalization as compared to someone who already possessed psychiatric symptoms. As predicted, the ideal attitudes were overall more accepting relative to the expressed attitudes, with the deep level least accepting. One major limitation of this study; however, was the sample size for each groups (n=19, smallest group; n=33, largest group).

Link, Phelan, Bresnahan, Stueve, and Pescosolido (1999) used data from the 1996 General Social Survey (n=1444) in which respondents were randomly assigned to read one of five vignettes depicting varying psychiatric diagnoses (alcohol dependence, major depressive disorder, schizophrenia, cocaine dependence, and troubled person). Researchers used a five item social distance scale (i.e., move next door to the person, spend an evening with him, make friends, start working closely, and have him marry into
the family) to measure distance toward the person depicted in the vignette. There were four possible responses ranging from “1=definitely” to “4=definitely not” so that higher scores indicate more social distance. Item scores were summed and divided by five to create a composite score, and the order of highest social distance to lowest was cocaine dependence, alcohol dependence, schizophrenia, major depression, and troubled person. Authors also measured perceived causes, likelihood of violence, and the ability of respondents to accurately identify the vignettes as a mental illness. Overall, respondents cited “stressful circumstances in a person’s life” as the primary cause in all five vignettes. Also, the substance dependence vignettes were most likely to be seen as potentially violent and assigned the most blame for their condition by attributing the cause to “own bad character.” Additionally, almost 90% of participants correctly stated that the schizophrenia vignette was indeed a mental illness, and major depression was roughly 70%. Despite the tendency to minimize the severity of symptoms in some vignettes, the troubled person (an average person with subclinical features) was deemed to be clinically significant by 21% of those participating in the study. Thus, almost one in five believed that the troubled person, someone who experienced typical problems that most people would encounter at some point, was seen as a sufferer of psychopathology.

The Mental Health Module from the 1996 General Social Survey was replicated in 2006 and used vignettes (schizophrenia, alcohol dependence, and major depression) to measure causes of mental illness, support for treatment, and tolerance which was operationalized as social distance and perceived dangerousness (Schnittker, 2008). Findings regarding causes reflect complex interpretations. In particular, the emphasis on a genetic explanation was related to higher social acceptance for sufferers with
depression but not schizophrenia. Social distance measured in the 1996 study and the 2006 replication did not yield significant improvements in the 10-year span. In fact, the item, having a neighbor with schizophrenia, represented a statistically significant decrease.

Van Dorn, Swanson, Elbogen, and Swartz (2005) compared the amount of social distance among four stakeholder groups in North Carolina: family members of those with schizophrenia or other serious mental illness (n=83), mental health clinicians (n=85), consumers diagnosed with schizophrenia (n=104), and the general public (n=59). A five item social distance measure with four response choices (definitely willing – definitely unwilling) was administered, and there were no significant differences of social distance between the four groups. Although not statistically significant, authors did note that consumers themselves indicated the highest social distance which could be considered a component of self-stigma as articulated by Corrigan (2005). Perceived likelihood of violence and causes of illness were also measured. Researchers did conclude that there was a statistically significant positive relationship between beliefs about the likelihood of violence of someone with schizophrenia and social distance. Van Dorn et al. (2005) noted that findings were contradictory to the contact hypothesis in which more contact with consumers is associated with more favorable attitudes.

Although researchers often cite the efforts of Link, Cullen, Frank, and Wozniak (1987) when adopting a social distance scale, Weiss (1986) articulated an innovative approach by measuring social distance through the use of drawings with children. Weiss (1986) conducted the study with 577 students from the suburban areas of Chicago who were in Kindergarten, second grade, fourth grade, sixth grade, and eighth grade. He
inquired as to the differences across the lifespan between participants. In addition, he was interested in how the stigma of mental illness (mentally ill group) compared to other stigmatized groups such as: convict, mentally retarded person, normal person, crazy person, emotionally disturbed (neurotic), and physically handicapped. Instead of using Likert-type questions reflecting various social relationships to measure social distance, the author and colleagues asked the respondents to draw a stick figure of themselves and a stick figure of the other respective person at a distance which they felt most comfortable. The degree of social distance was measured spatially by measuring the distance from the respondent’s stick figure to the other group’s figure. Contrary to the author’s hypotheses, social distance did not vary significantly across age groups suggesting that at Kindergarten age, attitudes are already formed. Overall, from order of most preferred to least preferred, was (1) normal, (2) physically handicapped, (3) mentally ill, mentally retarded, and emotionally disturbed, and (4) convict and crazy. The label of “crazy” although pejorative is synonymous with being mentally ill, and its ranking as one of the groups with the highest social distance indicates that mental illness is still highly stigmatized.

At an eight-year follow up, Weiss (1994) used identical measures and methodology as his 1986 study. However, the follow up study compared the social distance scores of the Kindergarten students from the 1986 study to their scores at the eight-year follow up which would make them eighth graders. A sample size of 65 was considerably smaller for this study, with only 34 able to participate. The results were remarkably similar to the original study (Weiss, 1986) with “crazy” people still viewed as less desirable for engaging in social relationships as compared to other groups. Although
there were slight differences in social distance scores between groups, the same trend was present.

Social distance has also been used as a dependent variable when conducting intervention research. Reinke, Corrigan, Leonhard, Lundin, and Kubiak (2004) evaluated the effectiveness of an anti-stigma intervention in which researchers varied types of contact with the mentally ill to measure the reduction of social distance. A pretest-posttest design was utilized with five conditions that varied in the medium in which contact was presented (in vivo, videotaped, control) and amount of stereotype disconfirmation (little or no, moderate, and high). The in vivo and videotaped conditions were significantly different than the control group as measured by change from pretest to posttest on the social distance scale. Although there were trends in the data regarding the reduction of social distance based on the degree to which stereotypes were disconfirmed, these were not statistically significant. Overall, authors concluded that the study provides additional support for the impact of contact to reduce stigma of mental illness.

*International Studies Measuring Social Distance*

A Canadian study, as part of a pilot project for the World Psychiatric Association’s Global Campaign to Fight Stigma and Discrimination Because of Schizophrenia, explored the relationship between causes, treatment and social distance toward schizophrenia (Stuart & Arboleda-Flórez, 2001). Regarding social distance, 71% of respondents indicated that they would not marry someone with schizophrenia and 46% said they would not be their roommate. Results also showed that those with greater knowledge of schizophrenia expressed less desire for social distance.
Aside from studies conducted in the United States and Canada, researchers in Germany have investigated the extent of stigma by utilizing social distance measures to better understand public attitudes. Two studies (Angermeyer & Matschinger, 1995; 1996) focused on the connection between violent attacks by mentally ill assailants on politicians and a famous athlete and public perception of those with mental illness. Angermeyer and Matschinger (1995;1996) noted that in April 1990 a woman, who apparently suffered from schizophrenia, stabbed a political candidate with a butcher’s knife. Six months later, a man shot and wounded a different politician, leaving him partially paralyzed. It was later alleged that the perpetrator had schizophrenia. In 1993, a man attacked a famous tennis athlete, Monica Seles, with a knife. The man was believed to be suffering from a “severe personality disorder” (Angermeyer & Matschinger, 1995, p. 159). The authors noted that all three of these stories received significant media attention, particularly the two attacks on politicians. The seven-item social distance scale outlined by Link and colleagues (1987) was used to measure the degree of closeness that respondents would be willing to accept with respect to the mentally ill. Angermeyer and Matschinger (1995;1996) adopted a 5-point Likert scale with responses ranging from “in any case” to “in no case at all” (Angermeyer & Matschinger, 1996, p. 1723). Coincidentally, the authors had conducted interviews with participants immediately prior to the first attack in April 1990 which essentially served as a baseline for public attitudes. Overall there were eight studies, covering a span from 1990-1992 with thousands of respondents, with representative national samples drawn from people in Germany over 18 years of age. Interviews consisted of a semi-structured interview with two vignettes depicting a man with either schizophrenia or major depression. Perhaps not surprisingly, researchers
found an increase in social distance held by the general public after the attacks however the social distance did not increase six months after the second attack. The researchers provide support for the concepts of Scheff (1963), specifically those related to the idea of selective reporting. Angermeyer and Matschinger (1995;1996) contend that the frequent pairing of crimes and the perpetrators’ mental illness fuel the stereotypes that those with mental illness are violent thereby increasing social distance and negative attitudes by the general public.

Angermeyer and Dietrich (2006) provided a review of population studies that examined public attitudes toward mental illness concluding that there is support for more social distance toward schizophrenia than compared to anxiety disorders and depression. However, all of these diagnostic categories are eclipsed by the social distance prevalent among drug abuse and alcoholism. Other studies conducted in Germany that measure social distance among the public include investigations into the role of media (Angermeyer, Dietrich, Pott, & Matschinger, 2005), in particular the media’s impact on adolescent attitudes (Dietrich, Heider, Matschinger, & Angermeyer, 2006), and evaluation of an intervention among secondary school students (Schulze, Richter-Werling, Matschinger, & Angermeyer, 2003). Angermeyer, Dietrich, Pott, and Matschinger (2005) interviewed over 5,000 participants and found a positive correlation between amount of television watched and social distance; thus, those who watched more television expressed more social distance or less desire to interact with those who have mental illness. Interestingly, there was no relationship between newspaper reading and social distance although there is some evidence to support that this depends on the type of
newspaper. Readers of tabloids and regional newspapers identified more social distance than other newspaper sources.

Unlike the studies mentioned thus far which focused on adult attitudes, Dietrich, Heider, Matschinger, and Angermeyer (2006) explored the effects of newspaper articles, featuring either violence by someone with mental illness or corrective information, on social distance by adolescents. Two groups of 103 students (age 13-18) participated in the study. One group read two newspaper articles based on actual events consisting of mentally ill persons committing rape and murder in one article and double murder in the other. Moreover, these articles portray people with mental illness as dangerous, unpredictable, and violent. The other group was given accurate information about schizophrenia and included information about the course and development of the disorder. A pretest-posttest design was employed and showed virtually no change, and results indicated that although subjects in the first condition were exposed to negative portrayals, the social distance scores were not statistically significant than those in the second group. The authors offered an explanation for this finding by suggesting that perhaps the adolescents’ stereotypes were affected but not their behavioral intentions (i.e., social distance) because in the development of stigma stereotypes are first impacted which in turn lead to discrimination. However, the authors did find a positive relationship between television consumption and social distance which is consistent with the previous study (Angermeyer, Dietrich, Pott, & Matschinger, 2005).

In an attempt to reduce stigmatizing beliefs held by adolescents, Schulze, Richter-Werling, Matschinger, and Angermeyer, (2003) evaluated an intervention among secondary school students in Germany. The program was called “Crazy? So What!” and
was part of the World Psychiatric Association’s Global Programme against stigma and discrimination. The treatment group in the study consisted of processing with students through artwork and discussion about what contributes to struggles in one’s life, exposing the students to someone who already had schizophrenia that they could identify with, and conversing about schizophrenia including treatments and experiences with stigma. The dependent measure was comprised of two topics, stereotypes of schizophrenia and social distance. The questionnaire was given at pretest, posttest, and at one-month follow up to the treatment group and the control group which did not contain an intervention.

Researchers combined fairly typical social distance items with other items that may be more relevant for participants enrolled in school (i.e., I would not be upset or disturbed to be in the same class with someone who has had schizophrenia) to create a 12-item scale with response choices of “agree,” “disagree,” or “unsure.” Results indicated that students in the treatment group were more willing to enter varying types of relationships with someone that had schizophrenia and students endorsed less stereotyping as compared to the control group, at posttest and one-month follow up. Thus, this provides support for the intervention and contributing to less social distance. Another promising finding is the improvement at one-month follow up especially when considering that effects of interventions are not typically measured beyond posttest thereby creating doubt regarding the stability of the positive findings.

Lauber, Nordt, Falcato, and Rossler (2004) administered the Social Distance Scale developed by Link and colleagues (1987) to a national probabilistic sample in Switzerland. Respondents ranged from 16-76 years in age and half were given either a vignette depicting a person with depression or schizophrenia, and the other half were not
informed of the diagnosis but were asked whether the person had a “mental illness” or was experiencing a “crisis.” Results indicated that the schizophrenia vignette, age, gender, and current recognition of the vignette as illness were predictors of increased social distance.

Similar disorders were examined in Australia where a survey of nearly 4,000 adults showed that perceived cause of schizophrenia and depression were related to social distance (Jorm & Griffiths, 2008). The finding was contrary to the author’s hypothesis that social distance would increase with the understanding that the above disorders were a result of genetics. Moreover, respondents reported more favorable social distance (i.e., more likely to enter a social situation with the individual portrayed in the vignette) when the perceived cause of schizophrenia and depression was a real medical illness. The hypothesis that contact would result in decreased social distance was confirmed in the study. Jorm and Griffiths (2008) noted that the findings in the study conflicted with results from other countries that used similar methodology, providing evidence that there is likely a cultural component at work where various countries perceive labels and causes differently.

One of the primary concerns with social distances measures is the tendency for respondents to provide socially desirable responses (Link, Yang, Phelan, & Collins, 2004), and this social desirability bias is also prevalent with attitudinal measures in general such as the CAMI. Hinshaw and Stier (2008) state that in American culture it is not acceptable to openly admit via questionnaires that one possesses prejudicial attitudes or endorses discriminatory behaviors. What results is participants providing responses that are consistent with the values set forth by society but do not reflect their true
attitudes which is the aim of most attitudinal instruments. Moreover, respondents involved in intervention research may be particularly inclined to give such socially desirable responses.

Social Desirability Bias

Several studies have acknowledged the influence of social desirability bias, and its impact on the results of the studies. Stuart and Arboleda-Flórez (2001) conceded that participants in Canada may have provided socially desirable responses about social distance regarding group homes for persons with schizophrenia. This finding of acceptance is somewhat contradictory to the extensive literature suggesting the schizophrenia is one of the most stigmatizing disorders. Moreover, Stuart and Arboleda-Flórez (2001) specify that because a phone interview was utilized it was difficult to capture the extent of socially desirable responses. The authors do counter by stating however that their measure of knowledge about schizophrenia could not have been biased because of its objective measurement.

Wahl (1993) argued that social desirability was likely irrelevant in his study in relation to response rates and favorable attitudes toward mental health group homes. Furthermore, it was noted that those who are dissatisfied would typically be the respondents most likely to participate in the study. Link, Yang, Phelan, and Collins (2004) conclude that evaluation of scores from social distance instruments (and other attitudinal measures) is compromised as a result of this bias and it becomes unclear if these scores reflect actual attitudes. Interestingly, although several studies cite social desirability bias as a concern, almost no studies attempt to measure it directly.
One of the most widely used social desirability measures to control for response bias in self-report research is the Marlowe-Crowne scale (Crowne & Marlowe, 1960). This scale has been used in a variety of contexts, and some researchers have created shorter versions of the 33-item questionnaire. Paulhus (1984; 2002) however argues that the notion of social desirability is made up of two separate constructs: self-deception and impression management. His work was related to the earlier work of Sackeim and Gur (1978) who termed these constructs self-deception and other deception. Examples of self-deception include items such as “Have you ever thought about killing someone?” which call into question the respondent’s own beliefs. However, statements such as “I always pick up my litter” are not subject to self-deception but are related to other deception. The difference with the conceptualization devised by Paulhus (2002) involves the idea of impression management, which as the name implies, is directly related to the respondents’ deliberate attempts to manage the impressions they put forth. He argued that impression management is the primary concern when trying to examine personal characteristics or attitudes. Paulhus (2002) combined the constructs self-deception and impression management in a 40-item measure, the Balanced Inventory of Desirable Responding (BIDR). Twenty of these items make up the impression management scale and are thus most relevant for the current proposal by this author. Examples of these items include “I never cover up my mistakes” and “I have some pretty awful habits.” One benefit of this scale is that it contains 20 items compared to the Marlowe-Crowne which has 33 so it is less likely to contribute to respondent burden. More importantly, it is believed that the impression management scale more accurately measures the deliberate attempts of respondents to lie about their true behaviors. The addition of the impression
management scale would aid in the researcher’s ability to differentiate true attitudes expressed versus those that are inflated or underestimated.

Vignette Studies

The dependent measures of social distance and the CAMI have been utilized in many different contexts when studying the stigma of mental illness, and one of the most popular methodological applications involves the use of vignettes (Arboleda-Flórez & Sartorius, 2008). Thus far, numerous studies have been described where researchers have adopted the use of vignettes and manipulated diagnostic labels in vignettes ranging from alcohol dependence to schizophrenia to a “normal” or subclinical description of illness. Researchers have employed vignettes to ask respondents about causes, treatments, and general attitudes about the mental illness depicted.

Star (1955) has been widely cited as the first to create vignettes in order to understand public attitudes toward mental illness. These original vignettes consisted of simple schizophrenia, paranoid schizophrenia, compulsive phobia, anxiety neurosis, juvenile character disorder, and alcoholism. Star (1955) obtained a sample of over 3,000 participants in the United States and administered questionnaires subsequent to reading the vignette; questions assessed attitudes about the severity of the illness illustrated as well as whether the description constituted mental illness. Although these particular diagnostic category vignettes were critical in the development of this methodology, researchers currently construct vignettes by following the criteria set forth by the latest edition of the Diagnostic and Statistical Manual of Mental Disorders.

One of the most well-known present day vignette applications is the MacArthur Mental Health Module of the 1996 General Social Survey (see Link, Phelan, Bresnahan,
Stueve, & Pescosolido, 1999; Pescosolido, et al., 1999; Phelan, Yang, & Cruz-Rojas, 2006; Schnittker, 2008). These vignettes are somewhat different according to diagnostic labels: alcoholism, major depression, schizophrenia, and cocaine abuse. Additionally, a “troubled” person vignette was added to represent a subclinical condition.

Link, Yang, Phelan, and Collins (2004) contend that vignette approaches have several advantages over other methods such as allowing a researcher the ability to provide a much richer description of an individual rather than simply the diagnosis. This avoids broad, generic labels such as “mental patient” or a person with “mental illness” which can be problematic for interpretation because the anchor used by respondents when formulating a response may differ. For example, a participant may view the term “mental illness” as synonymous with depression and answer questions regarding depression whereas another person may associate schizophrenia with the term “mental illness.” Thus, the responses elicited are really comparing attitudes of depression and schizophrenia and not mental illness in general. Experimental design implementation is another benefit of using vignettes; researchers have the ability to manipulate labels (major depression, panic disorder), treatment sources (clergy, social worker), social characteristics (employed, married), and other variables of interest to further investigate attitudes.

Despite the advantages and enhanced methodological rigor of adopting vignettes for studies examining attitudes toward mental illness, there are a few drawbacks to its use. First, it is unlikely that a respondent would encounter a consumer who behaves in a manner that is perfectly consistent with the depiction in the vignette. The second concern is one that has always plagued research measuring attitudes: the inability to guarantee
that attitudes translate to actual behaviors in real-life situations. Part of this limitation stems from the notion of social desirability bias. However, this also includes other environmental factors that may not be present when responding to a vignette but may be more relevant in an actual scenario.

Aside from the studies outlined above that used vignettes, there are a few from Germany that are worthy of mention due to their unique inclusion of disorders. Angermeyer and Matschinger (1997) conducted 11 surveys over a three year span among adults resulting in thousands of participants. Five vignettes were created to measure social distance, emotional reactions, personal experience with mental illness, and personal values. The vignettes consisted of major depression, panic disorder with agoraphobia, schizophrenia, alcohol dependence, and narcissistic personality disorder. Because of the repeated surveys over a few years, the researchers were able to observe that attitudes change over time. There was a fairly stable increase in social distance in 1990 that began to slowly taper by 1993. A further examination of this time frame reveals some similarities in how certain violent events overlap. As described earlier, there were multiple attacks on politicians and a famous female athlete by allegedly mentally ill assailants in Germany during the year 1990 (Angermeyer & Matschinger, 1995; 1996). Thus, it is presumed that these events and subsequent community reactions led to increased social distance during this time. Angermeyer and Matschinger (1997) found that previous contact with the mentally ill had an effect on the participants’ emotional reaction scores. Some resulted in a positive and more sympathetic response whereas others consisted of aggressive and anxious feelings which fueled social distance.
A few years later, the same authors devised another study that manipulated vignettes of major depression and schizophrenia (Angermeyer & Matschinger, 2003). Researchers obtained a sample of 5,025 adults in Germany and, using an open-ended format, asked respondents what illness was portrayed in the vignette shown. In addition, participants were measured on social distance, emotional reactions, and personal attributes such as dependency and dangerousness. Overall respondents were able to correctly identify the diagnostic labels of the vignettes as such (70.8% schizophrenia, 62% major depression). Results also indicated that the label of schizophrenia contributed to feelings of fear, dangerousness, and a preference for more social distance.

Interestingly, there was no relationship between the same emotional reactions toward major depression and no association with social distance. Angermeyer and Matschinger (2003) state that depression is likely more accepted by the general public and thus less stigmatizing than schizophrenia.

There have been several theories proposed to explain how the stigma of mental illness is created and how consumers function in society. One that has received arguably the most attention is that of labeling theory. The following sections will describe the historical roots of the theory, its applicability to mental illness and stigma, and previous research testing various approaches and interventions to reduce stigma. Again, international studies will be discussed and qualified regarding their utility in the United States.

Labeling Theory

Labeling theory has been applicable to multiple apparent deficiencies in members of society ranging from those afflicted with HIV/AIDS and cancer patients (Fife &
Wright, 2000), those on welfare (Rogers-Dillon, 1995), the homeless (Phelan, Link, Moore, & Stueve, 1997), and individuals suffering from mental illness (Link, Cullen, Frank, & Wozniak, 1987; Tringo, 1970). The latter group will be the focus of this paper as the author will illustrate the effects of labeling on mental health consumers, and as will be articulated later, those friends, family members, neighbors, co-workers, and others who interact with these individuals. Because labeling theory has been cited as one of the major theories that have helped explain the struggles faced by those with mental illness, it is therefore pertinent to describe the early works that have created the foundation for the theory.

Labeling Theory according to Scheff

One of the earliest and most important works that has formed a basis for subsequent efforts to tie labeling theory with mental illness was by Scheff (1966) in which he criticized the medical model and psychoanalytic approaches to the conceptualization of mental illness. Scheff stated that Freudian attempts to understand mental illness almost exclusively focused on deficiencies within the individual rather than examining social forces. While not totally discounting the advancements of psychoanalytic theory, Scheff did believe that the inclusion of environmental influences would provide a more accurate representation of mental illness. As a result, Scheff aimed to incorporate the effects of the social order on the creation and perpetuation of mental illness. It is the creation part of his theory that has drawn the most criticism from opponents of labeling theory (Gove, 1975) and to a lesser extent even some supporters (Link, Cullen, Struening, & Shroot, 1989).
In order to fully understand the social system approach by Scheff (1966), it is important to discuss relevant concepts that help define the model. Scheff contends that by developing an approach that focuses on the social impact on mental illness, and combining it with an individualistic model, a synthesis can be formed which possesses the advantages of both with neither disadvantages. Only then will a clearer picture of mental illness emerge.

In Scheff’s model, psychiatric symptoms are seen as violations of social norms and stable mental illness is believed to be a social role. This role is chronic mental illness and societal reaction is a major contributor of whether someone enters that role. At its most basic level, even the phrase “mental illness” is devaluing and disparaging, in that it is an illness like cancer that is progressing and accompanied by a poor prognosis. In addition, psychiatric “symptoms” also imply that there is an underlying mental illness that is emerging. Therefore, more fitting terms that will be emphasized throughout the model will be rule-breaking and deviance. Rule-breaking is another way of stating social norms which are the agreed upon rules in a society. Social norms can be very implicit and not formally discussed such as maintaining an appropriate distance when talking to another person or shaking someone’s hand when they reach out their hand. Most of the violations of these norms do not lead to a label of mental illness, but rather, could lead to a conclusion that someone is ignorant, sinful, or rude. Deviance has been defined numerous ways but for the purpose of the model in question it will be referred to as the response of a person or persons to an act rather than the act itself. Thus, people that are labeled deviants are not those that have committed a particular act, but those that have been stigmatized by others as deviants.
The violations of social norms, and the resulting terms, describe the behavior and the act that was committed such as drunkenness, prostitution, and bad manners (Scheff, 1966). However, when some rule-breaking behaviors occur that do not fit neatly into any category determined by the given culture, what is left is a residual. This has led to the notion of residual deviance, and depending on the society in question, this typically forms the basis for behavior labeled “mental illness.” Consequently, someone who engages in this type of rule-breaking is labeled “mentally ill.” The connection between residual deviance and the social system model is that this residual deviance typically consists of psychiatric symptoms that are indeed unique to the society being examined. More specifically, these symptoms are withdrawal, hallucinations, and delusions that result from a particular interaction with others in which certain social norms are expected to be followed.

Goffman (1963) examined the dynamics between individuals and groups and concluded that there are expectations that an individual will demonstrate “involvement” in any given situation. There are two types of this involvement: away and occult. Away involvement, for example, can be manifested by an individual communicating in person with others where he does not fully give his attention to the discussion at hand. This is not to say that he is not interested in the conversation; he temporarily leaves the interaction by shifting his thoughts to either past events or future ones. A more common term for this behavior would be daydreaming and its acceptability in a particular interaction depends on its context which is governed by social norms. When this occurs outside of these norms, an individual’s behavior may be considered withdrawal and thus a symptom of mental illness. Unlike in the daydreaming state of away involvement, the occult type is in
regards to an interaction in which the individual does not seem to realize that he is not part of the conversation. In other words, the person does not seem to have a solid grip on reality such as evidenced by hallucinations, delusions, or obsessive thinking. Some examples include repetitive movements, grasping objects tightly for an extended period of time, or maintaining a completely rigid posture (i.e., catatonic behavior). It is important to reiterate that social norms dictate when and where the above mentioned behavior is a violation of these norms and may be subjected to labeling the behavior as mental illness symptomology.

Scheff (1966) highlighted nine propositions that are central to the understanding of a social system model of mental disorders. The first states that rule-breaking stems from a variety of different sources such as organic, psychological, external stress, etc. There are numerous studies examining the individual psychological contributions to the development of mental illness, and there is also a considerable amount of evidence to support an organic basis as well. Studies focusing on the impact of external stress have been fairly well documented by illustrating the effects of war, prolonged sleeplessness, and sensory deprivation on the formulation of mental illness. One of the more compelling, albeit ethically challenging, findings of the external stress-related research is the ability to induce psychiatric symptoms such as hallucinations, mania, delusions, and paranoia (Brauchi & West, 1959; Heron, 1961). The relevance of these studies in regards to the effect of labeling is that the subjects involved in the research knew that their symptoms were not permanent, and they were debriefed afterwards as to reassure them of this temporary state. However, how would the subjects have reacted if they were told that their psychiatric symptoms were the beginning of a lifelong illness for which there was
no cure? The real question posed by the above research is investigating the likelihood that these subjects would have continued to engage in rule-breaking behavior (i.e., psychiatric symptoms) following the revelation that their experience was only the beginning of a mental illness.

The second proposition involves the comparison of the number of people treated for mental illness and those who exhibit rule-breaking behavior. Scheff (1966) argues that the overall prevalence of mental illness differs considerably from the treatment prevalence of mental illness. In other words, people all over the world frequently participate in this behavior yet they are not all labeled by themselves or others as being mentally ill. One possible, and perhaps the most obvious answer, is that some symptoms of mental illness do not warrant psychiatric treatment and are therefore merely transitory. The question remains as to how some individuals come to develop a lifelong illness versus short-term symptomology.

It is this transient period of psychiatric symptoms that forms the basis for the third and, according to Scheff (1966), the most essential proposition in the understanding of the social system model. How symptoms are stabilized over time would traditionally be explained by the individual’s inability to cope with stress, a genetic predisposition, and psychological factors stemming from early life experiences. The argument presented here is that the most influential determinant of mental illness is the societal reaction to the rule-breaking behavior. Moreover, the emphasis is on the response of the society versus deficits within a person that is unaffected by the environment. If the residual rule-breaking is constructed by society to be defined as mental illness and is reinforced by this society, than there is a role to be played by the mentally ill.
This individual begins to play this role based on the rewards and cues for the behavior that fits within the framework of the illness. For example, a family member who has been labeled as mentally ill may find reinforcement from family members only when psychiatric symptoms are exhibited whereas “normal” behavior warrants no attention. Thus, the reaction of the family, friends, neighbors, and other members of society help to perpetuate this mental illness label by their view and treatment of the individuals being examined (Scheff, 1966). These dynamics have been compared to that of actors who are typecast in particular roles; certain actors and actresses may become stuck in their roles and find it difficult to change because of how people expect them to perform (Szasz, 1960).

