THE STIGMA OF HOMELESSNESS AS A FUNCTION OF MENTAL ILLNESS

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Nyssa Lee Snow

UNIVERSITY OF DAYTON

Dayton, Ohio

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THE STIGMA OF HOMELESSNESS AS A FUNCTION OF MENTAL ILLNESS COMORBIDITY

Name: Snow, Nyssa Lee

APPROVED BY:

______________________________
Roger N. Reeb, Ph.D.
Chairperson, Thesis Committee

______________________________
Ronald M. Katsuyama, Ph.D.
Thesis Committee Member

______________________________
Theophile J. Majka, Ph.D.
Thesis Committee Member

Concurrence:

______________________________
Carolyn Roecker Phelps, Ph.D.
Chair, Department of Psychology
ABSTRACT
THE STIGMA OF HOMELESSNESS AS A FUNCTION OF MENTAL ILLNESS COMORBIDITY

Name: Snow, Nyssa Lee
University of Dayton

Advisor: Dr. Roger N. Reeb

Although research has focused on stigma toward individuals with mental illness and homeless individuals in separate studies, there is a dearth of research examining the extent to which stigmatization is exacerbated when there is a coexistence of mental illness and homelessness. The present study examined how a person’s stigmatizing attitudes and discriminatory behaviors differ depending on: (a) whether or not there is a coexisting mental illness; and (b) whether the mental illness developed before or during homelessness. The study examined two hypotheses: (1) participants will have significantly greater negative reactions to vignettes that portray the homeless person as having a mental illness; (2) relative to participants who read a vignette portraying a homeless person who developed mental illness during homelessness, those who read a vignette portraying a person with mental illness before becoming homeless will report higher blame, anger, perception of dangerousness, fear, support for segregation and coercion, and less pity and willingness to help. Undergraduate students (N = 243) were randomly assigned to vignette conditions: (1) mental illness onset prior to homelessness; (2) mental illness onset following homelessness; (3) homeless person with mental illness
without information about mental illness onset; and (4) homeless person without mental illness. After reading vignettes, participants completed measures of stigma-related reactions (Corrigan et al., 2003). One unique feature of the study is that it statistically controlled for the social desirability bias (Paulhus, 1991). The hypotheses were partially supported, and the study yielded three patterns of results. First, when the vignette character had both homelessness and mental illness, participants exhibited: greater perception of dangerousness, feelings of fear, and support for segregation and coercion. Second, when the homeless person was not described as having mental illness, however, participants expressed greater feelings of personal blame, less pity, and more anger. Third, when the vignette character was described as developing mental illness during homelessness, as opposed to having a mental illness preceding homelessness, participants expressed greater feelings of personal blame, fear, support for segregation, and desire to avoid the vignette character. While some findings were contrary to hypotheses, even these findings converged on an interpretable pattern that is interesting in light of past research and theory. Overall, the findings converged on the following pattern: (1) while people have greater fear of homeless individuals with a coexisting mental disorder, they are less likely to blame homeless individuals when mental illness is documented; and (2) people are more stigmatizing toward homeless individuals if they perceive mental illness as causing homelessness, as opposed to mental illness developing as a reaction to homelessness. Results are interpreted within the context of past theory and research, and recommendations for future research are delineated. Implications of the findings are considered for clinical work as well as community interventions focused on reducing stigma.
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INTRODUCTION

Stigma plays a prominent role in how people of certain groups function psychosocially, through impacting both their psychological well-being and their ability to function in social relationships. People with mental illness, a highly stigmatized population, have reported emotional reactions such as feeling angry, hurt, sad, and discouraged as a result of stigmatizing experiences (Wahl, 1999; Corrigan & Kleinlein, 2005). Stigmatized individuals have a fear of being rejected, and this severely strains their social relationships (Corrigan & Kleinlein, 2005). Those who experience stigmatization report lower self-esteem, greater depression, social withdrawal, and difficulty trusting others (Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001; Wahl, 1999; Corrigan & Kleinlein, 2005).

Similar to individuals with mental illness, homeless individuals also experience stigmatization. A qualitative study on homelessness showed that a major concern of the homeless is stigma (Bhui, Shanahan, & Harding, 2006). For instance, several homeless individuals reported being spat on and being denied treatment because the treatment facility staff assumed they were just trying to obtain warmth. Homeless individuals experience social alienation, which significantly damages existing relationships and precludes the development of new ones (Link et al., 2001). Even within the homeless population, those with mental illness may be considered lower in status. For example,
one homeless woman reported that having a mental illness resulted in her being treated even more poorly by the public and by other homeless people (Bhui et al., 2006).

The bulk of research has focused on the two populations (those with mental illness and those who are homeless) independently of one another, with only a few qualitative studies examining stigma experienced by individuals who are both homeless and mentally ill. Given the troublesome stigma experienced by both populations, accompanied by the fact that the public and media exaggerate (overestimate) the association between mental illness and homelessness (Lee, Jones, & Lewis, 1990; Arumi et al., 2007), the present study will examine the ways in which stigma toward the homeless varies as a function of presence or absence of a coexisting mental disorder.

This thesis is organized into a number of sections. In the first section, social stigma will be defined and an overview of its components will be provided. The second section will provide a selective review of past research on stigma and mental illness, particularly in regards to the stereotypes frequently guiding stigmatizing beliefs towards this population: dangerousness and personal blame. The third section will provide a selective review of research on stigma and homelessness as well as the perceived characteristics of homeless individuals and its relation to mental illness. Fourth, the aims of the present study will be discussed. Fifth, the methods for the present study will be described. Sixth the plans for statistical analysis will be reviewed and the results of the study will be presented. Seventh, the results will be interpreted according to past research, and the limitations, future research recommendations, and implications of the present study will be discussed. The final section will provide a summary and a conclusion of the present study.
The Concept of Social Stigma

A distinction should be made between public stigma (the focus of the present study) and self-stigma. Public stigma is how members from the general population stigmatize individuals who have particular characteristics. Self-stigma refers to the internalization of public stigma, which can lead to a loss of self-esteem and self-efficacy as well as blaming oneself for their condition and feeling shame for it (Corrigan & Watson, 2002; Corrigan, 2000). In other words, public stigmatization is one major factor that influences the extent to which individuals stigmatize themselves.

Goffman (1963), who is credited with providing the field with one of the earliest conceptualizations of stigma, referred to stigma as a noticeable attribute or mark that most people of a social group would consider to signify deviance or immorality. Stigma also refers to the social judgment and discrimination that most people place on outgroup members who possess such marks or attributes. Stigma is an “attribute that is deeply discrediting” and that diminishes the holder “from a whole and usual person to a tainted, discounted one” (Goffman, 1963, p. 3).

Similarly, Corrigan and colleagues (2003) define public stigma as consisting of three main components: stereotypes, prejudice, and discrimination. Stereotypes are collectively agreed upon opinions held about social groups. While stereotypes tend to carry negative connotations, they tend to develop because they are efficient in categorizing information about people and for generating expectations for a person of a particular social group. Individuals who endorse negative stereotypes become prejudice, meaning that they can have castigating attitudes and emotional reactions attached to these stereotypes. This may lead to discrimination, which is a behavioral response based on
prejudice towards the stereotyped group. Discriminatory behaviors can include segregation, coercion, hostile behaviors, withholding help, and avoidance (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Hinshaw & Stier, 2008).

Another recent definition comes from Link and Phelan (2001) who identified stigma as the co-occurrence of the following components: labeling, stereotyping, separation, status loss, and discrimination. Labeling refers to categorizing people into groups based on some attribute and giving that category a name to represent that group. Status loss refers to the reduced placement of a person in a status hierarchy due to negative labeling and stereotyping. They also state that in order for stigmatization to occur, there must be a power differential. Thus, those who typically face stigmatization are those groups with less power. On the other hand, it takes groups with social, economic, and political power to allow stigmatization to occur by identifying what makes these groups different, creating stereotypes, and executing disapproval, rejection, exclusion, and discrimination.

Weiner (1980) applied attribution theory in order to understand the association between stigmatizing attitudes and discriminatory behavior. This theory attempts to understand the relationship between human motivation and emotion and the desire to identify causes of everyday life events. People seem to have a desire to understand the reasons for, or to develop an understanding of, an outcome in a particular situation (e.g., an explanation for why someone in our culture would become homeless or develop a mental disorder). According to attribution theory, a person bases his or her decision about the reasons for an outcome on perceptions of locus of control (i.e., the extent to which the individual views events as being due to internal or external causes), the
stability of the cause (i.e., whether the cause is permanent or subject to change), and the controllability of the cause (i.e., the extent to which the person involved has volitional control over the condition) in order to understand the reasons for an outcome (Weiner, 1980). The controllability of the cause can also be broken down into onset controllability (i.e., whether or not the person is responsible for the development or onset of their condition) and offset responsibility (i.e., whether the person is actively trying to overcome their condition) (Schwarzer & Weiner, 1991).

