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Diagnostic Label and Diagnostic Description Effects of Depression on College Students for a Nonviolent Crime

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Abstract

Objective: To identify the diagnostic labeling and diagnostic description effects of Major Depressive Disorder on college students for assessment of responsibility for the nonviolent crime of burglary. Also, to identify any gender, racial or ethnic differences that may arise in the responsibility scores.

Methods: 476 college students were asked to provide a responsibility score on a five-point Likert Scale of one of three conditions for an individual who was accused of the nonviolent crime of burglary. The three conditions presented followed one of three conditions; a nondiagnostic label/nondiagnostic description condition, a diagnostic label of Major Depressive Disorder condition, and a condition where the diagnostic description for Major Depressive Disorder was provided without the diagnostic label.

Hypotheses: Hypothesis (1a): In the nondiagnostic label condition, participants will report lower responsibility scores than in the diagnostic description condition and the diagnostic label condition. Hypothesis (1b): In the diagnostic description condition participants will report higher responsibility scores than the diagnostic label condition.

Statistics: The results were analyzed using one-way ANOVA.

Researchers have found varying levels of negative attitudes, beliefs, and stigma associated with mental illness. These negative attitudes, present in various populations, were found to lead to a decreased likelihood that treatment would be sought when needed (Corrigan, 2007). Further, Jorm and Griffith (2008) found participants reported both a desire for social distance, as well as a perception of dangerousness or violent for those individuals labeled as mentally ill. This is relevant because various mental illness diagnoses are now presented and potentially considered in various decision-making settings. The presence of negative attributions such as "dangerousness" or 'violent" may have serious consequences for individuals with mental illness labels. However, until these attitudes decrease and change, it is imperative to understand the potentially negative effects of diagnostic labels and diagnostic descriptions on those asked to interact and provide medical, legal, and educational determinations for individuals with psychological diagnoses. Where there is stigma or a bias toward diagnostic labels or diagnostic descriptions of mental illnesses it is possible that individuals in a decision-making position may be influenced in legal or other settings.

Stigma

The use of diagnostic labels and diagnostic descriptions in multiple settings may lead to stigmatization or incorrect influence of the stereotypes associated with the psychological condition diagnosed (Link, 1987). Ogunsemi, Odusan, and Olatawura (2008) found the stigma associated with mental illness is not limited to the general public, but also existed within medical students towards individuals with a psychiatric label. Their findings regarding the attitudes of medical students and medical residents towards patients diagnosed with mental illness were contrary to what one would expect. Despite their desire and active choice to work with

medically or mentally ill patients, as demonstrated by their seeking an education in medicine of both physical and mental maladies, a level of stigma was still measured.

Ogunsemi et al. (2008) asked a group of medical students at a Nigerian University to participate in a study where the desire for social distance was measured using a social distance scale. The students used in this study had previous experience in their medical education with psychiatric postings, though the researchers did not specify the specific clinical experience. Ogunsemi et al. (2008) administered a questionnaire containing a paragraph describing a normal person, where one group of participants received the description alone and the other the description accompanied with a psychiatric label. Specifically, the test condition was advised the person was diagnosed with a "mental illness" with no further description or detail. The participants were then asked to answer questions regarding expected burden and complete a social distance scale. They found that these students would not rent out their houses to someone with a psychiatric label, would not want such an individual as a neighbor, nor would they want their sister married to such an individual. It should be noted that the study did not specifically provide a diagnosis, but rather described the man as having a "mental illness". Given the broad scope of possibilities within the category of mental illness, a limitation of the study was that students who had a broad medical knowledge might have ascribed a severe mental illness to the individual depicted in the vignette. Medical students are often exposed to severe cases of mental illness, and less so to individuals suffering less severe forms and better managed cases of mental illness. However, even if this were the case, the mere assumption that the mental illness was severe across the board is indicative of the negative attitudes attributed to individuals with mental illness.

A similar study involving medical residents also used a nonspecific diagnosis in an otherwise generic vignette of an individual (Neauport, et al. 2012). The test condition stated the man was diagnosed with a psychiatric condition during a recent trip to the emergency room. In this case, Neauport et al. (2012) also found medical residents reported a greater desire for social distance from the individual. The authors suggested that as each medical resident was presented with the same seemingly healthy individual in the case vignette, except for the indication that a medical diagnosis was presented in the test condition, it was reasonable to infer that the label was what elicited the desire for greater social distance. Further, they stated their findings suggested medical residents associated apprehension and avoidance with psychiatric illness even in the absence of symptoms.

These findings were further supported in a third study which found that medical students reported higher levels of negative stigma towards psychiatric labels after completing their psychiatric rotation (Totic et al., 2011). Again, here it would be interesting to have had additional information regarding the severity and spectrum of psychiatric illnesses encountered in the residents' psychiatric rotations. It would have been useful to determine if they were exposed only to a small segment of the population experiencing severe mental illness which could have led to the assumption that the mental illness diagnosed was severe.

The results in these studies revealed that even in the absence of diagnostic description or errant or deviant behavior, participants reported a greater desire for social distance from individuals labeled as having a mental illness. These findings are supported by prior research where those individuals labeled as mentally ill were viewed more negatively and were assigned more negative attributes and rejection regardless of their behavior (Ogunsemi et al., 2008).

In addition, Link (1987) independently manipulated label and aberrant behaviors in vignettes. Link found that even in the absence of aberrant behavior, the general public was likely to stigmatize an individual labeled as mentally ill. In another study, Link, Phelan, Bresnahan, Stueve, and Pescosolido (1999) conducted a vignette experiment where participants were randomly assigned to one of five conditions, where four of those conditions described psychiatric disorders. The fifth described a troubled person with subclinical symptoms. They found that even though no aberrant behavior was included in the vignettes, when the symptoms of mental illness were provided to the participants they provided more stigmatizing and negative responses.

If diagnostic labels alone can have an effect on some individuals, it is also important to understand what the effect is when both a diagnostic label and diagnostic descriptions are presented together. Research regarding this is limited. Ohan, Visser, Moss, and Allen (2013) found that parents held high levels of stigma toward children with symptoms of depression and attention-deficit hyperactivity disorder. They asked parents to rate their stereotypes, prejudice, and desire for social distance toward children described in vignettes. The vignette described children with developmentally typical range of behaviors, a diagnostic description of symptoms for Attention Deficit Hyperactivity Disorder or depression, or the same symptoms plus a diagnostic label. When the diagnostic label was added to the test condition along with the diagnostic description, there was a small but consistent increase to the parents' stereotypes, prejudice, and desire for social distance from the child. Further, Martin, Pescosolido, Olafsdottir, and McLeod (2007) obtained similar results where participants presented with vignettes of children with Attention Deficit Hyperactivity Disorder or depression reported a greater desire from social distance as opposed to children described as experiencing normal daily

troubles. Pescosolido et al. (2007) used multivariate analyses to study the perception of potential harm to the self and other for children described as diagnosed with Attention Deficit Hyperactivity Disorder, depression, asthma, or daily troubles. Children described with the labels of asthma or daily troubles were perceived to be a danger to themselves or others by participants 15% and 13% respectively. Whereas participants perceived children labeled with Attention Deficit Hyperactivity Disorder or depression to be a danger to themselves or other 33% and 81% respectively. From these findings, it was clear that the labels associated with mental illness not only affected adults, but can permeate and influence perceptions which then serve to stigmatize children.