Stereotyped imagery of mental illness that is formed in childhood constitutes the fourth proposition. This has been supported by more current findings in which children’s television programs (Wilson, Nairn, Coverdale, & Panapa, 2000) and children’s films (Wahl, Wood, Zaveri, Drapalski, & Mann, 2003) have revealed a significant amount of pejorative language regarding those with mental illness (i.e., crazy, nuts, psycho, lunatic, etc.) as well as depicting them as villains or comical characters. Both portrayals are equally harmful to the perception of those with mental illness with the former depiction reflecting violence, and the latter minimizing the seriousness of illness by its comedic nature. Scheff (1966) argues that the word “crazy” probably appears in the vocabulary of children around the time of elementary school. The continued use of this language coupled by the fact that most adults may not possess an accurate understanding of mental illness themselves contribute to a perpetuation of the misinformation about the illness. Scheff adds that during childhood, youth may begin to tease their peers by calling them
“crazy” and, in turn, the recipient of the label is likely defensive and focuses on discounting this claim in an attempt to distance themselves from the label and its implications. Children may also intentionally act out psychiatric symptoms in the form of a seemingly light-hearted role play with others (Scheff, 1966). Similar to the controversial studies inducing psychotic symptoms that were noted above, these children realize that this behavior is merely a role they are playing that is temporary and not long-lasting. The next proposition illustrates how the stereotypical beliefs about mental illness that are held by children carry throughout adulthood.

The notion that stereotypes of insanity are continuously reaffirmed in everyday social interaction forms the basis for the fifth proposition. Efforts to provide accurate information about the course, symptomology, and prognosis of mental illnesses and to expand general knowledge about them by mental health professionals have been outnumbered by negative images about mental illness. Mass media has contributed largely to the overall perception of mental illness, and media images exist in the form of newspaper articles, movies, television shows, advertisements, cartoons, etc (Nunnally, 1961). When an individual is arrested for a crime and consequently appears in the newspaper, his or her mental health history is often mentioned as if to imply that the two demonstrate a cause-effect relationship. For example, an article may describe a man arrested for murder who was hospitalized for depression several years ago or who currently takes medication for depression. Perhaps not as apparent, examining the timeline of the mental health history is important when understanding labeling theory. Using the above example, if a man had been hospitalized for depression 15 years prior to the arrest this is suggesting that a former mental health patient is dangerous because of
the incurability of the disorder. This reiterates the traditional medical model which describes illness as a lifelong disease that worsens over time (Scheff, 1966).

Another implication that results is the routine pairing of mental illness with violence which has been supported by more recent studies in the United States (Stuart, 2006; Wahl, 1995) and internationally in the United Kingdom (Cutcliffe & Hannigan, 2001) and Australia and New Zealand (Nairn & Coverdale, 2005; Wilson, Nairn, Coverdale, & Panapa, 1999). Hinshaw and Stier (2008) states that overall there is a higher rate of violence among those with mental illness; however, this finding is misleading in the sense that only a few disorders (antisocial personality disorder, substance abuse, and those with psychoses) are typically associated with violence. Eisenberg (2005) clarifies the connection between mental illness and violence and states that mental health consumers are often victims of violence rather than perpetrators. The obvious effect of this on the general public is that they exaggerate the likelihood of a mental health client becoming violent, and society learns to fear those with mental illness. Thus, the label of “mentally ill” is thereby synonymous with violence. Scheff (1966) further explains that there are millions of people in the United States with mental illness yet they are overrepresented in the media when violent crimes are committed, in particular, violent crimes. It is highly unlikely that a newspaper headline would announce that millions of Americans that suffer from mental illness are not violent each day.

As mentioned above, the current proposition being examined describes labeling as a function of reinforcement in ordinary interactions which may take the form of beliefs, behaviors, as well as the language used in these interactions. Disparaging comments about mental illness are prevalent among the general public, mental health professionals,
and even mental health consumers themselves. Although it may seem difficult to imagine why the latter group would use such language, it is not as surprising when considering that these individuals have been exposed to the same media images and experiences because they belong to the same society as the general public. Earlier focus on the impact of stereotypical imagery during childhood (proposition four) is relevant again here because it illustrates how powerful these early experiences were on the very people who have become afflicted with the illness. In addition to condescending terms and phrases regarding mental illness, jokes are another means by which the dominant society distances themselves from mental health consumers. Jokes often revolve around erratic behavior or bizarre responses to everyday situations further implicating that these individuals are fundamentally different than the normals and that they warrant being treated differently because they are sub-human (Scheff, 1966).

Similar to the fifth proposition, the sixth is concerned with reinforcement mechanisms: labeled deviants may be rewarded for maintaining a deviant role. This reward may be subtle such as a patient gaining “insight” into his or her illness which could be defined as the extent to which the patient agrees with the doctor. For example, a patient with Bipolar Disorder who may not fully believe that he suffers from this particular disorder may be perceived as being in denial by the psychiatrist whereas agreeing with the doctor about the illness can be construed as insightful (reward). This positive reinforcement can also be delivered by the other patients. Scheff (1966) describes case studies in which one patient verbalizes her dissatisfaction with the services and becomes skeptical of her treatment. The response of the other patients on the psychiatric unit is very compelling; they encourage her to accept her illness and to simply
comply with the doctors in order to successfully move through treatment. In other words, there is a great deal of pressure to accept the role that the individual is sick and to accept the mentally ill role.

Proposition seven in the social system model of mental illness proposed by Scheff (1966) states that when these labeled deviants attempt to return to their conventional role of being normal they are punished. This proposition describes the long-lasting effects of the label and its complications for employment, housing, and intimate relationships. Combining the sixth and seventh proposition yields the following: a person who is labeled mentally ill is rewarded for accepting this role in society and punished when attempting to return to a normal role prior to the label of mentally ill.

Increasing inability to meet one’s basic needs in everyday life as a result of being labeled mentally ill, the deviant may learn to accept the role of being insane as the only realistic option which forms the eighth proposition. The rule-breaker is well aware of the cues provided by the environment in terms of what is expected of him from the stereotypical role of insanity, and his own childhood and early experiences formed these images.

The ninth and final proposition according to Scheff (1966) is likely the most controversial and debated of all and states that among the residual rule-breakers labeling is the single most significant cause of careers of residual deviance. Similarly, Lemert (1951) stated that this labeling resulted in secondary deviance which is the act of continuing deviant acts in response to the social institutions. It is assumed, and quite logical, that most people who engage in residual rule-breaking do not go on to carry out a career in deviance. For example, a boy who disobeys and lies to his mother at the age of 68
10 is not necessarily going to live an adult life that is full of deception and other rule-breaking behaviors. As noted throughout, the extent to which the societal response rewards and punishes the labeled individual has an impact on future deviance. Stated more plainly, the person who breaks the rules, the nature of the rule-breaking, and the response of the particular community all shape the potential for a career of deviance. A vicious cycle develops in which the more a rule-breaker enters the role of the mentally ill, the more others see him as such which leads him to engage in more rule-breaking behavior (i.e., secondary deviance).

Scheff (1966) has been one of the most influential figures in the early conceptualization of the development of mental illness while investigating the power of labeling on the well-being and future of these individuals. He challenges the traditional medical model that defines illness as essentially a lifelong disease that unfolds and worsens over time. Moreover, Scheff believed that social forces were not adequately addressed by conventional models so he focused on the society and their response to the individuals that live in it.

Labeling Theory according to Goffman

Goffman (1963) contends that society establishes the rules in which its residents operate; categories exist to allow people to understand their surroundings with ease. Although this categorization serves a purpose to expedite the process of assessing one’s environment, it can also lead to quick judgments of people based on traits that may be more or less apparent. What results is a tendency to reduce a whole person to someone who is nothing more than the very negative attribute they possess. Goffman (1963) defined this attribute as a stigma and defined stigma as an “attribute which is deeply
discrediting” (p.3). When judgment is passed by another or a group on a stigmatized person, this person’s virtual social identity is formed from the perspective of the observer. The true identity of the stigmatized person, also called the actual social identity, is exactly what the phrase implies; it is the complete, judgment-free makeup of the individual who is under scrutiny.

Although Goffman (1963) applies the concept of stigma to various affected groups such as those who are hard of hearing, blind, have physical deformities, mental illness, prostitutes, etc., those with mental illness are the most relevant for the present discussion. Stigma is further defined as a complex type of relationship between an attribute and a stereotype and can take shape in two different forms: the discredited and the discreditable. The former applies to individuals who have an affliction that is already known by others or is easily noticed. The latter deals with blemishes that are not already known and cannot be readily noticed. Goffman further divides stigma into three categories: physical deformities (paraplegic), character flaws (mental illness, alcoholism), and tribal stigma that passes through generations (race, ethnicity).

These stigmatized individuals live in a world that is dominated by people who are not stigmatized; Goffman (1963) called this majority group the normals. Because of the perceived differences between the stigmatized and the normals, the normals create a belief system that dehumanizes the stigmatized and in effect limits their chances in life through discrimination. For example, someone with schizophrenia who is recently discharged from a psychiatric hospital and now wishes to live alone in an apartment may face considerable difficulties with housing when attempting to explain the situation to the landlord (normal). By exercising his right of superiority over the stigmatized, the landlord
chooses to not rent to him forcing the person to look for other housing options. This status difference is further exemplified by the language used in everyday conversation. Like Scheff, Goffman emphasizes the power of words such as “madman,” “psycho,” and “lunatic” simply fuel the likelihood of practicing these beliefs via discrimination.

It may not be surprising that the stigmatized mental health consumers take issue with this preferential treatment for normals and may react to this unfairness. The normals may easily attribute this defensiveness to their illness rather than examine how their own behavior contributed to their response. The response combined with the defect itself leads to further justification for the normals to continue discriminating against the stigmatized. Life early on for the mental health consumer (i.e., a person has just recently been told that he or she has bipolar disorder) may be met with confusion in the form of the individual believing that he or she is normal and therefore is entitled to being treated as a normal. The stigmatized soon learn that the definition of normal becomes a fluid concept based on life experiences and the society in which they live.

As it becomes more apparent that the mental health consumers no longer belong to the category of normals and that their status has been compromised, a major goal then is to determine how the stigmatized can be accepted (Goffman, 1963). Depending on the defect, the person may be more or less able to correct it and seek to acquire the status of normal once again. This proves to be a fundamental difference in regards to the type of blemish in question and its origin: mental health consumers cannot fix their difference as easily as someone who has stigma attached to their occupation. In other words, a change in occupation may be more feasible than trying to cure a mental illness with an organic basis. When attempts to correct the condition are not possible, stigmatized individuals
may seek to overcompensate for the difference by trying to master areas of their life that have been affected by the condition. For example, someone with paranoia may struggle to leave the house out of fear but may begin to write extensively thereby modifying the focus from isolation to using this alienation as a means to be productive through writing.

As mentioned earlier, normals and the stigmatized do not live in isolation from one another or in a vacuum; they have numerous interactions that may take different forms. Because both groups know of each other’s existence, efforts can be made to avoid the other. Typically, this leads to the stigmatized avoiding the normals because they have more to lose by an encounter and are aware of their inferior status. This encounter will likely be anxiety-provoking for the mental health consumers because their experiences have taught them that each situation cannot be taken for granted and may not be pleasant. The anxiety is also fueled by the pressure to behave appropriately during an interaction because any minor mistakes may be attributed to the illness and perpetuate further discrimination by the normals. This pressure is also evident in the workplace where ex-mental patients are leery of any emotional exchanges with co-workers or supervisors for fear that this emotionally-charged situation may be seen as a symptom of mental illness rather than a common reaction such as experienced by normals (Goffman, 1963).

Similarly, effortless, everyday activities carried out by individuals may be perceived as monumental accomplishments when performed by mental health consumers. For example, an ex-mental patient driving a car that is seen by a neighbor may be interpreted as being worthy of praise by the neighbor whereas this same action, when carried out by another person, may be seen as trivial.
The varying degree of momentary acceptance versus disdain by normals toward the stigmatized leads to more mixed emotions of the ex-mental patients about their desire to enter into further interactions. Oscillating between avoidance and confrontation both pose significant consequences for the stigmatized and both responses will likely be attributed to their illness. Some ex-mental patients come to believe that others can sense the fear that they possess.

While normals may not be accommodating to the needs and treatment of these individuals, mental health consumers may turn to, as Goffman (1963) calls them, “sympathetic others” for solace although as will soon be articulated this is not without reservations. Two types of sympathetic others exist in the world of the stigmatized: others belonging to the same group (i.e., other mental health consumers) and the “wise”—normals who possess a vested interest in the humane treatment of the stigmatized. Those belonging to the same group can provide useful tips and instructions to individuals who suddenly find themselves thrust into a stigmatized category and are now ostracized from the normals. Some information that the same-group individuals share may consist of ways to navigate applying for social security disability, finding the better psychiatrists, psychologists, and social workers, cheapest pharmacies to get medication, best housing options, and also provide a non-judgmental sounding board to allow venting. Some of these groups have blossomed into national organizations that promote mental health awareness, advocacy, and education about mental illness. The most notable is the National Alliance on Mental Illness (NAMI) which is the nation’s largest mental health advocacy organization and is comprised of consumers, families of consumers, students, and other citizens concerned about the well-being of those with mental illness.
The second type of group of sympathetic others identified by Goffman (1963) are the “wise” who may be individuals somehow connected professionally to mental health consumers such as members of NAMI or they may have a more personal connection such as spouses, friends, or family members of consumers. Those with a more intimate relationship to consumers are faced with a dilemma: continue to live their life as a normal and endorse the stigmatizing beliefs about those suffering from mental illness or join the consumer and therefore be subjected to stigma by association. The latter option can result in termination of relationships in the form of divorces, they may lead to strained relationships among family members, and can lead to avoidance of former friends turned consumers. Individuals who are able to withstand the pressure of relationship abandonment serve as an ideal model of normals who demonstrate the ability to view consumers as equals despite how the general society perceives them.

While much of what has been discussed thus far regarding Goffman’s (1963) ideas on stigma and its implications have focused on a lessened sense of self-worth and discriminatory treatment by normals, the “moral career” is a crucial role of stigmatized individuals with long-term consequences. Essentially this moral career is a socialization process which begins early in life where stigmatized individuals possess an understanding of what it means to belong to the category of the normals and is therefore able to identify beliefs toward the stigmatized from the normal standpoint. This shifts to a realization that the person now has a stigma and knows how he or she is viewed based on this prior belief system as a normal. Consequently, the individual soon learns the pitfalls of having the stigma and the struggles faced in life. The interaction between these processes form four different patterns that which provide more long-lasting effects for the
remainder of the lifespan. These patterns primarily center around the timing of when one learns that he possesses a stigma such as: being born with a particular disorder, being raised in a close knit family protecting the individual for the first few years of life from the harmful attitudes of the normals in the larger society, learning later in life that one has a disorder or has always had the disorder, and living almost exclusively in an environment that has buffered against the negative attitudes until later in life in which the individual must learn a new way to exist among the normals. The age, family, environment, and life experiences of the stigmatized individual all play a crucial role in this moral career where the person is constantly battling with the acceptance of a stigmatized place in society while attempting to cling to an identity of being normal.

Socall and Holtgraves (1992) tested labeling theory by administering mail surveys that included a vignette depicting either a person with a physical or mental illness (generalized anxiety disorder, major depressive episode, or schizophrenia) to 600 residents in Indiana. Dependent measures consisted of social distance and a scale measuring beliefs about the target in the vignette. Results indicated that those reading the physical illness vignettes were more likely to engage in relationships with the target (lower social distance) as compared to the mental illness vignettes. Findings suggest that when behavior and beliefs about the target are held constant across vignettes, and only the label is varied, respondents rejected the mental illness person significantly more than the physical illness person.

Critics of Labeling Theory

Labeling theory, like many other theories, has faced scrutiny from critics who do not support Scheff’s (1966) causality model of mental illness through a labeling process.
Gove (1970) has been the most vocal in the opposition to a labeling theory of mental illness and argues that the likelihood of an ex-mental patient continuing a life of secondary deviance is primarily due to the patient’s own psychiatric symptoms rather than a label. Gove does not disagree that the social system in which ex-patients live impacts them, however, the notion that future symptomology is a direct result of labeling is erroneous.

A more recent illustration of Gove’s (2004) argument notes that because psychiatric hospitalization has often been cited as a critical component of initiating the labeling process (Goffman, 1961) it is necessary to examine some of its characteristics. Gove (2004) affirms that most individuals admitted to a psychiatric hospital are there because it is a last resort of treatment after less restrictive measures have failed despite the claim of Scheff (1966) that mental health professionals and others expedite the psychiatric admission process at the first sign of illness. In addition, most ex-mental patients were admitted because of transitory symptoms and typically recover after the first hospitalization with few returning symptoms and do not experience a significant degree of stigma in the long run (Gove, 2004). This statement is in sharp contrast to the views put forth by Goffman (1961,1963) who explains a moral career of the mentally ill and the profound stigma experienced upon discharge and Scheff (1966,1974) who describes ex-patients fulfilling their role as mentally ill which is reinforced by an environment that seeks to maintain that role.

Modified Labeling Theory

While Scheff and Gove continued to debate the legitimacy of labeling theory in regards to mental illness, Link et al. (1989) formed the basis for a modified labeling
theory. Link identified several key differences between the modified labeling theory and Scheff’s (1966) labeling theory. Not so much concerned about the causal relationship devised by Scheff, Link focused more practically on the consequences of being labeled on the lives of mental health consumers. Link et al. (1989) also did not believe that the label had the ability to create mental illness as Scheff had stated, and Link focused mainly on the labeled person’s response in relation to the beliefs of others rather than on the response of these others as noted by Scheff. For example, attempts of the labeled person to withdrawal from others (Link) instead of the power of citizens in the community to punish efforts of the individual to regain a normal status (Scheff).

The modified labeling theory put forth by Link et al. (1989) has five steps that are relatively similar to those devised by Scheff (1966). The first is that individuals already possess a belief system about what it means to be labeled mentally ill. All of the various sources of information in society such as the media, jokes, and everyday exchanges contribute to the conceptions of this status. Two main themes emerge in the form of devaluation which is the belief that those with mental illness have less value than the others and discrimination which can be observed through social distance. Step two states that once a person undergoes psychiatric treatment, a label that previously did not apply now becomes a reality. Prior to treatment, the individual had been on the other side of the devaluation and discrimination but now is confronted with these potential issues. The third step is related to the coping mechanisms of these individuals which typically take the form of isolation and withdrawal, withholding the treatment from others altogether, or educating friends and family in an attempt to buffer their negative perceptions. Link et al. (1989) argues that when clients perceive their environment as hostile they feel devalued.
and discriminated against and consequently begin to alter and limit their interactions with others. These individualistic attempts to manage the stigma of their illness typically do not lead to a greater sense of well-being and instead reflect social problems, not individual troubles (Link, Mirotznik, & Cullen, 1991). The fourth step involves the negative consequences stemming from the label such as lowered self-esteem, compromised social networks, and impairment in obtaining a job (Link, 1982, 1987). For example, difficulties entering the workforce are further compounded by barriers in obtaining a driver’s license which affects job marketability and having a history of mental illness has been found to lessen the chances of being hired by employers (Farina & Felner, 1973). The fifth step in Link’s et al. (1989) modified labeling theory is in regards to the vulnerability of future psychiatric disorders. Given the complications and effects highlighted in step four, that the mental health consumers have limited tangible and social resources, these consumers are consequently at higher risk for future psychopathology (Turner, 1981).

Link tested the modified labeling theory by recruiting subjects that belonged to five different groups: psychiatric patients that have only had one contact with treatment, current patients with recurrent episodes of treatment, residents in the community who reported past treatment but not current treatment, residents who meet criteria for a disorder but who have never been in treatment, and community residents who have been deemed “well” and symptom-free with no prior psychiatric history. It should be noted that Link’s study reflects one of the few that directly tested components of labeling theory. Using devaluation-discrimination, social network, and secrecy, withdrawal, and
education instruments, Link et al. (1989) overall found support for the first four steps of the modified labeling theory with the fifth step remaining a priority for future research.

Another study tested modified labeling theory by exploring the evaluation, potency, and activity (EPA) of a person labeled “mentally ill” among samples of patients and non-patients (Kroska & Harkness, 2006). Additionally, authors investigated the clients’ self-identities and reflected appraisals which are how others viewed them. Findings supported modified labeling theory: labeling exacerbated client’s mental illness. Kroska and Harkness (2006) caution that diagnostic labels can be helpful in determining appropriate treatment as well.

A common method of measuring stigma in regards to the likelihood of the public interacting with consumers has been the examination of social distance. Items typically reflect the level of comfort that respondents display concerning the social proximity of someone with mental illness. For example, an ex-patient being in the same neighborhood of the respondent, living next door, dating the child of the respondent, and dating the respondent demonstrate the degree of social distance. Tringo (1970) used a more extreme nine-point scale to measure social distance ranging from “would marry” to “would put to death.” Social distance has been viewed as one way to measure the extent of stigma by the general public; those who would not permit consumers to live in their neighborhood would possess negative attitudes towards consumers whereas those who would date or marry a consumer likely have a more positive outlook toward clients. Link, Phelan, Bresnahan, Stueve, and Pescosolido (1999) contend that misconceptions about the origins of mental illness such as a character flaw and an overestimation of dangerousness fuel the
prevalence of social distance. Fearing the mentally ill results and leads to a desire for the public to avoid consumers as much as possible.

Link and Phelan (2001) expanded on the mechanisms that operate to promote the effects of modified labeling theory by drawing on the importance of power in conceptualizing stigma. The authors noted that the existence of power is key to being able to impose discrimination on consumers. For example, if a patient in a psychiatric hospital does not like the psychiatrist, he can make derogatory remarks, hold negative beliefs, and ignore the doctor; however, he has very little power to engage in discriminatory practices to punish the doctor. Thus, the presence of power is a crucial component of stigma.

While most attempts to understand stigma and the effects of labeling have utilized less rigorous cross-sectional or survey methodology, Link, Struening, and Rahav et al. (1997) examined stigma in a longitudinal study with dual diagnosis clients. There has been a plethora of studies to date that have demonstrated the positive gains from psychotherapy which have led some to conclude that the negative effects resulting from stigma are negligible in comparison to the gains (Gove, 1980). However, Link and colleagues (1997) concluded that there was a long-lasting effect of stigma experienced after the short-term achievements from psychotherapy. The implications are that the lives of consumers continue to be compromised even in the midst of therapeutic modalities. The authors recommend that mental health professionals address the impact of stigma alongside the psychiatric symptomology.
Interventions to Reduce Stigma

Regardless of how labeling and resulting stigma is created or manifested, the consequences are overwhelming for consumers, their family and friends, and the general public. Researchers, practitioners, and policymakers may have varying beliefs on how to best prevent or counteract the effects of stigma; however, what can be agreed upon is the importance of a multilevel approach. Incorporating attempts at the micro, mezzo, and macro levels are likely to yield the most productive results. The majority of approaches to reduce stigma fall into three broad categories: protest, contact, and education. In addition, there are other programs that do not fit neatly into the above-mentioned groupings that will be discussed. Internationally, several European countries, in particular Germany and the United Kingdom, have identified efforts to reduce stigma along with other countries such as the United Kingdom, Australia, and New Zealand publishing extensively on the issue. Subsequent sections will describe attempts to carry out prevention and intervention approaches. It should be noted that one of the major downfalls of current stigma literature to date is the lack of prevention efforts to reduce stigma; the overwhelming majority of studies focus on reducing stigma once it is already entrenched in the minds of the audience. However, it is of course likely that methods of reducing stigma can be modified into a preventive approach.

Protest Interventions

Cited as one of the primary means to reduce the stigma of mental illness, protest has demonstrated some promise but has also been accompanied by criticism. Protest, in itself, has many meanings when defined as an anti-stigma approach ranging from picketing in front of the statehouse or federal agency to submitting letters of concern to
congressional members to targeting specific forms of media like television studios, filmmakers, newspapers, etc. (Hinshaw, 2007). In *Media Madness*, Wahl (1995) provides numerous examples in the media where stigmatizing images are conveyed to the general public, and Wahl lists several organizations that exist in large part to reduce stigma. Many of the following examples are micro-level interventions that have implications at the macro-level. The National Stigma Clearinghouse is one such organization that provides media kits to individuals who wish to alert those who produce stigmatizing materials. For example, the kit consists of a booklet that helps the advocate to organize a letter that may be submitted to the parent company of a movie which portrays people with mental illness in a negative manner. The largest advocacy group for mental health consumers in the United States, the National Alliance on Mental Illness (NAMI), has a similar entity called Stigmabusters which seeks to dispel myths and confront those who disseminate pejorative language. Similar to the efforts of the National Stigma Clearinghouse, the Stigmabusters are concerned citizens and consumers who have expressed an interest in fighting stigma. When a potentially harmful television program, movie, cartoon, or an advertisement reaches the public arena, an email alert is sent by the Stigmabusters at NAMI and members are encouraged to contact the source by phone, email, or letter.

Typically, the protocol for communicating with the media is to express concern for what has been presented, inform them of why it is inaccurate or unacceptable, and define what the reader wants from them. One of the reasons why providing information to the source is vital is because a lack of knowledge about mental illness has been identified as a major contributor to the prevalence of stigma (Wahl, 1995). Also,
highlighting what needs to be done to rectify the situation gives the reader a clear understanding of what is needed because most companies do not want negative publicity or attention.

The effects of individuals contacting media sources will likely vary depending on the nature of the concern and the recipient of the complaint. Some attempts by citizens, for example, have been instrumental in the removal of television programs in their entirety or in editing of disparaging remarks before being presented to mainstream audiences. Unfortunately, there have been individuals who have submitted letters of displeasure with particular sources and have never received any feedback. Despite the range of responses, protest via communication with those who perpetuate stigma in the media is still considered a crucial method of stigma reduction.

Limitations of the Protest Approach

No anti-stigma method comes without criticism and limitations, and the protest approach has its faults in causing “rebounding” and being blamed for telling people how to think (Corrigan & Gelb, 2006). The notion of rebounding is a potential consequence of drawing more attention to negative portrayals albeit in an attempt to promote more positive depictions. What can result is further entrenchment of the very negative image in the minds of viewers that advocates sought to eliminate. The latter pitfall, directing people on how to view mental illness, could backfire as well and lead to further resistance in changing attitudes. Some argue too that finding humor is a natural part of everyday life and therefore laughing at the behavior of those with mental illness is not immune to this. The belief is that advocates are being overly critical, and humor is a way that some cope with stress. Conversely, anti-stigma supporters contend that using mental illness as a
vehicle for humor perpetuates stigma and makes light of an illness that consumers struggle with on a daily basis.

Stigmabusters and other “watchers” of mental illness accuracy in the media do not focus their efforts exclusively on challenging derogatory remarks; rewarding positive and inspirational accounts of illness are equally important to the goal of reducing stigma (Brown & Bradley, 2002). For example, actress Sally Field was presented the Outstanding Media award by NAMI for her performance in an episode in the television show *ER* in which Field played the part of someone with mental illness who was not shown to be violent nor was the character portrayed in a humorous manner. At the federal level, the Substance Abuse Mental Health Service Administration (SAMHSA) has created the Voice Awards that are given annually to entertainment producers as well as consumers who provide accurate depictions of mental illness in the media. These awards and recognition are all attempts to promote more realistic and healthy portrayal of mental illness in the media rather than contribute to the abundance of inaccurate representations.

*Macro-level Interventions*

Haghighat (2001) has fairly successfully articulated several macro-level concerns that are still under the umbrella of protest approaches to reduce stigma of mental illness. Although these issues are somewhat difficult to change in the short-term, the author does provide rationale for why they are deserving of attention. The first is reflective of the current political ideology that dominates the United States and to some extent the Western world. Haghighat argues that American society is consumed with competition and the disparity between the “haves” and “have not’s.” The desire to possess an increasing amount of resources fosters the tendency to discriminate or stigmatize in order
to ensure that one is able to stay ahead of the rest. In contrast, societies that are not based on competition have less of a need to create a gap between individuals regarding wealth. These attitudes, for better or worse, trickle down to citizens and consequently become ingrained in their perception and treatment of each other.