Depending on the decision one makes in regards to responsibility for a condition, an emotional reaction will be initiated. Emotional reactions, in turn, are believed to impact how the evaluator behaves towards the person being evaluated and the expectations one sets for that person (Weiner, 1995). If the condition is viewed as being under one’s control or being one’s responsibility (i.e., his or her “fault”), then the evaluator may be more likely to respond with anger and little pity, and may even believe that the person should be punished or ignored. On the other hand, if the evaluator views one’s condition as being outside one’s control or not one’s responsibility, then the evaluator may be more likely to respond with pity and be more likely to offer help (Weiner, 1986).

Social Stigma and Mental Illness

Mental illness is one of the most stigmatized conditions in our society (Corrigan et al., 2000; Hinshaw, 2007). People with mental illness experience all of the components of the stigma process discussed above. They are officially marked and labeled, segregated, linked to unwanted characteristics, and experience severe discrimination as a result (Corrigan & Penn, 1999; Hinshaw, 2007). Two of the most
common stereotypes concerning those with mental illness are as follows: (1) they are generally viewed as dangerous and unpredictable, which often leads to fear and avoidance; and (2) they are generally viewed as responsible for their condition (i.e., they are blamed), which often yields anger and coercive behavior. As a result of these stereotypes, the public often perceives persons with mental illness as unable to make decisions for themselves and needing someone to make decisions for them (Corrigan & Wassel, 2008; Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Weiner, 1995).

**Association Between Mental Illness and Dangerousness**

Whether or not those with mental illness are dangerous has been a controversy for years. Due to this controversy, research has tried to find the actual link between mental illness and dangerousness in order to provide the public with more accurate information. Overall, research has found that those with mental illness do in fact have an increased risk of violent behaviors (Swanson et al., 2006; Swanson, 1994). Furthermore, those with a serious mental illness (e.g., schizophrenia, bipolar disorder, or major depression) are at an increased risk of death by suicide and homicide than the general public (Hiroeh, Appleby, Mortensen, & Dunn, 2001).

A recent study (Swanson et al., 2006) examined the direct link between violence and mental illness and found that 15.5% of 1410 patients with schizophrenia reported minor forms of violent-related behavior (e.g., simple assault without either injury or weapon use), and only 3.6% reported serious violent behaviors. This means that 80.9% reported no violent behavior. An older study conducted by Swanson (1994) also showed that there is a higher rate of violence among those with mental illness compared to the general public (16% vs. 7%, respectively). **While research suggests an association**
between violence and mental illness (particularly with those involving psychosis), it is critical that we qualify any conclusion regarding this association by emphasizing a number of points, as delineated below.

First, despite the documented association between mental illness and danger, the important fact remains that there are far more individuals with a mental illness who are not dangerous than those who are (Swanson et al., 2006). Second, the media frequently provides inaccurate depictions and exaggerates violence when portraying those with mental illness (Hinshaw & Stier, 2008). In order to demonstrate this point, Wahl and colleagues (2002) found that the most common theme used among the 300 newspaper articles reviewed that discussed mental illness was dangerousness. Third, consistent with the media, the public generally tends to exaggerate the association between dangerousness and mental illness (e.g., Phelan, Link, Stueve, & Pescosolido, 2000; Corrigan & Wassel, 2008; Link et al., 1999). For example, Link and colleagues (1999) found that a majority of participants (61%) perceived those with schizophrenia as being very likely to be violent. This is a clear exaggeration of the actual association which, as noted previously, seems to be under 20%.

Fourth, this exaggerated perception has actually increased over time. For instance, Phelan and colleagues (2000) found a significant increase in the percentage of community members mentioning dangerousness in their descriptions of mental illness, with the percentage nearly doubling between 1950 (approximately 20%) and 1996 (approximately 40%). An exaggeration of the association between mental illness and danger represents a significant social problem, since this inaccurate perception augments social stigma and associated behavioral reactions; that is, it is a major reason why so
many people fear, avoid, reject, and punish those with mental illness (Corrigan et al., 2003).

The perceived link between mental illness and dangerousness has led to people fearing and avoiding those with mental illness. The danger appraisal hypothesis (Paterson & Neufeld, 1987) refers to the process that information regarding dangerousness can lead to an emotional response of fear, which affects behavioral outcomes (e.g., avoidance or punishment). These emotional and behavioral outcomes can result even after statistically controlling for personal responsibility beliefs (e.g., believing that the person is or is not responsible for his or her condition), which emphasizes the impact of perceived dangerousness on emotional and behavioral reactions of the public (Corrigan et al., 2003).

For instance, Link, Cullen, Frank, and Wozniak (1987) examined whether labeling a person as mentally ill interacted with beliefs about the association of danger with mental illness, and how that interaction influences the level of expressed rejection or desire for social distance. Chosen from a telephone directory in Cincinnati, Ohio, 152 participants answered questions related to perceived dangerousness and desire for social distance in response to one of six vignettes, which varied depending on whether a label of mental hospitalization was provided. The “label” (e.g., mental hospitalization) and “no label” (e.g., hospitalization for back pain) vignettes were broken down into no, mild, or severe behavior related to anger in response to demands at work. It was found that, for those participants who perceived mental patients as being dangerous, as measured by a perceived dangerousness scale, a label of mental hospitalization, compared to hospitalization for back pain, increased the desire for social distance.
Further, Pescosolido, Monahan, Link, Stueve, and Saeko (1999) examined opinions about the financial and treatment competence of those with mental health problems, potential harm to self or others, and the use of legal means for coercive treatment. Through a cross-national survey, 1442 participants read one vignette based on the diagnostic criteria for either schizophrenia, major depression, alcohol dependence, drug dependence, and a “troubled” person (as a control), and they answered questions pertaining to perceived competence, perceived dangerousness, and need for coercion to treatment. Relative to the major depression and the troubled person vignettes, participants viewed those with schizophrenia and alcohol or drug dependence as not able to manage money and as being likely to behave violently toward others. Participants were also more willing to coerce those with schizophrenia and drug and alcohol dependence into treatment than those with major depression.

Similarly, Angermeyer and Matschinger (2003) used vignettes, which described either an unlabeled case of schizophrenia or an unlabeled case of major depression, to examine this relationship. Participants then answered an open-ended question asking how they would label the problem described in the vignette. With the schizophrenia vignettes, participants who labeled the description as a mental illness were more likely to endorse the belief that the person was dangerous, which was associated with an increase in fear, anger, and a preference for greater social distance. These results demonstrate that those who endorse the dangerousness stereotype may be more likely to react with negative emotion to someone with schizophrenia and to have a greater desire for social distance. The same effect was not found with the major depression vignettes, perhaps demonstrating that labeling does not appear to have as much of an influence on public
attitudes towards those with major depression or that, when psychosis is involved, people endorse more of these stereotypes.

Other research reveals that stigmatizing stereotypes, attitudes, and emotional reactions toward those with mental illness may be somewhat automatic (subconscious). Rüsch and colleagues (2011) examined how people’s automatic (outside conscious awareness) stereotyping differed from their deliberately endorsed attitudes and emotional reactions towards those with mental illness. Automatic stereotyping was tested by priming participants with words (e.g., crazy, sane, or XXXX as a neutral). After being primed, the participant had to quickly decide whether target words (e.g., “dangerous”) were actual words, with the logic being that the stronger the mental association between the prime and target word, the quicker the participant would respond. Deliberate attitudes and reactions were assessed through self-report measures where each participant read a vignette about a man with schizophrenia and answered questions related to shame and anger using the Emotional Reactions to Mental Illness Scale (Angermeyer & Matschinger, 2003). Both deliberate and automatic stereotyping of people with serious mental illness was found to be related to shame and anger in the general public. Particularly with automatic stereotyping, people who were primed with the word “crazy” were more likely to associate stereotypical negative words, such as dangerousness, quicker and more frequently than those primed with the word “sane” or a neutral word. This suggests that the mental illness and dangerous association may occur even at an automatic level, which is particularly relevant in understanding the public’s spontaneous and affective reactions to those with mental illness.
Not only have emotional responses like anger and fear been associated with stigma, but research has also found that the general public sometimes attributes lower human status when provided with a general mental illness label, which seems to exacerbate perceptions of dangerousness. When participants are only told to imagine meeting a person who has been diagnosed with a chronic mental illness, the label alone triggered dehumanizing responses (e.g., associated more animal-like words with the imagined person than human-like words), which was also associated with increased perceptions of threat and dangerousness. The less human a person with mental illness was perceived to be, the more threatening and dangerous this person became in the minds of participants (Martinez, Piff, Mendoza-Denton, & Hinshaw, 2011).

**Association of Mental Illness With Personal Blame**

The public tends to view people with mental illness as being more personally responsible for their condition than other conditions, such as cancer and heart disease (Corrigan et al., 2000). That the public would view the etiology of mental disorders and physical disorders in such a different way is troublesome, given that the etiology for both physical disorders (Kaptein & Weinman, 2004) and mental disorders (Kiesler, 2000) appear to often result from complex interactions among genetic (and other biological) tendencies, environmental factors, social factors, and life-style factors within a biopsychosocial matrix.