Nonetheless, it appears that data relating to perceptions of the mentally ill leading to negative stigmas can be varied and complex. Link and Phelan (2001) provided a definition for stigma as a starting point. They defined stigma as a labeling, stereotyping, separation of 'us versus them', and status loss and discrimination. A key aspect of stigma relates to power, and this power is manifested in social systems and interactions. In the case of stigma and mental illness, it was proposed that the relationship between the stigma of mental illness is bidirectional in that stigma affects people's disabilities, and the disabilities of people with mental illness affect the perceptions of the public about these individuals (Jorm & Griffiths, 2008). It was this relationship that some researchers sought to explore to better understand the phenomenon affecting the perceptions of diagnostic labels and diagnostic descriptions.

Jorm and Griffiths (2008) also found that stigmatizing attitudes are multi-faceted. Various researchers found participants not only reported beliefs relating to a desire for social distance, but that those labeled as mentally ill may be dangerous or violent. If there were a link between mental illness and a perception of dangerousness or violence, this perception could

prove to have negative consequences for individuals in healthcare, legal settings, and the general public arena. For example, juries make decisions based on the acts presented to them, and their determinations could carry legal ramifications for an individual. If a juror's perceptions were influenced by a belief of dangerousness associated with a label of mental illness, then their decision about the penalties or responsibility of an individual may be tainted in a negative way. In their review of various studies of population surveys, Jorm and Griffiths (2008) found severe mental illness was associated with beliefs of violence, unpredictability, and an unlikelihood that the individual will ever recover. In addition, a belief that the psychosocial disability was high translated to a high negative impact on life opportunities and high negative impact on quality of life and self-esteem for the individual.

It is important to consider if some of these beliefs and stigma extend to other factors. When attempting to understand the many factors that can lead to stigmatizing attitudes towards labels or descriptions of mental illness, the individual and the influences that make up the individual should also be considered. There are inherent characteristics which can relate to an individual's gender, race, and ethnicity which should also be studied. It cannot be assumed that the stigmatizing attitudes towards mental illness labels and descriptions are present or homogenous across various groups.

Gender

Lale, Sklar, Wooldridge, and Sarkin (2014) hypothesized that individuals' stigmatizing attitudes may be dependent on intergroup membership bias, and specifically considered stigma related to depression and substance use disorders. They defined intergroup membership bias as a tendency to evaluate members of one's own group more favorably than members of the out-group. This makes sense as people tend to view themselves in a more favorable light to be able

to perpetuate their beliefs, ideas, and actions. One source of group membership bias was gender (Rudman & Goodwin, 2004). Note lifetime prevalence rates for mood disorders in women are higher than those in men, with 20.2% and 13.2% respectively (Lale et al. 2014). The opposite is true for substance use disorders, with lifetime prevalence rates for men at 19.6% and for women at 7.5% (Lale et al. 2014). Given this data and the results obtained, their hypothesis was supported. Women tended to endorse bad character as a likely cause of alcohol dependence, whereas men tended to endorse bad character as a likely cause of depression. Also, men were more likely to attribute depression symptoms to normal life stressors than women.

These negative attitudes held by men towards depression were believed to interfere with their help seeking behaviors. Some researchers found depression may be viewed socially as a feminine disorder. As such, the disclosure of acceptance on the part of a man of depression may be difficult because it challenges their perception of their masculinity. Johnson, Oliffe, Kelly, Galdas, and Ogrodnickuk (2011) found that men attributed their reluctance to seek mental health services for depression to their sense of masculinity. Some participants even compared themselves to individuals suffering more severe symptoms, such as hallucinations, researchers hypothesize as a means of protecting their masculinity when admitting a diagnosis of depression.

Obstacles or barriers which keep individuals from seeking these services were therefore of interest to researchers. Men and women hold different views, opinions and understanding of mental health conditions (Jorm, Christensen, & Griffiths, 2006). Also, these attitudes relating to mental health disorders were not static from one disorder to the next, but rather may vary for different disorders, as such the various stigmatizing effects for each label should be studied. This was evident in research using social distance scales to measure stigma towards mental health illnesses such as schizophrenia, substance abuse, and depression.

Wang, Fick, Adair, and Lai (2006) studied correlates of personal stigma against depression for men and women in the general population. They found higher ratings for stigma against depression among men when compared with women. Among women, those who endorsed medical professionals or medications as the best help for depression reported lower stigma scores. With men who reported the belief that weakness of character was a causal factor for depression, higher rates of stigma were reported. Researchers in this study suggested the differences in stigma ratings reported may exist because women have more exposure to depression than men. Therefore, men may hold more misconceptions and less knowledge about the condition. However, researchers found that for men having contact with persons with depression did not decrease reported stigma ratings. This was important because when considering interventions to decrease stigma towards depression or other mental illnesses for those involved in making decisions for individuals suffering from various mental illnesses, gender differences and attitudes should be considered.

As noted above, stigmatizing effects for the label of depression exist. To date research has not focused on how these gender biases toward depression affect or influence decision-making in legal or other settings. It is not known whether these negative attributions of bad character or a weakness of character could translate to more negative findings for those people accused of crimes when men are tasked with decision-making roles in a criminal justice setting, for example as a jury member. It is important to begin to understand whether these attitudes and stigma can affect the outcome of legal settings when diagnostic or criteria information are presented to individuals tasked with making decisions. The current study seeks to elucidate this issue to a small extent.

Race and Ethnicity

Even less research is available as to how stigma for those diagnosed or labeled as depressed may affect or influence decision-making in legal or other settings for members of various races or ethnicities. Generally, as with gender, the research instead has focused on treatment acceptability and stigma that may limit access to psychological services and treatments. Given the paucity of research generalizing from the groups studied should be done with caution as various factors can affect racial and ethnic attitudes relating to stigmatizing beliefs. There is a great deal of nuance in cultural attitudes and practices even within regions of the same country. Fassaert et al. (2010) explain most research has focused on minority and ethnic groups in the United States and Great Britain, which makes it difficult to generalize to other countries. For example some researchers found that African Americans and other ethnic minorities have more negative attitudes toward diagnostic labels of major depression and schizophrenia than Whites, but the research has not been representative samples and therefore, generalizability of the findings is not possible (Anglin, Link, & Phelan, 2006). Therefore, it may be possible to ascertain that a difference exists and the general direction of those differences, without specifically understanding each group without additional, directed research.

