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Perceptions of Mental Illness and Mental Health Policy

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Perceptions of Mental Illness and Mental Health Policy

A thesis presented by

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Abstract

The present study examined people's implicit and explicit perceptions of mental illness and compared those attitudes to ratings of fairness for psychiatric hospital policies. The sample consisted of 88 participants, from both Connecticut College and Amazon Mechanical Turk. Data were derived from a Hospital Policy Questionnaire created by the researcher, the Perceptions of Dangerousness of Mental Patients (PDMP) scale, as well as 2 Implicit Association Tests assessing General Attitudes and perceptions of Dangerousness. Results showed no significant association between implicit attitudes and judgments of hospital policies, nor between implicit perceptions of dangerousness and judgments of hospital policies. However, explicit perceptions of dangerousness were shown to be related to fairness ratings of hospital policies in that views that mental patients are less dangerous were associated with unfair ratings of hospital policies. Exploratory analyses showed a significant relationship between personal contact and perceptions of dangerousness, meaning that greater levels of contact were related to perceptions that individuals are not as dangerous. These results show that contact is an important mitigating factor in lowering the stigma associated with mental illness. Another exploratory finding was that there was a significant difference in how Connecticut College students rated hospital policies compared to participants from Amazon Mechanical Turk. Students tended to rate policies as more unfair overall than did those from Amazon Mechanical Turk.

Keywords: mental illness, dangerousness, attitudes, psychiatric hospital policy, fairness

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Perceptions of Mental Illness and Mental Health Policy

Throughout history, people who are different have been labeled and discriminated against for their mental states. From “moron” and “idiot” to “psycho” and “crazy,” people with mental illnesses have been deemed socially undesirable and have therefore been stigmatized (Rose, Thornicroft, Pinfold, & Kassam, 2007). Negative stereotypes of the mentally ill enhance the distaste held by “normal” people, leading to avoidance and intolerance stemming from prejudice. These stereotypes also lead to social stigma, which can result in numerous negative consequences for those diagnosed with mental illness. One main stereotype that intensifies stigma is that people with mental illnesses are seen as dangerous or have a tendency to be impulsive and unpredictable (Lamb 1998; Link and Cullen 1986; Link et al. 1997; Link et al. 1999; Penn et al. 1999; Torrey 1994). Studies have shown that this belief above others is what leads people to avoid and want to confine those with mental illness (Link et al., 1999; Phelan et al., 2000; Phelan & Link, 2004). In the current study, the researcher examined how stereotypes and stigma affect views about whether the mentally ill should be avoided in some situations, or restricted in certain settings. In addition, the current study investigated the fairness of certain policies that limit the actions of those with mental illness, including confining them to a particular area or removing some rights that could potentially lead to danger (i.e. purchasing a firearm).

The Stigma of Mental Illness

Stigma surrounding mental illness refers to the view that people who are mentally ill are different, have undesirable characteristics, or deserve to be punished because of their mental illness. Goffman (1963), as well as Corrigan and Penn (1999), have shown that people who have been diagnosed with a mental illness face many challenges due to public reactions to the stigma

that surround mental illness. Many mentally ill people cannot find work or adequate housing because employers and landlords focus mainly on negative stereotypes (Flanagan, & Davidson, 2009; Corrigan, 2004). Stigma can also lead to the criminalization of those with mental illness. More and more people with severe mental illness are being sent to prison, possibly due to lack of resources in public mental health (James & Glaze, 2006). In addition, individuals are more likely to call police responders in the case of a mental health crisis rather than seeking the help of mental health professionals (Corrigan, 2004). Because many police officers are not trained to handle mental health crises, some individuals with mental illness report a low frequency of positive interactions with police officers in which they experience kindness or sympathy (Dickerson, Sommerville, Origoni, Ringel, & Parente, 2002). The fact that people turn to police demonstrates the public distaste for the mentally ill who disturb the peace, thus reinforcing stereotypes of those who are misunderstood. In addition, these stereotypes and police involvement can lead the public to agree with harsh punishments, such as incarcerating those who are mentally ill in either prisons or hospitals.

Further, stigma can lead to lower self-esteem and denial of opportunities to participate in the public sphere (Link et al., 1989; Corrigan, 1998; Wahl & Harman, 1989). Several studies conducted by Link and others have also found that expectations of stigma by those with mental illness are associated with higher levels of depression and demoralization (Link 1987; Link et al. 1991, 1997; Rosenfield, 1997; Markowitz, 1998). Experienced stigma can further exacerbate negative feelings for those who have a mental illness. In a study conducted by Dickerson, Sommerville, Origoni, Ringel, & Parente (2002), researchers interviewed people with schizophrenia living in community settings about their experiences with stigma. These interviews included inquiries into the source of the stigmatization that they experienced (family,

strangers, employers, etc.) as well as in what form stigma was manifested (shunning, condemnation, etc).

By looking at patients with schizophrenia, Dickerson et al. (2002) hoped to get a more complete picture of how stigma is perceived by those who are mentally ill, because studies have shown that people with mental illness who have more conspicuous symptoms and poorer social skills elicit a more negative response from others (Farina, 1998). In a previous study conducted by Wahl (1999), respondents most often reported experiences of indirect stigma, for example, having overheard negative comments about mental illness, seeing hurtful media portrayals, and feeling avoided by others because of their mental illness. Sources of stigma frequently cited by participants in Wahl's study were the general community, family members, coworkers, and mental health caregivers (20% of the sample cited mental health caregivers as a source of stigma). Employers and supervisors were also seen as sources of stigma for 36% of participants. Possibly as a result, less than 7% of the sample was currently employed at the time the study was conducted (Wahl, 1999).

The negative reactions that are typically evoked by stigma can lead to lower rates of seeking and complying with psychiatric treatment. Regier et al. (1993) cited research from the Epidemiological Catchment Area (ECA) Study, which showed that less than 30% of people with psychiatric disorders seek treatment. Corrigan (2004) reviewed compiled research to examine the effects of stigma on whether people seek treatment, and if they do, whether they complete the treatment as prescribed. One reason why people may not seek treatment is anxiety about how they will be perceived by the general public based on their mental illness. The public can infer mental illness from four different cues: manifestations of psychiatric symptoms, deficits in social skills, physical appearance, and labels (Corrigan, 2004). These cues can manifest through bizarre

behavior and dress, inability to perceive social cues, and psychotic symptoms such as responding to internal stimuli. These stereotypes were shown to lead both to people believing that someone had a disorder when potential symptoms were present, but also people believing that someone did not have a disorder when such cues were not present, showing that without symptoms, people can “pass for normal.” As a result of some people not presenting visible cues, researchers have looked at other factors that can lead to stigma.

The simple label of a mental illness can induce fear, based on previously held stereotypes (Perry, 2011). Research has shown that a label can bring about stigma that leads to social withdrawal and rejection (Link et al., 1999). This research is supported by modified labeling theory (Link, 1982), which lists both social withdrawal and rejection as reactions to a psychiatric label and the stereotypes associated with that label. Because as we grow up, we are socialized to simply accept negative stereotypes about people with mental illnesses, most mentally ill individuals are treated as the “other” and subjected to differential treatment by the general public (Link, 1982). In addition to social rejection, those who are recently diagnosed with a mental illness tend to withdraw due to low self-esteem and fear of how others will react to their new diagnosis, which further exacerbates their social isolation (Link et al., 1989). Although this is an important factor, the most detrimental factor to individuals with mental illness is the social rejection and avoidance.

Corrigan (2004) examined how labels themselves can lead to stigma and found that it can happen in many ways. First, labels can be passed on by others, such as a psychiatrist informing someone that another person is mentally ill, or by association, for example being seen coming out of a psychologist’s office can lead to assumptions of mental illness (Corrigan, 2004). Second, people who are prejudiced can endorse negative stereotypes and generate negative emotional

reactions in themselves and others as a result (Corrigan, 2004). Third, discriminatory behavior can manifest itself as negative action against the out-group, for example through avoidance and not associating with people from the out-group (Corrigan, 2004). Finally, although stereotypes can lead to the creation of stigma, stigma can also elicit those stereotypes held by the general public (not necessarily the individual) about a certain social group (Corrigan, 2004).

Overall, the review by Corrigan (2004) found that, as a result of stigma brought about by various sources, most people with mental illness will either conceal the fact that they are mentally ill or deny it altogether. Both routes lead people to not seek treatment because they do not feel that they need help, or do not want help. Lack of treatment can lead to further problems because symptoms that are not under control can sometimes endorse the stereotypes that people have about the mentally ill. For example, if a person diagnosed with schizophrenia does not seek treatment and responds to internal stimuli (such as talking back to a hallucinated voice), the public may react with fear and lack of understanding, which further alienates those with mental illness.

Some studies have looked at public attitudes toward individuals with mental illness and found that many people report having a desire for social distance from those with mental illness, and concerns about living, working, or socializing with any individuals in this population (Link et al., 1999; Martin, Pescosolido, & Tuch, 2000). Other studies have focused on the labeling perspective and its relation to societal reactions to mental illness as a label, while others have looked into the effects of abnormal behavior displayed by those with mental illness on societal reactions, specifically behaviors typically seen as symptoms of more serious psychiatric disorders. (Cullen & Cullen, 1978; Scheff, 1984) Positive symptoms, such as hallucinations and delusions in schizophrenia, tend to be perceived as threatening, thereby provoking fear and

discomfort in others. Goffman (1963) has argued that both the degree to which someone's mental illness disrupts a social interaction and the obvious nature of symptoms of mental illness can influence reactions of stigma (Link & Phelan, 2001). Additionally, obvious symptoms that can be labeled as a mental illness by the average individual tend to induce harsher reactions, namely stigma, which may have negative consequences for personal social networks. (Link et al., 1999; Perry, 2011)

One study conducted by Flanagan and Davidson (2009) in reaction to the negative consequences of stigma investigated the reasons for stigma within a community and what can be done to avoid such stigma. The researchers conducted interviews in which they asked participants to describe people in the community who they have worked with and who they believe have a mental illness. When coded, these interviews showed that participants typically described symptoms of psychosis (such as responding to internal stimuli). The researchers found that people were not so much fearful of those with mental illness, but more often felt pity toward them, with statements such as "They don't want to be like that, they want to be like us". These results were possibly due to increased exposure to those with mental illness, which may increase compassion for the mentally ill. Other studies have found that fear that someone with a mental illness will be dangerous is a major factor that leads to stigma when people are not exposed to those who have mental illness (Link et al., 1999; Penn, Kommana, Mansfield, & Link, 1999; Phelan et al., 2000; Phelan & Link, 2004).