Due to this causal attribution, Corrigan and colleagues (2003) created a model, based on Weiner’s (1995) attribution theory, that links causal attributions, familiarity, perceived dangerousness, emotional responses, and the likelihood of helping or rejecting behaviors. About 500 community college students were randomly assigned to respond to
one of six vignettes that varied the controllability of the cause of the mental illness and the level of dangerousness of the person in the vignette. One vignette described the cause of the mental illness as under the person’s control due to abusing illegal drugs. The second vignette described the cause as due to a head injury, and therefore not under the person’s control. The third vignette did not provide information regarding the cause of the mental illness. In addition, the individual was either described as having attacked someone in the past (being dangerous) or as having no history of violence (not being dangerous). All participants answered Corrigan’s Attribution Questionnaire, which includes questions relating to Familiarity, Personal Responsibility Beliefs (Blame), Pity, Anger, Fear, Help, Avoidance, Coercion, and Segregation of the vignette character. In this study, it was found that discriminatory responses, like avoidance and endorsing coercive treatment, could be predicted by attributions about the cause of the mental illness and perceptions of dangerousness, indicating that main effects were found with both controllability beliefs and dangerousness. If the participants viewed the cause of the mental illness as controllable, then they responded with feelings of anger and fear. Feelings of anger and fear were associated with a desire for social distance and support for coercive treatment. If participants perceived the cause of the mental illness as uncontrollable, then they were more likely to respond with pity and to support more helpful behavioral responses. When a history of violence was presented, participants responded with increased anger, fear, and coercive behavior and decreased helping behavior, consistent with the danger appraisal hypothesis.

Support for Corrigan’s attribution model has been obtained in other studies. For instance, Angermeyer, Matschinger, and Corrigan (2004), as a follow-up study involving
5025 participants across Germany, further solidified the findings by Corrigan et al. (2003) with vignettes describing the diagnostic symptoms for schizophrenia but not with vignettes describing the diagnostic symptoms of major depression. Further, Corrigan and colleagues (2005) found the same connections among 303 adolescents who completed a revised version of the Attribution Questionnaire (Corrigan et al., 2003) after reading four vignettes representing different types of peers: (a) mental illness with no indication of cause, (b) mental illness caused by a brain tumor, (c) alcohol abuse problems, and (d) leukemia. The vignette character with alcohol abuse problems was stigmatized the most, followed by the vignette characters with mental illness. However, having a brain tumor lessened the stigmatizing effect. The vignette character with leukemia was treated more benevolently than the other three conditions.

The studies reviewed in this section represent the literature, and it is apparent that mental illness is a very stigmatizing attribute, which in turn creates prejudicial attitudes and provokes discriminatory behaviors toward this population. It can be concluded that, overall, the general public frequently (a) attributes personal blame to those with mental illness (i.e., holds them responsible for their condition) and (b) exaggerates the association of mental illness and dangerousness. Both misconceptions lead people to react with anger, fear, desire greater social distance, and lack pity and influence the perception that those with mental illness are unable to make decisions for themselves and need someone to make decisions for them (Corrigan & Kleinlein, 2005; Corrigan & Wassel, 2008). Not only do those with mental illness experience significant distress from the symptoms and direct consequences from the mental illness itself, but they face the
personal demoralization from public stigma, which may impact self-esteem and prognosis (Corrigan & Kleinlein, 2005).

**Social Stigma and Homelessness**

The homeless population is another social group that experiences significant stigma. Recently, more research has been done on this population because of its increased prevalence in the United States. The homeless population approximately increased by 20,000 from 2008 to 2009 (Sermons & Witte, 2011). An understanding of the attitudes that the general public holds toward homelessness has both theoretical and practical implications. Theoretically, it is important to develop a conceptual model of this complex social problem, and this will require that we identify and understand the variety of factors contributing to the stigmatization of homelessness. From a practical standpoint, knowledge of these attitudes can help direct policymakers who are searching for public support for initiatives that concern the homeless population and this research could lead to the development of programs that reduce and prevent stigma. Past studies have provided essential information concerning the beliefs people hold in regards to what causes homelessness, what characterizes homeless people, and what strategies are believed to help address the issue of homelessness (Arumi, Yarrow, Ott, & Rochkind, 2007; Kingree & Daves, 1997; Lee et al., 1990; Link et al., 1995; Tompsett, Toro, Guzicki, Manrique, & Zatakia, 2006).

In an attempt to demonstrate the stigmatization of the homeless on a neurological level, a unique study conducted by Harris and Fiske (2006) provided tentative evidence from neuroimaging that people hold prejudicial attitudes toward the homeless that suggests denying the homeless complete humanity. They found that when participants
were shown pictures of the homeless, they experienced and expressed feelings of disgust. They found that the homeless is considered an extreme out-group (i.e., those considered low in warmth and competence) because they are considered stereotypically hostile and incompetent. Through neuroimaging, there was an absence of the usual neural pattern for social cognition that is seen when participants view pictures of their in-group, and there were inflated amygdala and insula reactions, which is consistent with the disgust ratings participants exhibited. The results support the prediction that extreme out-groups (i.e. the homeless) may be perceived as less than human or may be dehumanized.

In an effort to demonstrate the magnitude of stigmatizing attitudes expressed towards the homeless, the purpose of a study conducted by Phelan, Link, Moore, and Stueve (1997) was to determine whether a homeless man or a poor man experiences greater stigma and investigate whether or not stigma is accounted for by perceptions of mental illness. Although this study is somewhat dated, there is a lack of more current research examining stigma with homelessness in combination with mental illness. This was examined using a vignette study with the following vignettes differing in hospitalization type and living situation: (a) a homeless man who spent time in a mental hospital; (b) a homeless man who spent time in a hospital for back pain; (c) a domiciled poor man who spent time in a mental hospital; and (d) a permanently housed poor man who spent time in a hospital for back pain.

In this study, one of the vignettes was randomly read to 544 community members through a telephone interview. All participants were asked 16 questions related to social distance, emotional reactions to the vignette character, beliefs about the character’s characteristics as a person, and beliefs about actions that should be taken to help or
control him. They found that, when the vignette subject was described as homeless, respondents expressed significantly greater social distance than when he was described as a poor man living in a small one-room apartment. They concluded that identifying a person as homeless engenders a degree of stigma over and above that attached to poverty, rather than eliciting compassion or reducing blame. In some ways, public reaction to homelessness seemed to be at least as negative as that attributable to mental hospitalization. However, the mental hospitalization label significantly increased perceptions of dangerousness while the homeless label did not. On the other hand, a label of homelessness, but not mental hospitalization, significantly increased social distance desires. The reasons behind this increased desire for social distance were not examined.

According to research over the years, it seems that the public’s views on the causes and characteristics of homelessness are complex and varied. The public does appear to understand that the homeless population incorporates a variety of categories of people. However, there appears to be some characteristics that people endorse (i.e., mental illness) that may be an overestimation of the actual representation in the population. The next subsection will discuss the common stereotype involving the comorbidity of homelessness and mental illness, followed by a discussion on the conflicting information provided by the public about additional factors related to homelessness, such as solutions towards homelessness and characteristics of homeless individuals.
Homelessness and Mental Illness

It is difficult to estimate the number of homeless individuals in the United States due to a variety of issues such as differences in methodologies by different researchers, different definitions used for homeless, policy differences among cities where estimates are recorded, and problems with counting (i.e., counting people more than once or not being able to count all those who are homeless due to living conditions). It is even more difficult to estimate the number of homeless who also have a mental illness, which is demonstrated through the variations in percentages reported in the literature. In 2003, the National Resource Center on Homelessness and Mental Illness (2003) estimated that 20-25% of the homeless population would classify as having some form of severe and persistent psychiatric mental illness. A study conducted by the University of California - San Diego School of Medicine (2005) estimated that 15% of the homeless population had a serious mental illness, as did a study conducted by Snow, Baker, and Anderson (1986). The U.S. Department of Housing and Urban Development (2011a) found that 26.2% of the sheltered homeless population had a serious mental illness. As shown, estimates range between 15% and 26%. Although the association between homelessness and mental illness is well documented, it is critical to consider a number of factors when drawing conclusions regarding this association.

First, despite the documented association between homelessness and mental illness, it is a fact that the majority of homeless individuals are not mentally ill (U.S. Department of Housing and Urban Development, 2011a). Second, the media frequently overestimates the association between homelessness and mental illness. For instance, a recent New York Times article stated, “Every study of homeless single adults has found
that a decided majority suffer from mental illness and the addictions that are its handmaidens” (Powell, 2011). Obviously, such statements represent exaggerations since, as noted above, only 15%-26% have been found to have a mental illness. Statements such as the one in the New York Times article give the public false information about the actual makeup of the homeless population, which can be detrimental since both homeless people and individuals with mental illness have been found to be victims of social stigma. It is particularly problematic since public stigma has detrimental implications for the individuals themselves, such as an internalization of that stigma, diminished self-esteem, and difficulties in social functioning (Corrigan & Kleinlein, 2005).

Third, consistent with the media, the public also greatly exaggerates the association between mental illness and homelessness. For instance, in a recent study (Arumi et al., 2007), researchers sought to find the attitudes and beliefs of 1,002 New Yorkers in order to provide more current information on the diverse beliefs people hold about homeless people. Participants were asked how often particular factors come to mind when they think of homeless individuals. The results showed that 66% frequently or almost always thought of mental illness. In regards to coercion to treatment, 78% believed that homeless people who are mentally ill should be involuntarily committed to psychiatric hospitals.