Differences in acceptance of psychological services and treatment are reported between Whites and Blacks, with Blacks reporting lower rates of acceptance (Givens, Katz, Bellamy, & Holmes, 2006). This could be important when presenting psychological labels to different races in settings where they are in a decision-making role. In one study Givens et al. (2006) measured stigma for treatments for depression and the acceptance of those treatments for both White and African American primary care patients. For both groups as the social circles increased, so did the level of stigma towards treatments for depression. African American participants reported lower levels of acceptability for depression treatments than White participants, but White

participants reported higher levels of stigma. Therefore, though African American patients were less likely to accept depression treatments it could not be attributed to stigma ratings. It is important to further research the role of stigma and attitudes towards specific labels, such as depression, with individuals from various races to have a better understanding of the influence it can potentially play in a decision-making settings, such as participation on a jury.

These findings indicated a hesitancy toward psychological treatments, most of all psychotropic medication. Burnett-Zeigler et al. (2013) found that African American men and women reported greater levels of concern regarding antidepressants, and lower levels of knowledge regarding this type of treatment. This then correlated with lower levels of adherence with medication therapy for this group. This may be because African American patients report higher rates of negative attitudes toward medical providers and lack the belief that medications will be beneficial (Burnett-Zeigler et al., 2013). These findings were supported by Givens, Houston, Van Vorhees, Ford, and Cooper (2007) who measured treatment preference, stigma, and attitudes toward depression. African American, Asians/Pacific Islanders and Hispanic preferred counseling to medications to treat depression when compared with White participants.

Ojeda and McGuire (2006) studied the use of mental health services by depressed individuals of different races and ethnicities. They found that Latino and African American participants were less likely to use mental health services. This was also true for Latinos and African Americans who had access to insurance benefits. Ojeda and McGuire (2006) found these groups were influenced by financial factors, as well as social barriers like stigma. They did not find any gender differences in barriers to mental health services for these groups. It is important to determine if this hesitancy to access mental health services would extend to negative attitudes towards diagnostic labels and descriptions. Further, it is relevant to determine

if these attitude extend to decision-making settings where individuals may be asked to play a crucial role.

Whaley (1997) examined differences in perceptions of dangerousness of various groups regarding individuals labeled as mentally ill. He found that Asian-Pacific Islanders, African Americans, and Hispanics perceived mentally ill patients as more dangerous than Whites. African Americans further reported a belief that mentally ill patients were more likely to act violently, regardless of the amount of contact with mentally ill individuals. This is an interesting finding as related to the potential for decision-making for African Americans for individuals labeled as mentally ill in legal settings. If this racial group perceives mentally ill patients as more dangerous merely by merit of the presence of a diagnosis, it could affect their decisions in legal settings involving criminal behavior.

In an extension of Whaley's study, other researchers found that African Americans were more likely than Whites to perceive individuals labeled with schizophrenia or depression would do something violent to another person (Anglin et al., 2006). However, an interesting nuance to these findings is that despite the perception of dangerousness, African American participants were less likely to report that these individuals should be blamed and punished for their violent behavior. This lack of endorsement of harsher consequences for those labeled with schizophrenia or depression suggests that the stigma held by African Americans for mental illness is a complex topic, and not homogenous with a single cause.

Diagnostic Labels and Diagnostic Description Effects

Diagnostic labels are used because they provide a certain benefit to those who work in the healthcare field. When attempting to deal with large groups of people who may obtain care at various facilities in various locations, some universal means of communication is important

for healthcare professionals. Diagnostic labels are intended as a means to understand a large group in an efficient manner. Further, diagnostic labels provide a description of the patient or the condition to the clinician and thereby ascribe a prognosis as a starting point for treatment. Finally, the diagnostic label also leads and advises healthcare professionals for certain groupings of available interventions and treatments, as well as possible causes for the condition. All of these are important and necessary in providing adequate care to patients.

When studying the stigmatizing effects of a diagnostic label there are three possible sources of influence at play: general labeling effects, specific label effects, and diagnostic description effects (Murrie, Cornwell, & McCoy, 2005). As such research to date has focused generally on the label of mental illness, specific labels relating to various psychological disorders, and the diagnostic descriptions of those disorders.

There are, however, some concerns with the assignment of diagnostic labels. By definition, diagnostic labels assume a homogenous group. As such the variance and differences that exist between individuals within the group is often lost. More so, at times all characteristics of the condition may be erroneously attributed to every member of the group who is assigned the diagnostic label. These attributions may serve to exacerbate negative attitudes and beliefs about individuals with mental illness. Additionally, some might erroneously argue that the diagnostic description defining past behavior can be used to predict future behavior (Reid, Wise, & Sutton, 1992).

In legal setting the focus has mainly related to the use of diagnostic labels like psychopathy, anti-social personality disorder, conduct disorder, schizophrenia, psychosis, and to a lesser extent depression. The focus on these labels in the majority of research has related to a

determination of competency, jury bias, sentencing determinations, and effects of expert testimony on criminal proceedings.

Corrigan (2007) hypothesized that diagnostic labels may be the cues that signal stereotypes. He found that nonspecific prejudice against people with mental illness was noted when compared with people with another health condition, with labels such as schizophrenia and psychosis eliciting a greater level of prejudice. Stereotypes are considered stable and, as such, are problematic as they tend to persist and continue to be attached to the target group until perceptions change. Corrigan (2007) went one step further and suggested the diagnostic description may increase the stereotype of mental illness when providing a description of the mental illness. The diagnosis and the descriptions of mental illness add to the sense of groupness and differentness of that group, thereby reinforcing the stereotypes attached to that group.

The label of psychopath is one that is often used in the popular culture in relation to violent criminals. As such, it important to determine if any of the negative attitudes proscribed to the term, or other like terms used in the common vernacular, could carry over to criminal settings where it can have deleterious effects on the individual. Edens, Desforges, Fernandez, and Palac (2004) asked undergraduate mock jurors to consider a vignette with a hypothetical adult criminal defendant in a death penalty case where the clinical diagnoses of psychopathy, psychosis, or no diagnosis were manipulated. The researchers found mock jurors rated defendants described as psychopathic as posing more risk of violence to the public than those defendants not assigned a diagnostic label. Researchers failed to find stigmatizing effects specific to the label of psychopathy, thus they speculated the mock jurors exhibited "a general bias towards individuals with mental disorders rather than a unique bias towards individuals labeled as psychopathic" (Edens et al., 2004, p.6).

In a follow up study which also asked mock jurors to consider a death penalty case, participants assigned greater dangerousness to defendants described as psychopathic versus defendants who were not assigned a diagnosis. Further, individuals labeled as psychopathic were more likely to be sentenced to the death penalty (60%), than those labeled as psychotic (30%) or those without a diagnosis (38%) (Edens et al., 2004). Another study using newspaper articles describing defendants with a psychopathic diagnostic description, but without the specific diagnostic label, resulted in increased support for a death sentence and decreased support for providing treatment while incarcerated (Edens, Guy, & Fernandez, 2003).

Filone, Strohmaier, Murphy, and DeMatteo (2014) conducted a study where diagnostic labels for personality disorders were used and assigned to either a white-collar crime or a violent crime. They found that 67.2% of participants reported an increased rate of recidivism when a diagnostic label was present. Also, in cases where a violent crime was described, mental health diagnosis had more influence than in cases where a white-collar crime was described. This is an interesting study in that it compared violent and nonviolent crimes. Research considering varying types of crimes when studying diagnostic labels is limited, but crime severity would likely have an intervening effect on participant responses.