Stigma and Dangerousness Stereotypes

A central aspect of the stigmatization of people with mental illness is the stereotype that people with mental illness are violent (Torrey 1994; Link et al. 1997; Lamb 1998; Penn et al. 1999), which results in the perception that people with mental illness are dangerous and

unpredictable (Link and Cullen 1986; Link et al. 1999). This stereotype has proven to be detrimental and can affect individuals in ways that others would not suspect, due to the discrimination and the fear that people display when in the presence of someone with a mental illness.

A common theme presented in the previous section is the fact that stereotypes of dangerousness have the strongest effects on producing stigma against those with mental illness. Further, according to statistics gathered by Link et al. (1999), dangerousness was shown to be a great contributing factor in how people choose to act and react in situations involving someone with a mental illness. The survey employed vignettes which described people of differing mental statuses, including alcohol dependence, schizophrenia, major depression, drug dependence, and average difficulties with everyday problems. Results showed that 17 percent of respondents believed that a person with minimal interpersonal difficulties, but no diagnosable mental illness, was at least somewhat likely to do something violent toward other people. When the same person was described as having symptoms of major depression, the percentage of respondents endorsing fear of violence almost doubled to 33 percent. Finally, if the same person was described as having symptoms of schizophrenia, even though no violent behavior or tendencies were mentioned, 61 percent of respondents thought that the person was either very or somewhat likely to do something violent (Link et al., 1999). These results show that even when no violence is mentioned, those with mental illness are assumed to be violent based on commonly held stereotypes, which therefore perpetuates stigma.

Link et al. (1999) also used the vignettes in this study to assess how much each participant knew about mental illness in general (i.e. being able to identify certain mental illnesses based only on their symptoms), beliefs about what causes mental illness, and finally the

amount of social distance desired from those with mental illness. The vignettes depicted people with various mental disorders, though they were not labeled in the vignettes so as to give participants the opportunity to recognize the descriptions as mental illnesses without being told. The results showed that a majority of participants only identified schizophrenia and major depressive disorder as mental illnesses. These results indicate that there is a discrepancy between what the public deems to be mental illness and what collections of symptoms are categorized as mental illnesses in the Diagnostic and Statistical Manual (DSM-IV). The DSM-IV includes various categories of mental illness ranging in severity. It seems that the public is mostly acquainted with what is commonly referred to as the most severe form of mental illness (schizophrenia), as well as a typically less severe and more common form of mental illness (depression). The fact that the public is not well-informed about mental illnesses is important because it allows for stereotypes to develop when there is a lack of corrective information.

In regard to dangerousness, the findings were interesting in that characters in the vignettes who were described as having substance use disorders (cocaine or alcohol dependence) were seen as the most likely to be violent, followed by schizophrenia, and major depressive disorder. In addition, participants showed the same tendencies when asked about social distance: they desired the most social distance from the cocaine dependent individual, followed by the alcohol dependent individual, then the schizophrenic individual, and lastly the individual with major depressive disorder. For both cases, when symptoms of any mental illness were presented in the vignettes, participants' fears were dramatically heightened. This effect was seen even when there was no mention of violent behaviors in the vignettes. The researchers compared ratings of those with mental illness symptoms to ratings of the control individual who was described as being "troubled, but normal," and therefore less dangerous. Based on their findings,

the researchers believed that elevated judgments of dangerousness of those with mental illness are out of proportion with reality, mostly because empirical studies of violence have shown that although people with mental illness can be violent, these usually do not consist of the majority of those with mental illness.

Another study conducted by Marie and Miles (2008) also investigated the relationship between perceived dangerousness and the behavioral response of social distancing. Participants were given four vignettes describing a hypothetical person with an unnamed disorder, characterized by symptoms of schizophrenia, major depressive disorder, alcohol abuse, or substance dependence, similar to the aforementioned study conducted by Link et al. (1999). Marie and Miles' (2008) study aimed to go a step further than Link et al. (1999) by examining the relationship between individual disorders and social distancing behaviors. The results showed a reluctance for the participants to form a relationship with any of the hypothetical people in the vignettes, although they were more inclined to continue with some type of relationships with a person who had symptoms of major depressive disorder. One finding was that depression can be viewed as a behaviorally minor disorder due to the stronger associations with social withdrawal and sadness, which seemed to be uniquely characteristic of depression. Furthermore, participants may have had more exposure to depression than to other disorders, whether it be personal or through growing media attention to the disorder.

In a second part of the study, the researchers specifically looked at dangerousness as a stimulus for the formation of stigmatizing attitudes. This part of the study investigated whether participants' perceptions of dangerousness have an impact on desire for social distance and whether these perceptions and appraisals are consistent across disorders. The same vignettes were used with a follow-up questionnaire about the perceived dangerousness of the individuals

in the vignettes and whether that level of dangerousness would lead to social distancing. The author's expectation, that perceptions of dangerousness would alter social distance ratings, proved to be correct in this study; those who perceived a higher level of dangerousness desired greater social distance. However, the researchers noted that the levels of perceived danger and social distance were most pronounced for the hypothetical character with schizophrenia and least pronounced for the individual with depression. These results provided support for the author's claim that greater public familiarity with a mental illness could lead to a different response to someone with that disorder than for a less well known disorder. Results are consistent with a study conducted by Swanson et al. (1990), who found no differences in the prevalence of violence among persons who met the criteria for a diagnosis of schizophrenia or major depression.

In a study conducted by Corrigan et al. (2002), the researchers aimed to explain how attitudes and stigma of the mentally ill, particularly pertaining to dangerousness, could lead to discriminatory behavior. Many studies have found that people with serious mental illnesses have been discriminated against because they are perceived to be dangerous, and therefore need to be separated from society (Cohen and Struening 1962; Taylor and Dear 1981; Brockington et al. 1993; Link et al. 1999; Pescosolido et al. 1999). Further, studies have also found that there is a relationship between stigma and perceiving someone as dangerous, and the emotional reaction of fear. This fear then yields avoidant behavior, which can result in employers not hiring and renters not renting to those with mental illness.

In addition, Corrigan et al. (2002) looked to assess the impact of different anti-stigma programs on various components of personal responsibility and dangerousness. For the purposes of the article, the researchers defined discrimination as "either withholding opportunities from or

reacting punitively to someone solely because he or she is a member of a stigmatized outgroup” (Corrigan et al., 2002, p. 294). The methodology presented different types of education programs to participants. For example, two education forms that focused on dangerousness were either to have a professional present the facts about the association between dangerousness and mental illness, or to have someone with a mental illness present that information. The researchers chose to employ this method because other studies have shown that contact with the mentally ill tends to dismantle stereotypes and can especially lower perceptions of dangerousness for the general mentally ill population, not just for an individual. The results for the two education types showed that while education did have positive effects, contact with people who have a serious mental illness produced the largest and most consistent results. Not only did contact produce greater effects on people’s stereotypes, but this condition also showed the greatest maintenance over time, while those who received other types of education returned to their baseline perceptions within a week. Thus, this study shows strong connections between stigma and discrimination: stigmatizing labels tend to produce perceived threat, which are associated with physiological arousal indicative of fear, and fear (though mostly unconscious) can lead to discriminatory behaviors such as avoidance.

The results from this study support the notion that education is necessary to help dispel stigmatized attitudes, and more importantly, that people should have contact with persons with mental illness in addition to receiving educational information to further break down stereotypes. Thus, people would be able to recognize that the association between the mentally ill and dangerousness is a stereotype and that it is exaggerated in the media and other arenas. As a result, there would be fewer avoidant behaviors from those who interact with someone with a mental illness. Not only might this improve the self-esteem for those with mental illness, but it

could also open up new opportunities for employment, housing, and other openings in the public sphere, thereby increasing people's quality of life overall.

Sources of Dangerousness Stereotypes

Based on these studies alone, it is clear that dangerousness is a prominent feature that comes to mind when people think of mental illnesses. Additionally, research has shown that stereotypes of dangerousness associated with mental illness are common and can affect the quality of life of those with mental illness (Corrigan, 1998; Link et al., 1989; Link et al., 1997; Penn et al., 1999; Wahl & Harman, 1989). Therefore, it is important to discover the factors that can lead people to fear the mentally ill. There are many factors that influence perceptions of dangerousness and can manifest into actions such as social rejection and discrimination.

First, stereotypes of dangerousness for those who are mentally ill can turn into prejudice when these negative stereotypes are publicly endorsed (Corrigan et al., 2003). In addition, prejudice can turn into discrimination if negative emotions and reactions are acted upon. Corrigan et al. (2003) investigated the relationship between perceptions of dangerousness and manifestations of discriminatory behavior based on vignettes and measures of social distance and discrimination. It was found that perceptions of dangerousness can come from attributions of control and responsibility. If participants reported that the individual was responsible for their own mental illness and could control their behavior and their illness in general, they were more likely to report feeling anger toward those with mental illness and to feel threatened by them. This fear response became exaggerated and resulted in increased perceptions of dangerousness and an increased desire for social distance.

Stuart (2003) found similar results in that members of the public exaggerate the relationship between mental illness and violence, which increases their fear for personal risk

from those with mental illness. However, she found that although this is a fear held by many, it is more likely that individuals with mental illness will be the victims of violent acts rather than the perpetrators. Additionally, Stuart (2003) pointed out the fact that research does not place emphasis on the “nature of the social interchange that led up to the violence” committed by someone with a mental illness (p. 123). This lack of information about context can support the exaggerations of mentally ill individuals being unpredictable and violent, which leads to the fear reactions and perceptions that individuals with a mental illness can become violent against anyone in an instant for potentially no reason. Therefore, it is important that the public be informed about the context of violent situations, rather than simply accepting the association between mental illness and violent behavior. This information could help to decrease quick judgments and help decrease negative stigma and stereotypes.

Penn et al. (1999) conducted a study to investigate how to dispel the negative stereotypes and decrease the fear and perceptions of dangerousness experienced by those who interact with those diagnosed with a mental illness, specifically schizophrenia. The researchers first presented information sheets, which either provided no information, general information (which described DSM-IV symptoms of schizophrenia), general information plus facts about how violent behavior is associated with presenting symptoms, and finally general information plus facts about violent behavior across multiple disorders. One way they discussed for how to frame information about dangerousness and schizophrenia would be to identify outside risk factors that increase the likelihood of violent behavior for people with schizophrenia. This approach aims to diversify perceptions of those with schizophrenia by emphasizing the fact that violence is not a fundamental characteristic of the disorder. The goal is to show that the potential for violence for any one individual depends on the severity of the mental illness and how it mixes with other

personal factors, such as gender, race, or age. Another way to frame information about mental illness would be to place it in context of how common dangerousness is for a particular disorder when compared to other disorders. Swanson et al. (1990) found that self-reported violent behaviors were five times higher among individuals who met the criteria for psychiatric diagnoses than among those who did not. Thus, it is important to put violent tendencies of the mentally ill in context of other mental illnesses and compare rates of violence in those instances. After reading the information, participants in Penn et al.'s (1999) study were presented with vignettes describing an individual with schizophrenia.