Fourth, the media and the public appear to view mental illness as a common cause of homelessness and to generally ignore or discount the likely possibility that, in some cases, mental illness may result from the trauma of homelessness. In a survey by Lee and colleagues (1990), 53.1% of community respondents reported that mental illness contributed to the causation of a person being homeless. However, homelessness itself
can be thought of as psychologically traumatic and can become a risk factor for developing emotional disorders. Two common symptoms of trauma is social disaffiliation (e.g., isolation, distrust of others, and disruption of social bonds) and learned helplessness, which are also common in those who are homeless (Goodman, Saxe, & Harvey, 1991). The sudden or gradual loss of one’s home, the conditions of shelter life (e.g., unstable, lack of control and safety), and revictimization (e.g., physical and/or sexual abuse) can produce symptoms of psychological trauma. To elaborate upon the connection between homelessness and trauma made by Goodman and colleagues (1991) and to demonstrate its relevance within current conditions, a recent study of homeless youth (Coates & McKenzie-Mohr, 2010) found that trauma is both a cause and a consequence of being homeless. That is, a large majority of participants experienced a number of highly stressful events both before (e.g., bullying, family physical and sexual abuse) and during homelessness (e.g., street violence, muggings, fear of being killed, rape). In another recent study of homeless individuals in Australia (Taylor & Sharpe, 2008), 60% of homeless individuals surveyed agreed that homelessness is traumatic (as defined according to the DSM-IV-TR). Within this same sample, 98% reported experiencing at least one traumatic event in their lifetime with the average number of traumas being six (including traumas before and during homelessness), and 79% of the sample had a lifetime prevalence of post-traumatic stress disorder (PTSD). While experiencing trauma is obviously linked with the development of PTSD, trauma is also associated with a broad range of psychopathology (Adams & Sutker, 2001), including depression, psychosis, drug and alcohol problems, and other psychological problems. Since homelessness is considered to be such a traumatic experience and traumatic
experiences are associated with the development of many psychological problems, it is important to examine the effects of mental illness as a causal factor and as a reaction to homelessness when examining the stigmatization this population faces.

Fifth, it may be the case that the public tends to attribute more societal causes to homelessness, while tending to attribute more personal causes to mental illness. For example, Kingree & Daves (1997) found that college students were more likely to agree with statements from the Attitudes Toward Homelessness Inventory that attributed homelessness to societal causes rather than to personal causes. These results were found after controlling for social desirability using the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). A more recent study (Arumi et al., 2007) found that 67% of community members believed that most homeless individuals are homeless because of circumstances beyond their control. They also responded to a number of varying causes of homelessness with 92% attributing it to the closing of mental health facilities, 89% blaming high housing costs, 87% blaming poor education, and 82% attributing it to lack of good jobs. With this being said, personal blame is emphasized by the public in discussing homelessness, often involving personality traits such as laziness, lack of motivation, and irresponsible behavior (Arumi et al., 2007). Further, when personal causes for homelessness are cited, these explanations typically emphasize the causal role of mental illness (Lee et al., 1990; Arumi et al., 2007), which appears to represent a misunderstanding of the facts, given the aforementioned research results.

In brief, a number of general conclusions are warranted: First, it must be understood that (a) trauma sometimes precedes (and contributes to the development of) homelessness, (b) homelessness frequently leads to traumatic events, and (c) trauma is
often involved in the development of mental illness. This complicated pattern of findings must be kept in mind as we conceptualize the association between homelessness and mental illness. Second, the media and the public tend to overestimate the association between homelessness and mental illness and, while mental illness is often seen as the cause of homelessness, the possibility that mental illness may result from the trauma of homelessness is discounted. In the past, researchers have not examined the possibility that perceptions regarding the association between homelessness and mental illness contributes to the stigmatization of the homeless, nor have researchers examined the extent to which the severity of stigma varies as a function of perceptions regarding onset of mental illness (i.e., before vs. following homelessness).

**Public Beliefs About Other Factors Associated With Homelessness**

Since the public’s beliefs surrounding homelessness are diverse and complex, the following section will discuss these wide ranging beliefs, including useful strategies for solving homelessness, characteristics of the homeless, and compassion fatigue (no longer feeling compassion) towards the homeless over the course of approximately 10 years. Through past opinion polls and a nationwide telephone survey encompassing 1,507 residents, Link and colleagues (1995) found evidence that contradicted the idea that the public is experiencing compassion fatigue suggested by the media. In general, they did not find strong evidence of the public being unwilling to spend money in order to improve the homelessness problem. In fact, many participants ranked homelessness in the top third of issues needing spending priority. Approximately 60% of participants were willing to pay more taxes to go towards homelessness. The majority of participants were in favor of federal intervention and spending in areas such as free drug and alcohol
treatment to reduce homelessness (83%), building shelters and emergency housing (83%), and building affordable housing (79%). About 86% expressed feeling sad and compassionate when thinking of homeless people, and about 89% felt angry that homelessness exists in an affluent country like the United States.

A similar study (Tompsett et al., 2006) conducted in 2001 on 435 community members through a telephone survey found comparable results, with there still being no evidence of compassion fatigue towards homeless people. Further, Arumi and colleagues (2007) also found that New Yorkers believed that solving the problem of homelessness should be near the top of the government’s list of priorities, with 81% believing that homelessness is a big problem for New York and 78% believing that it is a large national problem. Arumi and colleagues (2007) also found that many New Yorkers (85%) were also willing to have tax dollars pay for housing for the homeless, and 62% would increase public spending on programs to help solve homelessness. The majority (90%) favored an increase in mental health care and drug and alcohol treatment for the homeless. However, respondents also expressed the belief that the homeless have personal responsibility for solving homelessness, with 96% suggesting that the homeless should have to get job training and/or treatment for their mental illness or substance abuse. Participants were not asked what should be done if a homeless person refuses to get job training or treatment. Interestingly, 50% also stated that there are jobs available for people who really want to work.

Link and colleagues (1995) found that 37% of people thought that homelessness frees one from worries that others experience around family and jobs, 39% did not understand how one could become homeless, 62% could not imagine what homeless
people do with all of their free time, and 55% believed that homeless people can be identified by their appearance alone. The majority of the respondents believed that homeless people make neighborhoods worse (78%) and spoil parks for families and children (66%). Many participants (70%) noted that the homeless should not be allowed to panhandle or beg in public places and should not be allowed to construct temporary shelters in public parks (Link et al., 1995).

Substance abuse and criminality are two other characteristics that are frequently associated with homeless individuals (Link et al., 1995). The average respondent estimated that 55% of homeless persons are addicted to drugs or alcohol. However, the researchers did not address whether respondents believed addiction to be a cause of their condition and only asked about addiction and not any other mental illness (Link et al., 1995). Arumi and colleagues (2007) found that 95% of community members endorsed drug and alcohol abuse as being a causal factor in homelessness, and when asked how often they think of particular factors when they think of most people who are homeless, 67% frequently or almost always thought of alcoholics and drug addicts. The average respondent estimated that 45% of the homeless have a criminal record, and about 27% believed that homeless people are likely to commit violent crimes (Link et al., 1995). Tompsett and colleagues (2006) found that 43% of respondents endorsed criminality as a personal characteristic of homeless people. However, according to the U.S. Department of Housing and Urban Development (2011a), only 34% of the homeless population has chronic substance use problems. In regards to having a criminal record, inmates who reported having a homeless episode in the past year make up approximately 15.3% of current jail inmates. Compared to other inmates, homeless inmates were more likely to
currently be incarcerated for property crimes and less likely to be currently incarcerated for a violent crime (Greenberg & Rosenheck, 2008). According to a study examining 7,022 persons staying in public shelters in New York City, only 23.1% were found to have a history of incarceration within the previous two years (Metraux & Culhane, 2006). The actual statistics on substance abuse and criminality demonstrate that the public overestimates the extent to which homelessness is associated with substance abuse and criminality, similar to the public’s overestimation of the association between homelessness and mental illness.

Previous research, to our knowledge, has not found exactly what qualities of homelessness drive the stigmatizing attitudes and behaviors expressed by the public, such as wanting social distance, but a few have speculated on the matter. Some have suggested that people desire greater social distance because the public imagines the homeless to be criminals, drug abusers, smelly, dirty, and diseased (Phelan et al., 1997). Research has found factors that people have tended to associate with homelessness, such as being addicted to drugs and/or alcohol, having a history of violence, being mentally ill, and so on (Link et al., 1995; Arumi et al., 2007), but few studies have examined whether people view these factors as being causal factors for, or reactions to, homelessness. More research is needed in order to further investigate what contributes to the high public stigmatization experienced by the homeless, particularly in regards to what specific characteristics of homelessness fuel this stigmatization, and whether the public views these characteristics as causal or as a reaction to homelessness. Currently, there appears to be a lack of research examining how the perceptions of the homeless vary depending
on whether mental illness develops before or during homelessness. The present study plans to address some of these limitations in the literature.