A study using probation officers as respondents and the labels of psychopathy and conduct disorder for adolescent defendants found that probation officers reported being affected by the antisocial behavioral history provided rather than the diagnostic labels (Murrie, Cornell, & McCoy, 2005). In this case, it was diagnostic description effects which appeared to have a greater influence than a diagnostic label on the decisions of probation officers. Though a history of antisocial behavior had the greatest effect on participant responses, researchers found when psychopathic personality features were presented to the probation officers they were more likely

to endorse the beliefs that the adolescent will be a criminal as an adult and commit a future crime (Murrie et al., 2005). An encouraging result from this study was the willingness to refer youths labeled as psychopathic for psychological services.

In another study, the influence of diagnostic labels and diagnostic description for psychopathy and conduct disordered were examined by asking judges to render hypothetical decisions (Murrie, Boccaccini, McCoy, & Cornell, 2007). Murrie et al. (2007) did not find a negative labeling effect for either diagnostic label. However, the judges did appear to be more sensitive to the use of diagnostic descriptions, be it personality traits or behavioral criteria. Judges in this study were less likely to defer prosecution, more likely to expect future violence from the defendant, and more likely to predict adult criminality where psychopathic personality traits were presented. This was partially consistent with past research results where judges were more attune to prior antisocial or criminal history, than personality characteristics and diagnostic labels (Redding & Murrie, 2007).

Similar research was conducted to determine clinicians' response to diagnostic labels in the juvenile justice system. Rockett, Murrie, and Boccaccini (2007) asked clinicians respond to a mock psychological evaluation of a juvenile. The evaluations varied antisocial history, psychopathic personality traits, and diagnostic label of psychopathy, conduct disorder, or no label. Clinicians were more responsive than other juvenile justice professionals to a diagnostic label of psychopathy or when the individual was characterized as psychopathic. Rockett et al. (2007) found clinicians were more likely to anticipate greater risk from individuals labeled as psychopaths than those labeled with conduct disorder. This finding was also true when there was little history of antisocial behavior. Rockett et al.(2007) suggest in the absence of a significant history of antisocial behavior, clinicians tend to revert to their understanding and

knowledge of the diagnostic label to steer their expectations. Further, clinicians seemed to expect psychopathic personality traits to be enduring and to predict future criminal behavior in adulthood.

Depression

An amalgam of emotions is reported by participants of research studies toward individuals identified as depressed (Sacco & Dunn, 1990). Among those emotions were anger, anxiety and a desire for greater social distance (Sacco & Dunn, 1990). One study found that labeling a person as depressed had negative effects on respondents' perception of the individual (Sacco & Dunn, 1990). Specifically, respondents reported negative attitudes, negative emotional responses, and decreased desire to interact with or willingness to help those labeled as depressed.

Barney, Griffiths, Christensen, and Jorm (2009) found that stereotypes about depression include beliefs that individuals are responsible for their condition, and that those labeled as depressed could get better by pulling themselves together. This is similar to the stereotype that those who are suffering from depression is the result of some sign of personal weakness (Wang, Fick, Adair, & Lai, 2007). This concept of being able to pull one's self out of a depressive state assigns a level of control over the condition to the individual labeled as depressed. In so doing, this study elucidates an important perception of controllability attributed to those diagnosed with depression.

The concept of assigning blame for psychological conditions to those with diagnostic labels is not limited to depression. A continuum appears to exist in terms of perceived blame assigned to people with various psychological disorders when psychological disorders are compared to one another or as opposed to physical infirmities. Depression was rated as more negative, controllable, and psychologically caused than physical infirmities (Monteith & Pettit,

2011). People who suffered from eating disorders or substance addiction were blamed more for their condition, than those diagnosed with depression (Monteith & Petit, 2011). Individuals diagnosed with depression were blamed more so for their condition than individuals diagnosed with schizophrenia or dementia (Monteith & Petit, 2011). Both diagnostic labels of schizophrenia, and substance abuse elicited a greater desire for social distance than a label of depression (Feldman & Crandall, 2007). Also, having a diagnostic label of depression elicited a greater desire for social distance when compared with individuals who report common life stresses (Link et al., 1999).

Further, as suggested above, individuals labeled as depressed were perceived as unpredictable, dangerous, or violent (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000). In a study which measured adults' perceptions of children with attention-deficit hyperactivity disorder or depression, researchers found adults were more than twice as likely to associate stereotypes of violent behavior and wish to maintain social distance from children with either diagnosis as compared with children with normal daily troubles (Ohan et al., 2013). However, the relationship between dangerousness and desired social distance was not consistently found in research for individuals with the diagnostic label of depression (Angermeyer, Matschinger, & Corrigan, 2004). Another study which considered a number of variables, including perception of dangerousness of individuals identified as depressed, also found heightened ratings for the belief of possible dangerousness and violence for the population labeled as depressed (Link et al., 1999). Specifically it was found that when symptoms of mental illness were presented in the case vignettes, there were higher ratings relating to a belief of dangerousness and violence with depression rated at 33%, as opposed to 17% for a troubled person.

Criminal Justice System Perception of Mental Illness

Negative perceptions and stigma toward diagnostic labels and descriptions could have consequences in a criminal setting if the individual was perceived as responsible for their condition. The belief that depression is indicative of the existence of a personal weakness or choice might affect the perception of the individual and influence decisions made in criminal justice settings.

Weiner (1995) suggested responsibility judgments could at times be made based on the perceived origin of a disorder. Doyon (1998) asked undergraduate students to make responsibility judgments on the appropriateness of criminal and civil commitments and found diagnostic labels did determine responsibility judgments and the appropriateness of criminal and civil commitments. Disorders considered as onset uncontrollable by the respondents, such as mental retardation or paranoid schizophrenia, resulted in lessened judgments of responsibility. However, conditions considered as onset controllable, such as depression and alcoholism, resulted in greater judgments of responsibility. Further, Doyon (1998) found that participants reported the onset uncontrollable disorders required civil commitment and the onset controllable disorders required criminal commitment.

In a separate study Doyon (2000) asked participants to rate the appropriateness of an insanity verdict already decided by a jury. The crimes involved either homicide or arson, and the individual was labeled with alcoholism, depression, paranoid schizophrenia, or post-traumatic stress disorder. Paranoid schizophrenia and post-traumatic stress disorder were rated as onset uncontrollable disorders, and alcoholism and depression were rated onset controllable disorders. As expected more responsibility was assigned for onset controllable disorders. Also, more anger and less pity about the commission of the crime were reported for onset controllable disorders.

Further, guilty verdicts were found to be more appropriate for those defendants labeled with what was perceived as onset controllable disorder.

These findings have implications for legal settings. If those responsible for rendering judgments in legal cases assign greater blame to individuals labeled as depressed due to stereotyped or stigmatized beliefs about depression, then the use of those labels in legal settings may be inappropriate and detrimental to the fairness of the judicial process.