Some of Haghighat’s (2001) more practical interventions to counteract stigma revolve around more specific policy issues such as housing, employment, insurance parity, and legal consequences for discriminatory behaviors. Discrimination in housing and employment opportunities for mental health consumers has been discussed above; however, utilizing the legal system to enforce the rights of these consumers has not been explored thus far. The Americans with Disabilities Act of 1990 does cover those who struggle with mental illness although trying to prove housing and employment discrimination can be somewhat arduous with this population (Corrigan, 2005). In light of this difficulty, Haghighat (2001) suggests positive discrimination in the form of landlords having more of an obligation to rent to clients, and employers could create a quota for consumers and be given a financial incentive for hiring them. Closely aligned with the provisions of employers hiring mental health consumers, granting these employees sick-leave time to address potential mental health concerns would be beneficial to the workforce and would also send the message that they are valuable employees.

Another macro-level intervention outlined has been for the continued advocating of insurance parity (Haghighat, 2001). It is common knowledge that insurance companies are notorious for providing more coverage for physical health ailments in comparison to mental health needs. While the degree and amount of coverage for physical health vary
depending on the type of insurance and other factors, what is relevant for the present discussion is the ratio of mental health coverage to physical health coverage. The message that is conveyed to the insurance card holders is that physical needs are much more important and more likely to cause disruption than mental health concerns. A perhaps unintended result is for the recipient to believe that because they are not permitted as many doctor visits for depression as opposed to chiropractic needs, for example, they must simply deal with it on their own thereby not validating its importance and severity. Requiring insurance companies to include mental health coverage in their mainstream plans and thus recognizing the impact of these needs on the lives of insurance clients is crucial to reducing stigma.

Regardless if the discriminatory infraction is due to a landlord refusing to rent to someone solely based on their schizophrenia diagnosis, a person with bipolar disorder refused employment by an agency because of needing time off to see a psychiatrist, or millions of Americans who are not given adequate insurance coverage regarding mental health, legal consequences to correct such injustices may prove useful in the fight against stigma. It is important to note that most strategies to combat stigma that are based on protest-type interventions do not necessarily include legal involvement; however, some individual or small-scale protests, despite their good intentions, may not possess adequate resources or influence to facilitate change.

Although the legal system can be one avenue to pursue anti-stigma objectives, it can also become an all too familiar place for mental health consumers due in part to misunderstandings about their illness by law enforcement. Sartorius and Schulze (2005) cited a report in Colorado where mental health professionals, clients, and their family
members led trainings with court officials and police officers to aid in successful management of crises where the required action is more related to linking with appropriate mental health resources rather than a punitive response such as jail. In an attempt to dispel myths and present factual information about mental illness, the efforts by the presenters produced a substantial increase of competency regarding involuntary commitment, overall knowledge of mental illness, and causes of mental illness when comparing pre-test/post-test results. Since the deinstitutionalization during the 1970’s, many consumers are now receiving services through community-based mental health providers. Consequently, more clients are living in the community now as opposed to long-term psychiatric hospitals. This phenomenon leads to a greater likelihood that consumers will come into contact with the criminal justice system, and when combined with misconceptions about mental illness by law enforcement, this may result in criminalization of the mentally ill. Therefore, it is imperative that the justice system is informed so that clients and perpetrators of criminal acts can be properly identified.

**Social Marketing Approaches**

A somewhat controversial and less empirically-based approach to stigma reduction incorporates principles from marketing and advertising and uses them to modify public attitudes. Corrigan (2005) argues that cause marketing and social marketing, although they have not received much attention with respect to mental illness stigma interventions in the past, do provide some utility for future research. The notion of cause marketing is essentially an attempt to link a product with a social cause such as AIDS, cancer, and presumably mental illness with the expectation that audiences will align their values and beliefs in accordance with the cause behind the product. The
assumption is that consumers will feel comforted that they are purchasing a product that they already enjoy, they are supporting a noteworthy cause, and they will likely shift their views about a given topic. A specific item tied to mental illness is not incredibly apparent, but an example may help to illustrate the point. In order to increase visibility, it would be imperative to select a product that most Americans would likely consume on a regular basis such as soap, shampoo, etc., with the understanding that a certain portion of the proceeds would support mental illness research. This presents a possible win-win situation because the manufacturer of the particular product may receive more publicity and recognition as a result of their efforts thereby creating more revenue which would lead to more funding for research.

Social marketing, which certainly embodies the properties of a macro-level approach, is similar to cause marketing and is essentially trying to “sell” audiences on the idea that to not change their attitudes towards a particular issue i.e., mental illness would be undesirable. In other words, efforts would center around selling the public on the notion that individuals with mental illness have tremendous potential to benefit society and that to ignore them would therefore be not taking advantage of their abilities. One of the most notable examples of this is the Eliminating Barriers Initiative (EBI) developed by The Center for Mental Health Services (Corrigan & Gelb, 2006). Ohio was one of eight states that piloted the project with the overarching goals of building supports for recovery, reducing stigma and discrimination, and eliminating barriers to treatment. Some of the primary avenues to reach the public were to hold town meetings in each state with key mental health stakeholders and to disseminate knowledge about mental illness.
via media outlets such as radio and television advertisements which reportedly reached millions of people.

Corrigan (2005) provides further support for other marketing approaches to counteract stigma through the media and compares the strategy of branding products to the branding of mental illness stigma. Just as products have a symbol or mark to denote the respective company or manufacturer, consumers with mental illness are branded in a way that judges their behavior and determines the way they deserve to be treated. Applying the concepts of branding, there are six components that are crucial to marketing campaigns: fact base, problems and opportunities, objectives, strategies, budget, and forecast. The fact base, as the name implies, is concerned with identifying the current state of affairs of knowledge about stigma such as the media’s tendency to over-represent violence among the mentally ill, success stories of recovery receive little attention by the media, and mental health-related advocacy in advertising has only become a recent development. Problems and opportunities are often connected in that the former leads to the latter and provides a target for future interventions. There are numerous problems in the form of inaccuracy about disorders, likelihood of violence, instilling fear in the viewers, and perpetuating further stigma. One way to examine the accompanying opportunities for interventions is to look at the source. Similar to the Stigmabusters created by NAMI, holding networks accountable for what they display, informing the journalists who write the stories, and educating filmmakers would help to eliminate the volume of misrepresentation of mental illness.

In conjunction with feedback gained from earlier components of branding, the objectives set criteria for what is realistically expected from the approach which must be
measurable and specific. Identifying assumptions often helps to articulate the objectives necessary for change. For example, eighty percent of stories about mental illness in newspapers are often tied to criminal acts would be the assumption, and the objective would be to increase the number of positive portrayals depicting recovery to fifty percent. Specific strategies vary depending on the audience; however, the medium of intervention (video, in vivo, written material, etc.), length of the intervention (30 minutes, 2 hours, etc.), and the qualifications of the speaker (consumer, family member, social worker, etc.) are all important factors when delivering the message (Corrigan, 2005). The budgeting required for the project can range considerably depending on the funding source such as a federal grant versus a local grassroots initiative. The sixth and final component of the branding approach is forecast which is concerned with the final product that will be further used to combat stigma such as CDs featuring anti-stigma information, videos of consumers describing their hardships and achievements, family members of clients, or mental health professionals dispelling myths about mental illness.

Contact Interventions

Of the three most prominent methods to reduce stigma (protest, contact, and education), contact has demonstrated the most promise for modifying existing beliefs about mental health consumers held by the general public (Reinke, Corrigan, Leonhard, Lundin, & Kubiak, 2004). Pettigrew and Tropp (2000) have identified several vital components of a successful contact approach: equal status, common goals, authority figures, and no competition. Equal status refers to the idea that the audience and those who are presenting the information should be similar in status and that neither is viewed as more dominant than the other. The similarity of status can be conceptualized in the
example of a consumer speaking to a group of high school students about schizophrenia. In this case, it would be crucial that the speaker is relatively the same age as a high school student to increase the impact of the contact as opposed to a 60 year-old man talking to the same audience. This equality regarding status represents a contrast from the typical doctor-patient hierarchy in which there is a clear division of power.

Possessing common goals is a critical piece of the puzzle with the word common being the operative word. Similar to the previous point, a joint effort and togetherness is likely to yield the greatest results rather than the audience feeling as though they are being lectured to a punishment for their stigmatizing beliefs (Gaertner, Dovidio & Bachman, 1996). Thus, with both groups sharing a common goal this lessens the likelihood of a competition which is the third aspect of contact interventions. If one group tries to show dominance, the other is likely to become defensive thereby compromising the effectiveness. In addition, sponsorship or some type of authority-sanctioned event by a mental health agency for example is often helpful when conveying messages about stigma. Organizations such as NAMI would likely have a greater ability to create change compared to several individuals from the community. This is not to say that consumers from a given community and their stories would not be powerful, but rather, the same discussion sponsored by an entity such as NAMI would be more influential.

Similar to types of strategies within the realm of protest, contact-type interventions vary according to the medium of message transmission, structure of presentation, and the target audience. Corrigan, Larson, Sells, Niessen, and Watson (2007) investigated the difference between contact and education interventions by randomly assigning 244 college students to one of two groups. The contact group
consisted of a 10-minute video depicting a person with schizophrenia describing the struggles of his illness and how he began the process of recovery whereas the education group viewed a 10-minute video showing the same man with schizophrenia presenting facts about mental illness and confronting myths. Participants completed the Attribution Questionnaire (AQ) pretest, posttest, and at one-week follow-up, and results revealed significant differences in favor of the contact method in overall reduction of stigmatizing attitudes on several dimensions (avoidance, pity, segregation, psychological power) of the AQ. The education group was significant only regarding the responsibility factor which is the degree to which mental health consumers are blamed for their illness.

While the previous study found significant differences between contact and education anti-stigma interventions, what was not examined was the potential impact of in vivo contact compared to video. Reinke, Corrigan, Leonhard, Lundin, and Kubiak (2004) investigated this very issue and further divided subjects into conditions varying the amount to which the information provided disconfirmed stereotypes of mental illness. Participants were students at a community college and randomly assigned to one of five conditions: in vivo contact that moderately disconfirms the stereotypes, videotaped contact with moderate disconfirmation, videotaped contact with high disconfirmation, videotaped contact with little or no disconfirmation, and a no-stigma change control group. For consistency across conditions, the presenter for the contact groups was the same individual for the videotaped conditions. Moderate disconfirmation was operationalized as the individual presenting a balance between obstacles related to having schizoaffective disorder and the ability to lead a “normal” life. High disconfirmation was almost exclusively focused on resiliency and recovery with little emphasis on
symptomology. The control group watched a video about hobbies and technology with no reference to mental illness. It is important to note that all of the information presented by the speaker was accurate; however, certain details of his life and illness were highlighted or minimized depending on the particular condition. Researchers administered one of the more popular instruments regarding stigma and resulting attitudes; the Social Distance Scale (SDS) was given pretest and posttest and uses Likert-type questions to probe for willingness of participants to engage in interactions with mental health consumers.

The authors hypothesized that in vivo groups would be significantly higher (less stigmatizing attitudes) than videotaped groups because the contact would be more personal (Reinke, Corrigan, Leonhard, Lundin, & Kubiak, 2004). However, despite the in vivo conditions reporting more accepting attitudes when examining pretest/posttest differences, scores were not significantly higher than the videotaped conditions. Not surprisingly, the videotaped with little or no disconfirmation group and the control group showed virtually no change in scores on the SDS. In other words, participants likely interpreted these groups as already aligned with their current stigmatizing beliefs and thus reaffirming them. Philo (1996) also found that even within a particular family individual member’s personal experiences with the mentally ill shaped their current views toward them. The father in the family was a police officer and noted the violence associated with mental illness whereas the mother was a psychiatric nurse and argued that they were rarely violent and mostly respectful. The children, with no history of any contact with the mentally ill, subscribed to stereotypes put forth by the media because this was their only reference. This characteristic has been discovered by Wahl (1995) as well who stated that
when the general public has had no direct contact with the mentally ill, they are likely to hold true whatever they do learn which typically means media images.

One of the more concerning findings in the fight against stigma is the prevalence of negative attitudes toward mental illness sufferers among mental health professionals. It is the disconfirming evidence of stereotypes demonstrated by Reinke, Corrigan, Leonhard, Lundin, and Kubiak (2004) that helps to explain why the very social workers, psychologists, and psychiatrists dedicated to improving the well-being of clients subscribe to stigmatizing beliefs. The authors contend that because these professionals are in contact with consumers when they are actively psychotic, suicidal, homicidal, etc., the staff rarely interacts with them when they are not demonstrating these behaviors thereby confirming stereotypes of violence and unpredictability. What emerges is a skewed belief among these professionals that this behavior is typical of consumers (Overton & Medina, 2008). Moreover, Hugo (2001) found that the general public endorsed more positive perceptions about the mentally ill when compared to mental health professionals.

In order to examine the connection between contact with mental health consumers and perceived dangerousness, Phelan and Link (2004) tested the behavior hypothesis which, when applied to the stigma of mental illness, states that people’s fear of the mentally ill is a direct result of observing their aggressive and unpredictable behavior. This is a reference to the classic labeling debate earlier which is the argument that fear of the mentally ill is a result of their dangerousness (behavior) versus fear stemming from their label of mental illness (stigma). Researchers conducted phone interviews with the 20 largest US cities with independent variables consisting of the number of mentally ill
people the respondent has come into contact with as well as the frequency of these interactions. Perceived danger was an instrument that served as the dependent variable with a potential mediating variable being past threats of harm by mental health consumers toward a respondent. Multiple regression analyses revealed that greater contact with the mentally ill was associated with lower perceived danger. This was statistically significant \( p<.01 \) for seeing someone in public who appears mentally ill and for personally knowing a larger number of people with mental illness. Perhaps not as surprising was the finding that respondents who had been threatened were significantly more likely to report perceived dangerousness \( p<.01 \). This was the only result consistent with the behavior hypothesis, and overall results suggested that increased contact with the mentally ill was related to less perceived dangerousness.

Because it has been argued that some people possess pre-existing favorable attitudes toward the mentally ill and that this accounts for the increased contact and resulting less stigmatizing beliefs, Link and Cullen (1986) investigated the role of perceived dangerousness between people who initiated contact and those who had no choice in their interactions with the mentally ill. Results indicated that regardless of the nature of the contact (externally driven versus deliberate), greater frequency of contact was associated with lower levels of fear which is contrary to previous claims that favorable attitudes are primarily due to pre-existing attitudes. In a broader sense, this evidence supports the notion that increased contact leads to more accepting attitudes of the mentally ill. However, as Phelan and Link (2004) discovered, not all forms of contact are favorable which is a topic for future research exploration.
Much like the protest approaches to stigma reduction, NAMI is at the forefront of contact interventions too and has developed the In Our Own Voices (IOOV) campaign which is a 90-minute program that consists of consumers who give talks to police officers, community groups, physicians, landlords, and teachers (Corrigan & Gelb, 2006). The presentation contains six parts and each is introduced by a 10-minute video. Consistent with the key components of contact interventions described by Pettigrew and Tropp (2000), the IOOV approach utilizes the strength of the authority piece by being sponsored by NAMI as well as using clients to convey the message adding more qualifications to the power and legitimacy of the message. Although there are no published studies of the effectiveness of IOOV, a descriptive study with more than 2,200 respondents revealed a significant increase in amount of information gained from the presentation. Another perhaps more rigorous evaluation of the program randomly assigned 114 college students to either IOOV or a presentation about psychology as a career to serve as a control. Pretest and posttest measures of attitudes, knowledge and social distance showed a statistically significant improvement in positive attitudes towards the mentally ill in all three variables compared to the control group.

**Educational Interventions**

Even though there is substantial evidence demonstrating the efficacy of contact interventions, education-based approaches have the most promise when trying to prevent stigma. Numerous studies have been conducted in the public school system with children, high school students, and even college students with varying lengths of programming composition and methodology. Prevention efforts during early childhood have been shown to be most effective at reducing stigmatizing beliefs because the subjects have had
less time to be influenced by media images and other forces that promote stereotypes of mental illness as compared to high school age (Weiss, 1986). Not surprisingly, waiting until someone is 75 years old before attempting to change existing attitudes about mental illness, and likely many other issues, would prove to be more challenging than working with a young child. Weiss (1986) examined social distance with children from grades K-8 in the Chicago public school system. Social distance has been supported as a means to determine whether a subject would actually interact the same way in a real situation (Graubert & Adler, 1972). The subjects were asked to draw a stick figure of themselves in relation to the following seven groups: the mentally ill, normal, physically handicapped, mentally retarded, convict, emotionally disturbed, and crazy. Physical proximity was measured to a tenth of an inch from each of the above groups and was used as a measure of social distance. What emerged were four distinct groupings from most to least preferred: (1) normal, (2) physically handicapped, (3) mentally ill, mentally retarded, and emotionally disturbed, and (4) crazy and convict. These results provide evidence that children do not want to associate with any of the labels of people with mental illness. What is most alarming is that even with the kindergarten age group, these stigmatizing attitudes exist.

A rare longitudinal study in regards to stigma evaluation was performed by Weiss (1994) using the above sample to determine if the social distance measures were stable eight years later. Results were very similar to the previous study suggesting that attitudes toward the mentally ill had changed little since kindergarten. The only group that was viewed as more tolerable was the mentally retarded. Weiss (1994) argued that it is likely that the subjects received very limited information about mental illness over the years and
thus became fixed. The author advocated for more prevention efforts in kindergarten in the public school system before stigmatizing attitudes toward the mentally ill become stable in early life.

Pitre, Stewart, Adams, Bedard, and Landry (2007) conducted a study with children by using puppets that conveyed anti-stigma messages by demonstrating individuals suffering from depression, anxiety, schizophrenia, and dementia. Researchers administered the Opinions about Mental Illness Scale (OMI) pretest and posttest and results revealed that attitudes had improved on dimensions of stigmatization, separatism, and restrictiveness. This study provides another possible method for illustrating anti-stigma messages.

Another creative way to reduce stigmatizing beliefs among children was articulated by Shah (2004) in the United Kingdom. The author selected books with stories that described the experiences of mental illness at levels appropriate for the three age groups used in the study (5-7 year-olds, 7-9 year-olds, and 9-11 year-olds). Consistent with prior research, Shah noted that some children already possessed stigmatizing beliefs about mental illness and advocated for early prevention efforts with children.

Prevention and intervention efforts among high school students obviously need to employ more age-appropriate methods. Esters, Cooker, and Ittenbach (1998) randomly assigned 40 adolescents at a high school in Mississippi to either a 3-day instructional unit about mental health utilizing videos, information about local service providers, and dispelling myths about stigma (treatment condition) or to a control group. The authors attempted to better understand barriers to adolescents seeking psychological help in a rural setting and used the OMI and the Fischer-Turner Pro-Con Attitude Scale (FTAS) to
obtain differences between pretest and posttest and at 12-week follow up. Scores on both measures improved in the intervention condition on posttest and even remained stable at 12-weeks. Counselors in high school setting need to increase awareness of available resources in high schools (intervention) and at the elementary level (prevention). Attempts to educate students at the elementary level would possibly decrease stigmatizing beliefs at the high school level.

The Client Attitude Questionnaire and the Fear Rating Scale were used in a study that aimed to demythologize beliefs about mental illness in order to reduce social distance (Morrison, Becker, & Bourgeois, 1979). Sample was comprised of high school juniors and sample size for the study was relatively small (n=24), and there was no control group as all subjects received the intervention which was a 50-minute presentation that presented information to challenge myths about mental illness. Measures taken pretest, posttest, and at 5-week follow up reflected an increase in acceptance of the mentally ill. This study, although not rigorous in terms of methodology, may lend support to a brief intervention (50 minutes) than does remain relatively stable.

Petchers, Biegel, and Drescher (1988) used a posttest-only design with 102 adolescents in 2 high schools in Pittsburgh. Subjects were in two separate schools and two separate classes, and in each school, one class served as the treatment group and the other class was the control. The intervention was a video featuring teens talking about mental illness and their views about a mentally ill family member. Authors concluded that the video had a substantial short-term impact on the students, but needed to use a follow up to see if attitudes remain over time. This video did utilize a strength of the
contact approach which was to use an intervention where the presenter (teens on the video) were a similar status as the audience (teens).

Qualitative research that seeks to obtain the lived experiences of consumers and their families are scarce; however, one such study interviewed 57 eighth-grade students to better understand what contributes to influence mental health stigma (Chandra & Minkovitz, 2007). Researchers noted the critical time period of adolescence in which many transitions are happening thereby increasing the need to address possible struggles during this phase. The interviews produced five broad themes with one being personal experience with mental health issues. Some teens expressed frustration with services and feeling dejected whereas others expressed gratitude for the services they received which positively affected their outlook on future treatment. Another theme, mental health knowledge, was used as a means to obtain definitions from interviewees about various disorders to determine their knowledge. Some confused mental illness with mental retardation, linked disorders with psychiatric hospitals, and many related disorders with negative images and terminology. The theme family conversations about mental health reflected a relationship between the frequency of discussions in the home about it and resulting beliefs about seeking help. In other words, interviewees who reported that mental health services were talked about were more likely to identify with positive beliefs about treatment. Gender differences emerged when processing the next theme, peer conversations about mental health, in the form of girls reporting to talk about mental health issues more openly with friends as opposed to boys who admitted to being reluctant to disclose details to peers about needing help. The last theme closely resembles that of stigma which is the perceived social consequences of mental health service use.
The responses indicated stigmatizing beliefs about seeking services: parents may be disappointed, friends would view them negatively, and school officials are reluctant to approach teens that may need assistance. This qualitative study provided valuable insight into the minds of teens and how they perceive mental health services.

International Studies Evaluating Interventions

Although there are obvious cultural differences between the United States and other countries and their interventions and preventive efforts regarding stigma, some international studies may provide useful information. Among secondary school students, various approaches have yielded more accepting beliefs toward mental illness after brief interventions: United Kingdom (Crisp, Gelder, Goddard, & Meltzer, 2005; Pinfold, Stuart, Thornicroft, & Arboleda-Florez, 2005; Pinfold, Toulmin, Thornicroft, Huxley, Farmer, & Graham, 2003), Australia (Patton et al., 2000; Wyn, Cahill, Holdsworth, Rowling, & Carson, 2000), Canada (Stuart, 2006), and Germany (Schulze & Angermeyer, 2005; Schulze, Richter-Werling, Matschinger, & Angermeyer, 2003).

Interventions and preventive efforts with college students have tended to be relatively short-term which is not surprising considering that they would be harder to follow over time. Morrison and Teta (1980), in a study with 32 undergraduate students, administered the Client Attitude Questionnaire (CAQ) and the Fear Rating Scale (FRS) during pretest, posttest and at 14-week follow up to test attitudes toward mental illness. The intervention was given to all 32 participants and was a 2-hour seminar focused on demythologizing mental illness. Subjects’ accepting beliefs about mental illness remained stable over time even at 14-week follow up. Methodological limitations existed in the form of not control group and a small sample size. Ritterfield and Jin (2006) employed an
entertainment-education strategy to reduce the stigma of mental illness. Using a factorial design 2 (advocate’s perspective) x 3 (message style), participants were college students (N=165) and were randomly assigned to one of eight conditions: six manipulated conditions, control, and one group that only watched video trailer. The entertainment-education approach dispels myths about mental illness by providing information that is within an entertainment experience. A movie, Angel Baby, was used to demonstrate an accurate and empathetic portrayal of a man with schizophrenia. The intervention conditions were manipulated by combining the video with different people (advocate, patient, and psychiatrist) discussing factual information about schizophrenia. Overall, differences between pretest and posttest on attitudinal and knowledge acquisition measures indicated that subjects reported more knowledge about schizophrenia and more empathetic views.

A study with college students in Taiwan compared the effectiveness of narrative advertising versus argument advertising in reducing negative attitudes about depression (Chang, 2008). Results indicated that narrative advertising which depicts a story about depression was more impactful than argument advertising. The easier it is for people to identify with symptoms of depression, the more likely they are to subscribe to more tolerating attitudes which helps to explain why the narrative approach was successful.

Vaughan and Hansen (2004) provided one of the few education-based approaches that is not centered around students. This study highlights the advances of the “Like Minds, Like Mine” campaign in New Zealand in its efforts to reduce stigma and discrimination. Some of the key elements identified were to utilize the media to reach large numbers of people in the community through advertising and to incorporate the
voices of consumers and their families in the messages. Television was the primary method to spread information because of its ability to reach many viewers as well as make emotional connections with its audience.

A worldwide program that incorporates elements of protest, contact, and education was begun because of increasing concern about the harmful effects of stigma. With its creation in 1996, the World Psychiatric Association (WPA) was founded by psychiatrists worldwide in an effort to reduce stigma in each of their respective countries. These psychiatrists were charged with the duty of developing, implementing, and measuring interventions to combat stigma while maintaining their own cultural differences (Sartorius & Schulze, 2005). Their collective efforts were subsumed under the title of The Global Programme which identified three main guiding principles: to survey individuals and their family members about stigma and discrimination, to encourage all interested community members and stakeholders to participate, and to guarantee a long-lasting campaign rather than a brief one. While it is beyond the scope of this paper to discuss these interventions in the more than 20 countries that belong to the WPA, some are unique and expand upon existing attempts within the US.

In the United States, psychiatrist Richard Warner was the primary contact person who began his efforts in Colorado by targeting employers, the criminal justice system, and high school students. One of the more striking aspects of the interventions with high school students was the emphasis on impacting them outside the classroom by showing slides featuring anti-stigma messages at the local cinemas and by placing the same messages on the side of transit busses along routes where teens typically travel. Warner was also able to implement inclusion of information about mental illness into the health
curriculum in the Boulder Valley School District; one of the only school districts in the entire nation to incorporate such an intervention. This ensures that the information is presented on a regular basis which counteracts one of the biggest obstacles with education interventions, long-lasting and repeated information.

Approaches in other countries such as Turkey, highlight cultural differences and deficits unique to particular regions of the world (Sartorius & Schulze, 2005). Due to the lack of psychiatrists in Turkey, the researchers focused their efforts on general practitioners who are more likely to treat mental health consumers. The country has also created an annual event to increase public awareness of mental illness and this initiative has drawn significant media coverage from local television stations, newspapers, and in magazines. Like the United States, and other countries belonging to the WPA, school-based interventions were identified as crucial to improving attitudes and reducing stigma, and Turkish psychiatrists designed a curriculum for high schools.

Polish researchers recognized that because 95% of the country is Catholic, targeting clergy for interventions could prove useful. Although progress has been slow due to financial constraints, churches have witnessed educational programs and have worked to provide housing for the mentally ill. Similar to the annual event in Turkey, Polish psychiatrists have chosen September 15th to be the “Day of Solidarity with People Suffering from Schizophrenia” and since 2002 the event has spread to neighboring communities and villages.

The World Psychiatric Association has acknowledged that the stigma of mental illness is a global problem and that in order to fight this stigma, each country involved must create long-lasting interventions that, through evaluation, have been shown to be
productive. Despite the tremendous range of economic capabilities and variability among cultures, each country involved has assessed the needs of their communities and have begun to implement necessary approaches.

Protest, contact, and educational interventions and prevention methods to reduce the stigma of mental illness all have their own respective advantages and limitations. However, each type provides valuable insight into resolving this dilemma, and it cannot be completely overcome without all three critical approaches. The next section describes methodological and theoretical fallacies within the anti-stigma discourse as presented by Harper (2005) and how stigma researchers, albeit unknowingly, have contributed to the very stereotypes they wish to eliminate by distorting information presented to readers.

Methodological Pitfalls of Stigma Research

Despite the plethora of studies investigating the complex dynamics of stigma and attempts to articulate the most ideal methods of prevention and intervention, Harper (2005) cautions that there are significant methodological and conceptual flaws with a large portion of this research. Harper (2005) is careful to not discount the advances within this area of research but highlights several fundamental errors that have occurred when interpreting the findings. In particular, Harper is critical of Wahl (1995) and Philo (1996) and their inability to accurately represent the relationship between media and stigma. An often overlooked component of the media’s impact on stigma is the medium in which the message is transmitted to its audience i.e., newspaper, television, movies, etc. By focusing almost exclusively on the content of what is communicated, Harper argues that the medium and its ability to influence is ignored. More specifically, audience expectations are different when comparing stories of fiction versus non-fiction, and that
difference may account for some of the stigmatizing attitudes. Viewers’ reaction to a particular film that was based on a fictional novel may even result in different perceptions about mental illness because some people believe that novels invoke a more realistic and first-person account of the story. Cross (2004) also provided a critique of an article by Philo, Henderson, and McLaughlin (1993) in which they collapsed various forms of media such as soap operas, cartoons, and films for data analysis purposes and consequently avoided the individual influence of each. Harper declares the need for more attention to this matter in future research in order to properly account for the variance in findings of various media outlets.