There were a few important findings generated from the Penn et al. (1999) study. First, the information was framed in order to compare rates of violent behavior across various disorders. When juxtaposed with different disorders, any particular disorder was rated lower for perceived dangerousness than when disorders were presented alone (without the context of being compared to other disorders). For example, the data indicated that putting violent behavior committed by individuals with schizophrenia in the context of other psychiatric disorders may lower perceptions of dangerousness. Next, specific information about violence and mental illness significantly affected the perceptions of persons with a severe mental illness in general, but not of the specific target individual mentioned in the vignettes. Though the results were not significant, the scores trended in the direction of lowered perceptions of dangerousness, as was expected.

Media as a Source of Information Leading to Stigma and Stereotypes

A common area from which the public obtains information about mental illness is through the mass media (Stout, Villegas, & Jennings, 2004). Unfortunately, as previously mentioned, the media tend to exaggerate and misrepresent mental illness in a number of ways.

For example, media portrayals often confuse certain illnesses and their symptoms, showing only stereotyped images of the characters with mental illness, and thereby perpetuating negative stereotypes surrounding mental illness (Wahl, 1995). Supportive of this trend, one study found that 72 percent of characters with mental illness seen in prime-time television dramas were violent (Signorielli, 1989).

Not only are these violent portrayals seen in television, but also in print media, such as newspapers and magazines (Stout, Villegas, & Jennings, 2004). Research that has looked at newspapers indicates a link between violence and mental illness. For example, in 1991, Shain and Phillips found that “85 percent of United Press International stories reporting on former psychiatric patients emphasized the perpetration of a violent crime” (p. 552). Another study conducted by Thornton and Wahl (1996) looked at the effects of newspaper portrayals of individuals with mental illness on attitudes toward those with mental illness. This study was inspired by the fact that newspaper articles are often about crimes, presented with dramatized headlines and extra emphasis placed on the horrible nature of the crime that has been committed. Together these factors communicate a relationship between mental illness and violence, thereby reinforcing public fears of the mentally ill. The researchers investigated whether “corrective information” about mental illness would offset the stigmatizing effects of newspaper portrayals of mentally ill criminals. The researchers gave participants an article, either detailing the misconceptions of mental illness (i.e. that violent behavior is common among those with mental illness) or media distortions of portrayals of the mentally ill (i.e. biased views that are distorted to exaggerate violent tendencies). Both of these articles were meant to act as a source of “corrective information,” aiming to alter the stereotyped perceptions of the mentally ill as they are portrayed in print media.

The results of this study showed that participants who read either form of corrective information before reading the stereotyped newspaper article reported lower levels of fear and greater acceptance for those with mental illness than did the control participants (those who did not read any corrective information prior to reading the stereotyped article). These results demonstrate that providing the corrective information with regard to the relationship between violence and mental illness may reduce overall stigma. Thus, there are great implications for policy changes and educational programs in this area. Newspaper writers could be informed about the impact that they have on readers and the stigma that can be created through a dramatized article about an already stigmatized population. In addition, educational programs could be developed to inform readers about the biased nature of media presentations of those with mental illness.

One factor that influences people's perceptions of those with mental illness as dangerous comes from media portrayals. The media often depict some of the most depraved acts being committed by those with severe mental illnesses. Most images from the mass media emphasize and endorse the dangerousness stereotype, further stigmatizing those who have mental illnesses (Monahan 1992; Torrey, 1994; Wahl, 1995). In addition, much research has shown that people with severe mental illnesses are more likely to be violent than those who do not have a severe mental illness (Swanson et al. 1990; Cirincione et al. 1992; Grossman et al. 1995; Eronen et al. 1996; Hodgins et al. 1996). The media tends to use this research as fact and can sensationalize violent episodes by those with mental illness. For example, in 2012 and 2013 there were multiple instances of gun violence involving perpetrators with mental illness. These instances get much more media coverage than incidents of shootings by those who do not have mental illness, leading the public to create certain stereotypes of violence for the mentally ill. For example, in a

study conducted by Corrigan et al. (2005), 39% of national printed newspaper stories about individuals with mental illness in 2002 were related to dangerousness. A majority of these stories centered around violent crimes against others or mental illness within the legal system. These stories often were produced in the front sections of the newspapers, which made them more prominent and visible to readers. These portrayals support the notion that mental illness is connected to dangerous acts of violence. On the other hand, though the research that people with severe mental illnesses are more likely to be violent is accurate, it does not fully capture the context of violence among mentally ill individuals. The risk associated with a severe mental disorder is modest when compared to other potential risk factors that predict violence (Davis 1991; Link et al. 1992; Monahan 1992; Link and Stueve 1994; Marzuk 1996).

Not only do media portrayals involve exaggerations of violence, but the media frequently present people with mental illness as connected to violent behavior more often than is really occurring (Wahl 1992). These presentations can promote the idea that violence and mental illness are often connected. In other words, hearing only about violent acts and the danger that people with mental illness pose to the general public can cause people to think that all people with mental illness are dangerous and should be avoided. Research conducted by Granello and Pauley (2000) supports this idea; they found that people who watch more television tend to hold more negative views of individuals with mental illness than do those who watch only a little television. While the consequences of people's reactions to media portrayals of those with mental illness can be hurtful on their own, 43 percent of individuals in one study rated the media accounts themselves as offensive or hurtful (Dickerson, Sommerville, Origoni, Ringel, & Parente, 2002). These ratings could be due to the aforementioned factors such as exaggerations, misconceptions, and stereotypes. However, many participants referenced recent news coverage

of violent acts committed by persons with mental illness as a major source of hurt because of the exaggerated nature of the coverage and statements made stigmatizing the mentally ill (Dickerson, Sommerville, Origoni, Ringel, & Parente, 2002).

Unfortunately, mass media, including television, broadcast news, and movies, are the primary sources of information about mental illnesses for the general public (Yankelovich, 1990). The main issues with mass media and mental illness include the stereotypic images of characters with mental illness, as well as the misinformation communicated about symptoms, inaccurate use of psychiatric terms, and unfavorable stereotypes of people with mental illness (Wahl, 1995). When analyzing historical media presentations of those with mental illness, the media has tended to focus on those who present symptoms of severe psychotic disorders, particularly schizophrenia (Wahl 1995). Additionally, “persons with mental illness were depicted as being inadequate, unlikable, and dangerous (Signorielli, 1989) and as lacking social identity (Wahl & Roth, 1982)” (Stout, Villegas, & Jennings, 2004, p. 551) Characters in the media were often shown as unemployable, or as failures at occupations they could get (Signorielli, 1989). Such portrayals could explain the reasons for many stereotypes of people with mental illness.

Studies have also shown that these portrayals can lead to harmful perceptions of, and reactions to, individuals who have a mental illness. Stout, Villegas, and Jennings (2004), cite two theories to explain how media portrayals translate into thoughts and actions in individuals. First, cultivation theory states that exposure to consistent messages on television will firmly reinforce values and shape certain views about social reality in order to fit what is shown on television (Gerbner et al., 2002). According to this theory, those who spend more time consuming this information are more likely to see the world of television as a direct reflection of reality. Therefore, people who watch television portrayals of those with mental illness will adopt a

worldview that these portrayals are accurate and a result of real world interpretations. In addition to cultivation theory, people can adopt new information through social learning theory. Bandura (1986) explained the concept of social learning theory as the idea that information can be acquired not only through experience but also through observation. Bandura (2002) expands on the theory saying that as people watch more television, they are likely to learn about behaviors and social conventions, such as how to behave in certain situations. Therefore, when applied to mental illness, one can surmise that television teaches viewers how to behave and treat individuals with mental illness. Consequently, when these two theories are considered together, it would appear that ideas are being promoted by television and reinforced by continuous viewing, while at the same time social cues are being learned through observation. These social cues may influence how individuals react to those with mental illness.

Contact as a Mitigating Factor for Stereotypes

Another important factor that can influence attitudes of stigma and perceptions of dangerousness is personal contact with someone who has a mental illness. In Penn et al. (1999), the researchers looked at the extent to which previous contact with individuals with mental illness was associated with less negative reactions to a male individual with schizophrenia, as described in the vignettes provided in the study. The findings showed that previous contact did affect the participants' perceptions of dangerousness for the male with schizophrenia described in the vignette. Participants with prior contact had a more positive impression of the individual in the vignette and showed a reduced perception of dangerousness for that individual compared to participants who had no previous contact with someone who was mentally ill.

In a similar vein, Phelan and Link (2004) showed that people who have had extended personal contact actually found those with mental illness to be less dangerous than those who

had had no exposure or indirect contact with someone who has a mental illness. Flanagan and Davidson (2009) support these findings in the results of a separate study demonstrating that those who had some previous exposure to at least one person with a mental illness rated the mentally ill as very low on both dangerousness and violence. The participants also reported feeling less fear when interacting with someone presenting symptoms of a mental illness. Both of these studies point to the importance of the association between violence and mental illness and lack of contact with individuals who have a mental illness (Corrigan and Penn 1999; Corrigan 2000; Link et al., 1999).

Perry (2011) examined the social networks of those with mental illness, including the factors that can influence the reactions of both a close support network, and those on the periphery who may not know the individual very well. One factor of particular interest to the researcher is the “sick role,” proposed by Parsons (1951), in which individuals with mental illness are expected to accept the fact that they need help to care for themselves, and must seek out and comply with treatment recommendations from medical professionals. As a result, individuals are supposedly freed from responsibility for their disorder and are considered to be excused for violations of social roles. This role was found to be most descriptive for physical conditions, but has still been proven to play a part in social perceptions of those with mental illness; if those who are diagnosed with a mental illness enter a “sick role,” this may actually have a positive impact on support and involvement of close friends and family. Corrigan et al. (2003) mentions how people are more likely to adopt a helping orientation toward those with mental illness when they are seen as having little or no control over their condition. However, without having extended personal contact with the individual diagnosed with a mental illness,

outsiders may be more inclined to accept negative stereotypes because they have no reason to believe otherwise (Alexander & Link, 2003; Couture & Penn, 2003).