**The Present Study**

Although there is research that has examined stigma toward individuals with mental illness and homeless individuals independently, little attention has been paid to how stigmatization is exacerbated when there is a coexistence of mental illness and homelessness. The present study examined this question with a sample of college student participants. Similar to past studies in this general area of research (e.g., Corrigan et al., 2003), the present study examined the relationship between causal attributions, dangerousness, emotional responses, and behavioral responses through the use of hypothetical vignettes. Specifically, the present study examined how a person’s stigmatizing attitudes and discriminatory behaviors differ depending on the following: (a) whether or not there is a coexisting mental illness; and (b) whether the mental illness developed before or during homelessness.

Another distinctive feature of this study is that it statistically controlled for effects of social desirability. The issue of social desirability appears to be problematic when using explicit measures (which measures conscious and controllable beliefs) to examine people’s attitudes towards a stigmatized population. Some research has found evidence of stigmatizing attitudes for depression from implicit measures (which measures more automatic, uncontrollable beliefs) but not explicit measures (Monteith & Pettit, 2011). This demonstrates that social desirability may influence how people answer when they know they are being questioned about stigmatizing attitudes and have the opportunity to alter their responses on what they believe to be socially desirable. In order to control for
this potential problem since an explicit measure of stigmatizing attitudes will be administered in the present study, a social desirability measure was administered. Only a few studies in the stigma literature have also controlled for it but have found their results to remain significant (e.g., Kingree & Daves, 1997; Alexander & Link, 2003).

Since past studies have shown that both homelessness and mental illness are stigmatized populations, there is reason to believe that labeling a homeless person as mentally ill would intensify the stigmatizing reactions towards a homeless person. Thus, Hypothesis 1 is as follows: After controlling for social desirability, participants will have significantly greater negative reactions to vignettes that portray the homeless person as having a mental illness. In other words, for vignettes that portray homelessness with mental illness, participants will: (a) exhibit higher scores on Personal Responsibility (Blame), Anger, Dangerousness, Fear, Avoidance, Segregation, and Coercion subscales of the Attribution Questionnaire; and (b) exhibit lower scores on Pity and Willingness to Help subscales of this psychometric measure. Although research has shown that homelessness is stigmatizing in and of itself, it is possible that having an association between homelessness and mental illness could increase the stigma of homelessness due to the severe stigmatization found with mental illness (Corrigan et al., 2000; Hinshaw, 2007).

Hypothesis 2 is as follows: Relative to participants who read the vignette portraying a homeless person who developed mental illness during homelessness, participants who read the vignette portraying a homeless person who developed mental illness before becoming homeless will: (a) exhibit higher scores on Personal Responsibility (Blame), Anger, Dangerousness, Fear, Avoidance, Segregation, and
Coercion subscales of the Attribution Questionnaire; and (b) exhibit lower scores on Pity and Willingness to Help subscales of this psychometric measure. This finding is expected, even after controlling for social desirability. Research has found that people view homelessness as due to societal causes and mental illness as due to personal causes (Corrigan et al., 2003; Lee et al., 1990). If a mental illness is developed during homelessness, then one may perceive the mental illness as being a consequence of the societal causes that made the person homeless. If the homeless man is described as having a mental illness before becoming homeless, participants may believe that it is the person’s fault for being homeless since personal blame is found for mental illness in the first place. As noted in the literature review, Personal Responsibility (Blame) is associated with negative reactions (e.g., fear, anger, perceived dangerousness, less pity, and less willing to help) (Swanson et al., 2006; Corrigan et al., 2003).
METHOD

Participants

Participants included 243 (77 male, 166 female) college students from the University of Dayton, a medium sized private university in the Midwest. These participants were recruited from undergraduate psychology courses and were rewarded research credit for their participation in this study. Each participant was randomly assigned to a condition. There were 56 participants in condition 1, 61 participants in condition 2, 64 participants in condition 3, and 62 participants in condition 4. Among the participants, 88.5% were Caucasian, 2.1% African American, 2.5% Latino/a, 4.5% Asian American/Pacific Islander, and 2.1% other. Participants ranged in age from 16 to 23 years (M = 18.64, SD = 1.48). Among the participants, 58.4% were first-years, 31.7% sophomores, 7% juniors, and 2.1% seniors. When participants were asked about the highest level of education completed by his or her mother, 13.6% reported high school diploma, 9.5% some college, 9.5% Associate’s degree, 46.5% Bachelor’s degree, and 17.7% graduate/professional training. When participants were asked about the highest level of education completed by his or her father, 8.6% reported high school diploma, 10.3% some college, 5.8% Associate’s degree, 47.3% Bachelor’s degree, and 21.2% graduate/professional training. Lastly, participants were asked about where he or she grew up, and 11.8% reported having grown up in a city, 69.5% suburb, 15.8% small town (population under 50,000), and 2.1% rural area outside a metropolitan region.
Homelessness Vignettes: Levels of the Independent Variable

Four vignettes were written for this study, each describing “Taylor who is homeless.” The information provided in the different vignettes was designed to manipulate the presence of a mental disorder and when the mental disorder developed. All other information in the vignette remained the same. Each participant was randomly given one of the following descriptions of Taylor’s mental illness: 1) Taylor developed schizophrenia before becoming homeless; 2) Taylor developed schizophrenia during homelessness; 3) Taylor is homeless and has schizophrenia; 4) Taylor is homeless. The vignettes are presented in Appendix A. The name “Taylor” was used as a gender neutral name so that gender of the vignette character was not a confounding variable.

Measures

Demographic Questionnaire. The demographic questionnaire asked participants about their gender, age, ethnicity, year in school, their parent’s education background, and type of area where he or she grew up. This information was collected to determine if the participants’ backgrounds have an impact on their responses to the other questionnaires. The demographic questionnaire is presented in Appendix B.

Attribution Questionnaire. The 27-item Attribution Questionnaire is based upon a measurement used by Corrigan et al. (2003) that assesses the following constructs: Personal Responsibility Beliefs (Blame), Pity, Anger, Fear, Help, Dangerousness, Avoidance, Segregation, and Coercion. Participants will respond to all items using a 9 point Likert Scale; e.g., “Taylor would terrify me” (9 = very much). A higher score demonstrates that the participant is in more agreement with the items. A subscale score for each of the above constructs will be calculated by summing the participants’
responses to each item for that subscale. Corrigan and colleagues (2003) reported high reliability for six of the subscales: Personal Responsibility (Blame; $\alpha = .70$), Pity ($\alpha = .74$), Anger ($\alpha = .89$), Fear ($\alpha = .96$), Help ($\alpha = .88$), and Coercion/Segregation ($\alpha = .89$). Likewise, this study found acceptable to excellent reliability for the nine subscales: Blame ($\alpha = .81$), Anger ($\alpha = .83$), Pity ($\alpha = .77$), Help, ($\alpha = .87$), Danger ($\alpha = .88$), Fear ($\alpha = .92$), Avoidance ($\alpha = .72$), Segregation ($\alpha = .83$), and Coercion ($\alpha = .74$). A six-factor solution has also been supported: Fear/Dangerousness ($\alpha = .93$), Help/Avoidance ($\alpha = .82$), Responsibility Beliefs ($\alpha = .60$), Coercion/Segregation ($\alpha = .79$), Pity ($\alpha = .77$), Anger ($\alpha = .81$). Moderate correlations among some of the subscales have been reported in some studies (Brown, 2008), but this research also suggests that the Responsibility and Pity subscales may not correlate with other subscales. The Attribution Questionnaire is presented in Appendix C.

**Balanced Inventory for Desirable Responding (BIDR; Paulhus, 1991).** The BIDR is a 40-item instrument that examines two forms of socially desirable responding. As mentioned previously and illustrated fully in the next section, the study is distinctive in that it statistically controlled for social desirability. All 40 items of the BIDR can be summed together to yield an overall measure of social desirable responding (SDR). Items 1 through 20 can be summed to yield a subscale score for self-deceptive enhancement (SDE), which is the unconscious tendency for a person to exaggerate one’s positive qualities. Items 21-40 can be summed to yield a subscale score for impression management (IM), which is the conscious tendency for a person to exaggerate one’s positive qualities. Items are scored on a 7-point scale (1 = not true; 7 = very true). Participants indicate for each statement how truthfully it represents him or her. Evidence
has been provided in support of the reliability of both the overall SDR and the SDE and IM subscale scores. Specifically, adequate to good internal consistency was found for the SDR total score ($\alpha = .83$; Paulhus, 1991), the SDE subscale (alpha coefficient values ranging from .68 to .80; Paulhus, 1991), and the IM subscale (alpha coefficient values ranging from .75 to .86; Paulhus, 1991). The overall measure demonstrates concurrent validity as a measure of SDR in correlating .71 with the Marlowe-Crowne scale and .80 with the Multidimensional Social Desirability Inventory. The BIDR is presented in Appendix D.

*Exposure to Homelessness Scale* (EHS). The EHS includes 4 questions that examine participants’ past and current exposure to homelessness. This information was collected to determine if the participants’ past and present exposure to homeless individuals had an impact on their responses to the other questionnaires. The EHS is presented in Appendix E.