A concerning pitfall in the work of Wahl (1995) is the tendency to perpetuate traditional cultural beliefs when interpreting media and stigma. A prime example of this trend is to denounce all stereotypical “slasher” films as predictable and the downfall of America’s culture and desire for violence whereas Harper (2005) notes that violence can be positive or negative and to assume that all are negative is a stereotype in itself. In addition, predictability has not always been shown to be a negative attribute when considering the various films that have had numerous sequels which do not necessarily condone violence. Wahl has unintentionally reduced popular culture to a homogenized audience that seeks out violence and as a result is morally corrupt.

Violence and Mental Illness

One of the most controversial and debatable topics regarding stigma is the degree of association between violence and the mentally ill. Harper (2005) identifies this as one of his chief concerns and notes that the definition of violence used by anti-stigma researchers is a convenient one, and they often avoid interpreting results that suggest a
link with violence. Harper disputes the claims that there is no relationship between mental illness and violence cites several articles where evidence is demonstrated. While mental health consumers with actively psychotic symptoms have been found to be at higher risk of engaging in violent acts (Walsh & Fahy, 2002), Harper argues that researchers advocating for stigma reduction have distorted the very information that they seek to challenge. It appears that anti-stigma researchers may believe that to concede there is a connection is to discount their work thus far. This is certainly not the intent behind acknowledging such relationships, but rather, to honestly and accurately represent the findings.

A common conclusion that is drawn regarding violence is to assert that most people with mental illness are not violent. Although this may be true, a more pertinent research question is examining whether a person with mental illness is more dangerous than a person without mental illness. As stated above, the overall rate of violence is higher among those with mental illness compared to the general population, but this risk is low and inflated due to the overrepresentation of particular disorders with respect to violence (Hinshaw & Stier, 2008). Similarly, a more accurate claim is that there are numerous consumers who are not violent, and there are many people who are violent who do not have a mental illness. Harper (2005) provides a fitting, yet somewhat sarcastic analogy, and states that to claim people with mental illness are not dangerous because they only contribute a minimal amount to overall crime is like stating that “drunk drivers pose no particular danger to other road users because most accidents are caused by sober motorists” (p. 469). Articulating a more thoughtful research question would be beneficial to draw more definitive answers to this ongoing debate.
A related argument is that people with mental illness who are violent are overrepresented in the media; however, there needs to be a comparison between people without mental illness. This is a critical detail that has often been forgotten when making such claims. It is quite possible that people with no history of mental illness are also overrepresented in the media (Harper, 2005). Perhaps a more accurate statement is that the mentally ill are not overrepresented more than any other particular minority group because violence in general is more likely to grab headlines than non-violent stories.

One way to provide a more realistic appraisal of violence and mental illness is to view violence as a possible outlet of social alienation. This also redirects the focus from an individual act to the social structure which limits the mobility of consumers. Harper provides an example of the film, *Taxi Driver* (1977), in which the main character manifests psychiatric symptoms that are portrayed in a manner that reflects his struggle to survive in a society that discriminates against him. Thus, this demonstrates the social impact on one’s mental health. It may be necessary therefore, to refine the definition of violence to include discriminatory acts on clients through housing and employment, verbal abuse, and lessen the attention to purely physical acts.

Harper’s (2005) last point is to initiate a shift from concentrating on media images being positive or negative. Although this may seem counterintuitive at first, one does not have to look any further than the film *A Beautiful Mind* (2001) to see the dangers of it being deemed “positive.” On the surface the film would seem to be considered an uplifting account of a man who struggled with schizophrenia, underwent recovery, and had risen to the ranks of receiving the Nobel Prize. Unfortunately, there were many inaccuracies regarding Nash’s personal life and the film also simplified and
sensationalized a person’s difficulty with mental illness and created the illusion that most people with schizophrenia have the capacity to achieve a prestigious award such as the Nobel Prize. Moreover, what seemed like a positive depiction was not very helpful to consumers and advocates against stigma. The context of the presentation is therefore an extremely important part of the overall message being delivered.

In conclusion, Harper reiterates that his critique of anti-stigma discourse is not meant to dismiss the progress of research aimed at reducing stigma, but rather, it is to refine and improve current methodology and theoretical assumptions to construct more fitting interventions. Investigating various mediums of media transmission, a more balanced view of popular cultural influence, and a more realistic appraisal of violence and mental illness would better serve these attempts to reduce stigma. Also, devoting more attention to social forces that drive psychological impairment would curtail the tendency to equate violence with mental illness. Modifying the definition of violence and avoiding the trap of categorizing media images in terms of their negativity would help add to a more fruitful approach to assist those with mental illness by eliminating their obstacles in the form of stigma.

The present author remarked earlier that there is a lack of prevention efforts to eradicate stigma and that current stigma research is dominated by short-term interventions to reduce stigma. In order to successfully implement a preventive approach that will help to combat stigma from become ingrained in the minds of society, there are several criteria that must exist for future research: more longitudinal studies, inclusion of social work research, more qualitative research, incorporate elements of the protest, contact, and education interventions into a more comprehensive one, create a reoccurring
prevention approach that is long-lasting, obtain a better understanding of the media’s role, and look outside the box of the social sciences.

The need to understand the stability of anti-stigma methodology over time cannot be stressed enough. There is almost a complete lack of longitudinal studies to accurately assess whether attitudinal and social distance measures are stable beyond posttest or a short follow up. Taking into account the obvious research obstacles when conducting longitudinal research, there are simply not enough studies to show that interventions are successful beyond a few weeks or months. It is plausible that after a few years, the gains as indicated by the posttest and follow up measures have since reverted back to baseline which undermines the utility of the intervention. Other methodological concerns regarding social desirability bias and successfully connecting the link between responses on a questionnaire with how respondents would actually behave in a real situation, also present obstacles.

Social Work Research and Stigma

The dearth of social work research regarding stigma is disheartening and it is not apparent as to why this has occurred. It is fairly common knowledge in the field that social workers perform the majority of treatment interventions with sufferers of mental illness yet there are almost zero studies with social work researchers investigating stigma. This not only dismisses the importance of the social work field but also leaves out another potentially impactful series of prevention approaches. There are numerous school social workers in public school systems throughout the country, and as will be discussed later, this represents an ideal time in a person’s life in which attitudes are most receptive
to change. Utilizing the person-in-environment perspective also provides another viewpoint from which to analyze the problem and design interventions.

Similar to the last point about the person-in-environment approach is the lack of qualitative research that would capture the voices of consumers. They live in a hostile environment, face employment and housing difficulties, and friends and family members who used to interact with them now avoid them and have a different perception. The focus on quantitative research, although very important, has essentially dominated anti-stigma research and has ignored the utility of qualitative research. One reason that attempts to eliminate and reduce stigma may not be stable over time is that the voices of the general public, landlords, employers, journalists, consumers, and their families have not been adequately captured in order to create a meaningful intervention. Moreover, instead of moving on to intervention, consumers’ well-being would be better served if researchers possessed a clearer picture of stigma.

As noted above, the three primary methods of reducing stigma (protest, contact, and education) all have drawbacks yet they all provide a unique addition to interventions. This also is a natural transition to a multi-level approach because each of the three types has potential for interventions at the macro, mezzo, and micro levels that can be used in conjunction with others. For example, advocating for mental health parity in insurance (macro), speaking to various employers about stigma (mezzo), and working closely with consumers and individual families (micro) all are vital to stigma reduction. It would be erroneous to conclude that either a top-down or bottom-up approach is better than the other; combating stigma by using all three types and incorporating the influence of the media would likely yield the best results.
The need to create prevention efforts that are repeatedly given, and measured, has been cited by many as a fundamental piece of the prevention approach. One of the more promising types of studies being undertaken are those that have successfully integrated information about mental illness into the health curriculum in the public school system. This has several benefits with the primary one being that this is a crucial time in a child’s life in which attitudes are being formulated about people and the environment. The school system also represents a captive audience of respondents in which to receive an intervention. The term “captive” audience here refers to the accessibility of subjects and the best method of capturing large numbers of people who will eventually be the adults in society operating as landlords, employers, etc. In addition, by receiving an intervention on a regular basis and long-term, this prevents the trend of attitudes to regress back to baseline within months or years after the intervention has ended. The author does realize that navigating the school system and altering curriculum in required coursework is no easy task; however, this remains one the more ideal prevention efforts of stigma reduction.

Current Study’s Contribution to Knowledge Base

Perhaps one of the pieces of the stigma puzzle that remains to be fully understood is the mechanism(s) in which media images and messages are internalized and manifested in discriminatory behavior. Despite the advances of anti-stigma research, there is still a long way to go in eliminating stigma. Even though there is an abundance of research noting the power of the media in shaping attitudes of the general public, there may be a disconnect in adequately assessing the role of the media in aiding, and undermining, anti-stigma methods. As a result, bridging the gap between the social sciences and
communications may be a worthwhile merger. Most of the stigma research to date stems from the field of psychology, psychiatry, and sociology; the field of social work has almost no voice in the stigma field despite the majority of consumers who are treated by social workers.

In summary, the stigma of mental illness has received much attention through its association with labeling theory since the 1960’s. There have been many rounds between researchers debating its true nature and attempting to determine how to best reduce it. The influx of television shows, cartoons, movies, and the internet have further compounded the difficulty in understanding stigma since that time. A lack of rigorous methodology, a weak conceptualization of stigma, difficulty pinpointing the exact role of the media regarding stigma, and a limited generalizability of samples has complicated the examination of stigma. The stigma of mental illness will remain a significant problem within the field of social work unless the concerns discussed throughout can be properly addressed.
Figure 2.1 Model of response to community mental health facilities (Taylor, Dear, & Hall, 1979).
CHAPTER 3

METHODOLOGY

The prevalence of survey research examining stigma of mental illness has contributed to the lack of rigorous methods that attempt to explain cause and effect. In particular, the amount of research devoted to the impact of the media on stigma has primarily consisted of frequencies of mental illness as they appear in various forms of media: children’s films (Wahl, Wood, Zaveri, Drapalski, & Mann, 2003), children’s television (Wahl, Hanrahan, Karl, Lasher, & Swaye, 2007), newspapers (Duckworth, Halpern, Schutt, & Gillespie, 2003; Slopen, Watson, Gracia, & Corrigan, 2007; Wahl, 1996; 2003), magazines (Wahl, 2000) and other print media (Wahl, Borostovik, & Rieppi, 1995). Stout, Villegas, and Jennings (2004) assert that another limitation of research thus far is that a significant number of studies that focus on media and stigma are conducted outside of the United States. As was articulated in the previous section, Germany, Great Britain, Canada, Australia, and New Zealand have produced a considerable amount of the literature in existence.

This study utilized a posttest only experimental design where participants were randomly assigned to one of six groups. The independent variable was the diagnostic label manipulated in each vignette with the dependent variables being the four subscales of the CAMI (authoritarianism, benevolence, social restrictiveness, community mental health ideology), Social Distance Scale, and the IM. Demographic questions were also asked to better understand the background of the participants in the sample. Subsequent
sections are devoted to the research questions and hypotheses, sample, procedure, reliability, validity, instrumentation, and analyses of the data.

**Research Questions and Hypotheses**

**Research Question 1**: Is there a difference in attitudes toward those with mental illness among the six conditions (schizophrenia, bipolar disorder, panic disorder without agoraphobia, major depressive disorder, cancer, and control)?

**Hypothesis 1**: For subscales authoritarianism and social restrictiveness scores will be significantly higher for the schizophrenia, bipolar disorder, panic disorder without agoraphobia, and major depressive disorder conditions as compared to the cancer and control conditions. The schizophrenia condition will be the highest on authoritarianism and social restrictiveness. Also, scores on the subscales benevolence and community mental health ideology will be significantly lower for the schizophrenia, bipolar disorder, panic disorder without agoraphobia, and major depressive disorder conditions as compared to the cancer and control conditions. The schizophrenia condition will be the lowest on benevolence and community mental health ideology.

**Research Question 2**: Is there a difference in social distance among the six conditions (schizophrenia, bipolar disorder, panic disorder without agoraphobia, major depressive disorder, cancer, and control)?

**Hypothesis 2**: Social distance scores will be significantly higher for the schizophrenia, bipolar disorder, panic disorder without agoraphobia, and major depressive disorder conditions as compared to the cancer and control conditions. The schizophrenia condition will be the highest on social distance indicating a preference for greater social distance.
Research Setting

The desired population for the study was adults in the general public; however, obtaining an accurate sample frame of who constitutes the public was difficult. Thus, the experimenter attempted to recruit a general population sample of adults at a large science center in the Midwest that was frequented by families. Sampling adults added to the stigma knowledge base by providing results more generalizable than university students or other limited samples.

Participants

Initially the target sample size was 300 to ensure that there would be approximately 50 subjects per group which would increase power. Also, the sample size needed to be large because of the six levels of the independent variable. The sample consisted of 318 adults at least 18 years old. Individuals under the age of 18 were not permitted to participate in the study. Age was verified by self-report to ensure anonymity. Participants needed to be able to read and adequately understand English to be in the study (a more thorough description of the sample will be provided in the results section).

Vignettes

Star (1955) was credited as the first to use vignettes depicting mental illness and although the exact terminology from those vignettes is no longer accurate for current diagnostic criteria, this type of methodology continues to be popular today. The MacArthur Mental Health Module of the 1996 General Social Survey is another classic example of this approach (Link, Phelan, et al., 1999). These vignettes vary considerably in their length, descriptive nature, and label (i.e., alcohol dependence, schizophrenia, narcissistic personality disorder, troubled person, normal, etc.).
The popularity of vignettes in stigma research has been strengthened by the ability to utilize an experimental design thereby manipulating the information, labels, etc., in the vignettes (Arboleda-Flórez & Sartorius, 2008; Link, Yang, et al., 2004). Additionally, providing a snapshot of a person beyond a vague description such as “mental health client” is beneficial and portrays the individual in a more realistic manner.

Six different vignettes were used in the study (Appendices A-F) and served as the independent variable. The vignettes were structured in a similar way, but with key diagnostic differences that were manipulated by the experimenter. Each vignette depicted a man charged with murder after assaulting another man who eventually dies. The primary difference between the six vignettes was the psychiatric diagnostic label: schizophrenia (Appendix A), bipolar disorder (Appendix B), panic disorder without agoraphobia (Appendix C), major depressive disorder (Appendix D), a comparison with a traditional medical illness cancer unknown primary (Appendix E), and a control with no label. Because participants were likely not familiar with the diagnoses or had received erroneous information about them, one or two sentences were provided to clarify the diagnosis for the reader to prevent differences on the dependent variables being potentially confounded by the respondents’ knowledge of each respective diagnosis. Additional information was provided about the assailant such as: he is married, has a son and daughter, and has been working part-time. Link, Cullen, et al. (1987) argue that it is important to include details in a vignette beyond simply the label of the individual.

Examination of how public attitudes differ based on diagnosis is relevant because the majority of the research on stigma focuses on either a very specific disorder like schizophrenia or a very broad concept of “mental illness” (Corrigan, 2005; Marie &
Miles, 2008). Thus, it is worthwhile to pursue a greater understanding of how attitudes vary not only based on disorder, but on a fairly broad range of disorders (mood disorders, anxiety disorders, psychotic disorders) and those that are the most debilitating. For example, Barlow (2002) notes that anxiety disorders are the most common psychiatric disorders and lead to billions of dollars spent on healthcare annually. Thus, panic disorder without agoraphobia is used in one vignette. Also, this specific disorder was used primarily because it accounts for two-thirds of all consumers with panic disorder whereas those with agoraphobia account for the other third (Barlow, 2002). Moreover, panic disorder without agoraphobia is the most prevalent of the two types of panic disorder and was used in the current study. Mood disorders such as major depressive disorder and bipolar disorder are also considered serious mental illnesses that are difficult for consumers to manage (Blumner & Marcus, 2009). Lastly, schizophrenia has received considerable attention in the stigma literature particularly because of its bizarre manifestation of symptoms, and its strong link with violence in the media and subsequent fear by the public (Wahl, 1995).

The inclusion of a vignette depicting a man with cancer serves two purposes. First, there has been stigma associated with cancer which is partly why the man in the vignette is described as having “cancer unknown primary.” In other words, differences in attitude based on various types of cancer is beyond the scope of this study so to control for this, “cancer unknown primary” still achieves the purpose of presenting a medical illness with physical signs and symptoms without distorting the attitudes based on type of cancer (i.e., lung cancer, prostate cancer, breast cancer, etc.). Another reason for the inclusion of a cancer vignette is to provide another comparison group other than simply...
the mental illness vignettes versus the control. The use of a control, or no label vignette, is fairly straightforward.

The vignettes used for this study, however, represent more than simply another vignette study describing a consumer and asking attitudinal questions. This study seeks to simulate a newspaper article describing a crime that took place in a fictitious town. The use of deception is critical so that participants focus less on debating the accuracy of the story and devote more attention to the content of the vignette and their responses on the instruments. The city and state of “Springfield, Montana” were used because it is less likely that a participant would be aware of such a town compared to a city in Ohio or a nearby state. In other words, selecting a state that is a few thousand miles away helps to ensure that the participants believe the story actually transpired rather than debating its legitimacy. Moreover, if the vignette described a crime in Columbus, Ohio, respondents would be less likely to believe that the story is true which may compromise their responses and subsequent results.

The name of “Tony Rafenna,” the individual portrayed as the perpetrator, was randomly chosen and internet search engine results indicated that there is no well-known or famous person with this name which may influence responses. Similarly, the name “Bobby Mills” was used as the victim of the crime and this name too was not related to a prominent individual. Using the names of men and referring to them as such reiterates that they are the same sex and controls for different responses that could be due to crimes committed by men toward women and likewise women who victimized men. This is also consistent with the research that men are more likely to appear in the media related to crimes (Wahl, 1995). Also, creating the name of a fictitious newspaper seemed irrelevant
and simply informing the respondents that the stories actually took place seems sufficient given the other information.

Although there are several studies that describe actual crimes committed by mental health consumers which could be used for such a study, this prohibits the experimenter from modifying elements of the story. This approach would lead to the experimenter being confined to how the story was articulated. Attempts to manipulate the real-life crime to fit a specific research purpose would consequently lead to partially true and partially fictitious components. In order to avoid this dilemma, the current study involves the creation of fictitious vignettes that describe a story that could appear in the newspaper. Wahl (1995) noted that when a person commits a crime, his or her psychiatric history is often mentioned. Therefore, the present study aims to be realistic but does not represent an actual person, place, or scenario.

The title of the vignettes, used to simulate an actual newspaper headline, vary depending on which vignette is administered. The schizophrenia, bipolar disorder, panic disorder without agoraphobia, and major depressive disorder vignettes (Appendices A-D) all feature the headline “Mental Patient Charged with Murder.” This title is also similar to headlines typically seen in newspaper articles featuring criminal activity carried out by mental health consumers. Wahl (1995) found that these headlines are likely to feature very strong, emotionally-charged language. Again, this particular headline could be found in a newspaper reporting a crime related to mental illness. Because the cancer and control vignettes did not reference any psychiatric criteria, the headline mentioned above was not relevant or appropriate, therefore it was modified to read “Man Charged with Murder.”
Psychiatric labeled vignettes (Appendices A-D) include one or two sentences that further reflect the signs and symptoms of the respective disorder. This is primarily to inform the participants and provide additional understanding about the particular disorder they are exposed to in the vignette. For example, the major depressive disorder vignette contains the diagnostic label itself and also statements “He had been severely depressed and was feeling worthless most of the time. He also had difficulty sleeping and lost 15 pounds from not feeling like eating.” The references to feeling depressed, worthless, difficulty sleeping, and weight loss are directly related to the criteria from the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition, Text Revision (DSM-IV-TR) (American Psychiatric Association, 2000). This linkage of diagnostic criteria was used for each vignette depicting a psychiatric disorder. The vignette featuring cancer unknown primary used this particular diagnosis because it has been found to be one of the most common types of cancer (Perry, 2007). The control vignette provided no additional information because no disorder or illness was presented. For each illness, a duration of nine years was listed regardless of type (except for control). This conveys to the reader that the illness has been stable for a period of time rather than portraying the illness or symptoms as transient.

Instrumentation

*Community Attitudes toward Mental Illness (CAMI)*

The Community Attitudes toward Mental Illness (CAMI) measure has been used extensively and in a variety of contexts investigating stigma of mental illness (Cotton, 2004; Taylor & Dear 1981; Taylor, Dear, & Hall, 1979; Thornton & Wahl, 1996; Wahl, 1993; Wolff, Pathare, Craig, & Leff, 1996). The CAMI used the general public as
participants (Arboleda-Flórez & Sartorius, 2008), and it is the general public’s attitudes that are desired for the current study.

The CAMI consisted of 40 total items using a 5-point Likert scale ranging from strongly agree to strongly disagree. The measure is comprised of four subscales which represent four of the dependent variables in the current study: authoritarianism, social restrictiveness, benevolence, and community mental health ideology. Likert type responses are provided for each item and scored accordingly (5=strongly agree, 4=agree, 3=neutral, 2=disagree and 1=strongly disagree). For reverse-coded items, these values are opposite. There are 10 items for each of these subscales, and 5 of these 10 are reverse-coded. Items for each subscale are summed together to provide one score ranging from 10-50. A mean score is then calculated for each subscale. Note that because higher scores on one subscale endorse certain beliefs which are contradictory to higher scores on another factor (as will be described below), it is not meaningful to create a single composite score for the CAMI as a whole.

The subscale authoritarianism is the belief that mentally ill people are substandard individuals who need to be kept in check by others (Taylor & Dear 1981; Taylor, Dear, & Hall, 1979). An example would be Mental patients need the same kind of control and discipline as a young child, and a reverse-scored item is Virtually anyone can become mentally ill. Higher scores on the authoritarianism scale denote more coercive attitudes toward mental health consumers.

The factor social restrictiveness contends that people with mentally illness are dangerous and a threat (Taylor & Dear 1981; Taylor, Dear, & Hall, 1979). The statement Anyone with a history of mental problems should be excluded from taking public office is
consistent with this belief, and the item *Most women who were once patients in a mental hospital can be trusted as babysitters* reflects a more positive outlook (reverse scored). Scores higher on *social restrictiveness* reflect the fear of the mentally ill and consider them dangerous.

Subscribing to a paternalistic and sympathetic viewpoint toward the mentally ill based on humanistic and religious principles is *benevolence* (Taylor & Dear 1981; Taylor, Dear, & Hall, 1979). The item *Our mental hospitals seem more like prisons than like places where the mentally ill can be cared for* suggests *benevolence*, and the statement *The mentally ill don’t deserve our sympathy* is negative and thus reverse-coded. For this subscale, and unlike the previous two mentioned, higher scores reflect a more positive view of those with mental illness.

The subscale *community mental health ideology* suggests mentally ill clients can benefit from community-based treatment (Taylor & Dear 1981; Taylor, Dear, & Hall, 1979). A statement on the CAMI related to this factor is *The best therapy for many mental patients is to be part of a normal community*, and a negatively worded item is *Having mental patients living within residential neighborhoods might be good therapy but the risks to residents are too great* (reverse coded). Similar to the *benevolence* factor, scores higher on *community mental health ideology* suggest a more accepting belief toward mental health clients.

**Reliability**

The reliability was assessed by the original authors of the CAMI (Taylor & Dear, 1981; Taylor, Dear, & Hall, 1979), and the internal consistency of *community mental health ideology* was ($\alpha = 0.88$), *benevolence* ($\alpha = 0.76$), *social restrictiveness* ($\alpha = 0.80$),
and authoritarianism ($\alpha = 0.68$). Each of the subscales contained 10 items. Most of the subscales indicated moderate-high reliability and although authoritarianism was lower than the others, it is still considered satisfactory. For the current study, the internal consistency was fairly similar to those values mentioned above: community mental health ideology ($\alpha = 0.86$), benevolence ($\alpha = 0.77$), social restrictiveness ($\alpha = 0.76$), and authoritarianism ($\alpha = 0.65$). Although the subscale authoritarianism is the lowest and certainly $\alpha = 0.65$ is not ideal for internal consistency reliability, this subscale was also the lowest in previous research (Taylor & Dear, 1981; Taylor, Dear, & Hall, 1979). The authors noted that the low internal consistency reliability of authoritarianism may warrant factor analysis to further evaluate the 10 items that constitute the subscale.

**Validity**

To determine construct validity, Taylor and Dear (1979) performed factor analysis and examined the correlations among the factors. The lowest correlation was between authoritarianism and benevolence ($r = -0.63$) whereas the highest correlation was between social restrictiveness and community mental health ideology ($r = -0.77$). As mentioned earlier, two subscales are framed in an overall positive manner with respect to attitudes toward the mentally ill, the other two are more punitive or negative. Thus, it is not surprising that the correlations in the comparisons above have a negative direction. Cotton (2004) further examined the correlations between the scales and found a moderately strong relationship between benevolence and community mental health ideology ($r = 0.389$), and the highest correlation was between social restrictiveness and community mental health ideology ($r = -0.771$). In addition, content validity had been verified by experts in the mental health field, and the less rigorous face validity was
established as well by ensuring that on the surface the items appear to be measuring their respective factor (Taylor & Dear, 1981; Taylor, Dear, & Hall, 1979).

In the present study, the highest correlation among the subscales of the CAMI was between *social restrictiveness* and *authoritarianism* \((r = 0.72)\), and the lowest was between *community mental health ideology* and *authoritarianism* \((r = –0.54)\). As expected, the two subscales with constructs framed in a positive manner, *community mental health ideology* and *benevolence* revealed a positive correlation \((r = 0.62)\) and the two negative constructs *authoritarianism* and *social restrictiveness* were positively correlated to each other \((r = 0.72)\). Correlations between the former two positive subscales and the two latter ones revealed negative correlations ranging from –0.54 to –0.66.

Attempts by the current author to locate the CAMI authors, Taylor and Dear, regarding permission to use the instrument were unsuccessful. However, other researchers have used the CAMI with citation of the original authors but not explicit permission. This researcher followed the lead of Wahl and Cotton in using the instrument.

*Social Distance Scale*

The use of social distance scales when measuring stigma is certainly not a new approach. Social distance is referred to as the desire for respondents to engage in various relationships with the person in question such as neighbor, co-worker, spouse, etc (Link, Yang, et al., 2004). Typically participants are either asked to accept or decline an interest in interacting with the person or to express a degree of willingness to interact with the
person. The gold standard for this scale is the one devised by Link, Cullen, et al. (1987) and has been modified by authors to answer their respective research question.

The current study utilized the seven items outlined by the original authors (Appendix H) to comprise the Social Distance Scale was a dependent variable. A crucial component to the social distance statements used for this study includes references to someone like the man in the vignette, Tony Rafenna. This is important because these items are not simply referring to mental illness in general but are linked to the vignette with the unique label. Thus, respondents are reminded of the man in the vignette to ensure that the Social Distance Scale is measuring what it is supposed to.

By examining the statements in the Social Distance Scale, the range of relationship intimacy is evident. For example, the item How would you feel having someone like Tony Rafenna as a neighbor? certainly implies a different type of relationship that the statement How about having your children marry someone like Tony Rafenna? Therefore, if a respondent is unwilling to have someone like Tony Rafenna as a neighbor then it is unlikely that the same respondent would be willing to have his or her child marry someone like Tony Rafenna. In other words, the items are measuring the distance socially from which the respondent is willing to interact with someone like him.

There are five possible responses for each item on the scale: 1 = definitely willing, 2 = probably willing, 3 = neutral, 4 = probably unwilling, and 5 = definitely unwilling. All seven items of the scale are scored in a similar manner. Each statement is assigned a value based on the response indicated, and the scores for the seven items are summed to create a total score. This summated score will be between 7-35 with higher scores (i.e., 30 – 35) indicating greater social distance and lower scores (i.e., 7 – 12) reflecting less
social distance. Unlike the CAMI where higher scores denote more favorable attitudes toward those with mental illness, higher social distance scores are the opposite and indicate less of a desire to engage in various types of relationships with consumers.