The study conducted by Perry (2011) also investigated the impact of a psychiatric diagnosis on the manner in which others react to individuals diagnosed with the mental illness. The research found that those with more serious disorders, such as bipolar disorder and schizophrenia, as well as those who were exhibiting obvious symptoms, tend to experience a greater level of stigma and discrimination from those not involved in the core social network of the individual. Stigma influences interactions between strangers if one who does not have a mental illness is anxious around an individual showing symptoms or refuses to form any sort of relationship with that individual. The researcher interpreted these results by noting that a label and visibility of symptoms can elicit strong negative reactions from outsiders. Link et al. (1999) supports this research by pointing out that although people may have trouble identifying positive symptoms of schizophrenia, these symptoms are recognized as a mental illness and are closely associated to perceptions of dangerousness and social rejection.

Phelan et al. (2000) conducted longitudinal research on stigma and mental illness and found that the public has become more accepting of less severe mental illnesses, such as depression, but continues to discriminate against individuals with psychotic symptoms and view them as the “other” to a greater degree. Further, those who are not closely connected to individuals with a mental illness have been shown to perceive a greater potential for violence in people who are exhibiting obvious symptoms (Phelan et al., 2000). Overall this study demonstrates that those who have been labeled with any mental illness are more likely to experience some discrimination from the communities in which they reside, even though some disorders are becoming more socially accepted. In addition, those who exhibit visible symptoms

that are seen as abnormal are more likely to be perceived as a threat to personal safety, though these behaviors are not inherently dangerous.

Stigma's Effects on Hospital Policies

Stereotypes and stigma can be a contributing factor in the creation of hospital policies. Negative attitudes and beliefs that the mentally ill are dangerous can promote more restrictive policies in psychiatric facilities, though note that these beliefs are supported by evidence that in psychiatric settings some patients do indeed become aggressive and confrontational. One of the methods by which nurses in psychiatric facilities are told to handle a violent situation is by placing a patient in seclusion (Duxbury 2002). This practice is controversial because some research has demonstrated the negative effects of placing patients in seclusion, while other studies have shown there are therapeutic benefits to seclusion (Meehan, Bergen, & Fjeldsoe, 2003). Although, reactive management techniques, such as seclusion, restraints, and the use of medication, in violent or aggressive situations are common in psychiatric hospitals (Meehan, Bergen, & Fjeldsoe, 2003).

Although these are effective methods of managing a dangerous situation, both patients and staff have mixed feelings about these approaches. For example, Meehan, Bergen, and Fjeldsoe (2003) aimed to assess both patients' and nurses' views on the use of seclusion as a behavior management technique. The results showed that 85% of the patients surveyed (which did not include those in seclusion at the time of the study) "perceived that nurses enjoyed both a sense of power and satisfaction that the patient got what they deserved when being secluded" (Meehan, Bergen, & Fjeldsoe, 2003, p. 36). On the other hand, 84% of the staff members surveyed denied having a sense of power over patients, and 73% denied feeling satisfaction or guilt when instigating seclusion.

In another study conducted by Duxbury (2002), the researcher aimed to assess how staff and patients felt about the use of seclusion and similar techniques involving confrontation and isolation when compared to the use of de-escalation strategies, which involve attempts to calm the patient through conversation and talking through the aggressive episode. Results showed inconsistencies in the views of staff and patients; while nurses would prefer the continued use of seclusion and similar techniques, patients do not. However, both parties seemed dissatisfied overall with the techniques provided for managing aggressive situations (Duxbury, 2002). Nurses in another study reported with strong agreement that patients placed in seclusion “would feel angry (92.5%), controlled by others (86.5%) and disempowered (80.3%)” (Happell & Koehn, 2010, p. 3210). Based on these and other studies, it is clear that patients and nurses show a degree of mixed feelings about the policies put in place in psychiatric facilities.

Implicit Associations and Mental Illness

Previous research collected about mental illness has focused on overt prejudices and conscious attitudes held by the public. However, recently research has focused more strongly on unconscious beliefs because it is possible that individuals either do not know about prejudices they hold or do not wish to disclose them. Thus, when studying stigma and stereotypes about mental illness, researchers sometimes employ Implicit Association Tests (e. g. Monteith & Pettit, 2011). Implicit associations are attitudes or judgments that are unconscious and uncontrolled by formal thought. Implicit Association Tests (IATs) are computerized categorization tasks which record the strength of a person’s automatic associations between certain categories. These tests assess the speed at which an individual can classify various attributes that are typically associated with that category. These tests use reaction time as a dependent measure, with faster responses indicating a more automatic association (Greenwald et al., 2003)

IATs are sometimes used to combat the power of social desirability and the effects that it can have on a person's explicit reports of attitudes toward a potentially sensitive subject, such as race biases, gender biases, or stereotypes of mental illness. Social desirability is the "tendency for people to say what they believe conforms to cultural mores, even if it varies with what they might otherwise report to be their 'real belief'" (Corrigan, & Shapiro, 2010). The effects of social desirability are particularly prevalent when stigma or biases are being assessed. An example presented by Corrigan and Shapiro (2010) is that people would avoid saying "the mentally ill are all dangerous" so as to follow what is deemed politically correct, or socially acceptable. Because data is based on reaction time, measures of implicit attitudes, such as the IAT, can reduce the effects of social desirability by revealing prejudices and biases that people are unwilling or unable to report.

In addition to controlling for social desirability bias, it is also important to measure implicit associations based on the dual attitudes perspective. According to this perspective, there are two mechanisms by which attitudes are formed and expressed in the brain (Frankish, 2012). There are two systems, one biological, automatic, and unconscious and the other a slow, controlled, and conscious process. Because the two systems function in different ways, conscious and unconscious attitudes may present themselves differently. Wilson, Lindsey, and Schooler (2000) separate the two pathways as differentiated by whether the individual has the "cognitive capacity to retrieve the explicit attitude and whether this overrides their implicit attitude" (p. 1). This view implies that implicit attitudes are automatic, whereas explicit attitudes are thought out in greater detail, leading to the possibility of this attitude overpowering the implicit attitude. Therefore, by measuring both, one can compare the results to see whether people's attitudes truly match up or if there is a discrepancy.

In a study conducted by Monteith and Pettit (2011), the researchers presented four separate IATs in order to gauge attitudes toward depression compared to physical illness, in addition to different stereotypes surrounding both mental and physical illnesses. In the different IATs, depression and physical illness were measured when compared with dimensions of stability, controllability, etiology, and overall attitudes. The study aimed to look at each of these measures to predict behaviors based on more automatic reactions to associated categories. The results did find some similarities between implicit and explicit measures, but also found a number of differences between implicit and explicit measures. For example, implicit scores comparing depression to physical illness demonstrated more negative attitudes towards depression, whereas the explicit scores indicated no significant difference between attitudes about depression and physical illness. Monteith and Pettit (2011) do not provide a clear explanation for the differences between implicit and explicit ratings, but speculate that it may be due to “poor awareness of one’s beliefs” or social desirability (p. 500).

In other studies, researchers have used the IAT to examine attitudes and stereotypes of mental illness compared to physical illness. In a study conducted by Teachman et al. (2006), implicit and explicit measures of attitudes, helplessness, and blameworthiness were not shown to have significant correlations. In this study, participants held more negative attitudes toward mental illness when compared to physical illness, on both implicit and explicit measures. However, the negative biases were expressed more strongly in the implicit measure of attitude, leading one to believe that social desirability may have played a role in the responses on the explicit measures (leading the respondent to minimize their true biases). For the stereotypes of blameworthiness and helplessness, which are typically seen as socially undesirable attitudes to

hold, there was a great difference in the responses for each between the implicit and explicit measures.

Overall, implicit associations in combination with explicit measures are more telling about what people truly believe when being asked about sensitive topics, such as mental illness, than explicit measures alone. Though explicit measures can be informative on their own, it is important to take both implicit and explicit attitudes into consideration when stereotypes are being assessed.

The Current Study

In the current study, the researcher investigated how beliefs about those with mental illness affect judgments about policies toward mental illness. Specifically, I will examine whether implicit and explicit perceptions of dangerousness, as well as implicit general attitudes toward mental illness, are related to judgments of fairness about policies that restrict certain freedoms of those hospitalized for a mental illness. It is important to gauge social perceptions of outsiders toward those people who have been committed or simply display symptoms of mental illness, and how these beliefs affect judgments about the necessity for detaining those with mental illness.

It was hypothesized that participants who tend to hold a more negative view of those with mental illness will evaluate restrictive hospital policies more favorably than those who have more positive views of mental illness. Previous research has shown that those who hold negative stereotypes and stigmatizing views tend to view those with mental illness as a public nuisance that should be controlled in a secure setting. Therefore, it is expected that those who do hold these negative views will believe that restrictive policies in hospitals (a secure setting) are fair.

In the same vein, it was hypothesized that participants who tend to view those with mental illness as more dangerous will also tend to think that restrictive policies in hospital settings are more just, relative to those who tend to view mental illness as more harmless. Perceptions of dangerousness were measured both implicitly and explicitly because, as mentioned previously, explicit and implicit attitudes can differ and it is important to look at both pathways. It was expected that those who perceive the mentally ill as dangerous would feel that restrictive hospital policies keep the public safer because those with mental illness are confined in a facility.

Finally, it was hypothesized that participants who have had more contact with people who have a mental illness will tend to hold more positive views of the mentally ill, to think those with mental illness are less dangerous, and to think that the restrictive hospital policies are less fair, relative to those participants who have had little to no exposure to people with mental illness. Because studies have shown that contact with the mentally ill can mitigate damaging stereotypes, it was expected that those who have experienced this contact would not hold the same views as someone who has not had contact with a mentally ill person (Corrigan et al., 2005; Corrigan & Shapiro, 2010).

Method

Participants

For this study, 305 participants were recruited from various sources. There were 24 participants recruited from Psychology 101 and 102 courses at Connecticut College. In addition, 52 participants were recruited through announcements in classes and calls for participants over Facebook. This resulted a total of 76 college undergraduate participants. Finally, 229 participants were recruited from Amazon Mechanical Turk. Unfortunately, many of these participants had to

be removed from the study for failing to complete all parts of the survey. The final number of participants is 88, with 31 Connecticut College students and 57 Mechanical Turk participants. There were 9 participants who did not respond to the demographics. The sample consisted of 49 women and 30 men, who were 73.9% Caucasian with the next largest group being Asian/Asian American which comprised 8% of the sample. Ages ranged from 18 to 65, with most being 20 and 21 years old.