It is also this belief that individuals labeled as depressed are more dangerous or violent than those without the diagnostic label which is important to understand in a criminal justice setting. A fear that a persons charged with a crime might be inherently dangerous as a result of a psychological diagnosis of depression could negatively impact the decision-making processes of those charged with the task of assigning culpability or sentencing in a legal setting.

Decision-making is a complex issue, which has been studied since the latter part of the twentieth century (Sommers, 2007). Both medical and social-psychological models of abnormality seem to have effects for the jury process because of the perceptions of socially deviant behavior and causality (Kidd, & Sieveking, 1974). As there are legal issues impeding research with actual juries, most information to date was obtained by observing and questioning mock jurors, or post-service interview with jurors (Gastil, Burkhalter, & Black, 2007). The legal difficulties in gaining access to actual jurors relate to tainting the justice process in actual legal proceedings.

The Current Study

In the past psychological treatment and labels were considered taboo but as psychological treatment and psychological terms become more mainstream, it important to understand their effects on individuals tasked with making decisions. Juries are decision-making bodies

composed of individuals exposed to modern culture and all the biases, stereotypes, and stigmas present in their culture. As research has found that stigma related to various mental health disorders, including depression, it is important to add to the body of research to understand if and how these labels and descriptions can affect the outcome of decision-making in legal settings. Therefore, it is reasonable to study the perceptions of individuals and the influences exerted by diagnostic labels or diagnostic descriptions to determine whether these biases exist and whether they may carry over into legal settings, as in a jury room.

The current study is directed towards understanding the possible effects present when using the diagnostic label or diagnostic description of depression on individuals making decisions of responsibility relating to a persons who committed a nonviolent crime. A nonviolent crime, specifically burglary, was selected to remove any confounding variables which may be attached to a violent crime where an individual was aggressed. Specifically, when exposed to a diagnostic label or description of an individual diagnosed with Major Depressive Disorder, paired with the commission of a nonviolent crime does an individual assign greater responsibility to perpetrator. Though not typically considered when one thinks of criminal defendants, depression may be present in the backgrounds of criminal defendants and this information may be sometimes presented to those making decisions in the justice system. Major Depressive Disorder is a common disorder in the populous and could be present in the perpetrator's background. It is often the case that medical records, medical history, or other behaviors may be tangentially described during the course of a legal proceeding. Though it may appear to be an innocuous piece of information to present to an individual in a decision-making capacity, it could actually have an influence. The effect of the diagnostic label or the diagnostic

description for depression is therefore important to understand in relation to the responsibility assigned to those who are accused, in this case, of nonviolent crimes.

Further, as there are gender, racial, and ethnic differences in how individuals with depression are perceived, this study also seeks to compare and analyze whether any gender, racial or ethnic differences are present in the participant's responses towards responsibility of nonviolent crime when the variable of a mental illness, specifically depression, is present. Specifically, it is hypothesized that in the nondiagnostic label condition, participants will report lower responsibility scores, than in the diagnostic description condition and the diagnostic label condition (Hypothesis (1a)). Also, it is expected that in the diagnostic description condition participants will report higher responsibility scores than the diagnostic label condition (Hypothesis (1b)).

Rationale and Operational Definitions

The participants will be advised that the individual "committed" the crime. The phrase "committed a crime" is used to remove any doubt as to the culpability of the individual. Therefore, the participants will be providing their opinion as to the perpetrator's level of responsibility based on knowledge that the individual committed the crime.

The Likert Scale will seek to measure an individual's perception of responsibility. The Likert Scale was a generic scale tailored for this study. For this study, the definition of "responsible" used is the Merriam-Webster's definition: the state of being the person who caused something to happen.

The diagnostic criteria provided in that condition will be obtained directly from the Diagnostic Statistical Manual of Mental Disorders 5 (DSM-5). The diagnostic label used in the labeled condition will be Major Depressive Disorder.

The DSM-5 states that for Major Depressive Disorder:

Diagnostic Criteria

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

    1. Depressed mood most of the day, nearly every day, as indicated by either subjective report or observation made by others.
    2. Marked diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective report or observation).
    3. Significant weight loss when not dieting or weight gain, or decrease or increase in appetite nearly every day.
    4. Insomnia or hypersomnia nearly every day.
    5. Psychomotor agitation or retardation nearly every day.
    6. Fatigue or loss of energy nearly every day.
    7. Feelings of worthlessness or excessive or inappropriate guilt nearly every day.
    8. Diminished ability to think or concentrate, or indecisiveness, nearly every day.
    9. Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

A. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

B. The episode is not attributable to the physiological effects of a substance or to another medical condition.

C. The occurrence of major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.

D. There has never been a manic episode or a hypomanic episode.

Methods

Participants

Undergraduate college students from a University in South Florida, 18 years of age and over were recruited for in this study. Responses were received from 476 college students, but 231 were to be excluded following the screening and cleaning of the response data. The total number of respondents who provided valid data for the statistical analysis was $N = 245$.

Measures

A vignette and questionnaire were posted on PsychSurveys. This survey site allowed for random assignment to occur with participants. Students were advised of the survey via flyer or electronic mail disseminated via the University's Psychology Department electronic mail. The flyer provided the required disclosures regarding the study, including the title of the study and purpose. The flyer further provided clear instructions for accessing the study, and criteria for obtaining required course credit for students who were eligible.

Procedure

Each participant completed a survey posted onto the PsychSurveys online data collection site. Each participant was randomly assigned to a test case (See Appendices A and B). Participants were recruited via electronic mail or flyer. These provided an address to the survey posted to PsychSurveys. The participants were directed to a welcome page requesting them to read the

consent form. Those who acknowledged they had read the consent form and were 18 years of age or older were able to continue with the survey.

Next each participant was assigned to only one of the three conditions: diagnostic label, diagnostic description, no diagnostic label or diagnostic description (See Appendix A). Specifically, participants were asked to determine the level of responsibility of a gender neutral individual accused of a nonviolent crime on a 5-point Likert Scale. The first name of the perpetrator was only be designated by an initial to minimize gender assignment to the perpetrator, and minimize confounding variables. All participants were told that an perpetrator committed the nonviolent crime of burglary. This nonviolent crime was then paired with one of three case conditions: no label, diagnostic label of Major Depressive Disorder, or DSM-5 diagnostic criteria for Major Depressive Disorder (See Appendix B). In the control condition, where no diagnostic label was assigned to the perpetrator, each participant was asked to assign a value on a 5-point Likert Scale (where 1 was not at all responsible and 5 was very responsible) as to the level of the perpetrator's responsibility in committing the nonviolent crime of burglary. The same was done in the other two test conditions, except each participant was presented with either the diagnostic label of Major Depressive Disorder or the DSM-5 diagnostic criteria for Major Depressive Disorder. After completion of the test condition, participants were asked to provide demographic data.