**Reliability**

The internal consistency reliability or Cronbach’s alpha of the measure was 0.92 (Link, Cullen, et al., 1987) which was similar to the alpha calculated in the current study ($\alpha = 0.90$).

**Validity**

It is reasonable to conclude that the measure is valid for face validity and content validity. Face validity is the ability of the instrument to appear to measure what it is supposed to such as social distance (Rubin & Babbie, 2001). All seven items do appear to measure social relationships according to varying distances. Content validity seems to be acceptable because the items do cover a range of social situations including work relationships, children, neighbor, roommate, friend, and babysitter.

This researcher contacted Link, one of the creators of the Social Distance Scale. Permission was granted to use and modify the instrument as needed.

**Impression Management**

When investigating public attitudes, particularly in the social sciences, there is a tendency for respondents to provide socially desirable answers at times (Rubin & Babbie, 2001). A major struggle is to determine which participants are genuine in their responses and which ones are disguising their true beliefs. The Marlowe-Crowne Social Desirability Scale is by far the most popular measure of its kind (Crowne & Marlowe, 1960). However, Paulhus (1984, 1991, 2002) has argued that the Marlowe-Crowne incorrectly
identified social desirability as a single construct. Paulhus (1984, 1991, 2002) has modified past research attempts that outlined a two-factor explanation, and has named these *self-deception and impression management* which he combined in an instrument called the Balanced Inventory of Desirable Responding (BIDR- Version 6). Twenty statements each loaded on both factors however, both have been used as instruments independently, Self Deception (SDE) and Impression Management (IM).

For the current study, the ideal instrument is the Impression Management scale. Paulhus (1984) asserts that it is impression management that is most relevant when surveying attitudes or personal characteristics. This stems largely from the argument that respondents may deliberately lie or exaggerate their answers in a positive manner thereby altering the data. Moreover, the respondents are intentionally trying to *manage* the impressions they send to others. In the current study, questions that assess attitudes about mental illness and social distance toward individuals with mental illness may lead to an increase in positive responses because participants do not want to imply that they are uncaring or lacking sympathy toward the consumers.

The impression management instrument is also preferable over the Marlowe-Crowne for several reasons. First, the former scale taps more directly into the deliberate alterations of responses where the latter is more general social desirability. Second, the shortened version of IM has been reduced from 20 items to 12 items (Paulhus, 1991; Paulhus & Reid, 1991; Stöber, Dette, & Musch, 2004) making it much more appealing than the 33-item Marlowe-Crowne instrument and less likely to contribute to rater fatigue. Paulhus (2002) reports a reliability coefficient range from 0.75 to 0.86 in samples with religious adults and college students. Although these samples are not identical to the
sample for the current study, a considerable number of participants for this study did have at least some college. Thus, the samples cited by Paulhus (2002) may be more similar than it appears.

There are 12 items that make up the Short IM scale from BIDR Version 6 which is the scale that was used for the current study (Appendix I). Out of the 12 statements, 6 are worded in a positive manner and 6 in a negative. For example, *I always obey laws, even if I’m unlikely to get caught* is written in the affirmative whereas the statement *I have pretended to be sick to avoid work or school* is negatively worded. There is a range of response choices for each statement from 1-7 with 1 = *not true*, 4 = *somewhat*, and 7 = *very true*. Items that are positive (i.e., statements #1, 3, 5, 8, 9, 12) are scored this way. The other items are reverse coded. When scoring the responses, extreme answers receive ‘1’ point and all other responses receive a ‘0.’ Extreme answers are defined as a ‘6’ or ‘7’ on a positive item or a ‘1’ or ‘2’ on a negative (reverse coded) item. All individual item scores are summed into one composite score. Thus, the range of possible composite scores is 0-12 with ‘0’ reflecting no impression management, and ‘12’ denoting a substantial amount of impression management occurring. In the analyses section, this measure will be further described in reference to its implications for the CAMI and social distance measures.

This researcher contacted Paulhus, who is the author of the IM scale, to ask about permission to use the scale. Paulhus granted permission to use the instrument and provided the Short form of the BIDR Version 6.
Demographic Questionnaire

Research conducted on stigma of mental illness has shown mixed results regarding demographic characteristics such as age, gender, level of education, race, marital status, number of children, and income. Other demographic variables like political affiliation have not been examined before but will be added to the current study for further exploration. Some studies have demonstrated significant findings with particular demographics such as age (Lauber et al., 2004; Pescosolido et al., 1999; Stuart & Arboleda-Flórez, 2001), level of education (Ng, Martin, & Romans, 1995; Pescosolido et al., 1999), gender (Lauber et al., 2004), race (Anglin, Alberti, Link, & Phelan, 2008) and cultural background (Angermeyer, Buyantugs, Kenzine, & Matschinger, 2004; Jorm & Griffiths, 2008; Lauber et al., 2004) whereas other studies have largely deemed demographic variables insignificant (Cotton, 2004; Link, Phelan et al., 1999; Wahl, 1993).

As evidenced above, depending on the sample and methodology, some demographics result in significant findings or account for a significant amount of variance in the criterion variables. The demographics questionnaire (Appendix J) seeks to obtain basic information about respondents to further add to the literature about the impact of demographics on attitudes toward mental illness. The questions include sex, race, age, whether the respondent is a parent, marital status, geographic location, social political beliefs, highest level of education completed, and annual income. Although most of these are fairly straightforward, a few may need further clarification and justification.
Age

Respondents were asked to write in their age on a blank line. Age was measured as a continuous variable to permit greater variability than as a categorical one.

Sex

Participants were asked to select either male or female for the sex variable. Related variables such as sexual orientation were not of interest for the given study; thus, sex was the most relevant variable for the study.

Race

Respondents were asked to select one of the following choices for race:

Black/African-American, Caucasian/White, Hispanic/Latino, Asian, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and other. Although “Hispanic/Latino” is not technically considered a race, it did seem to best fit in this category rather than create a separate question for ethnicity. This approach has also been adopted in other studies examining race/ethnicity. There were participants who indicated multiple race categories and identified as: Caucasian/African American, Caucasian/American Indian, and African American/American Indian. There was one participant who reported race as “Polish American” although this would traditionally be considered an ethnic group. Responses for this individual and participants who identified multiple race categories were collapsed into the “other” category. In addition, because of the low frequency of responses, those participants who indicated “Native Hawaiian/Pacific Islander” and “American Indian/Alaskan Native” were included in the “other” category as well.
**Income**

The variable income was measured by respondents selecting one of ten categorical annual salary ranges (i.e., “less than $15,000,” “$15,001 - $25,000”). Except for the lowest and highest income categories, intervals were set at $10,000. Additionally, it was the respondent’s income that was desired and not the household income. This was primarily due to the difficulty in determining the source of household income versus measuring the respondent’s income directly.

**Parent**

The variable parent is an interval-level variable that measured the number of children that participants identify. During analysis, this variable was collapsed into a dichotomous variable of “no children” and “at least one child.” This decision was primarily a practical one; it was not logical to suspect that attitudes toward the mentally ill were more or less favorable as the number of children increased. However, it was of interest to examine how attitudes differed according to whether or not participants had children. Regarding parenthood, this may be a critical variable particularly with the social distance items that ask about a caretaker and agreeableness with the respondent’s child marrying someone like the man depicted in the vignette.

**Social Political Beliefs**

While political party affiliation among adults has certainly been examined before, social political beliefs may yield additional information about attitudes toward mental illness. Social political beliefs have yet to be explored much in the stigma literature and are differentiated from traditional conservative versus liberal political party affiliations. Because it is logical to conclude that people report their social political beliefs as
different from their political beliefs, this distinction was made. For example, some individuals who would identify their political stance as moderate may identify more liberal social political beliefs. Moreover, it could be argued that beliefs about those with mental illness, their prognosis, and appropriate housing, is indeed a social issue thereby providing support for the need to measure social political beliefs as opposed to political party affiliation. There are five possible responses for this item: Mostly liberal, Slightly liberal, Moderate, Slightly conservative, and Mostly conservative. When respondents asked for clarification as to what constituted “social political beliefs,” the researcher gave examples such as abortion, gay marriage, and immigration.

Geographic Location

One variable that has received little attention in the stigma literature when predicting attitudes is exploring the significance of geographic location. This item consisted of four possible categories: city, small town, rural, and suburbs.

Marital Status

Participants were asked to select one of the following regarding marital status: single, married, divorced, separated, widowed, partnered, and other. None of the participants utilized the “other” category.

Highest Level of Education

Respondents selected one of the following categories that best described their highest level of education completed: less than 9th grade, 9th grade, 10th grade, 11th grade, High school diploma/GED, Some college, Associate’s Degree, Bachelor’s Degree, Master’s Degree/Graduate Degree, and Doctorate Degree. After data were collected, the categories of less than 9th grade, 9th grade, 10th grade, and 11th grade were collapsed into
the category “less than high school diploma/GED” due to the small number of responses in the collapsed categories.

Ohio

Because the data collection site is a popular destination for individuals within the state of Ohio as well as other states, it was necessary to determine where respondents lived. Participants were asked yes/no if they lived in Ohio and if they selected “no” they were to indicate which state they lived in. Out of 313 valid questionnaires used in the study, 29 respondents indicated they were from outside Ohio. These states consisted of: Michigan, West Virginia, California, Pennsylvania, Virginia, Colorado, Florida, Indiana, Maryland, Minnesota, Missouri, New York, Oregon, and Washington. Because adult public attitudes were desired for the current study, participants were included regardless of their respective state.

Franklin County

As stated above, those present at the data collection site were not all residents of Ohio. In addition, those that indicated they lived in Ohio did not all live in Franklin County; the county that contains the state capital Columbus. Therefore, it was of interest to determine in which of the 88 counties in Ohio the respondents had originated. The Franklin County item was simply a yes/no question asking respondents if they lived in the county. After the data were collected, it was determined that the six counties (Madison, Pickaway, Fairfield, Licking, Delaware, Union) surrounding Franklin County would also be coded as “Franklin County.” There were participants from 37 additional counties in Ohio. For those respondents outside Ohio who indicated their corresponding
county, the county was not of interest for the given study.

**Learning about Mental Illness**

A question regarding how and where respondents have learned about mental illness was included for descriptive purposes. Participants were asked to circle all sources (friends, family, school, coworkers, neighbors, books, and media) that had provided information to them about mental illness. If respondents circled “media,” they were asked to also indicate which of the following media sources provided information: television, magazines, newspapers, movies, novels, radio, internet, and other forms of media. This question regarding source of information was primarily to provide clarity about where respondents are learning about mental illness and not to investigate the relationship between information source and attitudes.

**Procedures**

Before any data collection took place, permission from the Ohio State University Institutional Review Board (IRB) was obtained. Participants were recruited in a face-to-face manner at the Center of Science and Industry (COSI) in Columbus, Ohio. This facility serves children and adults of all ages and is open to the general public year round. Permission for the researcher to collect data at the site had already been received. Only those who self-reported being at least 18 years old were permitted to participate in the study. Also, participants had to be able to read and understand English in order to participate. The researcher sat at two adjacent tables with signs in front of the tables stating “Attention adults: Participate in a research survey and receive free candy!”

The researcher collected data from July 4, 2009 – September 7, 2009 resulting in a total of 168.5 hours over the span of the 54 days of data collection. Although the target
The number of participants was 300, the total number was 318. The researcher also varied the days and times of data collection to increase the chances of obtaining a diverse sample. Data were collected on mornings, afternoons, evenings, and holidays to further ensure that the sample was representative of COSI.

Those who approached the table were greeted by the experimenter. If they inquired about the study, the researcher explained that the study was part of his dissertation at Ohio State University and that he is interested in attitudes toward the media and newspaper articles. This more passive approach to recruitment was necessary to prevent potential participants from feeling obligated or coerced to participate. Thus, the experimenter did not initiate conversation related to the study itself. If individuals stated that they would like to participate, and confirmed that they were at least 18 years old, the researcher read the consent script which described the purpose, risks, and benefits, and then concluded with asking the participant if they had any questions and then if they wanted to participate.

A waiver of documentation of consent was obtained from the IRB because having a signed form from the participants would increase the chances of a breach of confidentiality and to unnecessary identifiers related to the responses given. In addition, because some of the statements on the instruments were sensitive in nature, anonymous responses were more likely to be honest.

It is important to note that deception was used in this study. The choice to deceive participants was made because it is assumed that explaining the true nature of the study would jeopardize and distort the results. For example, telling participants that they will be reading a story that never happened with two fictitious people and then they will be
answering questions about mental illness would be problematic for the study. In particular, telling respondents ahead of time that they will be asked questions about the mentally ill person in the vignette may encourage them to focus on this part of the vignette before taking the CAMI and Social Distance Scale. The intent is to essentially recreate a situation where someone would read a newspaper article about an event that could happen and present it in a way in which it would be read. In other words, the event could happen and, as mentioned earlier, it is not unusual when a mental health consumer commits a crime for the media source to disclose his or her mental health treatment history. In addition, when most people read a newspaper article they are typically not forewarned about its contents before they read it. Thus, the best way to proceed was to provide general information about the study that is not entirely inaccurate (i.e., they would be reading a newspaper article and answering questions related to their attitudes). Because deception was utilized in the study, it was protocol to debrief participants as to the true nature and purpose of the study. After participants completed the packets, they were debriefed according to the particular vignette that they read.

The incentive consisted of a bowl of candy that was available for the respondents before, during, and after their participation. However, people walking by the table were permitted to partake in the free candy even if they did not participate in the study. Candy was chosen as the incentive for the study partially due to the request of an administrator at COSI who stated that the organization did not want to set a precedent with expensive incentives thereby leading patrons to believe that this was a typical event. Also, an incentive of candy ensured that participants are not coerced into participating by using a highly valuable incentive. This allowed people to choose to participate and accept the
incentive as a “thank you” rather than feeling as though they could not say “no” to the study because the incentive was that valuable to them.

The risks involved mainly consisted of the time it took for the participants to read the vignette and answer the questions on the three instruments and the demographics questionnaire. It was explained that the entire time for the respondents to participate would be about 10 minutes. The range of time that it took all 318 participants to complete the study was actually 7-30 minutes. Because the vignette did mention a man who murders another man, it was possible that there would be some small amount of psychological distress. However, one could argue that murders are frequently reported in newspapers and on the news thus rendering the vignette not as taboo. In addition, the experimenter read aloud the debriefing form (Appendices L-N) and gave it to the participants to take with them upon leaving the table.

After the individuals were read the consent script, they were asked if they have any questions. If participants did have questions, they were addressed. Then they were asked if they wanted to participate. If they said “yes,” they were given a packet to begin reading and answering the questions. Even though it could be argued that the order in which participants approach the table is itself random, the experimenter also randomly mixed the packets prior to arriving at the data collection site each day. Each packet contained one of the six vignettes, the CAMI, the Social Distance Scale, the IM, and the demographic questionnaire. In addition each packet and its contents had a unique number on them in case the items were separated. For example, vignette 1, packet 1 was numbered 101. The first digit denoted the vignette and the second and third reflected the
number of participants in the particular group. Because there were 318 respondents, the packet numbers ranged from 101 to 653 because there were 53 people in each condition.

After the participant read the vignette, he or she completed the CAMI, then the Social Distance Scale, the IM, and lastly the demographic questionnaire. To ensure that respondents followed that particular order, the above materials were stapled. When all had been completed at the discretion of the respondent, the materials were given to the researcher and placed into the packet and temporarily sealed to keep the contents together and to reassure the participant of the confidentiality of the responses. Next, the researcher read the debriefing form (Appendices L-N) aloud and then give it to the participants to take with them. Note that there were different debriefings depending on which group respondents were in: one debriefing form is for the four psychiatric label groups, another is for the cancer vignette and a different one is used for the control. The only difference between these forms was the specific reference to mental illness, cancer, or no label. The debriefing forms consisted of explaining the true nature of the study about attitudes toward mental illness and the reason for the use of deception. Written in all caps and bold letters was a statement regarding the fictitious nature of the event and people depicted in the vignettes. The forms also contained contact information for the researcher’s advisor as well as the phone number and email of the contact person in the Office of Responsible Research Practices (ORRP) at Ohio State University. Once participants read the debriefing form, the experimenter thanked them again for their participation.
Validity

Internal Validity

In any study, there are potential threats to internal validity so the expectation is that the researcher will try to minimize these threats to improve validity (Rubin & Babbie, 2001). Some threats were less relevant for the present study because of the methodology employed. For example, testing was not a threat due to a posttest only design. The experimenter also believed a pretest would be contradictory to the use of deception. In other words, giving a pretest is priming the participants for what is likely to be following. This may resulted in the participants reading the vignette with the expectation that it is related to mental illness. Although this is not directly related to the testing threat, it would have been a concern nonetheless if a pretest-posttest design was conducted. The threat of history would have been relevant if there had been a violent attack by someone with mental illness reported in the media during the period of data collection. One could argue that a potential history threat would be if the respondents had prior contact with a person with a mental illness. However, it is difficult to measure this because participants may have had contact with someone they thought had a mental illness but did not. Similarly, respondents also may have encountered several people who had a mental illness, but the respondents were unaware. The research investigating contact with consumers is also dependent on the context of the relationship: negative experiences are associated with negative attitudes whereas positive encounters are more likely to be associated with more favorable attitudes (Corrigan, 2005). The experimenter was mindful of this during the data collection process and did not observe any such
stories in the popular media. *Maturation* threat was not relevant here due to the time required to participate in the study.

The threat of *instrumentation* was not an issue with the current study because the five dependent variables measured similar constructs, and the instruments have been used in numerous studies examining stigma. Regression to the mean, or the threat of *statistical regression*, was not relevant for this study because all participants are randomly assigned to groups so those that will score high on particular measures have the same chance of being placed in a group as those who score low. Even though participants were randomly assigned to groups they are not randomly sampled from the population of COSI. With 53 people per group, it can be argued that any differences between scores was due to the latent variable and not individual differences but the *selection bias* did have some implications here. Respondents chose to participate so were self-selecting. A concern may be that those who participated in the study, regardless of what group they were in, were different from those who did not choose to participate. The threat of *mortality* was largely irrelevant due to the short duration of the study (10 minutes). The *experimenter bias* was easily controlled because this author was the only one who interacted with participants and potential participants.

*External Validity*

While internal validity is concerned with the inner workings of the study to ensure that it is valid, external validity refers to the ability to generalize the results beyond the sample to the population (Rubin & Babbie, 2001). To improve external validity, the researcher obtained demographic information from the site of the study, COSI, in an attempt to determine representativeness of the sample (see analysis below).
Reliability

Reliability in research is crucial when determining the consistency of measurement (Rubin & Babbie, 2001). Internal consistency reliability was established for the three instruments used in the study. For the CAMI (Taylor & Dear, 1981; Taylor, Dear, & Hall, 1979), the internal consistency of community mental health ideology was \((\alpha = 0.88)\), benevolence \((\alpha = 0.76)\), social restrictiveness \((\alpha = 0.80)\), and authoritarianism \((\alpha = 0.68)\). The internal consistency reliability for the Social Distance Scale (Link, Cullen, et al., 1987) reflected a Cronbach’s alpha of 0.92. Paulhus (2002) reports a reliability coefficient range from 0.75 to 0.86 for the impression management scale in samples with religious adults and college students. Past literature supports the reliability of these measures with different populations, including international samples. The internal consistency reliability of the impression management scale for the current study was 0.64 although this may have been due to differences between the current sample and those investigated in previous studies using this instrument. Because there is only one researcher involved in the data collection, and there are objective measures used as opposed to subjective appraisals or observational data, interrater reliability is irrelevant for this study.
CHAPTER 4

ANALYSIS AND RESULTS

Missing Data

Schafer and Graham (2002) note that missing data is inevitable when conducting research and can present barriers to data interpretation if not handled properly. Key concepts articulated by the authors have relevance for the current study. A particular type of missing data, missing at random (MAR), exists when the missing data is related to the variables being studied but not to other potential variables. Data missing completely at random (MCAR) are instances where the missingness is not due to a relationship with variables in a given study and not with others that exist. The more concerning situation is when data are missing not at random (MNAR) which results when missing data are in fact related to the variables under scrutiny and to other possible variables. The researcher of the present study contends that all three categories of missing data likely exist in the data.

A specific type of missing data closely related to MAR occurs when data is missing because it is out of scope (Schafer & Graham, 2002). The authors gave an example of a questionnaire item asking about a respondent’s relationship with siblings; however, it is likely that some respondents may be an only child and thus may leave the item blank resulting in missing data. Moreover, the data is not missing in the technical sense. It is merely out of scope. For the current study, one particular item on the CAMI and the corresponding benevolence subscale appears to meet this criterion. Statement
number 26, *Our mental hospitals seem more like prisons than like places where adults with mental illness can be cared for*, represented the highest frequency of missing data with 11 out of 313 missing (3.5%) (see Table 4.1 and Table 4.2). The researcher has determined that most of these 11 missing data were a matter of being out of scope because during the debriefing several respondents (out of 11) indicated that they had never seen the inside of a mental hospital and therefore had no ability to answer the item. In addition, a few of these respondents did not mention this during the debriefing but wrote variations of the phrase “I have never seen a mental hospital” next to the item when the researcher was scoring the CAMI. Similar to the example given by Schafer and Graham (2002), respondents in the present study apparently did not feel that the question was applicable to them so they did not respond. As stated above, this data is not actually missing in the traditional sense and does not appear to be directly related to the variables of interest in the study or other extraneous variables.

Examination of missing values on the CAMI revealed that out of 40 items, 30 had two or fewer missing data points each resulting in 0.6% of the entire sample (N=313). Similarly, the Social Distance Scale had only one item out of seven with more than two data points missing (see Table 4.3). Some of these missing data could be categorized as MCAR. Two respondents who appeared to skip an entire page of the CAMI while completing the packet. This did seem to be completely at random because all other items throughout the packet were completed, and there were no unique questions or constructs being investigated on those particular pages that may account for this missing data. Because these two respondents skipped different pages on the CAMI and each page contained eight items, these two respondents produced missing data points on 16
different frequency totals. These data are MCAR because they are not related to any variables being investigated in the study nor are they connected to other variables not examined.

Despite the above evidence that the missing data can be accounted for by measurement error and some confusion by participants on one particular item, data MNAR is also likely present. This type of missing data is more difficult to detect and understand due to the complexity of the phenomenon under investigation. For example, even though nine demographic variables are being controlled for in the study, it is still quite possible that respondents did not answer particular items for reasons that are better explained by constructs not explored in the current study. Given the large sample size and the low frequency of missing data per item on the instruments (see Table 4.2), this does not appear to be as concerning of an issue. Also, the missing data appear to be fairly evenly distributed across the dependent variables.

In summary, missing data in the current study can be categorized primarily as MCAR and values out of scope. That is, they are not directly impacted by the independent variable or other variables in the study. There also does not appear to be any other variables not accounted for that are affecting the existence of missing data. Additionally, the overall missing data on each item of the questionnaires are quite small in comparison to the overall sample (most < 1%). If there had been multiple items with considerably high frequencies of missing data, this would have been more problematic for the analysis and capturing the true attitudes of the participants. Consequently, listwise deletion, or case deletion, will be implemented for the data analyses, and is considered acceptable with data that are MCAR (Schafer & Graham, 2002). Like most statistical
procedures, there are strengths and weaknesses of each approach. Listwise deletion removes all respondents with missing data which lowers the sample size and affects power (Cohen, Cohen, West, & Aiken, 2003). Allison (2002) also argues that when the data is MCAR, listwise deletion is permissible compared to other approaches such as maximum likelihood and imputation strategies. In addition, this method can be seen as preferable over using another common approach pairwise deletion which removes only participants with missing data on the given variables being examined. Despite this contributing to retaining a larger sample size, a consequence is analyzing variables based on different components of different respondents. Although there are multiple strategies for addressing missing data, listwise deletion seems appropriate given the criteria mentioned above.

Data Analysis

A total of 318 respondents participated in the study. During the data collection phase, responses from five participants were excluded due to concerns about the legitimacy of the responses. These packets were removed from the analyses for the following reasons: two participants started the study but had to leave abruptly, one participant was from the United Kingdom, one participant discussed questions with a peer so it was difficult to determine the source of the responses, and one participant appeared to the researcher to be actively psychotic.

After the data were collected, they were entered into SPSS 17.0 for Windows. When all data had been entered and cleaned, the hard copy of the data was destroyed. Demographic variables were dummy-coded to permit statistical analyses. Some of the
variables such as parent were collapsed for practical purposes. The demographic variables each included multiple possible responses to permit greater variability.

Descriptive statistics were computed first to help ensure that all of the data were entered properly and to check for missing data. Descriptive statistics were also explored initially to observe the patterns in the data as well as examine the normality of the dependent variables. In addition, demographic variables of the current study were compared to those of the population at the data collection site. Also, descriptive analysis was performed on the last demographics question regarding source of knowledge about mental illness. To date, there is little support for the specific source’s ability to predict attitudes so it was used to compare percentages of particular sources to previous research. Multiple analyses were conducted to determine the relationships between the independent variable, demographics, and the CAMI, Social Distance Scale, and impression management (IM) scale.

Bivariate analyses were performed to initially examine the predictive ability of each demographic variable and vignette type on each of the dependent variables. Also, these bivariate analyses also provided justification for the use of multivariate analysis of covariance which controls for the influence of covariates on the dependent variables. Thus, if the covariates did not indicate any predictive ability on the dependent measures, it would have been more appropriate to conduct a multivariate analysis of variance.

Correlations were run between the IM, the four subscales of the CAMI, and the social distance scale to determine if the respondents were exaggerating their attitudes on the dependent measures which would be a limitation. Correlations were also conducted to determine if multivariate analysis of covariance was an appropriate analysis of the data.
A one-way ANOVA was conducted to determine if any of the six groups were significantly different from any of the other groups at $\alpha = .05$ on the four subscales (authoritarianism, social restrictiveness, benevolence, and community mental health ideology) of the CAMI and the social distance scale. Post-hoc analyses using Tukey HSD and Scheffe were performed to see which groups were significantly different.

Multivariate analysis of covariance (MANCOVA) was utilized to determine if a difference exists between groups of the independent variable on a linear combination of the dependent variables. MANCOVA also controlled for the demographic covariates which may affect the dependent variables.

**Descriptive Statistics**

The majority of the sample was women (67%) and Caucasian (80%) with a mean age of 39.27 years (SD=13.40) and range (18-81) (see Table 4.4). Also, most of the respondents indicated that they were married (64%) and were a parent with at least one child (77%). Regarding highest level of education, three groups were most frequent with bachelor’s degree the highest frequency (26%) followed by master’s degree (22%) and some college (21%). The demographic income was most frequent in the less than $15,000 group (19%) which seems surprising given the high level of education in the sample. However, this may not be an anomaly when considering the young age of some respondents and taking into account the current state of the economy. Measuring social political beliefs revealed the highest group as moderate (34%) and second highest mostly liberal (26%). Lastly, respondents reported their geographic location most frequently as suburbs (40%) and city (33%).
In order to determine if the current sample was representative of the population at the data collection site, the nonparametric Chi-square test was conducted to compare the demographic variables. The data collection site obtained their data through the use of “intercepts” which involved the staff approaching guests during the late afternoon when they had concluded their visit and were exiting the facility. On busier days, guests were sampled near the customer service desk near the entrance of the building. The data being compared to the current study is from fall 2008 – summer 2009. This is an ideal time frame considering that the data from the present study was obtained from summer 2009. Because the staff at the data collection site collected data for an entire year, this data will be more stable than if it had been collected during one season only.

The only two demographic variables that could be compared between the study and the site were race and highest level of education; others such as social political beliefs, parent status, geographic location, age, sex, and marital status were not measured. Although household income was also collected, the researcher of the current study measured the income of participants rather than participants’ households so these comparisons would not be appropriate.