Materials

Four measures were used in this study: one to assess judgments of fairness of policies in psychiatric facilities; one to assess explicit perceptions of those with mental illness; one to measure implicit attitudes towards those with mental illness (compared to those with physical illness), and one to measure implicit perceptions of dangerousness of those with mental illness (compared to those with physical illness). Though some studies have shown that different disorders can be rated differently for levels of dangerousness and overall stigma, a study conducted by Swanson et al. (1990) found no real differences in the prevalence of violence among persons who met the criteria for a diagnosis of schizophrenia, major depression, or manic-depressive disorder. Therefore, each of the measures included in this study applies to mental illnesses overall rather than a specific disorder.

The first measure presented to the participants was a questionnaire created by the researcher, which was designed to assess participants' judgments of fairness of certain policies in place in psychiatric hospitals. The Hospital Policy Questionnaire consisted of 10 policies that a psychiatric facility might employ (taken from existing hospital policies, simplified to make them easier to understand) mainly policies that restrict the actions of patients. Each item presented the policy followed by a scale ranging from 1 (Unfair) to 7 (Fair). A sample item from the

questionnaire was: “If the patient does not accept voluntary treatment and if it appears that with up to 30 days additional treatment the patient is likely to restore sufficient daily functioning, then the attending psychiatrist shall place the patient on a 30 day involuntary certification for intensive treatment.” (see Appendix A). To establish the reliability of the Hospital Policy Questionnaire, a Cronbach’s alpha reliability test was conducted, which included all ten items that were administered. The results of this analysis showed that the scale had high reliability, Cronbach’s alpha = .848. Therefore, to calculate an overall scale score for the Hospital Policy Questionnaire, responses on the 10 items were averaged together. This average scale score was then used in all subsequent analyses.

The next measure was a questionnaire that consisted of eight items assessing participants’ explicit perceptions “about whether a person who is, or has been mentally ill, is likely to be a threat” (Link, Cullen, Frank, & Wozniak, 1987). These questions were taken from the Perceived Dangerousness of Mental Patients (PDMP) scale. Questions 12 and 16 on the survey were reverse coded so that items were scored so that high scores indicated the belief that those with mental illness were more dangerous. Average scores were taken across the 8 items for each participant to give them an overall PDMP Average score. The internal consistency (Cronbach's α) of the scale is .85. Participants were presented with a statement which they ranked on a Likert scale ranging from strongly disagree (1) to strongly agree (5). A sample statement was “If a former mental patient lived nearby, I would not hesitate to allow young children under my care to play on the sidewalk” (see Appendix B).

The third measure was an Implicit Association Test, designed with the Inquisit software package, that assessed participants’ general attitudes towards mental illness. This IAT (General Attitudes IAT) was taken from a study conducted by Moneith and Pettit (2011), which examined

implicit attitudes about depression. Five words were utilized to represent physical illness and five words other words were used to represent mental illness as one set of categories. The other category was meant to determine evaluative attitudes (e.g. “Good” and “Bad”); it included five positive words and five negative words (see Appendix C). During the IAT, the computer recorded participants’ response latencies (in milliseconds), trial number, block, stimuli information, and error rates. The IAT is scored using the *D* statistic, which is calculated by dividing the difference between test block mean scores by the standard deviation of all the latencies in the two blocks (Greenwald et al., 2003). This division helps adjust the differences between means and account for the effects of underlying variability.

Fourth, another Implicit Association Test was designed, again with the Inquisit software package, to assess participants’ perceptions of dangerousness towards those with mental illness. This measure (Dangerousness IAT) was taken from Mental Health Project Implicit. This measure used the same ten words for mental illness and physical illness as were used in the previous IAT. However, instead of assessing evaluative (i.e. “good” and “bad”) attitudes, the two categories for this IAT were Dangerousness and Harmlessness, each of which was characterized by five adjectives (see Appendix C). Again, during this IAT, the computer recorded participants’ response latencies (in milliseconds), trial number, block, stimuli information, and error rates. Scores were again determined using the *D* statistic (Greenwald et al., 2003)

The last part of the study consisted of questions about demographics (see Appendix D). This questions addressed participants’ age, gender, class year, and ethnicity. In addition, two questions were asked about participants’ level of exposure or contact with the mentally ill. These questions were: “How many people do you know personally who have been hospitalized for mental illness?” which is referred to as Direct Contact, and “In the past year, how many times

have you been in a public place where you have seen someone who seems to be mentally ill?” which is referred to as Indirect Contact.

Procedure

Participants from Psychology courses 101 and 102 signed up on the research board on the first floor of Bill Hall. An email was sent out to each set of participants who signed up to remind them that they had research hours to fulfill on that date. Upon their arrival at the study, participants signed an informed consent document (see Appendix E). Each group first completed the hospital policy measure, followed by the short questionnaire that measures explicit perceptions of those with mental illness. Next, they completed the General Attitudes IAT, followed immediately by the Dangerousness IAT, ending with demographics. Participants then received a debriefing form (see Appendix F) and the researcher signed any documents the participant brought proving attendance for research hours.

Participants were also obtained through announcements to different upper level classes at Connecticut College. When participants agreed to take part in this study, they signed up to be sent an email with the survey link attached. These participants who did not receive credit hours for participation were offered the chance to enter into a raffle to win a \$25 gift card.

Finally, participants were obtained over the Internet through Amazon Mechanical Turk. Through this website, people sign up to be Workers on the website, meaning that they are eligible to participate in the study. The researcher became a Requester (one who posts research) and opened up the survey for the present study to those Workers on Amazon Mechanical Turk. The participants were encouraged to sit for 30 minutes undisturbed to complete the survey. As part of the procedure for opening a survey on Amazon, participants were each offered \$0.25 for

completion of the survey. The description of the call to participants is included (see Appendix G).

Results

Descriptive Statistics

The frequencies for the demographic variables were examined. These data, presented above, indicated that the sample consisted of mostly Caucasian participants, specifically, 80.6% of the Connecticut College participants and 70.2% of the Mechanical Turk participants. Ages of participants overall ranged from 18-65 years old, with the majority of participants between 19-22 years old. In the Connecticut College sample, women accounted for 74.2% of the participants, while the Mechanical Turk sample was split almost evenly. Most of the participants from Connecticut College were Juniors from the class of 2014, whereas most participants from Mechanical Turk were not current undergraduate students. Finally, at the end of the demographics questionnaire, two questions were asked to determine levels of Direct and Indirect Contact with individuals who have a mental illness. In both samples, a majority of participants had known someone who had been hospitalized for a mental illness. In addition, for both samples, a majority of participants had seen someone exhibiting symptoms of a mental illness in public.

Table 1: *Demographic breakdown for Connecticut College and Mechanical Turk participants.*

Demographics		Connecticut College		Mechanical Turk		
		<i>n</i> = 31		<i>n</i> = 57		
		<i>n</i>	%	<i>n</i>	%	
Race	Caucasian/White	25	80.6	40	70.2	
	African American/Black	0	0	0	0	
	Hispanic/Latino	2	6.5	2	3.5	
	Asian American/Asian	1	3.2	6	10.5	
	Native American	0	0	1	1.8	
	Other/No Response	3	9.7	2	3.5	
Age	18-22	29	93.6	10	18.2	
	23-27	0	0	9	15.9	
	28-32	0	0	9	15.9	
	33-37	0	0	7	12.3	
	38-42	0	0	7	12.3	
	43-47	0	0	2	3.5	
	48-52	0	0	4	7.1	
	53-57	0	0	1	1.8	
	58-62	0	0	1	1.8	
	63-67	0	0	1	1.8	
	No Response	2	6.5	6	10.5	
	Gender	Man	5	16.1	25	43.9
		Woman	23	74.2	26	45.6
Other/No Response		1	3.2	6	10.5	
Class Year	2013	2	6.5	4	7	
	2014	21	67.7	2	3.5	
	2015	6	19.4	1	1.8	
	2016	0	0	1	1.8	
	Graduate Student	0	0	13	22.8	
	Return to College Student	0	0	20	35.1	
	Other/No Response	2	6.5	16	28.1	
Direct Contact	Yes	21	67.7	37	26.3	
	No	8	25.8	15	64.9	
	Other/No Response	2	6.5	5	8.8	
Indirect Contact	Yes	27	87.1	40	70.2	
	No	2	6.5	10	17.5	
	Other/No Response	2	6.5	7	12.3	

Hypothesis Testing

There were three main hypotheses examined in this study. First, it was hypothesized that participants who hold a more negative view of those with mental illness will evaluate restrictive laws more favorably than those who have more positive views of mental illness. Next, it was hypothesized that participants who view those with mental illness as more dangerous will also tend to think that restrictive policies in hospital settings are more just, relative to those who tend to view mental illness as more harmless. Finally, it was hypothesized that participants who have had more contact with people who have a mental illness will tend to think of the mentally ill as less negative and less dangerous, and of restrictive hospital policies as less fair, relative to those participants who have had little to no exposure to people with mental illness. These hypotheses were evaluated using one-tailed correlations, presented in Table 3.

Table 2: *Intercorrelations between predictor and dependent measures.*

Measures	Hospital Policy Questionnaire	Perceived Dangerousness of Mental Patients	General Attitudes IAT	Dangerousness IAT	Direct Contact	Indirect Contact
Hospital Policy Questionnaire	1.00	0.275**	0.016	0.093	0.085	0.071
Perceived Dangerousness of Mental Patients		1.00	0.013	.191*	-0.083	0.014
General Attitudes IAT			1.00	.380**	-0.027	-0.120
Dangerousness IAT				1.00	-.263**	-0.133
Direct Contact					1.00	0.052
Indirect Contact						1.00

*Correlation is significant at the .05 level (1-tailed).

**Correlation is significant at the .01 level (1-tailed).

To evaluate the hypothesis that those who tend to hold a more negative view of individuals with mental illness will evaluate restrictive laws more favorably than those who have more positive views of mental illness, the correlation between scores on the Hospital Policy Questionnaire and scores on the General Attitudes IAT was examined. The results of this correlational analysis showed that there was no significant correlation between these two variables, $r = .016$, $p = .442$. This non-significant correlation suggests that general implicit attitudes about mental illness were not related to fairness ratings of restrictive hospital policies.

To evaluate the hypothesis that scores on the Hospital Policy Questionnaire and scores on the Dangerousness IAT would be significantly correlated, their Pearson's correlation was examined. Contrary to this hypothesis, there was no significant correlation, $r = .093$, $p = .194$. This non-significant relationship shows that implicit perceptions of the mentally ill as dangerous were not related to fairness ratings of restrictive hospital policies. Additionally, to investigate whether there was an association between the Perceived Dangerousness of Mental Patients scale and the Hospital Policy Questionnaire, a second correlation was conducted. The results revealed a significant correlation, $r = .299$, $p = .002$, which indicated that explicit perceptions of dangerousness were related to fairness ratings of hospital policies in that higher ratings of dangerousness were associated with higher ratings of fairness of hospital policies. It is important to note the differences in implicit and explicit perceptions because of dual attitudes perspective, which states that conscious and unconscious attitudes can present themselves in different ways. Here, we see a difference in perceptions of dangerousness when measuring the two different pathways.