Upon completion of the test case, each individual was asked to provide demographic information (See Appendix C), including gender, age, race, ethnicity, citizenship status in the United States, nationality, college major, courses in psychology and psychopathology, past personal experience with depressed individual(s) (yes or no). Also, they were asked if when completing the survey they assumed A. Smith was male, female, or did not assign a gender. The

demographic information was obtained at the end of the survey to also determine if the participant assigned a gender to the gender neutral selected name for the study. This last question allowed determination of perception of gender of the charged individual as a confounding variable for the study.

Results

The questionnaire response data were initially provided by PsychSurveys in an MS Excel® file. This file was imported directly into IBM SPSS® so there were no transcription errors. Before conducting the statistical analysis, the response data were screened for missing, erroneous, or unacceptable values. All respondents were excluded who (a) did not acknowledge that they had read the consent form; (b) were not over 18 years of age; (c) did not provide demographic information, specifically their gender, age, and race; and (d) did not complete all of the survey questions.

A descriptive and inferential statistical analysis was conducted to determine the relationships between the responses to the question "How responsible is A. Smith of the crime of burglary?" (the dependent variable) and seven independent variables, as defined in Table 1. The measurement level of each variable was defined as interval, ordinal, or nominal. The level of responsibility was assumed to be measured at the interval level, which is debatable. Consequently, the relationships between the dependent and independent variables defined in Table 1 were justifiably examined using parametric descriptive statistics, including mean and standard deviation. Parametric inferential statistics, specifically analysis of variance (ANOVA), were used to determine if the mean scores for the levels of responsibility varied significantly at the .05 level of statistical significance between the mutually exclusive groups formed by the independent variables. The practical significance of the results was indicated by the effect sizes,

computed as "partial eta squared" in SPSS (Brown, 2008). The interpretation of eta squared was < .04 = negligible; .041 to .25 = low ; .25 to .63 = moderate; .64 to 1.00 = high (Ferguson, 2009).

Table 1

Definitions of Variables

Variable	Functional definition	Conceptual definition	Operational \definition	Level of measurement
Level of responsibility	Dependent variable	Responses "How responsible is A. Smith of the crime of burglary?"	1 = Not at all; 2 = Somewhat not; 3 = Neither responsible, nor not responsible; 4 = Somewhat; 5 = Very	Interval (5-point scale)
Test condition	Independent variable	Assigned condition of A. Smith	1 = No label 2 = Diagnostic criteria 3 = Diagnostic label	Nominal
Gender assignment	Independent variable	Responses to "When completing the survey, did you assign a gender to A. Smith"	1 = Assigned as male 2 = Assigned as female 3 = No assignment	Nominal
Gender	Independent variable	Responses to "What is your gender?"	0 = Female 1 = Male	Nominal
Age group	Independent variable	Responses to "What is your age"	1 < 21 years 2 = 21 to 30 years 3 = 31 to 40 years 4 = 41 to 50 years 5 > 50 years	Ordinal
Race	Independent variable	Responses to "What is your race?"	1 = White 2 = African American 3 = Other	Nominal
Personal experience	Independent variable	Responses to "Do you have past personal experience with someone diagnosed with depression?"	0 = No 1 = Yes	Nominal
Taken courses	Independent variable	Responses to "Have you previously taken courses in psychology and/or psychopathology"	0 = No 1 = Yes	Nominal

Descriptive Statistics

The characteristics of the respondents are summarized in Table 2. About half (*n* = 115, 46.9%) were assigned to the No label condition, and the other half to the Diagnostic criteria or Diagnostic label conditions. Most of the respondents (*n* = 155, 63.3%) assigned the perpetrator as male.

The majority of the respondents (*n* = 172, 70.2%) were female. They ranged in age from 18 to 66 years. The most frequent age group (*n* = 97, 39.6%) was < 21 years. The racial group of over half of the respondents was White (*n* = 139, 56.7%). The next most frequent racial group was African American (*n* = 64, 26.1%). The other (minority) groups included Asian, Pacific Islander, and Native American (*n* = 42, 17.1%). Over half of the respondents (*n* = 142, 58.0%) reported that they had past personal experience with someone diagnosed with depression, and over two thirds (*n* = 171, 69.8%) had previously taken courses in psychology and/or psychopathology.

Table 2

Frequency Distributions of Independent Variables (N = 245)

Independent variable	Category	n	%
Test condition	No label	115	46.9
	Diagnostic criteria	64	26.1
	Diagnostic label	66	26.9
Gender assignment	Assigned as male	155	63.3
	Assigned as female	12	4.9
	No assignment	78	31.8
Gender	Female	172	70.2
	Male	73	29.8
Age group	< 21 years	97	39.6
	21 to 30 years	71	29.0
	31 to 40 years	51	20.8
	41 to 50 years	13	5.3

	> 50 years	13	5.3
Race	White	139	56.7
	African American	64	26.1
	Other	42	17.1
Personal experience	No	103	42.0
	Yes	142	58.0
Taken courses	No	74	30.2
	Yes	171	69.8

Table 3 presents the descriptive statistics (mean scores and standard deviation) for the reported levels of responsibility classified by the seven independent variables. The lowest mean score for the test condition was for the No label condition (M = 4.20) with higher but similar mean scores for the Diagnostic criteria and Diagnostic label conditions (M = 4.55 and *4.56* respectively) implying that the No label condition might be perceived to be the least responsible for the crime. Though not significant, this is what was expected in hypothesis 1a. The results did not reflect what was expected in hypothesis 1b. The lowest mean score for gender assignment was for female (M = 3.83) whilst the highest mean score was for no gender assignment (M = 4.53).

Table 3

Descriptive Statistics for Level of Responsibility by Independent variables

Independent variable	Category	Level of Responsibility	
		Mean	SD
Test condition	No label	4.20	1.29
	Diagnostic criteria	4.55	0.89
	Diagnostic label	4.56	0.91
Gender assignment	Assigned as male	4.36	1.17
	Assigned as female	3.83	1.03
	No assignment	4.53	0.98
Gender	Female	4.42	1.10
	Male	4.32	1.14

Age group	< 21 years	4.06	1.22
	21 to 30 years	4.37	1.05
	31 to 40 years	4.92	0.27
	41 to 50 years	4.62	1.12
	> 50 years	4.62	0.87
Race	White	4.52	1.02
	African American	4.41	1.10
	Other	4.93	1.28
Personal experience	No	4.28	1.20
	Yes	4.46	1.04
Taken courses	No	4.36	1.13
	Yes	4.40	1.10

The variability in the mean scores classified by the gender, age, race, personal experience, and taken courses ranged from 4.06 to 4.92. Consequently, the majority of the respondents in each demographic group perceived that the perpetrator was somewhat to very responsible for the crime.

Analysis of Level of Responsibility.

Figure 1 illustrates the variability in the 5-point scale for the level of responsibility of the perpetrator using frequency distribution histograms, classified by the three test conditions. The frequency distributions were skewed, with a mode at a score of 5 (meaning that the majority of the respondents reported that the perpetrator was responsible for the crime, whatever the test condition. Theoretically, ANOVA assumes that the frequency distribution of the dependent variable is normal, with a mode at the center. There is much evidence in the literature, however, claiming that deviation from normality does not compromise the results of ANOVA, so long as the deviation is not due to outliers outside the expected limits of a normal distribution, and there is an adequate sample size in each group (Schmider et al., 2010).