**Procedure**

Following approval by the Research Review and Ethics Committee, Department of Psychology, 243 University of Dayton undergraduate students were recruited from introduction to psychology courses and received course credit for completing the study. Participants completed the study online through the Psychology Department’s Research Sona System website. Written informed consent was obtained from all participants, which is provided in Appendix F. Each participant was given a packet to complete, which included the demographic questionnaire, one vignette, the Attribution Questionnaire (Corrigan et al., 2003), and the BIDR (Paulhus, 1988). Participants were randomly assigned to read one of the four vignettes. Other than the difference in
vignettes, all other information was kept the same. Following completion of all measures in the packet, participants were thanked and debriefed. The debriefing form is provided in Appendix G.
RESULTS

**Data Analysis Approach**

As illustrated in Table 1, a correlation matrix was computed to examine the correlations among the specific subscales of the Attribution Questionnaire. As mentioned earlier, the extent to which the subscales correlated with one another in past studies has not been consistently reported. In this study, the Attribution Questionnaire subscales tended to covary (see Table 1), with 31 out of the 36 correlations (see Table 1) statistically significant, and significant correlations ranging in magnitude from .16 to .86 with an average correlation coefficient at .33 (using the Fisher $r$-to-$z$ transformation). Therefore, the Attribution Questionnaire subscales are correlated, supporting the notion that the subscales represent different aspects of the same broad construct, and providing justification for using MANOVA, with the subscales incorporated in a composite dependent variable.

The correlation matrix presented in Table 1 also incorporates the BIDR, which was to be used as a covariate in order to statistically control for the social desirability bias. However, Table 1 shows that the BIDR did not correlate with the Attribution Questionnaire subscales, with the exception of two Attribution Questionnaire subscales (pity and avoidance), which correlated with only one BIDR subscale (Table 1). In addition, one-way ANOVA revealed that group differences were nonsignificant for the
following indices of the social desirability bias: the BIDR total score (overall social desirable responding), $F(1,3) = 1.12, p = .34$; the BIDR Self-Deceptive Enhancement subscale, $F(1,3) = .41, p = .75$; and the BIDR Impression Management subscale, $F(1,3) = .83, p = .48$. Given that (a) the BIDR did not, in general, correlate with the Attribution Questionnaire and (b) the group differences for BIDR were nonsignificant, there was no justification to employ the BIDR as a covariate in all statistical analyses. However, for the two subscales (pity and avoidance) that did correlate with a BIDR subscale, the BIDR was employed as a covariate, and findings reported for these subscales reflect this approach. (To be cautious, and to maintain consistency with the statistical analysis plan in the original M.A. thesis proposal, all analyses were conducted twice – with and without the BIDR as a covariate – and the results were the same.)

The group differences were also nonsignificant on the EHS, including: the item that assesses exposure to homeless individuals growing up, $F(3, 238) = .31, p = .82$; the item that taps exposure to homelessness since beginning college, $F(3, 239) = 1.00, p = .39$; and the item that measures experiences with the homeless through community service activities, $F(3, 238) = .60, p = .62$. Therefore, it was not necessary to include this variable as a covariate in the analyses reported below.

Since the subscales of the Attribution Questionnaire are found to be interrelated, a MANOVA was employed, with Vignette Condition as the independent variable and the subscales of the Attribution Questionnaire incorporated as a *composite* dependent variable in the MANOVA design. The four different levels of the independent variable (Vignette Condition) included: (1) homeless with mental illness diagnosed prior to becoming homeless; (2) homeless with mental illness diagnosed during homelessness; (3)
homeless with mental illness but no indication of time of onset of mental illness; and (4) homeless without mention of mental illness. When the MANOVA yielded a statistically significant (i.e., < .05) probability-of-F value, then ANOVA was employed as a follow up for each specific dependent variable (i.e., for each Attribution Questionnaire subscale), allowing a determination of the extent to which group differences occurred on each dependent variable. Thus, for each follow-up ANOVA, Vignette Condition was the independent variable and a subscale from the Attribution Questionnaire served as the dependent variable. For each significant ANOVA, planned contrasts were employed in order to examine each of the specific hypotheses.

**Hypothesis 1**

The first hypothesis stated that participants will have significantly greater negative reactions to vignettes that portray the homeless person as having a mental illness. In other words, for vignettes that portray homelessness with mental illness, participants will: (a) exhibit higher scores on Personal Responsibility (Blame), Anger, Dangerousness, Fear, Avoidance, Segregation, and Coercion subscales of the Attribution Questionnaire; and (b) exhibit lower scores on Pity and Willingness to Help subscales of this psychometric measure. For these analyses, the three vignette groups wherein mental illness was mentioned were combined to create an average score, which was compared to the group that read the vignette where mental illness was not mentioned. A one-way MANOVA revealed a significant multivariate main effect for condition, $F(9, 224) = 20.27, p < .001$. Since the MANOVA was found to be statistically significant, an ANOVA for each specific dependent variable (i.e., for each Attribution Questionnaire
Table 1

Intercorrelations of Attribution Questionnaire Subscales and BIDR of Overall Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
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<th>11</th>
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<tr>
<td>1. Blame</td>
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<td>2. Anger</td>
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<td>3. Pity</td>
<td>-.24***</td>
<td>-.17**</td>
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<td>4. Help</td>
<td>-.16*</td>
<td>-.21***</td>
<td>.41***</td>
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<td>5. Danger</td>
<td>.22***</td>
<td>.47***</td>
<td>.10</td>
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<td>.29***</td>
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<td>6. Fear</td>
<td>.19**</td>
<td>.41***</td>
<td>.17**</td>
<td>-----</td>
<td>.26***</td>
<td>.86***</td>
<td>-----</td>
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<td>7. Avoid</td>
<td>.19**</td>
<td>.12</td>
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<td>.21***</td>
<td>.61***</td>
<td>.35***</td>
<td>.28***</td>
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<tr>
<td>8. Segregation</td>
<td>.05</td>
<td>.26***</td>
<td>.16*</td>
<td>-.19**</td>
<td>.70***</td>
<td>.63***</td>
<td>.36**</td>
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<td>9. Coercion</td>
<td>.003</td>
<td>.21***</td>
<td>.18**</td>
<td>-.03</td>
<td>.49***</td>
<td>.48***</td>
<td>.19**</td>
<td>.68***</td>
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<td>10. Social Desirable Responding</td>
<td>-.05</td>
<td>.03</td>
<td>-.11</td>
<td>.00</td>
<td>-.02</td>
<td>.02</td>
<td>-.07</td>
<td>.05</td>
<td>.02</td>
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<tr>
<td>11. Self-Deceptive Enhancement</td>
<td>.09</td>
<td>.08</td>
<td>-.13*</td>
<td>.02</td>
<td>-.02</td>
<td>-.08</td>
<td>.00</td>
<td>.04</td>
<td>-.03</td>
<td>.70***</td>
<td>-----</td>
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<tr>
<td>12. Impression Management</td>
<td>-.13</td>
<td>-.04</td>
<td>-.03</td>
<td>.03</td>
<td>-.01</td>
<td>.08</td>
<td>-.14*</td>
<td>.05</td>
<td>.05</td>
<td>.88***</td>
<td>.27***</td>
</tr>
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Note. *p ≤ .05. ** p ≤ .01. *** p ≤ .001.
subscale) was examined in order to determine which dependent variable the groups
differed. Means and standard deviations can be found in Table 2.

**Findings in Support of Hypothesis**

A one-way ANOVA indicated that perception of dangerousness, $F(3, 238) = 13.40, p < .001$, feelings of fear, $F(3, 238) = 6.45, p < .001$, support for segregation, $F(3, 238) = 33.45, p < .001$, and support for coercion, $F(3, 236) = 20.37, p < .001$, varied as a function of condition. Planned comparisons demonstrated that compared to the average of those who read one of the three vignettes where the homeless individual was portrayed as having a mental illness, those who read a vignette where the homeless individual was not portrayed as having a mental illness demonstrated the following: weaker belief that the vignette character was dangerous, $F(1, 238) = 28.15, p < .001$; less feelings of fear toward the vignette character, $F(1, 238) = 14.34, p < .001$; less support for segregation of the vignette character, $F(1, 239) = 88.31, p < .001$; and less support for coercion of the vignette character, $F(1, 236) = 55.09, p < .001$.

**Findings Contrary to Hypothesis**

A one-way ANOVA indicated that personal blame, $F(3, 239) = 10.60, p < .001$, and feelings of pity, $F(3, 239) = 3.23, p = .02$, varied as a function of condition. A one-way ANOVA indicated that anger was approaching significance indicating that anger varied as a function of condition, $F(3, 238) = 2.55, p = .06$. Planned comparisons demonstrated that compared to the average of those who read one of the three vignettes where the homeless individual was portrayed as having a mental illness, those who read a vignette where the homeless individual was not portrayed as having a mental illness demonstrated the following: stronger belief that the vignette character was responsible for his or her
condition, $F(1, 239) = 27.67, p < .001$; and more feelings of anger toward the vignette character, $F(1, 238) = 3.96, p < .05$. An ANCOVA indicated that, after controlling for social desirability, compared to the average of those who read one of the three vignettes where the homeless individual was portrayed as having a mental illness, those who read a vignette where the homeless individual was not portrayed as having a mental illness demonstrated less feelings of pity toward the vignette character, $F(1, 204) = 6.28, p = .01$

**Nonsignificant Findings**

A one-way ANOVA indicated that willingness to help, $F(3, 238) = .55, p = .65$, did not vary as a function of condition. Thus, additional analyses were not conducted on the willingness to help subscale. A one-way ANCOVA indicated that, after controlling for social desirability, desire to avoid the vignette character varied as a function of condition, $F(3, 203) = 2.62, p = .05$. However, those who read a vignette where mental illness was not mentioned did not significantly differ from the average of those who read one of the three vignettes where the homeless individual was portrayed as having a mental illness, regardless of onset information, on desire to avoid the vignette character, $F(1, 203) = 2.60, p = .11$.