To evaluate hypotheses pertaining to amount of contact with the mentally ill, measures for contact were separated into two categories based on the two demographic questions asked of

participants. The first question was “How many people do you know personally who have been hospitalized for mental illness?” which will be referred to as Direct Contact. The second question was “In the past year, how many times have you been in a public place where you have seen someone who seems to be mentally ill?” which will be referred to as Indirect Contact.

To evaluate the hypothesis that amount of Direct Contact and scores on the Hospital Policy Questionnaire would be significantly correlated, their Pearson’s correlation was examined. The results indicated that there was no significant correlation between these two variables, $r = .085$, $p = .225$. This shows that knowing someone with a mental illness was not related to fairness ratings for restrictive hospital policies. Next, the researcher evaluated the hypothesis that amount of Indirect contact and scores on the Hospital Policy Questionnaire would be significantly correlated. The results again indicated that there was no significant correlation between the two variables, $r = .071$, $p = .266$. These results suggest that seeing people exhibit symptoms of mental illness was not related to ratings of fairness for hospital policies.

To evaluate the hypothesis that amount of Direct Contact and scores on the General Attitudes IAT would be significantly correlated, their Pearson’s correlation was investigated. The results of this analysis indicated that there was no significant correlation between these variables, $r = -.027$, $p = .404$, meaning that those knowing someone with a mental illness was not related to implicit attitudes about the mentally ill. Further, the correlation between amount of Indirect Contact and scores on the General Attitudes IAT was examined to determine a significant association. Once again, the results showed no significant correlation, $r = -.120$, $p = .146$, which means that witnessing symptoms of mental illness was also not significantly related to implicit views of the mentally ill.

To evaluate the hypothesis that amount of Indirect contact and scores on the Dangerousness IAT would be significantly correlated, their Pearson's correlation was examined. The resulting correlation was marginally significant, $r = -.133$, $p = .078$, meaning that seeing symptoms of mental illness somewhat related to implicit views of dangerousness of the mentally ill. To evaluate the hypothesis that amount of Direct Contact and scores on the Dangerousness IAT would be significantly correlated, a Pearson's correlation was examined. There was a significant correlation between Direct Contact and scores on the Dangerousness IAT, $r = -.263$, $p = .009$. This means that personal contact with someone with a mental illness was significantly related to whether that individual views the mentally ill as dangerous; in other words, greater amount of contact is related to lower implicit perceptions of dangerousness.

Exploratory Analyses

Because the primary hypotheses were not strongly supported, a number of exploratory analyses were conducted. First, a Pearson's correlation was conducted to determine whether scores on the General Attitudes IAT and the Dangerousness IAT would be significantly associated. The result showed a significant correlation $r = .380$, $p < .001$, meaning that implicit attitudes towards the mentally ill were related to implicit perceptions of dangerousness of the mentally ill. This indicates that negative attitudes are associated with perceptions of dangerousness.

Table 3: Means and standard deviations of scores on predictor and dependent measures.

Measures	Connecticut College		Mechanical Turk	
	<i>n</i> = 31		<i>n</i> = 57	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Hospital Policy Questionnaire	4.958	0.888	5.835	0.801
Perceived Dangerousness of Mental Patients	2.455	0.605	2.773	0.715
General Attitudes IAT	-0.004	0.272	0.047	0.406
Dangerousness IAT	-0.146	0.367	0.065	0.410

Next, the descriptive statistics for the primary dependent variables were examined, and the means and standard deviations for participants from Connecticut College and from Amazon Mechanical Turk (MTurk) are presented above. One can see that participants recruited from MTurk tended to rate hospital policies as more fair with a higher average score than the score for Connecticut College participants. An independent samples *t*-test was conducted to determine whether this difference was significant; the results of this analysis indicated that there was a significant difference in average scores on the Hospital Policy Questionnaire between Connecticut College participants ($M = 4.96$, $SD = .89$) and Mechanical Turk participants ($M = 5.84$, $SD = .80$); $t(85) = -4.600$, $p < .001$. This difference indicates that Connecticut College participants and Mechanical Turk participants are two distinct groups whose mean scores were sufficiently different to show that these groups tended to view hospital policies differently.

Mechanical Turk participants tended to show slightly higher scores on the Perceived Dangerousness of Mental Patients scale, meaning that these participants rated the mentally ill as slightly more dangerous than did Connecticut College students. An independent samples *t*-test was conducted to determine whether this difference was significant. There was a significant difference in average scores on the PDMP between Connecticut College students ($M = 2.455$, $SD = .605$) and Mechanical Turk participants ($M = 2.773$, $SD = .715$); $t(85) = -2.035$, $p = .045$. This difference indicates that the participants come from two distinct groups who view dangerousness of mental patients differently overall, with Mechanical Turk participants tending to rate those with mental illness as more dangerous than Connecticut College students.

Participants' scores on the IAT were also examined. The negative score for Connecticut College students on the General Attitudes IAT shows that on average participants tended to associate mental illness with "Good" more quickly than physical illness with "Good." On the

other hand, the positive average score seen for MTurk participants shows that participants tended to associate mental illness with “Bad” more quickly than they did with “Good.” An independent samples *t*-test was conducted to examine whether the differences were statistically significant; however, the results showed no significant difference between Connecticut College participants ($M = -.004$, $SD = .272$) and Mechanical Turk participants ($M = .047$, $SD = .406$); $t(85) = -.479$, $p = .633$.

Finally, on the Dangerousness IAT, the results demonstrated that participants from Connecticut College tended to associate mental illness more readily with “Harmlessness” while participants from MTurk tended to associate mental illness more quickly with “Dangerousness.” An independent samples *t*-test was conducted to determine whether these differences were statistically significant; the results showed a significant difference between Connecticut College students ($M = -.146$, $SD = .367$) and Mechanical Turk participants ($M = .065$, $SD = .410$); $t(85) = -2.491$, $p = .015$. This result indicates that Connecticut College participants implicitly perceived individuals with mental illness as more harmless than participants from Mechanical Turk. As noted earlier, they also differed in the same direction on explicit ratings of dangerousness.

To explore whether the significant differences may have affected hypothesized relations between variables, the researcher ran the correlations again examining Connecticut College students and Mechanical Turk participants separately. Correlations between the Hospital Policy Questionnaire and the General Attitudes IAT and correlations between the Hospital Policy Questionnaire and the Dangerousness IAT were not statistically significant for either the Connecticut College participants or the Mechanical Turk participants. However, when examining the separate correlations for Connecticut College participants and Mechanical Turk participants between explicit ratings of dangerousness on the PDMP and the Hospital Policy Questionnaire, a

significant correlation was found for Connecticut College participants ($r = .394, p = .016$) and not for Mechanical Turk participants ($r = .142, p = .146$). This result indicates that in Connecticut College students, explicit ratings of mentally ill individuals as dangerous was related to higher ratings of fairness for restrictive psychiatric hospital policies.

Exploratory Regression Analyses

Additionally, a multiple regression analysis was conducted to determine whether the primary variables (General Attitudes IAT, Dangerousness IAT, and Perceived Dangerousness of Mental Patients [PDMP]) would together predict value for scores on the Hospital Policy Questionnaire for both Connecticut College and Mechanical Turk participants combined. The results were similar to the correlations found between variables. The regression was significant $F = 2.068, p = .079, R^2 = .126$. Overall, the predictor variables accounted for 12.6% of variation in fairness ratings on the Hospital Policy Questionnaire.

Individually, regression analysis showed different prediction abilities for each of the scales. First, scores on the General Attitudes IAT did not significantly predict scores on the Hospital Policy Questionnaire, $\beta = -.042, t(76) = -.327, p = .745$. The results also indicated no significant predictive value for the Dangerousness IAT predicting scores on the Hospital Policy Questionnaire, $\beta = .172, t(76) = 1.279, p = .205$. Additionally, Indirect Contact ($\beta = .088, t(76) = .781, p = n.s.$) showed no significant predictive value for scores on the Hospital Policy Questionnaire. However, Direct Contact ($\beta = .214, t(76) = 1.852, p = .068$) did show moderate significance in predicting scores on the Hospital Policy Questionnaire, meaning that level of contact predicted fairness ratings of hospital policies. Finally, the results indicated that explicit dangerousness ratings on the PDMP significantly predicted scores on the Hospital Policy

Questionnaire, $\beta = .244$, $t(76) = 2.103$, $p = .039$, meaning that explicit perceptions of dangerousness predicted explicit fairness ratings for hospital policies.

Table 4: *Multiple regression analysis predicting Hospital Policy scores.*

Measures	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	b	Std. Error	β		
(Constant)	4.558	0.452		10.074	0.000
Perceived Dangerousness of Mental Patients	0.034	0.017	0.233	2.005	0.049
General Attitudes IAT	-0.061	0.279	-0.027	-0.218	0.828
Dangerousness IAT	0.342	0.274	0.168	1.248	0.216
Direct Contact	0.231	0.210	0.128	1.099	0.276
Indirect Contact	0.199	0.254	0.088	0.781	0.437

Discussion

The purpose of this study was to examine implicit and explicit negative stereotypes of the mentally ill, and to examine how these stigmatizing beliefs may affect people's views about psychiatric hospital policies. First, it was found that those participants who hold implicit negative attitudes about the mentally ill did not tend to view restrictive hospital policies as significantly more fair than participants who typically hold positive attitudes. This finding is inconsistent with previous research that demonstrates that when individuals hold attitudes and stigma against the mentally ill, this could lead to discriminatory behavior and punitive reactions to those who have a mental illness (Corrigan et al., 2002). Studies have also shown that people with mental illness have been discriminated against because they are perceived to be a threat, and therefore should be separated from society (Cohen & Struening 1962; Taylor & Dear 1981; Brockington et al. 1993; Link et al. 1999; Pescosolido et al. 1999).