A one-sample Chi-square test on demographic variable race revealed that the percentages of respondents in the current study belonging to various racial groups were significantly different than the expected values from the data collection site at p = .05 ($X^2_{critical} = 9.49, X^2_{observed} = 20.37, df = 4$) (see Table 4.5). There was no measure of participants identifying as Hispanic or Latino so a comparison could not be made. When highest level of education of the sample was compared to the population of the data collection site, more similarities were present; however, a one-sample Chi-square test
indicated that sample and population were significantly different at \( p = .05 \) (\( X^2_{\text{critical}} = 11.07, X^2_{\text{observed}} = 18.11, \text{df}=5 \)) (see Table 4.6). Because the current study measured master’s degree and doctorate degree separately, they were combined so they could be compared to master’s degree or higher which was the category used by the data collection site. Thus, no comparisons could be made on master’s degree and doctorate degree separately. Because the majority of demographics measured for the current study were not obtained by the data collection site and because there were significant differences on race and highest level of education, there cannot be generalizations of the data beyond the current sample.

Regarding the source of information where participants have learned about mental illness, media was cited as the most common (89.7%), followed by neighbors (66.3%), and coworkers (53.2%). The most frequent source of the media in particular was radio (61.2%), second highest was novels (56.1%), and thirdly the internet (45.8%). These descriptives were merely to compare to past research and not to predict attitudes or further scrutinize. For example, the category of neighbor is the second highest source according to the sample, but it is difficult to decipher how neighbors have contributed to the participants’ knowledge. It may be because the neighbor has a mental illness, is a social worker, has a friend with mental illness, etc. Similarly, the media source can be cumbersome to interpret. The source “internet” could include online scholarly journal articles or pop culture-related information that is primarily driven by opinions. For a full list of the sources of information, see Table 4.7 and see Table 4.8 regarding media sources.
Descriptive statistics were also calculated for vignette type on each of the five dependent variables (see Table 4.9). The following scores reflect the group of respondents who read a particular vignette and then their subsequent responses on the CAMI and Social Distance Scale. The highest mean scores on the four subscales of the CAMI and the Social Distance Scale are as follows: authoritarianism, cancer (mean = 23.04, SD = 4.74); benevolence, bipolar disorder (mean = 40.00, SD = 4.46); social restrictiveness, cancer (mean = 23.15, SD = 5.35); community mental health ideology, control (mean = 37.36, SD = 5.48); and social distance, major depression (mean = 26.37, SD = 5.17). Higher scores reflect greater agreement with the respective measure. For example, respondents who read the cancer version of the vignette scored the highest on authoritarianism indicating the most restrictive attitudes toward those with mental illness on this particular subscale compared to groups who read other vignette types.

Statistical Analyses

All nine demographic variables (age, sex, race, income, parent, social political beliefs, geographic location, marital status, and highest level of education) as well as the independent variable vignette were initially explored as predictors of the five dependent variables (authoritarianism, social restrictiveness, benevolence, community mental health ideology, and social distance). This approach is recommended as an early step in the analyses to gain a better understanding of how well each predictor explains the variance in the dependent variables (Tabachnick & Fidell, 2001). All categorical variables such as sex, race, parent, social political beliefs, geographic location, marital status, and highest level of education were dummy coded. Variables age was continuous, ratio-level, and income is ordinal-level. The independent variable, vignette, is categorical, nominal with
six levels, and the five dependent variables are continuous, ratio-level.

One-way ANOVA tests were performed to observe differences between levels of the independent variable *vignette* on each of the five dependent variables. The independent variable as well as the demographic variables, or covariates, were further analyzed using the Multivariate Analysis of Covariance (MANCOVA) approach (Tabachnick & Fidell, 2001).

**Bivariate Analyses**

Each of the demographics or control variables was initially examined to see the relationship between each predictor and the dependent variables. This allowed the researcher to observe early patterns in the data before employing more rigorous analyses. Also, correlations were calculated between the independent and dependent variables (see Table 4.10). Most correlations were small ($r < .1$) with the largest being between *panic disorder* and *social distance* ($r = - .193$). The second highest correlation was between *major depression* and *social distance* ($r = .160$).

**Authoritarianism**

The demographic variables *race, parent, geographic location*, and *age* did not significantly account for variance in the model with each of the individual predictors and *authoritarianism* as the dependent variable at $p=.05$. Similarly, *vignette* type was not a significant predictor at $p=.05$. However, the variable *marital status* did significantly account for variance in the model ($r^2 = .046$, Adjusted $r^2 = .03$, $F = 2.846$, $p = .016$). Thus, marital status explained 4.6% of the variance on the *authoritarianism* subscale. More specifically, *single* was a significant predictor ($\beta = .143$, $t = 2.452$, $df = 5$, $p = \ldots$
.015). This indicated that those who were *single* endorsed more negative beliefs toward people with mental illness than those in the reference group *married*.

The variable *social political beliefs* was found to account for a significant portion of the variance in *authoritarianism* ($r^2 = .116$, Adjusted $r^2 = .104$, $F = 9.489$, $p < .001$). Additionally, *mostly liberal* ($\beta = -.286$, $t = -4.501$, $df = 4$, $p < .001$) and *slightly liberal* ($\beta = -.176$, $t = -2.927$, $df = 4$, $p = .004$) were both significant predictors, and the negative betas indicated more favorable attitudes toward those with mental illness compared to the reference group *moderate*.

The dichotomous variable, *sex*, was also a significant predictor ($r^2 = .047$, Adjusted $r^2 = .043$, $F = 14.620$, $p < .001$) with women identifying more favorable attitudes than men ($\beta = -.216$, $t = -3.824$, $df = 1$, $p < .001$). Demographic variables *income* ($r^2 = .022$, Adjusted $r^2 = .019$, $F = 6.567$, $p = .011$) and *highest level of education* ($r^2 = .104$, Adjusted $r^2 = .076$, $F = 3.740$, $p < .001$) were also significant predictors on the authoritarianism subscale. For *income*, those reporting higher income expressed more positive attitudes toward individuals with mental illness ($\beta = -.148$, $t = -2.563$, $df = 1$, $p = .011$). In regards to *highest level of education*, participants with a master’s degree ($\beta = -.146$, $t = -2.216$, $df = 5$, $p = .027$) and doctorate ($\beta = -.105$, $t = -1.767$, $df = 5$, $p < .078$) both endorsed more positive attitudes than those with a bachelor’s degree.

**Benevolence**

Similar to the non-significant predictors on the dependent variable *authoritarianism*, variables *race, parent, geographic location,* and *age* did not significantly account for variance in *benevolence*. Also, the independent variable *vignette* was not significant. Unlike the *authoritarianism* scale, the variable *income* was not a
significant predictor. All analyses were conducted with $p = .05$. One of the significant predictors in the bivariate analysis was *marital status* ($r^2 = .032$, Adjusted $r^2 = .016$, $F = 1.940$, $p = .088$). More specifically, *single* ($\beta = -.102$, $t = -1.719$, df = 5, $p = .087$) and *widowed* ($\beta = -.116$, $t = -1.998$, df = 5, $p = .047$) were significant individual predictors, and both endorsed more negative beliefs compared to the reference group *married*. It should be noted that *widowed* comprised a very small (n=4) portion of the overall *marital status* variable (1.3%).

The demographic variable *social political beliefs* also accounted for a significant portion of variance in the model ($r^2 = .180$, Adjusted $r^2 = .168$, $F = 15.598$, $p < .001$) with *mostly liberal* ($\beta = .322$, $t = 5.217$, df = 4, $p < .001$) and *slightly liberal* ($\beta = .122$, $t = 2.082$, df = 4, $p = .038$) uniquely explaining variance. These standardized coefficients reflect a more positive stance toward those with mental illness as compared to the reference group *moderate*. Another significant predictor was *education* ($r^2 = .049$, Adjusted $r^2 = .030$, $F = 2.497$, $p = .023$) with *master’s degree* participants ($\beta = .181$, $t = 2.675$, df = 6, $p = .008$) aligning with more positive beliefs than the reference group *bachelor’s degree*. Additionally, *sex* ($r^2 = .102$, Adjusted $r^2 = .099$, $F = 33.555$, $p < .001$) accounted for a significant portion of variance in the dependent variable *benevolence* with women ($\beta = .320$, $t = 5.793$, df = 1, $p < .001$) expressing more favorable attitudes toward the mentally ill compared to men.

*Social Restrictiveness*

The dependent variable *social restrictiveness* was regressed on nine demographic variables individually, and these predictors followed a pattern similar to the variable *benevolence*. The variables *race, parent, age, income*, and *geographic location* were not
significant at $p = .05$. The only difference is *highest level of education* is not significant. In addition, the independent variable *vignette* was not significant. All of the bivariate analyses were conducted at $p = .05$. The predictor *marital status* was significant ($r^2 = .039$, Adjusted $r^2 = .023$, $F = 2.407$, $p = .037$) with *partnered* uniquely explaining a significant portion of the variance ($\beta = -.146$, $t = -2.528$, df = 5, $p = .037$). This indicates that those participants who identifying as *partnered* endorsed more favorable attitudes; however, caution should be used in this interpretation because a relatively small number of participants were *partnered* (11) relative to the rest of the sample (3.5%).

Consistent with the examination of the previously mentioned subscales, *social political beliefs* accounts for a significant portion of the variance ($r^2 = .099$, Adjusted $r^2 = .086$, $F = 7.870$, $p < .001$) with *mostly liberal* ($\beta = -.219$, $t = -3.407$, df = 4, $p = .001$) and *mostly conservative* ($\beta = .173$, $t = 2.785$, df = 4, $p = .006$) uniquely explaining variance in the dependent variable *social restrictiveness*. The signs of the standardized coefficients denote that participants identifying as *mostly liberal* expressed more positive attitudes whereas respondents that were *mostly conservative* reflected more negative attitudes toward those with mental illness. Another common theme with the bivariate analyses is the significance of *sex* as a predictor ($r^2 = .048$, Adjusted $r^2 = .045$, $F = 15.160$, $p < .001$) with *women* ($\beta = -.220$, $t = -3.894$, df = 1, $p < .001$) possessing more positive attitudes than men.

*Community Mental Health Ideology*

Variables *race, parent, age, income,* and *geographic location* have been largely insignificant predictors on the three dependent variables discussed so far. These five variables did not contribute to a significant proportion of variance on *community mental*
health ideology at p = .05. Similarly, the independent variable vignette was not
significant and although the variable highest level of education has been a powerful
predictor on a few previous subscales, it was not significant at p = .05. The variable
marital status was again a significant predictor ($r^2 = .043$, Adjusted $r^2 = .027$, $F = 2.639$,
$p = .024$) with single ($\beta = -.108$, $t = -1.855$, df = 5, $p = .065$) and separated ($\beta = .096$, $t =$
1.683, df = 5, $p = .093$) individually accounting for significant variance. Results indicate
single participants have more negative beliefs toward mental health consumers whereas
those who are separated expressed more negative opinions as compared to the reference
group married. It should be noted that the group separated consisted of 9 participants
who represented only 2.9% of the overall sample so this significance should be
interpreted with caution.

Following a trend thus far, social political beliefs was significant ($r^2 = .095$,
Adjusted $r^2 = .082$, $F = 7.574$, $p < .001$) with mostly liberal ($\beta = .270$, $t = 4.201$, df = 4, $p$
$< .001$) and mostly conservative ($\beta = -.105$, $t = -1.696$, df = 4, $p = .091$) uniquely
explaining the variance in community mental health ideology. Results are fairly
straightforward with participants identifying their social political beliefs as mostly liberal
endorsing more favorable attitudes whereas those mostly conservative expressed more
negative attitudes. Demographic variable sex was found to be significant ($r^2 = .015$,
Adjusted $r^2 = .011$, $F = 4.463$, $p = .035$) with women ($\beta = .121$, $t = 2.113$, df = 1, $p =$
.035) embracing more positive attitudes compared to men.

Social Distance Scale

Aside from the four dependent variables corresponding to the subscales of the
CAMI, the social distance scale is also an important dependent variable that needs to be
regressed on the nine demographic variables individually. Some non-significant variables (race, parent, geographic, and age) were largely consistent with the previous dependent variables but other variables (highest level of education, marital status, and sex) that had been significant predictors on a few previous subscales were not significant on social distance at p = .05. One critical difference with the social distance variable is that the independent variable vignette was significant (r^2 = .058, Adjusted r^2 = .042, F = 3.666, p = .003) with panic disorder (β = -.215, t = -2.988, df = 5, p = .003) uniquely accounting for variance and reflecting more favorable attitudes compared to the reference/control group.

Although income has not been a relevant predictor on the four previous dependent variables, it was a significant predictor of social distance (r^2 = .013, Adjusted r^2 = .009 F = 3.773, p = .053) indicating that participants with higher income expressed more social distance (β = .113, t = 1.943, df = 1, p = .053) or less interest in interacting with mental health consumers. The variable social political beliefs was significant (r^2 = .057, Adjusted r^2 = .044 F = 4.383, p = .002) with mostly liberal (β = -.149, t = -2.304, df = 4, p = .022) and mostly conservative (β = .106, t = 1.699, df = 4, p = .090) individually accounting for a significant amount of variance. Moreover, those who identified as mostly liberal endorsed more positive attitudes; conversely, those mostly conservative reflected more negative attitudes than the reference group moderate.

Overall, the bivariate analyses indicated that marital status, sex, and social political beliefs are strong predictors of attitudes toward those with mental illness on the five dependent variables. Demographic variables race, parent, age, and geographic
location were not significant predictors on any variables, and income, highest level of education showed mixed results regarding their predictive ability.

One-way analysis of variance (ANOVA)

In addition to bivariate analyses, it was relevant to investigate the presence of differences between groups on the independent variable vignette. Thus, one-way analysis of variance (ANOVA) tests were conducted with the factor vignette and dependent variables authoritarianism, benevolence, social restrictiveness, community mental health ideology, and social distance. Results indicated that there were no significant differences between the six vignette groups on the four subscales of the CAMI at p = .05. However, group means did significantly differ on social distance (F=3.666, df = 5, p = .003), and post-hoc analyses were performed to determine which groups differed significantly. Tukey HSD and Scheffe are both commonly used post-hoc analyses with the former being more liberal than the latter (Cohen, Cohen, West, & Aiken, 2003).

Tukey HSD revealed that Panic Disorder was significantly different from Control (p = .036) and Major Depression (p = .001). The more conservative Scheffe test found a significant difference between Panic Disorder and Major Depression only (p = .008). In summary, Panic Disorder group was found to have the most favorable attitudes toward those with mental illness on the social distance scale, and this was significantly different from the Major Depression group, who had the least favorable attitudes. Both Tukey HSD and Scheffe found this difference to be significant. However, the difference between Panic Disorder and the Control condition (second least favorable attitudes) was only significant using the more liberal Tukey HSD post-hoc test.
Obviously, the use of bivariate analyses and one-way ANOVA tests as the primary means of data analysis has limitations with the current study. The bivariate regression models do not take into account other predictors that may better explain the variance in the dependent variables and largely ignore the impact of the independent variable which is the focus here. Likewise, the one-way ANOVA tests, while determining differences between levels of the independent variable, do not properly control for demographic variables which may be better predictors of public attitudes than the vignette type. Consequently, a more rigorous statistical analysis needs to be implemented to adequately assess the data.

Attribute-Treatment Interaction (ATI)

Because the current study incorporated random assignment in the research design, it is not likely that there is a significant interaction between demographics and vignette type. However, it is possible that, for example, the attitudes of African Americans interact with the Bipolar Disorder vignette and it is this interaction that best explains the corresponding attitudes. Pedhazer and Schmelkin (1991) argue that this phenomenon can occur and termed it an attribute-treatment interaction (ATI). The authors contend that even with random assignment, studies can still be plagued by this. For the present study, “treatment” is the vignette type and the “attribute” can be any one of the nine demographic variables measured here or another variable that was not measured. To account for this potential interaction, the researcher created dummy-coded variables for all nine demographics with each of the six vignettes. Using hierarchical regression, interaction terms were then created and entered as a separate block to a regression model that included demographic variables and vignette type. When these new interaction terms
were added to the model, they did not reduce the error term to any substantial degree.
Moreover, the addition of interaction terms did not account for a significant improvement
in the model indicating that there were no present interactions that could be explaining
participant attitudes.

Multivariate Analysis of Covariance (MANCOVA)

Although there are several statistical approaches that could be performed to
analyze the data, the research questions can best be answered by using Multivariate
Analysis of Covariance (MANCOVA). Tabachnick and Fidell (2001) contend that using
MANCOVA over multiple Analysis of Covariance (ANCOVA) tests helps to protect
against an inflated Type I error of rejecting the null hypothesis when there is no effect.

Cohen, Cohen, West, and Aiken (2003) argued that a MANCOVA approach is
preferable when there are multiple dependent variables and there is a conceptual
relationship connecting them. This is certainly the case with the CAMI which is
comprised of four subscales that together measure different constructs of attitudes toward
the mentally ill. Similarly, the dependent variable, social distance, has been widely used
to measure attitudes toward mental illness. Additionally, studies have jointly
administered both the Social Distance Scale and the CAMI to understand these attitudes.

A more rigorous method to investigate the relationship between the five
dependent variables beyond a conceptual one is to examine the correlations. Tabachnick
and Fidell (2001) note that because part of the justification to utilize MANCOVA is a
meaningful relationship between the variables, highly negatively correlated dependent
variables and moderately positive ones are ideal. According to Table 4.11, there were
moderate-high positive and negative correlations between the dependent variables which
added legitimacy to the use of MANCOVA. Thus, if the majority of variables are highly correlated, there is a potential problem with multicollinearity which presents problems with interpretation. Strategies such as combining two highly correlated dependent variables or selecting the most relevant one conceptually are not relevant here given the moderate-high correlations. Also, if the correlations are very low then, by definition, they are not related and therefore MANCOVA would not be appropriate.

Table 4.11 also illustrates the correlations between the impression management scale and the five dependent variables. These correlations were very weak with the lowest correlation being $r = .017$ and the highest $r = .104$. Because these correlations are very low, there does not appear to be a strong tendency for participants to exaggerate their true attitudes on the five dependent measures.

One strength of MANCOVA is the incorporation of the covariates to be controlled so that differences on the dependent variable are more likely to be due to manipulation of the independent variable. The inclusion of covariates is ideal when they are highly correlated with the dependent variables and not highly correlated with the independent variables. Tables 4.12 and 4.13 provide some evidence for this; although there are not high correlations between covariates and the dependent variables they are at least low-moderate (i.e., $r = .356$, $r = .323$). Also, the covariates have a very weak relationship to the independent variable, with the highest correlation being $r = .157$. To be more explicit, six out of the nine covariates have a correlation of $r < .1$.

**Assumptions**

Several assumptions must be met when using MANCOVA or the subsequent results are potentially compromised (Hair, Black, Babin, Anderson, & Tatham, 2006).
Although this statistical analysis is fairly robust to violation of most assumptions, it is certainly good practice to strive to meet the assumptions of the test. First, the dependent variables need to be interval/ratio level which is met with the current study because all five subscales of the CAMI and the Social Distance Scale are interval level. Also, the independent variable, vignette type, is nominal which is again met because there are six groups and there is no rank-order among them. Another assumption is that covariates must also be interval/ratio level. Although there are categorical covariates being included in the MANCOVA analysis, they have been dummy-coded to accommodate the statistical approach.

Independence is another assumption that has been supported. The use of random assignment is one critical component to ensure independence that was employed in the present study. Packets were randomly given to respondents who participated in the study. In addition, the experimenter was careful to not conduct any debriefing with participants while other potential participants were nearby to avoid compromising independence among respondents.

To check the assumption of multivariate normality, univariate normality was examined on each of the five dependent variables, and graphical depictions revealed normality for all five. Furthermore, skewness and kurtosis on the dependent variables were between -1 and 1 which indicates normality (see Table 4.14). Because variables reflected a normal distribution, no transformations were necessary.

Another assumption of MANCOVA is the homogeneity of variance-covariance matrices (Meyers, Gamst, & Guarino, 2006). Box’s M test, which is highly sensitive to outliers, scrutinizes whether the covariance of the five dependent variables are the same
for the six groups of the independent variable. Box’s M test was not significant (p = .406) indicating that this assumption has been met. Although Box’s M test can typically be ignored when Ns are approximately equal, this test was performed to ensure assumptions were not violated (Leech, Barrett, & Morgan, 2008). A more straightforward method to check differences in sample size is to determine whether the sample size of the largest group (47) is no more than 1.5 of the smallest group (43). Based on the sample sizes, this was not a problem with the current study. Additionally, Levene’s Test was performed to determine if the variance across the dependent variables was equal across groups and was found to be not significant at p = .05.

The assumptions were verified so it was permissible to proceed with the MANCOVA analysis. Because the data were entered into SPSS, this statistical software used the General Linear Model (GLM) to estimate MANCOVA models. Hair et al. (2006) stated that the GLM is ideal because of its flexibility to incorporate various research designs and its simplistic nature.

MANCOVA Analyses

In order to determine if there were differences between groups of the independent variable on a linear combination of the dependent variables the following method was used to analyze the data: using the GLM, the fixed factor was the independent variable, vignette, and the five dependent variables were the four subscales of the CAMI (authoritarianism, benevolence, social restrictiveness, and community mental health ideology) and the social distance scale. In order to control for demographic variables impacting the dependent variables, age, sex, race, income, parent, social political beliefs, geographic location, marital status, and highest level of education were entered at
Multivariate tests were conducted and revealed that the six vignette groups did significantly differ at $p = .05$ on a linear combination of the dependent variables *authoritarianism, benevolence, social restrictiveness, community mental health ideology* and *social distance*. Four such tests were performed: Pillai’s Trace, Wilks’ Lambda, Hotelling’s Trace, and Roy’s Largest Root. Although all four are fairly similar, Wilks’ Lambda is the most commonly reported in results while Roy’s Largest Root is the most powerful statistic but is often compromised if the assumptions have been violated (Hair et al., 2006). For the present study as indicated above, none of the assumptions of MANCOVA appear to have been violated. However, all four statistical measures have been provided (see Table 4.15).

*Power and Effect Size*

Partial Eta-squared is utilized to obtain the effect size which is eta. Because of the large sample size in the current study, significant differences may be easier to detect; however, practical significant is a crucial phenomenon to be understood in social work. The following effect sizes (eta) are provided with the corresponding statistical measure: Pillai’s Trace ($\eta = .18$), Wilks’ Lambda ($\eta = .18$), Hotelling’s Trace, ($\eta = .18$), and Roy’s Largest Root ($\eta = .30$). Note that all measures report very high power ranging from .914 – .983. Power is the probability that a test will detect a difference on treatment effect if it exists (Hair et al., 2006). Regardless of which measure was used for the multivariate test, all four reflected significance $p < .05$. Thus, it is appropriate now to examine the tests of between-subjects effects.
When a significant multivariate effect has been detected, a common approach to assessing the dependent variables is the Roy-Bargmann step-down analysis (Finch, 2007; Meyers, Gamst, & Guarino, 2006). This method is appropriate when there is a logical, *a priori* ordering of dependent variables; however, past research using the CAMI and Social Distance Scale to examine attitudes toward mental illness has not offered a prioritized ordering of these variables. Moreover, there is no conceptual basis for arguing that, for example, the *authoritarianism* subscale is more important when assessing attitudes compared to *benevolence* or the other subscales. All four subscales of the CAMI add a unique component to understanding public attitudes toward those with mental illness. Therefore, the Bonferroni adjustment will be used in place of the Roy-Bargmann step-down analysis.

**Bonferroni Correction**

The Bonferroni correction consists of performing one-way ANOVA tests on each of the dependent variables, while adjusting the alpha level, to determine if there is a difference between the groups of the independent variable (Meyers, Gamst, & Guarino, 2006). Because multiple one-way ANOVA tests create an inflated alpha level, the Bonferroni correction modifies the alpha level according to the number of dependent variables. In the current study, there are five dependent variables so the alpha level will be $\alpha = .05/5$ or $\alpha = .01$. This correction compensates for the inflated alpha which results from repeated ANOVA tests.

After using the Bonferroni correction, the four dependent variables that comprised the CAMI were not significant: *authoritarianism* ($p = .464$), *benevolence* ($p = .336$), *social restrictiveness* ($p = .264$), and *community mental health ideology* ($p = .452$) at $\alpha = .01$. 

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Table 4.16 provides these results, and social distance is the only dependent variable significant (p = .003) at \( \alpha = .01 \). In addition, the observed power was very high .919 indicating that statistically significant results may be found with small effect sizes. The effect size was .26 which is considered small-medium (Leech, Barrett, & Morgan, 2008).

Before proceeding to the post-hoc analyses, it is necessary here to investigate the role of the covariates in the analysis. In order to determine the impact of the covariates on the dependent variables in the MANCOVA analysis, it was worthwhile to run the model as a MANOVA by excluding the covariates and then compare these models (Hair et al., 2006). Table 4.17 illustrates the multivariate test of MANOVA, and table 4.18 reflects the tests of between-subjects effects. Model comparisons revealed that the addition of the covariates in the MANCOVA model has indeed helped to reduce the error variance and also increased power. Even though the Bonferroni correction was employed, table 4.19 illustrates how the tests of between-subjects effects would differ between this model with the covariates included and one without (Table 4.18). This is perhaps not too surprising given the moderate correlations between the covariates and the dependent variables in addition to the very low correlations among the independent variable and covariates. Thus, it does in fact seem necessary to leave the covariates in the model.

Post-hoc Analyses

Because the dependent variable, social distance, was significant at \( \alpha = .01 \), post-hoc analyses were needed to determine which groups differed. The Tukey HSD test and Scheffe test were conducted at \( \alpha = .01 \). These post-hoc tests are identical to the ones conducted above; however, here the Bonferroni adjustment has guarded against a Type I error by reducing the alpha level from .05 to .01. Tukey HSD (see Table 4.20) detected a
significant difference between the Panic Disorder and Major Depression groups (p = .001), and the more conservative Scheffe test (see Table 4.21) noted the significance as well (p = .008). Reframing this difference in terms of the social distance scale, those participants who read the vignette depicting Panic Disorder endorsed the least social distance among the six vignette groups. Conversely, those who were randomly assigned the Major Depression vignette identified with the highest social distance among the groups.
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Table 4.1 Missing items on the CAMI instrument.
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Table 4.2 Missing items by subscale of CAMI.

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Table 4.3 Missing items on Social Distance Scale.
<table>
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<th>Frequency/Valid Percent</th>
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<tbody>
<tr>
<td>Caucasian/White</td>
<td>245(80)</td>
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<tr>
<td>African American/Black</td>
<td>44(14)</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>3(1)</td>
</tr>
<tr>
<td>Asian</td>
<td>6(2)</td>
</tr>
<tr>
<td>Other</td>
<td>3(1)</td>
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</table>

<table>
<thead>
<tr>
<th>Highest Level of Education</th>
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</thead>
<tbody>
<tr>
<td>Less than high school diploma</td>
<td>3(4)</td>
</tr>
<tr>
<td>High school diploma/GED</td>
<td>32(10)</td>
</tr>
<tr>
<td>Some College</td>
<td>66(21)</td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>33(10)</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>82(26)</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>67(22)</td>
</tr>
<tr>
<td>Doctorate degree</td>
<td>21(7)</td>
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</table>

<table>
<thead>
<tr>
<th>Social Political Beliefs</th>
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<tbody>
<tr>
<td>Mostly liberal</td>
<td>79(26)</td>
</tr>
<tr>
<td>Slightly liberal</td>
<td>34(11)</td>
</tr>
<tr>
<td>Moderate</td>
<td>104(34)</td>
</tr>
<tr>
<td>Slightly conservative</td>
<td>42(14)</td>
</tr>
<tr>
<td>Mostly conservative</td>
<td>44(15)</td>
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<table>
<thead>
<tr>
<th>Marital Status</th>
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<td>Divorced</td>
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<tr>
<td>Separated</td>
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<tr>
<td>Widowed</td>
<td>4(1)</td>
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<tr>
<td>Partnered</td>
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<table>
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<th>Geographic Location</th>
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<tbody>
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<tr>
<td>Rural</td>
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Table 4.4 Descriptive statistics for demographic variables.
Table 4.4 (cont.) Descriptive statistics for demographic variables.
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<td>Asian</td>
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<td>4</td>
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<tr>
<td>Other</td>
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Table 4.5 Race of sample compared to population

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<tbody>
<tr>
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<tr>
<td>Bachelor’s degree</td>
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<td>32</td>
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<td>Master’s degree or higher</td>
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<td>26</td>
</tr>
<tr>
<td>Master’s degree</td>
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<tr>
<td>Doctorate degree</td>
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Table 4.6 Highest level of education of sample compared to population.
Table 4.7 Sources of information where participants learned about mental illness.