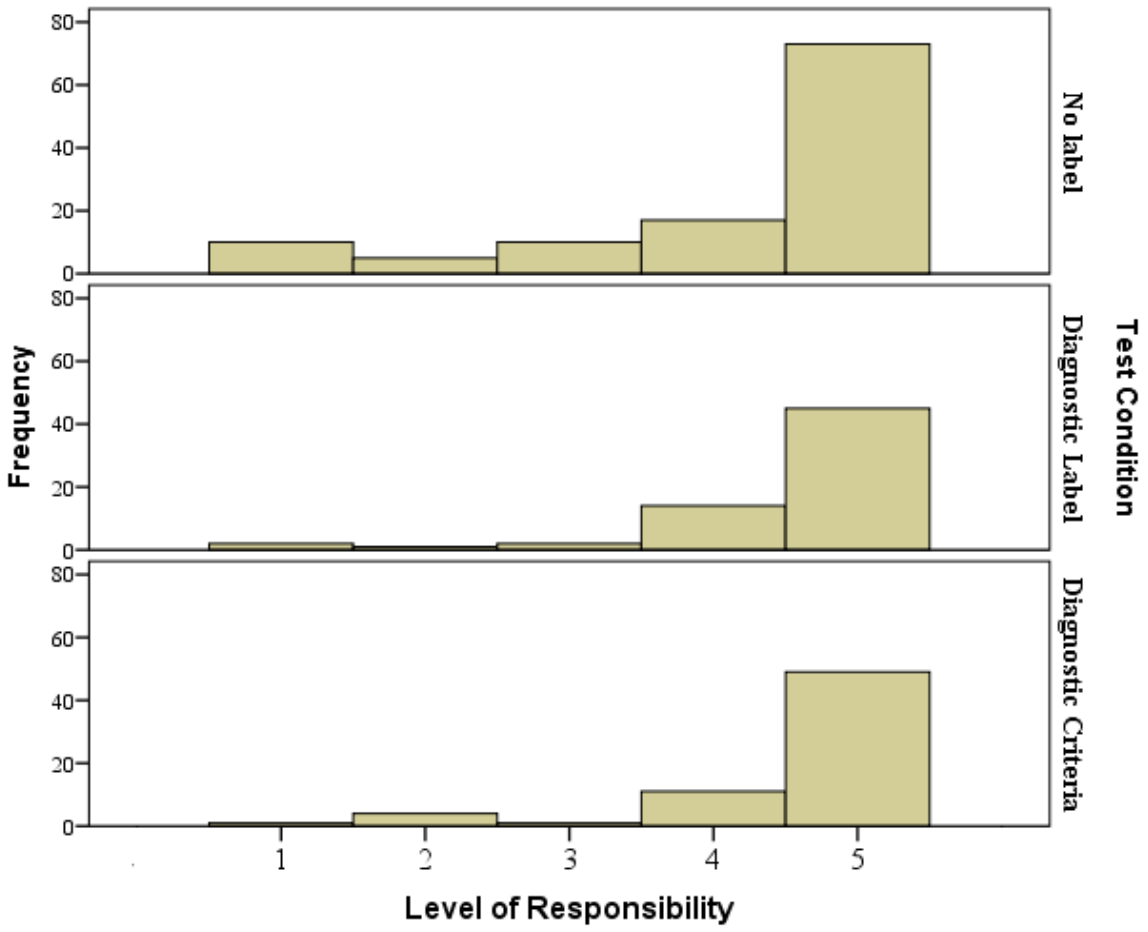

Figure 1. Frequency distribution histogram of Level of Responsibility

No outliers were found in the response data, indicated by z-scores within the expected normal limits of ± 3.0. The results of the one-way ANOVA in Table 4 indicated that the test condition was a statistically significant ($p < .05$) factor associated with the level of responsibility ($F (2, 242) = 3.16$, $p = .044$); however the effect size (partial eta squared = .025) was negligible, implying that only 2.5% of the variance in the level of responsibility was explained by the test condition. Little or no practical significance can therefore be ascribed to the finding that the lowest mean score was for the No label condition ($M = 4.20$) with higher but similar mean scores for the Diagnostic criteria and Diagnostic label conditions ($M = 4.55$ and 4.56 respectively).

Table 4

One-way ANOVA for Level of Responsibility vs. Test Condition

Source of Variance	Type III Sum of Squares	df	Mean Square	*F*	*p*	Partial Eta Squared
Test Condition	7.65	2	3.82	3.16	.044*	.025
Error	292.52	242	1.21			
Total	5017.00	245				
Corrected Total	300.16	244				

* Note: Significant ($p < .05$)

The results of the two-way ANOVA in Table 5 indicated that when the test condition was combined with the gender assignment, then the test condition was not a statistically significant factor associated with the reported level of responsibility at the .05 level. Furthermore, there was no statistically significant relationship between the gender assignment and the level of responsibility, and there was no interaction between the two independent variables. The effect sizes (partial eta squared = .003 to .022) were negligible. Little or no practical significance can therefore be ascribed to these findings.

Table 5

Two-way ANOVA for Level of Responsibility vs. Test Condition and Gender Assignment

Source of Variance	Type III Sum of Squares	df	Mean Square	F	p	Partial Eta Squared
Test Condition	0.98	2	0.48	0.40	.670	.003
Gender Assignment	6.48	2	3.24	2.69	.070	.022
Condition * Gender Assignment	3.06	3	1.02	0.85	.470	.011
Error	285.92	237	1.21			
Total	5017.00	245				
Corrected Total	300.16	244				

The results of the multifactorial ANOVA in Table 6 indicated that the demographic characteristics of the respondents had limited effects on the reported level of responsibility. The

only statistically significant factor was the age of the respondents ($F(4, 235) = 4.42$, $p = .002$); however, the effect size (partial eta squared = .070) was very low. Little practical significance can therefore be ascribed to the finding that the younger age groups (21 to 30 years) tended to report lower levels of responsibility for the crime ($M = 4.06$ to 4.37) whilst the older age groups (31 to > 50 years) tended to report higher levels of responsibility ($M = 4.62$ to 4.92).

Table 6

Multifactorial ANOVA for Level of Responsibility vs. Demographic Variables

Source of Variance	Type III Sum of Squares	df	Mean Square	*F*	*p*	Partial Eta Squared
Gender	1.00	1	1.00	0.89	.348	.004
Age group	20.05	4	5.01	4.42	.002*	.070
Race	4.64	2	2.32	2.04	.132	.017
Taken courses	0.67	1	0.67	0.59	.442	.003
Personal experience	0.92	1	0.92	0.81	.369	.003
Error	266.65	235	1.14			
Total	5017.00	245				
Corrected Total	300.16	244				

Note: * Significant ($p < .05$)

Discussion

The current study did not detect an effect with respect to any of the two test conditions. Although there was a slightly higher participant response in the diagnostic label and diagnostic criteria conditions ($M = 4.56$, and $M = 4.55$ respectively) than the no label condition ($M = 4.20$), the effect was not significant. One reason this effect may not have been significant is that the control and test conditions did not provide much room for discerning the responses as different. The results may be biased because the measurement of the level of responsibility has an extreme response style. This is the tendency of many respondents, when asked to choose from a 5-point

single item scale, to mainly endorse the most extreme end of the scale (Bachman et al., 2010; Clarke, 2000).