Why might there have been a discrepancy between the findings of the present study and previous research? A study conducted by Anagnostopoulos and Hantzi (2011) may offer some insight. They examined prejudiced attitudes and social distance and how they relate to one another. In addition, they investigated familiarity with individuals with mental illness as a mediating factor in prejudices and social distance. The results showed that prejudiced attitudes involving strong social restriction and social segregation of the mentally ill were related to greater desires for social distance, which contradicts the results found in the current study. However, Anagnostopoulos and Hantzi (2011) also found that when participants were more familiar with people with mental illness, it tended to strengthen positive attitudes and weaken negative attitudes, while also decreasing negative views about social isolation and stigmatization

of those with mental illness. Therefore, it is possible that the non-significant association between attitudes and hospital policies could have been due to familiarity with the mentally ill.

Also recall that, contrary to hypotheses, it was found that those who implicitly viewed mentally ill individuals as more dangerous (than harmless) did not tend to view restrictive hospital policies as more fair. However, participants' explicit ratings of dangerousness, as measured by the Perceived Dangerousness of Mental Patients scale, were associated with ratings of restrictive hospital policies. This finding means that those who explicitly reported perceiving individuals with mental illness as more dangerous tended to rate more restrictive hospital policies as fair. In addition, it was found that explicit ratings of dangerousness of mental patients has predictive value for ratings of hospital policies, meaning that if a participant rated mental patients as more dangerous, a fair rating of hospital policies could be expected.

These results are consistent with previous research that has demonstrated a connection between perceptions of dangerousness and desire for social distance (Link et al., 1999; Martin, Pescosolido, & Tuch, 2000). This result is also consistent with previous research that shows that perceived dangerousness affects desire for confinement of those who have been diagnosed with a mental illness (Link et al., 1999; Phelan et al., 2000; Phelan & Link, 2004). For example, Phelan et al. (2000) found that individuals who exhibit symptoms tend to be feared and experience social rejection and even discrimination from others in their communities. An additional study conducted by Marie and Miles (2008) investigated how explicit perceptions of dangerousness affect the desire for social distance among laypersons. The results demonstrated that participants who perceived a greater level of danger from someone with a mental illness will reported a greater desire for social distance.

A third hypothesis in this study pertained to level of contact, both direct and indirect, and the effects of high levels of contact on ratings of hospital policies, as well as the relation of contact to overall attitudes and perceptions of dangerousness. It was found that neither direct nor indirect contact were related to ratings of restrictive hospital policies as fair. In addition, no significant association was found between either direct or indirect contact, and participants' implicit attitudes. Further, there was a trend toward significant association between indirect contact and implicit perceptions of dangerousness. Phelan et al. (2000) found that individuals who have no connection to someone with a mental illness tend to perceive a greater potential for violence by people who are exhibiting obvious symptoms of mental illness. However, when one has increased exposure to those with mental illness, this perceived potential for violence can decrease. Most clearly, direct contact was found to be related to implicit perceptions of dangerousness, meaning that the more direct contact participants had with individuals with mental illness, the less they perceived the mentally ill in general as dangerous.

How do these results contrast with prior research? Some previous studies have found that fear that someone with a mental illness will be dangerous is a major factor that leads to stigma when people are not exposed to those who have a mental illness (Link et al., 1999; Penn, Kommana, Mansfield, & Link, 1999; Phelan et al., 2000; Phelan & Link, 2004). Though, in many studies, contact has been shown to be a mitigating factor for the stigma and stereotypes that people hold about individuals with mental illness. First, Corrigan (2005) conducted a study which showed that interpersonal contact with members of a stigmatized group, such as those with mental illness, can help reduce stigma towards the group as a whole. Stromwall, Holley, and Kondrat (2012) also found that individuals who observed a friend with a mental illness being discriminated against were more likely to identify discrimination in other situations, which could

help reduce stigma by those individuals pointing out discriminatory acts. However, Corrigan (2005) also pointed out that simple contact is not adequate to affect stigma, instead the quality of the contact and the situation in which the contact occurs will determine whether stigma reduction occurs. For example, a source of stigma frequently cited in a study conducted by Wahl (1999) is mental health caregivers, who generally have more contact with people with mental illness than laypeople. Additionally, when individuals exhibit obvious symptoms that can be labeled as a mental illness by laypeople, this tends to induce harsher reactions, namely stigma. (Link et al., 1999; Perry, 2011)

Some studies have looked at how contact can be used to educate individuals about mental illness and decrease overall stigma surrounding the mentally ill. Corrigan and Shapiro (2010) examined community-based participatory programs, which likely involved direct contact with mentally ill individuals within smaller communities, as compared to other anti-stigma programs. The researchers measured stereotypes and prejudice as cognitive constructs of stigma, and discrimination as a behavioral construct of stigma. Looking at both self-stigma and public stigma, the researchers analyzed the effects of different methods of reducing the stigma of mental illnesses. The study examined a few methods designed to change the public stigma of mental illness.

First, protest strategies aimed to “highlight the injustices...of stigma and chastise offenders for their stereotypes and discrimination” (Corrigan & Shapiro, 2010, p. 910). Second, educational methods aimed to replace harmful stereotypes with facts to bring awareness and therefore reduce public stigma. However, sometimes in educational settings, mental illnesses can be portrayed as a biological phenomenon over which the individual has no control. Therefore resulting in the view that people with mental illnesses are “unable to overcome their disease” and

are then limited in terms of jobs and housing (Corrigan & Shapiro, 2010, p. 910). Overall, direct contact through community-based participatory programs were shown to have the greatest effect on stigma reduction that was longer-lasting than other programs.

Corrigan et al. (2002) also investigated the effect of educational programs and found that education about mental illness and dangerousness stereotypes can be very effective when presented by someone with a mental illness. The changes produced in this study were significant and long-lasting compared to changes when information was presented by a mental health professional. These types of studies are important in connection with the current study to determine what types of programs and contact will induce the greatest amount of change in stigmatizing attitudes. Because direct contact was found to be associated with implicit perceptions of dangerousness in the current study, it can be assumed that educational programs that include direct contact with someone who has a mental illness can dismantle stigmatizing perceptions of dangerousness, thereby lowering perceived threat of individuals with mental illness.

In the present study, a series of exploratory analyses were also conducted, in order to examine differences between Connecticut College students and participants from Mechanical Turk. Recall that differences were found between the two groups on the Hospital Policy Questionnaire, the Perceptions of Dangerousness of Mental Patients, and the Dangerousness IAT. The differences could be due to a number of factors, including education, socioeconomic status, and age. For example, in a literature review compiled by van der Kluit and Goossens (2011), it was found that, according to studies by Arvaniti et al. (2008), Mavundla and Uys (1997), and Sun et al. (2007), nurses with increased education level had a more positive attitude towards patients with mental illness. Furthermore, the type of education provided at Connecticut

College could have influenced participants' views about those with mental illness. With the liberal arts focus on diversity and acceptance, these participants may be more likely to hold more positive views of the mentally ill and perceive them as less dangerous than those who have not had as much exposure to diverse environments. In addition, there were age differences among the Connecticut College and Mechanical Turk participants. Mechanical Turk participants tended to be older, whereas Connecticut College students were limited to between 18 and 22 years old. This difference is important because van der Kluit and Goossens (2011) also found that in various studies older participants held significantly different views than younger participants.

Limitations

There were a few limitations in this study. The first limitation was that the final sample was not representative of the general population in a few ways, including race, age, gender, and number. Overall, 73.9% of the sample was Caucasian, with 4.5% Hispanic/Latino, 8% Asian/Asian Pacific, 1.1% Native American, and 2.3% Other. Clearly the sample was dominated by Caucasian participants. Additionally, there were no African American participants who completed the study. Also the age range was not representative of the overall population. Participants' ages ranged from 18-65 years old, which could have been generalizable to the population if there had been more participants in each age bracket. About 30% of the sample were either 19, 20, or 21 years old, with the rest of the sample spreading evenly (1 or 2 participants at each age) until age 65. Women were also overrepresented; 55.7% of the sample were women and 34.1% were men, with 10.2% of participants who did not respond. Finally, the study would have been improved with a greater number of participants, which would have increased the power of the study as well as diversity of the sample.

A second limitation in this study was the presentation of the measures, particularly the Implicit Association Tests. First, people may not have been familiar with the software or the process of computerized categorizations, which could have led to confusion. In addition, in the first few rounds of the study, the Implicit Association Tests would not work on computers without the proper software, which led to some technical difficulties as well as some participants simply skipping the two tasks.

A third limitation was that there was a lack of accountability for completing the study. In total, 221 participants were removed from the study because they either skipped one of the measures or skipped all of the questions. Unfortunately, participants from Mechanical Turk were paid for taking the study without regard to whether they completed all parts of the research. It is believed that this lack of incentive to spend time filling out the study led participants to simply click through to the end without answering any questions or taking the Implicit Association Tests.

A final limitation was that the Hospital Policy Questionnaire included not only policies, but also definitions of practices in psychiatric hospital. For example, one item was “A chemical restraint is a drug or medication when it is used as a restriction to manage the patient’s behavior or restrict the patient’s freedom of movement and is not a standard treatment or dosage for the patient’s condition.” While some may rate this as an unfair use of medication, the item was not phrased in a way that would encourage the participant to consider this factor. Therefore, it would be important to word the policies more clearly and frame them properly as policies, not only definitions.

Future Directions

For a future study, the researcher would make some changes to the existing study. First, it would be beneficial to recruit many more participants, totaling about 200 people. In addition, it would be helpful to more strongly encourage participants to complete all parts of the study before receiving compensation for their time. Third, it would help if instructions for the Implicit Association Tests were more clearly laid out. For a future study, the researcher would add extra instructions to ensure that the participants understand how the Implicit Association Tests work and be available to answer questions and deal with technical issues. With these changes and a larger, more diverse sample, a future study could produce more generalizable results that could be more practically significant to the population.

Additionally, it would improve the study to include vignettes describing individuals with various disorders and determine whether ratings of hospital policies would change if the disorders were attached to a specific person who exhibits specific behaviors. These vignettes would describe individuals with symptoms of the mental illnesses listed in the IATs, including their personality, behavior, and a description of a specific interaction with the individual. The vignettes would make abstract ideas of mental illness labels more concrete to participants, which could affect their attitudes and perceptions of those with mental illness. Additionally, vignettes could allow for comparisons to be made between disorders. For example, in Marie and Miles' (2008) study, the researchers analyzed vignettes describing individuals with different disorders. When the disorders were analyzed separately, people tended to see schizophrenia as more dangerous and therefore desired greater social distance; on the other hand, in the current study, the effect could have gone undetected because disorders were combined into one measure.

Conclusion

Research on public stigma has shown that mentally ill individuals are a highly stereotyped and stigmatized group (Corrigan & Penn, 1999; Goffman, 1963). This stigma comes from many sources, such as media, interpersonal contact, and lack of corrective information (Wahl, 1999). However, each of these sources can also prevent or mitigate the effects of stigma and stereotypes.