**Hypothesis 2**

The second hypothesis stated participants who read the vignette portraying a homeless person who developed mental illness *before* becoming homeless, when compared to participants who read the vignette portraying a homeless person who developed mental illness *during* homelessness, will: (a) exhibit higher scores on Personal Responsibility (Blame), Anger, Dangerousness, Fear, Avoidance, Segregation, and Coercion subscales of the Attribution Questionnaire; and (b) exhibit lower scores
<table>
<thead>
<tr>
<th>Attribution Questionnaire Subscale</th>
<th>(1) Mental Illness Prior to Homeless ($n = 56$)</th>
<th>(2) Mental Illness During Homeless ($n = 61$)</th>
<th>(3) Mental Illness No Indication of Onset ($n = 64$)</th>
<th>(4) No Mental Illness ($n = 62$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Blame</td>
<td>11.44</td>
<td>4.83</td>
<td>13.53</td>
<td>4.99</td>
</tr>
<tr>
<td>Anger</td>
<td>8.58</td>
<td>3.76</td>
<td>10.11</td>
<td>5.44</td>
</tr>
<tr>
<td>Pity</td>
<td>19.84</td>
<td>4.62</td>
<td>21.51</td>
<td>4.79</td>
</tr>
<tr>
<td>Help</td>
<td>17.69</td>
<td>6.51</td>
<td>17.58</td>
<td>6.46</td>
</tr>
<tr>
<td>Danger</td>
<td>13.31</td>
<td>5.36</td>
<td>16.04</td>
<td>5.21</td>
</tr>
<tr>
<td>Fear</td>
<td>12.29</td>
<td>6.03</td>
<td>14.40</td>
<td>5.89</td>
</tr>
<tr>
<td>Avoidance</td>
<td>16.29</td>
<td>5.69</td>
<td>19.00</td>
<td>4.72</td>
</tr>
<tr>
<td>Segregation</td>
<td>13.38</td>
<td>4.74</td>
<td>15.94</td>
<td>5.13</td>
</tr>
<tr>
<td>Coercion</td>
<td>19.47</td>
<td>5.15</td>
<td>20.36</td>
<td>4.62</td>
</tr>
<tr>
<td>Total</td>
<td>132.07</td>
<td>24.35</td>
<td>147.37</td>
<td>24.62</td>
</tr>
</tbody>
</table>

Notes. Condition 1 significantly differs from Condition 2 on blame, danger, avoidance, segregation, and fear (approaching significance). Condition 1 significantly differs from Condition 3 on danger, segregation, and coercion, and fear, anger, and avoidance were approaching significance. Condition 1 significantly differs from Condition 4 on blame, anger, danger, segregation, coercion, and fear (approaching significance). Condition 2 significantly differs from Condition 4 on blame, pity, danger, fear, avoidance, segregation, and coercion. Condition 3 significantly differs from Condition 4 on blame, pity, danger, fear, segregation, coercion, and avoidance (approaching significance).
on Pity and Willingness to Help subscales of this psychometric measure. A one-way MANOVA revealed a significant multivariate main effect for condition, $F(9, 224) = 2.65, p = .006$. Since the MANOVA was found to be statistically significant, an ANOVA for each specific dependent variable (i.e., for each Attribution Questionnaire subscale) was examined in order to determine the dependent variables on which the groups differed. Means and standard deviations can be found in Table 2.

**Findings Contrary to Hypothesis**

Relative to participants who read a vignette where the onset of mental illness was before homelessness, those who read a vignette where the mental illness onset was during homelessness demonstrated the following: stronger belief that the vignette character was responsible for his or her condition, $F(1, 239) = 4.51, p = .03$; stronger belief that the vignette character was dangerous, $F(1, 238) = 8.41, p = .004$; and stronger support of segregation of the vignette character, $F(1, 239) = 8.92, p = .003$. Further, for the fear subscale, there was a nonsignificant trend opposite of the hypothesized direction, $F(1, 238) = 3.26, p = .07$. A one-way ANCOVA indicated that, after controlling for social desirability, those who read a vignette where the mental illness was during homelessness reported a greater desire to avoid the vignette character, $F(1, 203) = 4.40, p = .04$, compared to those who read a vignette where mental illness onset was prior to homelessness.

**Nonsignificant Findings**

There was no significant difference between participants who read a vignette where the onset of mental illness was before homelessness and those who read a vignette where the mental illness onset was during homelessness for the following: feelings of
anger toward the vignette character, $F(1, 238) = 2.44, p = .12$; willingness to help, $F(1, 238) = .05, p = .82$; and support for coercion of the vignette character, $F(1, 236) = 1.44, p = .23$. For feelings of pity toward the vignette character, there was a nonsignificant trend opposite of the hypothesized direction, $F(1, 239) = 3.25, p = .07$. After controlling for social desirability, this trend, however, became nonsignificant, $F(1, 204) = 2.69, p = .10$.

**Additional Analyses**

It was determined that, to facilitate the interpretation of results, it would be helpful to explore specific differences among the four conditions on each subscale of the Attribution Questionnaire. A one-way MANOVA revealed a significant multivariate main effect for condition, $F(27, 654.84) = 6.83, p < .001$. See Table 2 for means and standard deviations for each subscale of the Attribution Questionnaire by condition. As presented below, a one-way ANOVA was employed to determine the extent to which this effect is consistent across the subscales of the Attribution Questionnaire.

A one-way ANOVA indicated that, relative to participants who read a vignette where the onset of mental illness was before homelessness (Condition 1), those who read a vignette where mental illness was not indicated (Condition 4) demonstrated the following: stronger belief that the vignette character was responsible for his or her condition, $F(1, 232) = 28.29, p < .001$; stronger feelings of anger, $F(1, 232) = 8.01, p = .005$; weaker belief that the vignette character was dangerous, $F(1, 232) = 4.84, p = .03$; less support for segregation, $F(1, 232) = 31.10, p < .001$; and less support for coercion, $F(1, 232) = 24.72, p < .001$. Feelings of fear of the vignette character, $F(1, 232) = 3.30, p = .07$, was approaching significance with those who read a vignette where the onset of mental illness was prior to homelessness reporting more fear than those who read a
vignette where mental illness was not mentioned. There was no significant group contrast for help, $F(1, 232) = 1.36, p = .24$. A one-way ANCOVA indicated, after controlling for social desirability, there were no significant group contrasts for the following subscales: pity, $F(1, 204) = 1.37, p = .21$; and avoidance, $F(1, 203) = .001, p = .98$.

A one-way ANOVA indicated that, relative to participants who read a vignette where the onset of mental illness was before homelessness (Condition 1), those who read a vignette where the onset of mental illness was not indicated (Condition 3) demonstrated the following: stronger belief that the vignette character was dangerous $F(1, 232) = 8.03, p = .005$; stronger desire to avoid the vignette character, $F(1, 232) = 4.02, p < .05$; stronger support for segregation of the vignette character, $F(1, 232) = 6.03, p < .02$; and stronger support for coercion of the vignette character, $F(1, 232) = 4.03, p < .05$.

Feelings of fear, $F(1, 232) = 3.43, p = .06$, feelings of anger, $F(1, 232) = 3.60, p = .06$, and desire to avoid the vignette character (after controlling for social desirability), $F(1, 203) = 3.20, p = .07$, were approaching significance with those who read a vignette where mental illness onset was not mentioned reporting greater feelings of fear and anger and a greater desire to avoid the vignette character than those who read a vignette where mental illness onset was prior to homelessness. There were no significant group contrasts for the following subscales: blame, $F(1, 232) = 1.52, p = .22$; and help, $F(1, 232) = .009, p = .92$.

A one-way ANCOVA indicated that, after controlling for social desirability, there was no significant group contrast for pity, $F(1, 204) = .61, p = .44$.

A one-way ANOVA indicated that, relative to participants who read a vignette where mental illness was not mentioned (Condition 4), those who read a vignette where
the onset of mental illness was not indicated (Condition 3) demonstrated the following: weaker belief that the vignette character was responsible for his or her condition, $F(1, 232) = 18.40, p < .001$; greater belief that the vignette character was dangerous, $F(1, 232) = 27.00, p < .001$; stronger feelings of fear of the vignette character, $F(1, 232) = 14.38, p < .001$; stronger support for segregation of the vignette character, $F(1, 232) = 69.42, p < .001$; and stronger support for coercion of the vignette character, $F(1, 232) = 52.47, p < .001$. A one-way ANCOVA indicated that, after controlling for social desirability, those who read a vignette where the onset of mental illness was not indicated demonstrated greater feelings of pity toward the vignette character, $F(1, 204) = 4.10, p = .04$, and greater desire to avoid the vignette character (which was approaching significance), $F(1, 203) = 3.38, p = .07$, compared to those who read a vignette where mental illness was not indicated. There were no significant group contrasts for the following subscales: anger, $F(1, 232) = 1.02, p = .31$; and help, $F(1, 232) = 1.73, p = .19$.