The study did find that the level of responsibility for the perpetrator of a nonviolent crime was not affected in a way that diminished the responsibility of the perpetrator when there was a diagnostic label or a diagnostic description of depression present. This could follow with previous research where those individuals with a label of depression were perceived as more dangerous as this study did not find lesser scores of responsibility for those with such a label or diagnostic description. These scores do indicate that further study should be done as to how much more responsible a perpetrator would be assigned if this label or diagnostic criteria were presented. And if there is a greater level of responsibility assigned to these perpetrators, then it is possible that greater responsibility and punishment may seem necessary or fair. Should this be the case in legal settings or other settings where an individual's rights or opportunities are considered, then it must be known.

The only statistically significant result was age of respondents. There were some differences noted in the age group where participant under 30 years of age assigned the lowest responsibility scores (M = 4.06 to 4.37), and respondents in the 31 to >50 years of age assigned the highest responsibility scores (M = 4.62 to 4.92). When considering real world applications of these issues, it should be determined if the age of the individual making determinations about individuals with a label of Major Depressive Disorder or the diagnostic criteria for this disorder will be affected by its presentation when making decision in legal or other. This is not a parameter which was considered as an influencing factor when designing this study. Are older individuals being influenced by stigma or life experience? Do the younger individuals hold less stigma towards mental illness because they have greater exposure to these labels? There is not

enough information in this study to make definitive statement regarding this finding. Further study should be completed where age is more closely studied with various mental health diagnoses.

One interesting result was lower responsibility mean scores when the perpetrator was perceived to be female (M = 3.83), as opposed to male or no gender assignment (M = 4.36 and M = 4.53, respectively). However, when the gender assignment scores were combined with the test condition it was not significant. As stated above, dangerousness is an assignment at times given to those with mental illness labels, including depression. It is possible that as women are perceived to be less threatening than men, when the perpetrator was thought to be female lower levels of responsibility were assigned. It would be interesting to see if this would be true when varying the type of crime committed by the individual. Specifically would lower levels of responsibility be assigned to women when the crime was of a violent nature, such as kidnapping or murder. Some caution though should be provided in practical application of these issues when the perpetrator is a female until more is known about the issue.

The study did not detect gender or racial bias in the respondents' responses. From previous research there was an expectation that men would assign higher responsibility scores than women to the perpetrator in the two test conditions. This is because men have more negative attitudes towards depression and report a greater desire for social distance which was thought would translate to higher levels of responsibility being assigned to the perpetrator in the test conditions of label and diagnostic criteria. Since this result was not found, further study could be completed to determine if intergroup bias extends to the commission of nonviolent and violent crimes. Though more women suffer from depression and they reported lower levels of

stigma than men, it is possible that the benefit of intergroup bias has its limitations which do not extend to perpetrators of crimes.

In this study there was also an expectation that Whites would assign higher responsibility scores to the perpetrator than African Americans because past in research Whites were found to hold higher levels of stigma towards the label of depression. Previous researchers' findings suggested that although African Americans are more likely to attribute violent behavior those with a mental illness, they assigned lower levels of responsibility to those individuals. However, it is possible the design of this study with the extreme response style used did not allow for an effect to be detected in this regard.

A limitation of this study was that there was no random assignment of the conditions as expected. There was some unknown issue with the PsychSurveys website, and the test conditions were filled one at a time rather than concurrently. Though it does not seem that this should have affected the results given the nature of the study. Further the Likert Scale used did not allow for sufficient differentiation of the scores between the control and the test conditions. In this study, the majority of the respondents selected the extreme score of 5 on the 5-point scale, implying that they perceived that the perpetrator was very responsible; however, the skewed frequency distribution of their responses may have been an example of extreme response style. The control condition should have been tailored so the participants would provide a response where a score of about 3 on the Likert Scale was the neutral response, and the control conditions should have yielded higher or lower scores, i.e. scores greater or lower than 3. As such, it is possible that a study that better allows for these differences to manifest would find an effect.

Another possible reasons for the lack of significant results is that single-item measures, as used in this study to measure the level of responsibility of the perpetrator, on a scale from 1 to 5,

may be psychometrically invalid (Bergkvist & Rossiter, 2007; Gardner et al., 1998). It is not possible to measure the internal consistency reliability of single item measures, and they are very vulnerable to random measurement errors, as well as unknown biases in meaning and interpretation. Ideally, the level of responsibility of the perpetrator in this study should have been measured used multiple items designed to sample a broader range of meanings to cover the full range of the construct. The scores for the multiple items should have been tested for internal consistency reliability before they were composited to operationalize the dependent variable.

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Appendix A

Example of test conditions to be presented to participants:

No Label/No Criteria Test Condition: A. Smith committed the crime of burglary

Diagnostic Label Test Condition: A. Smith committed the crime of burglary. A. Smith is diagnosed with Major Depressive Disorder.

Diagnostic Criteria Test Condition: A. Smith committed the crime of burglary. A. Smith reports loss of appetite and significant weight loss, difficulty sleeping, feelings of worthlessness, difficulty concentrating, and feeling depressed and irritable most days for the last two month. A. Smith also reports losing his job four weeks ago because he had difficulty completing tasks.

Appendix B

After being presented with one of the test conditions per random assignment, each participant will then be asked:

How responsible is A. Smith of the crime of burglary?

Not at all responsible (1)	Somewhat not responsible (2)	Neither responsible nor not responsible (3)	Somewhat responsible (4)	Very responsible (5)
○	○	○	○	○

Appendix C

Demographic information to be requested at the end of the survey:

Age	**Gender**	**Race**	**Ethnicity**
(Write-In)	○ Male ○ Female	○ White ○ White, non-Hispanic ○ African American ○ Asian/Pacific Islander ○ Native American	○ Caucasian, non-Hispanic ○ African American, non-Hispanic ○ Asian/Pacific Islander ○ Native American ○ Latino/Hispanic ○ Other

Nationality	**Are you a U.S. Citizen?**	**What is your college major?**	**What is your college minor?**
(Write-In)	○ Yes ○ No	(Write-In)	(Write-In)

Have you previously taken courses in psychology and/or psychopathology:	**If yes, how many courses have you taken in psychology and/or psychopathology?**	**Do you have past personal experience with someone diagnosed with depression?**	**When completing the survey, did you assign a gender to "A. Smith" as:**
○ Yes ○ No	(Write-In)	(Write-In)	○ Male ○ Female ○ None

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Linda Bacheller, Psy.D., J.D. Associate Professor of Psychology, Director, M.S. Clinical Psychology	Date