One of the main sources where people obtain information about the mentally ill is through the media (Stout, Villegas, & Jennings, 2004). Based on what the media has shown in television and movies people gather information about mental illness that may be false. Popular movies such as *It's Kind of a Funny Story* (2010), *One Flew Over the Cuckoo's Nest* (1975), *Girl, Interrupted* (1999), and *Silver Linings Playbook* (2012) have depicted very different versions of experiences within psychiatric hospitals and the policies and practices implemented by hospital staff. Although these depictions are generally meant to educate the public and in some cases to dispel stigma, some of the portrayals of patients can confuse certain illnesses and their symptoms and show typically stereotyped images of the characters with mental illness (Wahl, 1995).

Other media sources describe individuals with mental illness as being violent and unpredictable. In a study conducted by Corrigan et al. (2005), 39% of national newspaper stories about individuals with mental illness in 2002 were related to dangerousness. The majority of these stories were about violent crimes against others or the use of mental illness in legal defenses. The stories related to dangerousness often were produced in the front sections of the newspapers, which made them more prominent and visible to readers. These portrayals support the notion that mental illness is connected to dangerous acts of violence. These dramatic, and

sometimes false and confusing, images and depictions in the media can perpetuate negative stereotypes surrounding mental illness. Because these images and portrayals of the mentally ill are so powerful and ever-present in our minds, the media is an arena where stigma reduction can begin.

Overall, it is important to note how perceptions of the mentally ill can be influenced and how stigma affects views of those with mental illness. This study showed that stereotypes and stigma can be associated with how people view hospital policies in terms of fairness and also showed that contact with individuals who have a mental illness can affect those perceptions. It is important that stereotypical and stigmatizing views be challenged and altered in the public eye in order to change unfair policies and improve the lives of those living with mental illness.

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4. If the patient does not accept voluntary treatment and if it appears that with up to 30 days additional treatment the patient is likely to restore sufficient daily functioning, then the attending psychiatrist shall place the patient on a 30 day involuntary certification for intensive treatment.

1	2	3	4	5	6	7
Unfair			Neither fair nor Unfair			Fair

5. The following items are considered to be contraband and shall, if not illegal, be stored in the locked storage area on the unit. Patients should send any of the following items home. They are not allowed on the unit and are classified as contraband: Bandanas, Ipods, Keys, Belts, Hand gels, Mirrors, Hats, Cell phones, Shoe laces, Makeup, Notebooks with wire sides, Eating utensils, Tweezers.

1	2	3	4	5	6	7
Unfair			Neither fair nor Unfair			Fair

6. All nursing staff are responsible for recognizing and observing the signs of potentially violent behavior, reporting it to superiors, and acting to protect the patient, all other patients, visitors, and staff with the least restrictive method available.

1	2	3	4	5	6	7
Unfair			Neither fair nor Unfair			Fair

7. Patients will be restrained only in an emergency situation when a physician or nurse determines that the patient's behavior is such that there is a substantial risk of the patient harming himself/herself or others. Substantial risk means only the serious imminent threat of bodily harm and when less restrictive, non-physical interventions have been determined to be ineffective.

1	2	3	4	5	6	7
Unfair			Neither fair nor Unfair			Fair

8. A chemical restraint is a drug or medication when it is used as a restriction to manage the patient's behavior or restrict the patient's freedom of movement and is not a standard treatment or dosage for the patient's condition.

1 2 3 4 5 6 7
 Unfair Neither fair nor Unfair Fair

9. A physical restraint is any method, physical or mechanical device, material, or equipment or a combination that immobilizes or reduces the ability of a patient to move his or her arms, legs, body, or head freely.

- With manual restraint, 5 staff members will each hold an extremity (head, each arm, and each leg) while a nurse prepares necessary medication to calm the patient and control his/her behavior.
- When 5 point restraints are being used, all four extremities will be restrained and a waist restraint is always applied.

1 2 3 4 5 6 7
 Unfair Neither fair nor Unfair Fair

10. Antipsychotic medication may be administered to an involuntary patient, despite the patient's objection, if an emergency exists. An emergency is defined as a situation in which action to impose treatment over the person's objection is immediately necessary for the safety of the patient or others, and it is impracticable to first gain consent. This emergency exception justifies administration of antipsychotic medication over the patient's objection only so long as the emergency condition exists.

1 2 3 4 5 6 7
 Unfair Neither fair nor Unfair Fair

Appendix B
Perceived Dangerousness of Mentally Patients Scale

1. If a group of former mental patients lived nearby, I would not allow my children to go to the movie theater alone.
 - Strongly agree
 - Agree
 - Not sure, but probably agree
 - Not sure, but probably disagree
 - Disagree
 - Strongly disagree

2. If a former mental patient applied for a job for a teaching position at a grade school and was qualified for the job, I would recommend hiring him or her.
 - Strongly agree
 - Agree
 - Not sure, but probably agree
 - Not sure, but probably disagree
 - Disagree
 - Strongly disagree

3. One important thing about mental patients is that you cannot tell what they will do from one minute to the next.
 - Strongly agree
 - Agree
 - Not sure, but probably agree
 - Not sure, but probably disagree
 - Disagree
 - Strongly disagree

4. The main purpose of mental hospitals should be to protect the public from mentally ill people.
 - Strongly agree
 - Agree
 - Not sure, but probably agree
 - Not sure, but probably disagree
 - Disagree
 - Strongly disagree

5. If I know a person has been a mental patient, I will be less likely to trust him.
 - Strongly agree
 - Agree
 - Not sure, but probably agree
 - Not sure, but probably disagree
 - Disagree
 - Strongly disagree

6. If a former mental patient lived nearby, I would not hesitate to allow young children under my care to play on the sidewalk.
 - Strongly agree
 - Agree
 - Not sure, but probably agree
 - Not sure, but probably disagree
 - Disagree
 - Strongly disagree

7. Although some mental patients may seem all right, it is dangerous to forget for a moment that they are mentally ill.
 - Strongly agree
 - Agree
 - Not sure, but probably agree
 - Not sure, but probably disagree
 - Disagree
 - Strongly disagree

8. There should be a law forbidding a former mental patient the right to obtain a hunting license
 - Strongly agree
 - Agree
 - Not sure, but probably agree
 - Not sure, but probably disagree
 - Disagree
 - Strongly disagree

Appendix C
General Attitudes and Dangerousness IAT

Mental Illness: Schizophrenia, Bipolar Disorder, Generalized Anxiety Disorder, Obsessive Compulsive Disorder, Depression

Physical Illness: Diabetes, Heart Disease, Cancer, Multiple Sclerosis, Cerebral Palsy

Good: Positive, Pleasant, Enjoyable, Glorious, Wonderful

Bad: Negative, Horrible, Agony, Terrible, Unpleasant

Mental Illness: Schizophrenia, Bipolar Disorder, Generalized Anxiety Disorder, Obsessive Compulsive Disorder, Depression

Physical Illness: Diabetes, Heart Disease, Cancer, Multiple Sclerosis, Cerebral Palsy

Dangerous: Unsafe, Dangerous, Aggressive, Violent, Unpredictable

Harmless: Safe, Harmless, Gentle, Peaceful, Predictable

Appendix D
Demographics

Age: _____

Gender: _____

Race/Ethnicity: (circle all that apply)

Caucasian/White

African American/Black

Hispanic/Latino(a)

Asian/Asian Pacific

Native American

Other: _____

Class Year: 2013 2014 2015 2016

How many people do you know personally who have been hospitalized for mental illness?

In the past year, how many times have you been in a public place where you have seen someone who seems to be mentally ill?

Appendix E
Informed Consent

I hereby consent to participate in Kristen McAleenan's research about perceptions of mental illness and physical and health policy. I understand that this research will involve filling out a 16-item questionnaire, followed by two Implicit Association Tests, which are computerized categorization tasks. I understand that the direct benefits of this research to society are not known, and my results will not be shared with me upon completion of the questionnaire. I understand that this research will take about 45 minutes. I have been told that there are no known risks or discomforts related to participating in this research. I have been told that Kristen McAleenan can be contacted at kmcaleen@conncoll.edu. I understand that I may decline to answer any questions as I see fit, and that I may withdraw from the study without penalty at any time. I understand that all information is confidential, and my responses will not be associated with my name. I have been advised that I may contact the researcher who will answer any questions that I may have about the purposes and procedures of this study. I understand that this study is not meant to gather information about specific individuals and that my responses will be combined with other participants' data for the purpose of statistical analysis. I consent to publication of the study results as long as the identity of all participants is protected. I understand that this research has been approved by the Connecticut College Human Subjects Institutional Review Board (IRB).

Concerns about any aspect of this study may be addressed to Professor Jason Nier, Chairperson of the Connecticut College IRB janie@conncoll.edu.

I am at least 18 years of age, and I have read these explanations and assurances and voluntarily consent to participate in this research about perceptions of mental illness.

Name (printed) _____

Signature _____

Date _____

Appendix F Debriefing

First of all, thank you for participating in this research dealing with perceptions of mental illness. In this research, we are investigating whether implicit perceptions of dangerousness and overall attitudes towards those with mental illness affect how one consciously judges the fairness of certain policies in psychiatric facilities. One of the issues in the literature is the role that social desirability plays in filling out self-report questionnaires. Studies have shown that social desirability can affect reported beliefs about a stigmatized group of people, which is why an Implicit Association Test was used. In previous research, it has also been shown that implicit attitudes towards those with mental illness, especially pertaining to judgements of dangerousness, can affect social distancing and overall treatment. However, to the researcher's knowledge, there have been no studies assessing how these implicit attitudes affect perceptions of policies and laws pertaining to the treatment of those with mental illness.

If you are interested in this topic and want to read the literature in this area, please contact Kristen McAleenan at kmcaleen@conncoll.edu.

Concerns about any aspect of this study may be addressed to Professor Jason Nier, Chairperson of the Connecticut College IRB janie@conncoll.edu.

Listed below are two sources you may want to consult to learn more about this topic:

Link, B. G., Phelan, J. C., Bresnahan, M., Stueve, A., & Pescosolido, B. A. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health, 89*, 1328-1333. doi:10.2105/AJPH.89.9.1328

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Appendix G
Description on Amazon Mechanical Turk

Posting title: Perceptions of Mental Illness - Online Survey -

Posting description: An Honors Thesis is being conducted in the Psychology department at Connecticut College. The study aims to assess social perceptions of those diagnosed with a mental illness. It will take approximately 30 minutes.

Please follow the link below to take the study.

(Link to Qualtrics)

Thank you for your participation!