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<th>Source*</th>
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<td>Neighbors</td>
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</tr>
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<td>Coworkers</td>
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<tr>
<td>School</td>
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<td>Friends</td>
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<tr>
<td>Family</td>
<td>21.8</td>
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</table>

*Participants were permitted to select all that applied.

**Identified at least one source of media.

Table 4.8 Sources of media where participants learned about mental illness.

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<th>Source*</th>
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<td>Magazines</td>
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<td>Movies</td>
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<tr>
<td>Newspapers</td>
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<td>Television</td>
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*Participants were permitted to select all that applied.
<table>
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<th>Vignette</th>
<th>Mean</th>
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<td>Control</td>
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<td></td>
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<td><strong>270</strong></td>
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<td>5.02</td>
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<td>Bipolar Disorder</td>
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<td>5.82</td>
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<td>5.40</td>
<td>47</td>
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<td>5.51</td>
<td>46</td>
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<td>4.92</td>
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Table 4.9 Group means on dependent variables by vignette type.
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</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia</td>
<td>.015</td>
<td>.040</td>
<td>.004</td>
<td>-.012</td>
<td>.004</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>-.081</td>
<td>.041</td>
<td>.001</td>
<td>-.008</td>
<td>.046</td>
</tr>
<tr>
<td>Panic Disorder</td>
<td>-.099</td>
<td>.043</td>
<td>-.132*</td>
<td>.065</td>
<td>-.193**</td>
</tr>
<tr>
<td>Major Depression</td>
<td>.057</td>
<td>-.100</td>
<td>.084</td>
<td>-.049</td>
<td>.160**</td>
</tr>
<tr>
<td>Control</td>
<td>.066</td>
<td>.047</td>
<td>-.019</td>
<td>.091</td>
<td>.043</td>
</tr>
<tr>
<td>Cancer</td>
<td>.041</td>
<td>-.075</td>
<td>.063</td>
<td>-.087</td>
<td>-.061</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

Table 4.10 Bivariate correlations of independent and dependent variables (listwise N=285).
<table>
<thead>
<tr>
<th></th>
<th>Author.</th>
<th>Benev.</th>
<th>Soc. Rest.</th>
<th>CMHI</th>
<th>Soc. Dist.</th>
<th>IM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author.</td>
<td>1</td>
<td>-.570*</td>
<td>.713*</td>
<td>-.550*</td>
<td>.338*</td>
<td>.104</td>
</tr>
<tr>
<td>Benev.</td>
<td>1</td>
<td>-.654*</td>
<td>.629*</td>
<td>-.300*</td>
<td>.017</td>
<td></td>
</tr>
<tr>
<td>Soc. Rest.</td>
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<td>-.662*</td>
<td>.512*</td>
<td>.058</td>
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<td></td>
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<tr>
<td>CMHI</td>
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<td>-.466*</td>
<td>.036</td>
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<td></td>
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</tr>
<tr>
<td>Soc. Dist.</td>
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<td>.093</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IM</td>
<td>1</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < 0.01

Table 4.11 Bivariate correlations of dependent variables (listwise N=285).
<table>
<thead>
<tr>
<th>Demographic</th>
<th>Highest Group/Reference Group</th>
<th>Subscale</th>
<th>Correlation</th>
<th>Soc. Dist. Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other/Caucasian</td>
<td>Soc. Rest.</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td></td>
<td></td>
<td>.083</td>
</tr>
<tr>
<td>Parent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Children/No children</td>
<td>Author</td>
<td>- .087</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Children</td>
<td></td>
<td></td>
<td>- .025</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partnered/Married</td>
<td>Soc. Rest.</td>
<td>- .155**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partnered</td>
<td></td>
<td></td>
<td>- .142*</td>
</tr>
<tr>
<td>Geographic Location</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Small town/Suburbs</td>
<td>Benev.</td>
<td>-.143*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>City</td>
<td></td>
<td></td>
<td>-.113</td>
</tr>
<tr>
<td>Social Political Beliefs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mostly liberal/Moderate</td>
<td>Benev.</td>
<td>.356**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mostly liberal</td>
<td></td>
<td></td>
<td>-.219**</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master’s Degree/Bachelor’s</td>
<td>Author</td>
<td>-.198**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Associate’s Degree</td>
<td></td>
<td></td>
<td>-.068</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female/Male</td>
<td>Benev.</td>
<td>.323**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td></td>
<td></td>
<td>.044</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Author.</td>
<td>- .088</td>
<td></td>
<td>- .020</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Author.</td>
<td>- .140*</td>
<td></td>
<td>.107</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

Table 4.12 Bivariate correlations of demographics and dependent variables with highest correlated group displayed.
Demographic | Vignette Type | Correlation
--- | --- | ---
Race
African American | Cancer | .157**
African American | Schizophrenia | -.130*
Education
Associate’s Degree | Panic Disorder | .104
Doctorate Degree | Bipolar Disorder | .103
Social Political Beliefs
Mostly liberal | Cancer | .107
Parent
Marital Status
r < 1 for all categories
Geographic Location
r < 1 for all categories
Sex
r < 1 for all categories
Age
r < 1 for all categories
Income
r < 1 for all categories
* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

Table 4.13 Bivariate correlations of demographics and levels of independent variable.
<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritarianism</td>
<td>302</td>
<td>22.33</td>
<td>4.55</td>
<td>-0.043</td>
<td>-0.359</td>
</tr>
<tr>
<td>Benevolence</td>
<td>297</td>
<td>39.51</td>
<td>4.96</td>
<td>-0.232</td>
<td>-0.036</td>
</tr>
<tr>
<td>Social Restrictiveness</td>
<td>301</td>
<td>22.22</td>
<td>4.95</td>
<td>0.383</td>
<td>0.296</td>
</tr>
<tr>
<td>CMHI</td>
<td>302</td>
<td>36.34</td>
<td>5.66</td>
<td>-0.253</td>
<td>0.474</td>
</tr>
<tr>
<td>Social Distance</td>
<td>303</td>
<td>24.63</td>
<td>5.50</td>
<td>-0.081</td>
<td>-0.637</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>285</td>
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<td></td>
<td></td>
<td></td>
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</table>

Table 4.14 Group means on dependent variables from CAMI subscales and Social Distance Scale.
<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
<th>F</th>
<th>df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Squared</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignette</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pillai’s Trace</td>
<td>.165</td>
<td>1.622</td>
<td>25</td>
<td>1190.000</td>
<td>.027</td>
<td>.033</td>
<td>.983</td>
</tr>
<tr>
<td>Wilks’ Lambda</td>
<td>.844</td>
<td>1.632</td>
<td>25</td>
<td>870.773</td>
<td>.026</td>
<td>.033</td>
<td>.914</td>
</tr>
<tr>
<td>Hotelling’s Trace</td>
<td>.176</td>
<td>1.635</td>
<td>25</td>
<td>1162.000</td>
<td>.026</td>
<td>.034</td>
<td>.983</td>
</tr>
<tr>
<td>Roy’s Largest Root</td>
<td>.097</td>
<td>4.621</td>
<td>5</td>
<td>238.000</td>
<td>.000</td>
<td>.088</td>
<td>.973</td>
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</table>

Table 4.15 MANCOVA multivariate test at $\alpha = .05$. 
<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>95.902</td>
<td>5</td>
<td>19.180</td>
<td>.927</td>
<td>.464</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6127.319</td>
<td>296</td>
<td>20.700</td>
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<tr>
<td>Total</td>
<td>6223.222</td>
<td>301</td>
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<tr>
<td><strong>Benev.</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Between Groups</td>
<td>140.711</td>
<td>5</td>
<td>28.142</td>
<td>1.146</td>
<td>.336</td>
</tr>
<tr>
<td>Within Groups</td>
<td>7143.532</td>
<td>291</td>
<td>24.548</td>
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</tr>
<tr>
<td>Total</td>
<td>7284.242</td>
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</tr>
<tr>
<td><strong>Soc. Rest.</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>158.610</td>
<td>5</td>
<td>31.722</td>
<td>1.298</td>
<td>.264</td>
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<td>7206.918</td>
<td>295</td>
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<tr>
<td>Total</td>
<td>7365.528</td>
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<td><strong>CMHI</strong></td>
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<td></td>
</tr>
<tr>
<td>Between Groups</td>
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<td>30.369</td>
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<td>.452</td>
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<tr>
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<td></td>
</tr>
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<td>28.987</td>
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* p < .01

Table 4.16 One-way ANOVA of dependent variables with Bonferroni correction.
Table 4.17 MANOVA multivariate test at $\alpha = .05$ (excluding covariates).

<table>
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<tr>
<th>Measure</th>
<th>Value</th>
<th>Hypothesis F</th>
<th>Error df</th>
<th>Partial Eta Squared</th>
<th>Observed Power</th>
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<td>Vignette</td>
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</tr>
<tr>
<td>Pillai’s Trace</td>
<td>.135</td>
<td>1.548</td>
<td>25</td>
<td>.041</td>
<td>.027</td>
</tr>
<tr>
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<td>25</td>
<td>.040</td>
<td>.027</td>
</tr>
<tr>
<td>Hotelling’s Trace</td>
<td>.143</td>
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<td>25</td>
<td>.039</td>
<td>.028</td>
</tr>
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<td>Roy’s Largest Root</td>
<td>.081</td>
<td>4.524</td>
<td>5</td>
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</table>

Table 4.18 MANOVA tests of between-subjects effects at $\alpha = .05$ (excluding covariates).

<table>
<thead>
<tr>
<th>Dep.Variable</th>
<th>Type III Sum Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Partial Eta Squared</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignette</td>
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<td>Author.</td>
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<td>133.327</td>
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<td>.019</td>
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Table 4.19 MANCOVA tests of between-subjects effects at $\alpha = .05$. 

<table>
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<tr>
<th>Dep.Variable</th>
<th>Type III Sum Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Partial Eta Squared</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignette</td>
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<td>.035</td>
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<td>Tukey HSD</td>
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<td>Vignette Type</td>
<td>Sig.</td>
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<td>-----------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Soc. Dist.</td>
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<td>Bipolar Disorder</td>
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<tr>
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<td>Panic Disorder</td>
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</tr>
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<td>Major Depression</td>
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<td></td>
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</tr>
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<td>Cancer</td>
<td>.993</td>
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</tr>
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<td>Control</td>
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<tr>
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<td>Bipolar Disorder</td>
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<tr>
<td></td>
<td></td>
<td>Panic Disorder</td>
<td>.067</td>
<td></td>
<td></td>
</tr>
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<td></td>
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</tr>
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<td></td>
<td>Cancer</td>
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</tr>
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<td></td>
<td></td>
<td>Control</td>
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<td>Bipolar</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Panic Disorder</td>
<td>.067</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Major Depression</td>
<td>.001*</td>
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<td></td>
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*p < .01

Table 4.20 Tukey HSD post-hoc test of social distance.
Table 4.21 Scheffe post-hoc test of social distance.

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CHAPTER 5

DISCUSSION

There has been an increasing amount of research devoted to investigating the stigma of mental illness over the past 20 years. Historically, the CAMI has been a popular measure to examine community attitudes, and the social distance scale has been frequently administered and even modified to use internationally. Previous research has not utilized the CAMI to differentiate attitudes between disorders and has been primarily used to assess community attitudes toward mental health group homes (Taylor & Dear, 1981; Taylor, Dear, & Hall, 1979; Wahl, 1993), police officers’ attitudes toward mental illness (Cotton, 2004), and community attitudes toward those with mental illness (Ng, Martin, & Romans, 1995). In fact, the study conducted by Thornton and Wahl (1996) is the closest to the current study in which a violent crime was committed by a mental health consumer and was reported in a newspaper article. However, the study did not vary the disorder in the article; it was merely presented as a person with mental illness.

The first hypothesis for the current study was that for the CAMI subscales authoritarianism and social restrictiveness, respondents who read the schizophrenia vignette and those respondents who were read the bipolar disorder would be score the highest compared to the other four vignette types. This hypothesis was consistent with past research which has found schizophrenia and bipolar disorder to be the most stigmatizing disorders. Panic disorder and major depression have been viewed as more acceptable than schizophrenia and bipolar disorder so respondents presented with either
the panic disorder or major depression vignette should have reflected more favorable attitudes. Because mental illness has been seen as more stigmatizing than other illnesses, it was hypothesized that participants who read the cancer and control vignettes would score the lowest on authoritarianism and social restrictiveness indicating the most favorable attitudes among the six vignettes. Unlike the previously mentioned subscales, benevolence and community mental health ideology are constructed in a manner where highest scores reflect more positive attitudes toward those with mental illness. Therefore, the hypothesized ordering of highest to lowest group scores would be the reverse of the authoritarianism and social restrictiveness subscales. Respondents who read the control and cancer vignettes would score significantly higher than those respondents presented with panic disorder and major depression vignettes, with bipolar disorder and schizophrenia being the lowest groups.

The hypothesis was not confirmed, and none of the groups presented with vignettes (schizophrenia, bipolar disorder, panic disorder, major depression, cancer, control) were significantly different from each other on any of the four subscales of the CAMI: authoritarianism, benevolence, social restrictiveness, and community mental health ideology. This is somewhat surprising given the multitude of studies that have documented different attitudes toward disorders, albeit not on the CAMI. Each subscale will be discussed individually below. Note that despite each condition corresponding to a particular vignette and diagnostic label, the CAMI items were general statements about mental illness and not tied directly to the label. The expectation was that by reading the bipolar vignette, for example, respondents may have expressed attitudes toward mental illness in general in a manner different from the other vignettes that were read. Also, even
though differences between vignettes were not statistically different from each other, the rank-order will be given and interpreted with caution.

Authoritarianism

Agreement with authoritarianism suggests that mental health consumers need to be kept in check by others and essentially are helpless and incapable of meeting basic needs. The group of respondents with the highest rating on this subscale was those who read the cancer vignette followed by the control, major depression, schizophrenia, panic disorder, and bipolar disorder vignettes. This ordering was unexpected given that cancer has typically been viewed as more acceptable than mental illness and would therefore contribute less to negative feelings toward mental illness as compared to schizophrenia. Respondents presented with the panic disorder vignette rated it as the second lowest indicating a low-level agreement with the construct. This is closely aligned with the scores on social distance in which respondents reflected the most desire to interact with panic disorder compared to the other five labels.

As will be described subsequently regarding the social distance scale, some respondents may have erroneously concluded that the perpetrator in the vignette who committed murder and had cancer had also developed a mental illness. This could partially be explained by the use of deception in which participants were not informed that their attitudes toward mental illness were going to be explored so those who received the cancer and control vignettes may have been confused by the questionnaires about mental illness. This potential problem could be said for all dependent variables, in particular the CAMI subscales, where there were no statements directly relating the respondents to their answers whereas the social distance scale was measuring the
respondents’ willingness to interact with someone like the perpetrator in the vignette. Furthermore, it was also surprising that the control condition was second highest on authoritarianism because there was no mention of mental illness or cancer, only the crime itself. It may have been beneficial for the researcher to use a control condition with a neutral newspaper article instead of the one used; however, because the purpose of the study was to alter the diagnostic label only it seemed appropriate to not modify the story.

Benevolence

As stated earlier, there were no significant differences on the benevolence subscale, but the highest to lowest ordering is as follows: bipolar disorder, schizophrenia, control, panic disorder, cancer, and major depression. This indicates that respondents who read the bipolar disorder vignette overall expressed the most welcoming, considerate attitudes which again is not consistent with anticipated attitudes which are traditionally not as accepting of those with bipolar disorder. One noteworthy observation here is that major depression is the lowest indicating the least amount of agreement with the construct of being kind, sympathetic, and supportive of those with mental illness. This finding is consistent with the ratings on the social distance scale below in which major depression had the highest social distance. The schizophrenia group is also higher than expected.

Social Restrictiveness

Higher scores on this construct reflect greater agreement that people with mental illness are dangerous and pose a threat to others. As the name implies, people with mental illness should be restricted from particular roles in society such as holding public office or being a babysitter. Those respondents who read the cancer vignette scored the highest
on this subscale, followed by major depression, schizophrenia, control, bipolar disorder, and panic disorder. Interestingly, participants who read the cancer vignette indicated responses that ranked cancer the highest on both of the negatively-framed constructs of authoritarianism and social restrictiveness. Moreover, the actual questionnaire statements were about people with mental illness and not cancer. Also, the ranking of major depression and panic disorder followed a similar trend once again with major depression second highest and panic disorder lowest.

Community Mental Health Ideology

Greater agreement with statements regarding treatment of mental health consumers in the community and being treated outside psychiatric hospitals resulted in higher scores on this subscale. The control group was the highest followed by panic disorder, schizophrenia, bipolar disorder, major depression, and cancer. Although the control group was first and this was hypothesized, the cancer group was the lowest which was not anticipated. A similar pattern was present with the panic disorder group being viewed as more accepting of community treatment and the major depression group less enthusiastic about this idea.

There are some general observations that can be generated from the above findings. The bipolar disorder and schizophrenia groups were ranked very similarly on all four subscales. On the two positively-framed measures (benevolence and community mental health ideology) these two disorders were ranked next to each other with little difference between them. For the negatively-framed subscales (authoritarianism and social restrictiveness), bipolar disorder and schizophrenia were only separated by one other disorder when ranked highest to lowest. Moreover, on the authoritarianism
subscale, the schizophrenia group was ranked fourth highest and bipolar disorder sixth highest. For *social restrictiveness*, the schizophrenia group was third highest with bipolar disorder the fifth highest. It is possible that respondents viewing these two vignettes did not differentiate between them conceptually.

Panic disorder and major depression have been fairly opposite on the above subscales with the former being more closely related to positive attitudes and the latter more negative ones. This was not anticipated because in general both of these disorders tend to be viewed as more accepting and more tolerable by others as compared to schizophrenia and bipolar disorder (Corrigan, 2005).

One of the more unpredicted results was the overall negative scores associated with respondents who read the cancer vignette. This is surprising given that the items all revolved around mental illness so there was not expected to be any backlash from reading a vignette about a man *without* a mental illness negatively affecting responses about mental illness. One possibility is that respondents viewed cancer as triggering mental illness or using it as an excuse perhaps although this is merely speculation. It is not entirely clear why this may have occurred.

Also, because the CAMI has not been previously administered in the manner consistent with this study, attitudes such as viewing those with mental illness as childlike, incompetent, or with compassion and acceptance (in accordance with the subscales) may indeed vary based on disorder. There are likely other instruments that would be effective in detecting these differences if they exist. One of the most common measures that serves as a proxy to behavior toward those with mental illness is the following *social distance scale*. 
The second hypothesis for the current study was that schizophrenia and bipolar disorder would have the highest social distance followed by panic disorder and major depression; the groups cancer and control would have the lowest scores. This hypothesis was partially confirmed.

**Social Distance Scale**

Multivariate and subsequent post-hoc analyses found a statistically significant difference of social distance between panic disorder and major depression. Participants would be most willing to interact with a consumer who had panic disorder and least likely to engage in various relationships with a person who had major depression. The order from highest to lowest social distance was major depression, control, bipolar disorder, schizophrenia, cancer, panic disorder. These results are surprising and contradictory to most studies examining vignettes which have almost exclusively found schizophrenia to be the most stigmatizing of all disorders whereas in the current study it was fourth highest. The fact that panic disorder is associated with the lowest social distance is not altogether unusual; however, the notion that any mental disorder was seen as more favorable than cancer and a control condition without a label was not expected. In addition, participants were more willing to interact with someone with cancer than those with schizophrenia, bipolar disorder, and major depression. This is consistent with past research (Mental Health America, 2007). Panic disorder being viewed as most desirable in social situations is a relatively new finding which may be an evolving trend reflecting more sympathy and less fear by others. The polarity of panic disorder and major depression was also evident to a lesser degree on the subscales of the CAMI.
Some insight into the respondents’ rationale behind the social distance across the vignettes may have been gained through the debriefing. The ability to debrief participants as part of the study enabled interaction with the researcher that is typically not available in most stigma research where phone surveying is used or other methods that lack personal interaction or situations where respondents do not need to be debriefed. It is important to emphasize here that the purpose of debriefing was directly related to the use of deception and not as a means to collect qualitative data. The following information arose spontaneously when the researcher proceeded with the debriefing procedure. Some participants who were randomly assigned the control vignette, when told by the researcher the purpose of the study, stated that they were concerned that the perpetrator of murder did not have a mental illness. In other words, it was a lack of diagnosis that contributed to their increased desire for social distance. Also, the person could have been viewed simply as a murderer. Although this may have only accounted for a small portion of the sample in the control condition, it does provide an interesting interpretation. This belief is however consistent with the work by Wahl (1995) and the social psychology literature (Levin & van Laar, 2006) who argue that it is common for people in general to protect themselves from danger by portraying those with mental illness as different from them. Thus, the control condition represents a “normal” person without a diagnostic label who has committed murder so because this “normal” person would not be expected to perform such an act it is even more alarming to another person (i.e., the respondent). The result is increased social distance.

Aside from the control condition and its relationship to a “normal” person who is identified as the perpetrator, what also may be considered normal is the association
between schizophrenia and violence. Because these are both routinely paired together in
the media, it is possible that respondents were not as affected by the label of the disorder
and the behavior described in the vignette. In other words, it has become so
commonplace for participants to hear about persons with schizophrenia committing a
violent act that they are not shocked when they occur together. This could also be said, to
a lesser extent, about bipolar disorder which was ranked behind schizophrenia.

Another explanation for the unexpected results on the social distance scale could
be that there are various reasons why each particular disorder has its respective social
distance value assigned. For example, the construct fear tends to fuel social distance
related to schizophrenia (Marie & Miles, 2008) and bipolar disorder particularly when
manic symptoms or erratic, unpredictable behavior is depicted. However, the social
distance related to major depression may not be driven by fear but perhaps another
construct. Because depression and sub-clinical depression appear in the general
population more frequently than schizophrenia, for example, respondents may have more
negative experiences which may help to explain the unusually high social distance
(American Psychiatric Association, 2000). A study in New Zealand found social distance
the lowest with depression compared to schizophrenia, alcohol abuse, and substance
dependence (Marie & Miles, 2009). The authors stated that respondents’ positive
experiences could have explained the more favorable attitudes toward depression. Thus,
similar logic could be argued to explain the results in the current study.

Because there may be various reasons why respondents desired their respective
amount of social distance, results may also indicate that there should be interventions
tailored specifically toward each disorder. For example, strategies to reduce stigma
attached to panic disorder may need to be different than those designed to counteract stigma with major depression. This may seem cumbersome and difficult to implement, but it could also help to explain why the typical canned approaches to stigma reduction have not been terribly successful. The underlying beliefs related to various disorders call for a unique approach.

In Germany, Schomerus, Matschinger, and Angermeyer (2009) studied help-seeking intentions of the general public by presenting a vignette encouraging them to imagine their family doctor examined them, found no medical problems, but wanted to refer them to see a psychiatrist because the symptoms may be due to major depression. Social distance items, similar to those used in the current study, were presented to participants with the caveat that the person under investigation was seeing a psychiatrist. Out of the seven items on the social distance scale, the item, *Would you let someone seeing a psychiatrist for treatment take care of your children for a couple of hours?* was rated the highest, reflecting the greatest amount of social distance. This is identical to the highest social distance item in the present study across all conditions. Also, 23.9% of the respondents would not seek psychiatric help for their depression (Schomerus, Matschinger, & Angermeyer, 2009). Additional stigma measures found that 68% expected to be discriminated against when applying for a job. Although the study did not compare social distance across different disorders, this provides evidence that even major depression, which has typically been associated with lower social distance, still has stigma attached to it and expected consequences by others. It was this social distance that was found to be the most substantial barrier to seeking treatment and even more so than
anticipated discrimination by others. Interestingly, another study found no effect of a label on public attitudes toward major depression (Angermeyer & Matschinger, 2003).

There is a considerable amount of literature supporting the relationship between cause of mental illness and social distance (Griffiths & Christensen, 2004). Explaining mental illness as a “brain disease” or “biochemical imbalance” was thought to be helpful to reduce stigma by sending the message that the illness is not a result of bad moral character. However, one of the unintended results was the tendency to view consumers as helpless and even less likely to get better. Thus, the focus on a biological explanation fostered the belief that the illness was permanent and unlikely to change. Mixes results show some variations exist in the association between the cause and the disorder in question.

Labeling Theory

The primary reason the current study was conducted was to examine public attitudes toward mental illness by presenting six vignettes with various disorders and labels; differences between conditions would then likely be due to participants viewing labels differently. Although there were no statistically significant differences on the four subscales of the CAMI, the power of the diagnostic label became more apparent when viewing the results of the social distance scale. Corrigan (2007) discusses “label avoidance” in which people often do not seek needed mental health services for fear of being diagnosed and the implications of that label. This even includes those who are experiencing severe impairment in functioning, not just those with minor disruption (Narrow et al., 2000). A mixed-methods study sought to capture the voice of mental health professionals and their perceptions about the labels associated with mental illness.
One participant described the typical view toward those who have just been diagnosed, “too bad for you, you might as well forget about any life you thought you could have had because now you have this illness and you’re never going to accomplish anything in life” (Flanagan, Miller, & Davidson, 2009, p.62).

Comparison of the current study’s results with the works of Goffman (1963) and Scheff (1966) reveals similarities in terms of the consumer’s attempt to return to normal state of functioning as evident in the social distance scale. The items regarding a job, friend, and housing are all attempts to maintain a healthy lifestyle yet the variation in responses on the instrument seem to suggest that participants are more or less likely to accept others in their social network based on their disorder. Scheff (1966) argued that this role of being “mentally ill” becomes the person’s identity whereas “normal” behavior would be ignored. Similarly, Goffman (1963) noted that the general public or “normals” limit the chances of those with mental illness through discrimination. As stated above, when consumers are prohibited from obtaining housing, employment, and social support, they are indeed facing discrimination.

Gove (1970, 1980) has been a strong opponent of labeling theory and has argued that the erratic behavior of mental health consumers has been the largest predictor of the quality of their subsequent treatment by others and that the label has very little meaning. However, the results of the current study seem to rebut this claim. In fact, if Gove’s assertion was correct then the current researcher would have found no differences on the social distance scale. In other words, the label was the only component of the vignettes that was changed, and if this label was truly irrelevant then no significant differences would have been found. This was obviously not the case as panic disorder was found to
be significantly different from major depression. The findings on the subscales of the CAMI, although not statistically significant, do yield some interesting patterns in terms of the ranking of disorders as well.

One contribution of the present study to the labeling theory literature is that the severity and type of crime may mediate the impact of the label on attitudes. For example, if the crime portrayed in the vignettes were a less violent offense such as petty theft, different attitudes may have emerged, particularly on the social distance scale. Because murder is likely to be considered the most appalling criminal act one could perform, this crime may have superseded the effect of the label for some respondents. Even some responses by participants during the debriefing support this explanation.

Adding to the theoretical concepts devised by Scheff (1966) and Goffman (1963), Link and colleagues (1989) discussed modified labeling theory and its focus on the consequences of mental illness. This is clearly illustrated by the social distance ratings relative to disorders. Thus, participants expressed varying degrees of willingness to be a friend, coworker, neighbor, landlord, and trusting of someone like the perpetrator in the vignette to be the babysitter of their children. Several of the social distance items have been documented in the literature as barriers experienced firsthand by consumers. A more dated study found that women would rather have an ex-convict babysit their children than someone with mental illness (Rabkin, 1974). As stated earlier, housing and employment are also roadblocks for those with mental illness (Corrigan, 2005, 2007).

Implications for Practice

One major shortcoming related to stigma research has been the lack of a social work voice. To date, there have been almost no social work researchers to publish in this
area. This is concerning when considering that social workers provide the majority of treatment for those who have mental illness. A social work lens provides a unique framework in which to view the problem of stigma. One methodological limitation, discussed below in greater detail, is the need to include more qualitative research. Giving clients a voice is a critical part of the social work profession. The entire profession is based on empowering populations that have been marginalized and disenfranchised so focusing predominantly on the “expert” opinion regarding stigma does a disservice to consumers. One remedy is to include consumers in the research through the use of participatory action research in which collaboration exists between experimenters and consumers rather than the usual expert-participant hierarchy (McIntyre, 2007).

A social work perspective also entails exploring the strengths clients possess. Stigma is partially rooted in a disease model, death-sentence type of understanding about mental illness. The recovery model is preferred and fits well with the social work values. This approach emphasizes the goals clients have to achieve a more fulfilling life and empowering them to reach these goals whether they involve obtaining employment, housing, developing a relationship, improving family functioning, etc. (Corrigan, Mueser, Bond, Drake, & Solomon, 2008). Recovery encourages clients and mental health professionals to embrace a mindset that revolves around the clients moving forward in life rather than trying not to get worse. Countering stigma is one way for social workers and other professionals to eliminate the barriers that inhibit the voice of consumers. Using disparaging language such as “borderlines” or “schizophrenics” is condescending to clients and is frequently used by professionals in the mental health field (Hinshaw, 2007).
Viewing stigma from a social work lens also includes examining the larger, macro systems that continue to perpetuate stigma. The public school system, for the most part, provides a captive audience of those who will make up the general public as adults. Because children are exposed to stigmatizing images at an early age (Wahl, 2003b), dispelling the myths in the school system is one way to eradicate stigma and could help to prevent it from continuing in adulthood. The likelihood of reducing negative attitudes is compromised if a person is an adult versus a child. Although results are mixed on the effectiveness of education programs, little is known about the success of childhood interventions over time (Corrigan, 2005). More longitudinal studies need to be conducted to evaluate these interventions over time. The other two primary approaches, contact, and protest or advocacy, also show promise in conjunction with education (Arboleda-Flórez, & Sartorius, 2008; Corrigan, 2005).

Other macro systems like insurance companies through their coverage policies have long emphasized traditional medical care over psychiatric care which inadvertently promotes stigma by downplaying the significance of mental health needs (Corrigan, 2005). In general, an individual with a medical problem will be granted more coverage than a similar person experiencing psychiatric problems. Thus, the need to advocate for insurance parity has been a major goal of the mental health advocacy movement. Parity has been achieved recently in the State of Ohio although the term “parity” is somewhat misleading as there are only a few of the major mental disorders being covered for the most part. The message being delivered to the public is that psychiatric services are less deserving of coverage or can be handled without professional help. This represents yet
another barrier to services. This study provides evidence that stigma does exist, and it
does differ based on disorder.

Limitations

Although there were several strengths in the current study, limitations exist which
deserve attention and clarification when interpreting the results. First, a convenience
sample was utilized due to the difficulty of obtaining an accurate sampling frame for
adults in Columbus, Ohio. As a result, findings in the present study can only be
generalized to the sample.

Another limitation was the inability to control for the effect of the type of crime
on attitudes toward mental illness as well as social distance. The crime depicted in the
vignettes was murder which may have masked the true attitudes of respondents had a
lesser crime such as petty theft been described. The researcher’s desire to compare
multiple psychiatric diagnoses across six conditions thereby increased the number of
participants required for the study. A two-factor design would have permitted the
researcher to control for diagnosis and type of crime committed.

The use of deception in the study may have been problematic but its purpose was
twofold: to simulate a real-life portrayal of how a crime committed by someone with
mental illness would appear in a newspaper and to prevent respondents from self-
selecting to participation in the study based on the topic of stigma of mental illness. The
former is the one that presents some concern; it is difficult to assess the degree to which
respondents actually believed the story was real and therefore answered truthfully. The
impression management scale was included to control for socially desirably responses;
however, there was no way to directly measure the extent to which participants thought
the vignette was accurate. A simple 1-10 scale (1 = I was positive it was a fictitious event, 10 = I was positive it was a real event) may have at least served as a proxy to the believability of the respective vignette.

A similar drawback was the inability to account for the saliency of the label while participants were completing the questionnaires. The experimenter was cognizant of possible rater fatigue stemming from the number of items on the instruments, but it is possible that respondents, for example, were not thinking “schizophrenia” after reading this particular vignette for the duration of the questionnaire items. This becomes problematic if participants glanced over the vignette without recognizing the label. Consequently, their responses may not entirely reflect their attitudes after being primed by the label itself. Although this potential issue has not been addressed in the stigma literature, it is deserving of attention. What may have been beneficial is to include more sentences to reiterate the behavior associated with the disorder depicted in each vignette.

Another potential limitation was related more specifically to the cancer and control vignettes. Respondents were given these vignettes which did not mention mental illness and then they completed the CAMI which asked about attitudes toward those with mental illness. As a result, participants may have inferred that the perpetrator in these two vignettes did have a mental illness. Including a statement such as “Tony Rafenna was not found to have any form of mental illness” may have helped to correct this limitation and encourage participants to focus on the actual label of cancer in the cancer vignette or no label as portrayed in the control group.

Although the process of debriefing was to ensure that respondents knew the crime did not take place, it also serendipitously granted the researcher the opportunity to gain a
better understanding of how the participants conceptualized the materials. Some potential concerns were raised when listening to respondents. First, there were a few participants that assumed the perpetrator Tony Rafenna really did have a mental illness in the control group because the subsequent questionnaires (CAMI) were statements related to mental illness. The experimenter intentionally minimized the differences between the vignettes to promote realistic newspaper accounts of a crime (i.e., every time a murder is reported in the newspaper, the journalist does not state “there was no history of mental illness”). As a result, it appears that not all of those who received the control vignette, understood that there was no mental illness. Similarly, the cancer vignette also presented with some of the same issues. A few participants told the researcher that they assumed the person with cancer who committed murder (Tony Rafenna) developed some form of mental illness because the CAMI questions followed the vignette. In hindsight, the researcher could have included a statement on the control and cancer vignettes such as: “Tony Rafenna has no history of mental illness” with the compromise being that this phrase was not present in the mental health vignettes.

Future Research

Although the current study adds to the mental illness stigma knowledge base, there are still many more avenues to pursue regarding future research when further investigating stigma as well as the impact of media on stigma. The inclusion of qualitative studies, investigating the mechanisms that promote consumption of negative images, improving methodological rigor, and performing more evaluation studies of existing interventions and prevention efforts are vital pieces of the stigma puzzle and should be incorporated.
Qualitative research studies have been greatly outnumbered by quantitative ones yet these smaller, in depth accounts can provide the voice of consumers who have been exposed to stigma and the media in particular. For example, many studies have surveyed large samples of the general public in the United States and other countries to better understand their views toward media and stigma. However, what is missing is the firsthand experiences of mental health consumers who watch a movie where the murderer has bipolar disorder, read a newspaper article about someone with schizophrenia harming a child, see a story on the internet about celebrities who are “crazy,” or sit down to watch a cartoon with their children where the hero is “normal” and the villain is a “madman.” One study, albeit quantitative, found that among clients with schizophrenia 43% of the sample witnessed disparaging media accounts of mental illness (Dickerson, Sommerville, Origoni, Ringel, & Parente, 2002). These images are certainly powerful, they continue to exist, and what little researches know about the media’s impact on stigma is primarily limited to frequencies of the images rather than the perceptions of the clients themselves who are being portrayed. These examples are another key difference between those suffering from mental illness and those who have other ailments. While mental illness is routinely exploited, laughed at, and presented in a harmful manner, it is unconscionable for a movie to depict a person with HIV/AIDS in a humorous light or someone with cancer as dangerous, instilling fear in others.

Through collaboration with colleagues, the researcher in the current study believes one compelling area for future research is to explore the interest and desire for the general public to view and purchase negative, inaccurate forms of media related to mental illness. In other words, why is the public more interested in a movie where the
main character has schizophrenia as opposed to no illness at all or why is a comedian funnier if he or she has bipolar disorder? Although Wahl (1995) notes that the promise of an enormous profit by the film companies fuels their desire to create more movies, this does not account for why people continue to view these movies. Moreover, this is a circular process, in that, those in the entertainment industry produce forms of media based on the demand of the viewing audience. A qualitative study or perhaps a mixed-methods focus group of adults may prove useful when trying to conceptualize why these images are in demand. The need for more qualitative research on stigma has also been echoed by Link and colleagues (2004) who stress that this is necessary to compliment the existing quantitative studies.

Another critical area for future research is to develop mechanisms by which the media can be used as a source of accurate information to reduce or eliminate stigma versus perpetuating it. The current study as well as past research (Wahl, 1995; Yankelovich, 1990, etc.) provides evidence that the media is incredibly influential in terms of how the general public learns about mental illness. Of course when the majority of this information is erroneous, it becomes problematic. There are many advocacy organizations such as Mental Health America (MHA) and the National Alliance on Mental Illness (NAMI), to name a few, that have worked diligently to counteract media and stigma. NAMI’s stigmabusters is an online listserv that emails recipients regarding stigma alerts when an upcoming movie, television show, etc. has the potential to be stigmatizing. The advocates are encouraged to email, write, or call the persons responsible to inform them of the harm being caused and to educate them accordingly. Also, the efforts of the Center for Mental Health Services through the Substance Abuse
and Mental Health Services Administration (SAMHSA) and the U.S. Department of Health and Human Services have led to the creation of “Challenging Stereotypes: An Action Guide” to give a step-by-step demonstration on how to appeal to various media outlets and how to contact them when stigmatizing images are witnessed.

A promising approach in Great Britain called “What’s the Story?” is a Department of Health funded program that aims to provide education and direction to editors and journalists related to reporting information about mental health in the newspaper. Facts about mental illness, its association with violence, treatment, and terminology are some of the categories of information presented in the booklet. As Wahl (1995) noted, stigmatizing images in the media are not always fueled by profit; sometimes they are perpetuated by ignorance. In the case of newspaper journalists, they are more likely to be unaware of the accuracy of their claims. Thus, providing accurate information and a formula on how to present it to the general public is a useful way to minimize the harmful messages being disseminated by newspapers.

A similar approach was implemented by the World Psychiatric Association (WPA) in Canada where collaborative efforts were undertaken with a local newspaper to increase the number of positive stories about schizophrenia. An additional goal was to increase the word count over a 16-month period. Researchers worked with reporters to provide more accurate information about mental illness and to foster more positive stories. Results indicated an increase in positive portrayals however the increase was modest compared to other negative depictions that still persisted. Also, despite local efforts, international stories still permeated into local communities.

An ongoing issue with attitudinal studies has been the inability to link attitudes
with actual behavior. For example, one question on the social distance scale in the current study was, How would you feel having someone like Tony Rafenna as a neighbor? yet it is difficult to determine how many of the respondents who stated they were “definitely willing” to do this would actually be interested in having this person as their neighbor. Hinshaw and Stier (2008) contend that more rigorous studies need to be conducted by investigating observable behavior thereby eliminating the influence of social desirability related to attitudes. The authors recommend the Implicit Association Test (IAT) or the Go/No-go Association Test (GNAT) to tap processes that lie beneath the level of conscious responses. To date, there have not been a large number of studies to utilize these approaches. However, one related study was conducted by Graves, Cassisi, and Penn (2005) who measured the psychophysiological arousal of predominantly African American college students who viewed a picture of a person and were told either they had schizophrenia or they did not. Audio-recorded biographical scripts were played describing the picture one of two ways. Pictures of the stimulus were varied based on gender but the pictures were the same to control for physical differences. In addition, participants were asked to imagine engaging in various tasks with the person such as: completing a job resume, deciding on which apartment to rent, practicing for a driving test, and shopping for clothes at the mall. Results indicated that when participants were in the schizophrenia condition, arousal was heightened which is typically associated as a negative experience. This may help explain why social distance measures were also higher for the group. Authors note that to further improve the external validity of the study, controlled exposure to actual persons would be better than imagined ones (Graves, Cassisi, & Penn, 2005).
While probing for a more in-depth understanding of stigma has helped to structure existing interventions to reduce or prevent stigma of mental illness, it is fairly unclear whether these programs have been effective over time. One common theme with anti-stigma interventions is the inability to explain and measure attitudes over time. It is conceivable that virtually any brief intervention portraying someone with mental illness in a positive light (i.e., viewing *A Beautiful Mind* or *The Soloist*) will show an improvement on attitudes pretest-posttest. However, it is unlikely that these favorable attitudes will persist beyond a few days, weeks, etc. These one-shot interventions may contribute a small part to the stigma-reduction effort, but they may not be transferable to practical settings long-term (Arboleda-Flórez, & Sartorius, 2008). For example, overall, contact by the general public with those who have a mental illness results in more positive attitudes and one such intervention has been to have a consumer speak to high school students. However, this intervention, although perhaps effective, is not likely to sustain over time in the school system for very practical reasons (i.e., schools cannot regularly excuse the entire student body to listen to a talk for an hour). More worthwhile gains could best be achieved through integrating this strategy with the health curriculum and advocating for the inclusion of more mental health content in health classes as opposed to focusing primarily on physical health.

The role of demographic factors has also contributed to a more complex understanding of stigma. Although this was not the primary research question in the current study, race, age, ethnicity, sex, and other factors should be taken into consideration when designing anti-stigma interventions. As noted above, the cause of mental illness can explain some of the variance in attitudes and, for some, these attitudes
are driven by long-standing beliefs. A very specific example is the list of culture-bound syndromes in the DSM-IV-TR (American Psychiatric Association, 2000). Thus, the cause of mental illness will likely need to be incorporated into the intervention as it pertains to cultural beliefs. Often related to the cause is the form of treatment necessary to assist the individual (Hinshaw, 2007). Demographics can play a pivotal role in explaining what is the best course of treatment; some would argue that mental health professionals are the most helpful whereas others would manage the signs and symptoms within their immediate families. Still others may consult a local leader in their community whose tactics would seem strange to most professionals. The impact of diversity on stigma is still largely unknown.

The implication of diversity from a global sense should also be embraced in the stigma literature. The number of international studies devoted to exploring stigma, the media’s impact, and intervention efforts has been well documented to this point which suggests that more steps need to be undertaken to modify strategies from other cultures. There is already existing collaboration through the World Psychiatric Association; however, more relationships should be created to investigate and adapt interventions to the U.S. arena. If particular interventions are found to be helpful overseas, then they may be applicable, to some extent, in the United States. Despite some evidence that there is cooperation internationally, the overall stigma efforts appear to be rather fragmented.

Conclusion

In conclusion, the stigma of mental illness presents devastating effects to those trying to cope, and the media compounds these efforts by providing an efficient means to deliver negative images that further impact these individuals. Stigma has existed for
many years yet the research is still quite new in comparison. The label of “schizophrenia,” “bipolar disorder,” “panic disorder,” “major depression,” and others affect the lives of consumers and although the extent of these effects has been fairly well documented, the elusive part is determining how to counteract them. One means is to provide a voice to consumers; disregarding their input into interventions and collaboration among only the “experts” reinforces the inferior role that is already felt by some. Additionally, channeling the force of the media to promote positive and accurate accounts of mental health clients can help to fight against the negative ones that exist. Mental health professionals and especially social workers need to be willing to adopt a recovery-oriented outlook on mental illness because they are at the forefront of treatment. Barriers to treatment already exist, and they are compounded by social workers who condone the use of negative language and promote the prevailing belief that there is no help for mental health consumers. Stigma is incredibly complex, is fueled by many different sources, and the general public is bombarded by stigmatizing images regularly; this force will likewise need to be confronted by a multi-level approach if this issue is to be remedied.
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Appendix A: Schizophrenia Vignette
Mental Patient Charged with Murder

May 4, 2009

_Bringsfield, Montana_ – Tony Rafenna, a 42 year-old man was charged with murder yesterday following an attack on another man, 38 year-old Bobby Mills. It was reported that Mr. Rafenna assaulted the man around 4:30 pm causing head trauma to Mr. Mills who died a few hours later on the way to the hospital close to 5:45 pm.

According to doctors, Mr. Rafenna had been diagnosed with schizophrenia for the past 9 years. He had been having hallucinations of seeing objects that weren’t really there and at times had delusions that people were out to hurt him.

Mr. Rafenna has been married to his wife Amy Rafenna for the past 12 years, and they have two children together, a 3 year-old son, and a 5 year-old daughter. He also had been working a part-time job. Mr. Rafenna is currently in jail and awaiting trial.
Appendix B: Bipolar Disorder Vignette
Mental Patient Charged with Murder

May 4, 2009

*Springfield, Montana* – Tony Rafenna, a 42 year-old man was charged with murder yesterday following an attack on another man, 38 year-old Bobby Mills. It was reported that Mr. Rafenna assaulted the man around 4:30 pm causing head trauma to Mr. Mills who died a few hours later on the way to the hospital close to 5:45 pm.

According to doctors, Mr. Rafenna had been diagnosed with bipolar disorder for the past 9 years. He had been having frequent mood swings along with periods of high energy and impulsive actions such as shopping sprees and driving his car at excessive speeds.

Mr. Rafenna has been married to his wife Amy Rafenna for the past 12 years, and they have two children together, a 3 year-old son, and a 5 year-old daughter. He also had been working a part-time job. Mr. Rafenna is currently in jail and awaiting trial.
Appendix C: Panic Disorder without Agoraphobia Vignette
Mental Patient Charged with Murder

May 4, 2009

*Springfield, Montana* – Tony Rafenna, a 42 year-old man was charged with murder yesterday following an attack on another man, 38 year-old Bobby Mills. It was reported that Mr. Rafenna assaulted the man around 4:30 pm causing head trauma to Mr. Mills who died a few hours later on the way to the hospital close to 5:45 pm.

According to doctors, Mr. Rafenna had been diagnosed with panic disorder without agoraphobia for the past 9 years. He had been having frequent and unexpected panic attacks along with worrying all the time about having more panic attacks and thought he was losing control.

Mr. Rafenna has been married to his wife Amy Rafenna for the past 12 years, and they have two children together, a 3 year-old son, and a 5 year-old daughter. He also had been working a part-time job. Mr. Rafenna is currently in jail and awaiting trial.
Appendix D: Major Depressive Disorder Vignette
Mental Patient Charged with Murder

May 4, 2009

_Springfield, Montana_ – Tony Rafenna, a 42 year-old man was charged with murder yesterday following an attack on another man, 38 year-old Bobby Mills. It was reported that Mr. Rafenna assaulted the man around 4:30 pm causing head trauma to Mr. Mills who died a few hours later on the way to the hospital close to 5:45pm.

According to doctors, Mr. Rafenna had been diagnosed with major depressive disorder for the past 9 years. He had been severely depressed and was feeling worthless most of the time. He also had difficulty sleeping and lost 15 pounds from not feeling like eating.

Mr. Rafenna has been married to his wife Amy Rafenna for the past 12 years, and they have two children together, a 3 year-old son, and a 5 year-old daughter. He also had been working a part-time job. Mr. Rafenna is currently in jail and awaiting trial.
Appendix E: Cancer Vignette
Man Charged with Murder

May 4, 2009

Springfield, Montana – Tony Rafenna, a 42 year-old man was charged with murder yesterday following an attack on another man, 38 year-old Bobby Mills. It was reported that Mr. Rafenna assaulted the man around 4:30 pm causing head trauma to Mr. Mills who died a few hours later on the way to the hospital close to 5:45pm.

According to doctors, Mr. Rafenna had been diagnosed with cancer unknown primary for the past 9 years. He had been feeling very tired and weak with pain in his chest.

Mr. Rafenna has been married to his wife Amy Rafenna for the past 12 years, and they have two children together, a 3 year-old son, and a 5 year-old daughter. He also had been working a part-time job. Mr. Rafenna is currently in jail and awaiting trial.
Appendix F: Control Vignette
Man Charged with Murder

May 4, 2009

Springfield, Montana – Tony Rafenna, a 42 year-old man was charged with murder yesterday following an attack on another man, 38 year-old Bobby Mills. It was reported that Mr. Rafenna assaulted the man around 4:30 pm causing head trauma to Mr. Mills who died a few hours later on the way to the hospital close to 5:45pm.

Mr. Rafenna has been married to his wife Amy Rafenna for the past 12 years, and they have two children together, a 3 year-old son, and a 5 year-old daughter. He also had been working a part-time job. Mr. Rafenna is currently in jail and awaiting trial.
Appendix G: Community Attitudes Toward the Mentally Ill (CAMI)
The following statements express various opinions about mental illness and the mentally ill. Please circle the response that most accurately describes your reaction to each statement. Please answer each statement based on your first reaction. Some statements may sound similar.

1. As soon as a person shows signs of mental disturbance, he should be hospitalized.

   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

2. More tax money should be spent on the care and treatment of adults with mental illness.

   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

3. An adult with mental illness should be isolated from the rest of the community.

   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

4. The best therapy for many adults with mental illness is to be part of a normal community.

   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

5. Mental illness is an illness like any other.

   Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree
6. Adults with mental illness are a burden on society.

7. Adults with mental illness are far less of a danger than most people suppose.

8. Locating mental health facilities in a residential area downgrades the neighborhood.

9. There is something about adults with mental illness that makes it easy to tell them from normal people.

10. Adults with mental illness have for too long been the subject of ridicule.

11. A woman would be foolish to marry a man who has suffered from mental illness, even though he seems fully recovered.
12. As far as possible mental health services should be provided through community-based facilities.

**Strongly Agree**  **Agree**  **Neutral**  **Disagree**  **Strongly Disagree**

13. Less emphasis should be placed on protecting the public from adults with mental illness.

**Strongly Agree**  **Agree**  **Neutral**  **Disagree**  **Strongly Disagree**

14. Increased spending on mental health services is a waste of tax dollars.

**Strongly Agree**  **Agree**  **Neutral**  **Disagree**  **Strongly Disagree**

15. No one has the right to exclude adults with mental illness from their neighborhood.

**Strongly Agree**  **Agree**  **Neutral**  **Disagree**  **Strongly Disagree**

16. Having adults with mental illness living within residential neighborhoods might be good therapy, but the risks to residents are too great.

**Strongly Agree**  **Agree**  **Neutral**  **Disagree**  **Strongly Disagree**

17. Adults with mental illness need the same kind of control and discipline as a young child.

**Strongly Agree**  **Agree**  **Neutral**  **Disagree**  **Strongly Disagree**
18. We need to adopt a far more tolerant attitude toward adults with mental illness in our society.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

19. I would not want to live next door to someone who has been mentally ill.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

20. Residents should accept the location of mental health facilities in their neighborhood to serve the needs of the local community.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

21. Adults with mental illness should not be treated as outcasts of society.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

22. There are sufficient existing services for adults with mental illness.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

23. Adults with mental illness should be encouraged to assume the responsibilities of normal life.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree
24. Local residents have good reason to resist the location of mental health services in their neighborhood.

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

25. The best way to handle adults with mental illness is to keep them behind locked doors.

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

26. Our mental hospitals seem more like prisons than like places where adults with mental illness can be cared for.

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

27. Anyone with a history of mental illness should be excluded from taking public office.

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

28. Locating mental health services in residential neighborhoods does not endanger local residents.

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

29. Mental hospitals are an outdated means of treating adults with mental illness.

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
30. Adults with mental illness do not deserve our sympathy.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

31. Adults with mental illness should not be denied their individual rights.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

32. Mental health facilities should be kept out of residential neighborhoods.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

33. One of the main causes of mental illness is a lack of self-discipline and will power.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

34. We have the responsibility to provide the best possible care for adults with mental illness.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

35. Adults with mental illness should not be given any responsibility.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree
36. Residents have nothing to fear from people coming into their neighborhood to obtain mental health services.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

37. Virtually anyone can become mentally ill.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

38. It is best to avoid anyone who has mental problems.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

39. Most women who were once patients in a mental hospital can be trusted as baby sitters.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree

40. It is frightening to think of people with mental problems living in residential neighborhoods.

Strongly Agree    Agree    Neutral    Disagree    Strongly Disagree
Appendix H: Social Distance Scale
The following statements are about how close you would be willing to be with Tony Rafenna, the man from the newspaper article. Please answer based on how willing you would be to do each of the following.

1. How would you feel about renting a room in your home to someone like Tony Rafenna?

- Definitely Willing
- Probably Willing
- Neutral
- Probably Unwilling
- Definitely Unwilling

2. How about as a worker on the same job as someone like Tony Rafenna?

- Definitely Willing
- Probably Willing
- Neutral
- Probably Unwilling
- Definitely Unwilling

3. How would you feel having someone like Tony Rafenna as a neighbor?

- Definitely Willing
- Probably Willing
- Neutral
- Probably Unwilling
- Definitely Unwilling

4. How about as the caretaker of your children for a couple of hours?

- Definitely Willing
- Probably Willing
- Neutral
- Probably Unwilling
- Definitely Unwilling

5. How about having your children marry someone like Tony Rafenna?

- Definitely Willing
- Probably Willing
- Neutral
- Probably Unwilling
- Definitely Unwilling
6. How would you feel about introducing Tony Rafenna to a young woman you are friendly with?

<table>
<thead>
<tr>
<th>Definitely Willing</th>
<th>Probably Willing</th>
<th>Neutral</th>
<th>Probably Unwilling</th>
<th>Definitely Unwilling</th>
</tr>
</thead>
</table>

7. How would you feel about recommending someone like Tony Rafenna for a job working for a friend of yours?

<table>
<thead>
<tr>
<th>Definitely Willing</th>
<th>Probably Willing</th>
<th>Neutral</th>
<th>Probably Unwilling</th>
<th>Definitely Unwilling</th>
</tr>
</thead>
</table>
Appendix I: Impression Management Scale
Using the scale below as a guide, circle the number beside each statement to indicate how true it is.

_____ + _____ + _____ + _____ + _____ + _____ + _____ + _____

1  2  3  4  5  6  7

not true         somewhat         very true

1. I never cover up my mistakes.  1 2 3 4 5 6 7

2. There have been occasions when I have taken advantage of someone. (R) 1 2 3 4 5 6 7

3. I always obey laws, even if I’m unlikely to get caught.  1 2 3 4 5 6 7

4. I have said something bad about a friend behind his or her back. (R) 1 2 3 4 5 6 7
5. When I hear people talking privately, I avoid listening. 1 2 3 4 5 6 7

6. I have received too much change from a salesperson without telling him or her. (R) 1 2 3 4 5 6 7

7. When I was young I sometimes stole things. (R) 1 2 3 4 5 6 7

8. I have never dropped litter on the street. 1 2 3 4 5 6 7

9. I never read sexy books or magazines. 1 2 3 4 5 6 7

10. I have done things that I don’t tell other people about. (R) 1 2 3 4 5 6 7

11. I have pretended to be sick leave to avoid work or school. (R) 1 2 3 4 5 6 7

12. I don’t gossip about other people’s business. 1 2 3 4 5 6
Appendix J: Demographic Questionnaire
Please circle the most accurate response for each of the following.

1. What is your sex?
   1. Male
   2. Female

2. What is your race?
   1. Black/African-American
   2. Caucasian/White
   3. Hispanic/Latino
   4. Asian
   5. Native Hawaiian/Pacific Islander
   6. American Indian/Alaskan Native
   7. Other (specify) ________________

3. What is your age?

   ______

4. Are you a parent?

   1. No
   2. Yes, I have one child
   3. Yes, I have two children
   4. Yes, I have three children
   5. Yes, I have four children
   6. Yes, I have five children
   7. Other (specify) ________________
5. What is your marital status?

1. Single
2. Married
3. Divorced
4. Separated
5. Widowed
6. Partnered
7. Other (specify) ____________________

6. Which of the following best describes where you live?

1. City
2. Suburbs
3. Small town
4. Rural
5. Other (specify) ____________________

7. Do you live in Ohio?

1. Yes
2. No, I live in the state of ___________

8. Do you live in Franklin County?

1. Yes
2. No, I live in the county of ___________

9. Which of the following best describes your **social** political beliefs?

1. Mostly liberal
2. Slightly liberal
3. Moderate
4. Slightly conservative
5. Mostly conservative
10. What is the highest level of education you have completed?

1. less than 9th grade
2. 9th grade
3. 10th grade
4. 11th grade
5. High school diploma/GED
6. Some college
7. Associate’s Degree
8. Bachelor’s Degree
9. Master’s Degree/Graduate Degree
10. Doctorate Degree

11. Which of the following best describes your annual income?

1. Less than $15,000
2. $15,001 – $25,000
3. $25,001 – $35,000
4. $35,001 – $45,000
5. $45,001 – $55,000
6. $55,001 – $65,000
7. $65,001 – $75,000
8. $75,001 – $85,000
9. $85,001 – $100,000
10. Over $100,000
12. Where have you heard or read about mental illness? (circle all that apply)

1. Friends
2. Family
3. School
4. Coworkers
5. Neighbors
6. Books
7. Media
   → What kinds of media?
      1. television
      2. magazines
      3. newspapers
      4. movies
      5. novels
      6. radio
      7. internet
      8. other forms of media_____________

THE END.

Thank you very much for participating!!!