A one-way ANOVA indicated that, relative to participants who read a vignette where mental illness was not mentioned (Condition 4), those who read a vignette wherein the mental illness onset was during homelessness (Condition 2) demonstrated the following: weaker belief that the vignette character was responsible for his or her condition, $F(1, 232) = 9.72, p = .002$; greater belief that the vignette character was dangerous, $F(1, 232) = 25.27, p < .001$; stronger feelings of fear of the vignette character, $F(1, 232) = 12.56, p < .001$; stronger support for segregation of the vignette character, $F(1, 232) = 730.93, p < .001$; and stronger support for coercion of the vignette character, $F(1, 232) = 35.87, p < .005$. A one-way ANCOVA indicated that, after controlling for social desirability, those who read a vignette where the mental illness onset was during
homelessness demonstrated greater feelings of pity toward the vignette character, $F(1, 204) = 8.61, p = .004$, and greater desire to avoid the vignette character, $F(1, 203) = 4.67, p = .03$, than those who read a vignette where mental illness was not mentioned. There were no significant group contrasts for the following subscales: anger, $F(1, 232) = 1.62$; and help, $F(1, 232) = 1.17, p = .28$.

A one-way ANOVA revealed that, across the subscales of the Attribution Questionnaire, there were no significant group contrasts between the homelessness vignette wherein mental illness developed during homelessness (Condition 2) and the homelessness vignette where onset of the mental illness was not indicated (Condition 3.
DISCUSSION

The first subsection will interpret results of the study within the context of past research and theory, and specific recommendations for future research will be provided along the way. The subsection ends with an integrative conclusion of the study’s results. The second subsection outlines the methodological limitations of this study and provides suggestions addressing these limitations in future research. The third subsection discusses the implications of the results for clinical work with individuals who are homeless (or at risk of becoming homeless) as well for community anti-stigma interventions.

Interpretation of Findings

Hypothesis 1

Hypothesis 1 stated that participants will have significantly greater negative reactions to vignettes that portray the homeless person as having a mental illness. In other words, for vignettes that portray homelessness with mental illness, participants will: (a) exhibit higher scores on Personal Responsibility (Blame), Anger, Dangerousness, Fear, Avoidance, Segregation, and Coercion subscales of the Attribution Questionnaire; and (b) exhibit lower scores on Pity and Willingness to Help subscales of this psychometric measure.

The present study found partial support for Hypothesis 1, since four of the dependent variables (i.e., danger, fear, segregation, and coercion) were significant in the
expected direction. In other words, relative to homelessness without mental illness, when mental illness and homelessness co-occur, the evaluator of the homeless person perceived the person as more dangerous and fear-provoking, and the evaluator wished to segregate the person (i.e., hospitalization) and coerce the person (i.e., forced treatment).

These results are consistent with past research, which demonstrates that the public generally views those with mental illness as dangerous and unpredictable, which leads to fear (Phelan et al., 2000; Corrigan & Wassel, 2008; Link et al., 1999). Link and colleagues (1999) found that a majority of participants (61%) perceived those with schizophrenia as being very likely to be violent. The emotional outcome of fear can be explained by the danger appraisal hypothesis (Paterson & Neufeld, 1987); that is, when people view others as dangerous, the typical emotional response is fear. This emotional response can influence behavioral responses, such as punishment (i.e., segregation and coercion).

However, the following finding was contrary to Hypothesis 1: Relative to participants who evaluated a homelessness vignette that documented mental illness (regardless of onset), participants who evaluated a homelessness vignette in which mental illness was not documented were more likely to blame and express anger toward the vignette character. In other words, even though the findings discussed at the beginning of this section showed that a homeless person with mental illness was perceived as more dangerous and fear-provoking (causing evaluators to want to segregate/coerce the person), evaluators appeared to view the homeless person as less responsible for his or her condition when mental illness was documented. In a similar vein, the results
generally suggested that, when mental illness was documented in a vignette, evaluators expressed a greater degree of pity, contrary to Hypothesis 1.

In other words, this study found that homeless individuals with documented mental illness were less likely to be blamed, and this seems inconsistent with past research demonstrating that, rather than blaming societal or cultural factors for mental illness, the public often blames individuals with mental illness for the development of their disorders (Corrigan et al., 2000; 2005). One reason that this study is surprising is that some past research suggests that that the public tends to emphasize societal causes (e.g., poverty) in explaining homelessness (Arumi et al., 2007; Kingree & Daves, 1997; Toro & McDonell, 1992). While respondents also believe that personality factors (e.g., laziness, lack of motivation, or irresponsible behavior) play a role in the development of homelessness (Arumi et al., 2007), the bulk of past research suggests that the public views societal causes as more important than personality-related causes (Arumi et al., 2007; Kingree & Daves, 1997, & Toro & McDonell, 1992). This study did not employ a societal factor (e.g., growing up in poverty vs. growing up in middle class) as an independent variable. It would be interesting to conduct a study in which vignettes are used that vary the presence or absence of mental illness and vary a societal factor, such as growing up in poverty versus a middle class background. This could help determine whether a person-related variable (i.e., mental health status) or a societal factor (i.e., poverty) plays a greater role in influencing ratings across the different dimensions of the Attribution Questionnaire. It would also help determine if there is a person-related by societal-related interaction effect on scores. For example, perhaps homeless people with
a middle class background who did not have mental illness prior to their homelessness would be blamed the most.

To interpret findings contrary to Hypothesis 1, it is important to note the following: (a) genetic/biological explanations of schizophrenia have become increasingly common in the mental health professions (Fleming & Martin, 2011; Read, Mosher, & Bentall, 2004); (b) there is evidence that, when biological explanations for mental illness are emphasized, there is less stigma (Corrigan et al., 2005); and (c) due to this trend, some anti-stigma projects have incorporated information on biological etiological factors (Rusch, Kanter, Angelone, & Ridley, 2008), increasing the likelihood of changes in the beliefs of citizens. Fleming and Martin (2011) note that, “The schizophrenia concept is supported by the biological model of psychiatry and remains the dominant model of mental illness within the mental health service.” (p. 469). Corrigan and colleagues (2005) found that stigma diminished when mental illness was reported to be caused by a brain tumor. They found that participants perceive such a person as less dangerous, less likely to be feared, more worthy of help, and less likely to be avoided than a person with a mental illness without a documented organic cause. The National Alliance on Mental Illness (NAMI) sponsors anti-stigma projects (e.g., *In Our Own Voice*), that use psychoeducation to educate the public on the symptoms, prevalence, course, and etiology of particular disorders, and place emphasis on the genetic contributions and biological factors of those disorders (Rusch et al., 2008).

Therefore, perhaps this increase in the acceptance of genetic/biological explanations of schizophrenia, accompanied by anti-stigma projects that emphasize this view, has led many citizens to adopt genetic/biological explanations for schizophrenia, to
believe that schizophrenia develops due to factors (e.g., genetic) outside of the person’s control and, therefore, to perceive the person with schizophrenia as less responsible for the condition. Further research is needed to examine the validity of this explanation. For example, a study could examine the relationship between the public’s view on the causes of schizophrenia (e.g., the extent to which genetic/biological etiology is endorsed) as it relates to the public’s perception of locus of control, the stability of the cause, and the controllability of the cause. In addition, research could examine whether these perceptions influence stigmatizing reactions and behaviors toward those with schizophrenia.

**Hypothesis 2**

Hypothesis 2 stated, after controlling for social desirability, participants who read the vignette portraying a homeless person who developed mental illness *before* becoming homeless, when compared to participants who read the vignette portraying a homeless person who developed mental illness *during* homelessness will: (a) exhibit higher scores on Personal Responsibility (Blame), Anger, Dangerousness, Fear, Avoidance, Segregation, and Coercion subscales of the Attribution Questionnaire; and (b) exhibit lower scores on Pity and Willingness to Help subscales of this psychometric measure. The present study did not find support for Hypothesis 2. However, significant results were found in the opposite direction.

Contrary to the hypothesis, when mental illness developed during homelessness, the evaluator perceived the homeless person as more responsible, dangerous, and fear-provoking, and was more likely to segregate and avoid the homeless person. These results, while unexpected, coincide with the findings regarding responsibility from the
data analyses pertaining to Hypothesis 1, as reviewed earlier. Both findings converge on a conclusion that, when a person who is not mentally ill becomes homeless, they are viewed as more responsible for the homeless condition. As noted earlier, the public tends to believe that certain person-related factors (e.g., laziness, lack of motivation, or irresponsible behavior) contribute to the development of homelessness (Arumi et al., 2007). Therefore, when considering a vignette in which schizophrenia developed during (as opposed to prior to) homelessness, the evaluator may be more likely to blame the person for his or her current condition (i.e., being homeless and having schizophrenia), especially if it is believed that (a) experiences during homelessness played a causal role in the development of mental illness and (b) the person developed homelessness (in the first place) due to negative person-related factors such as those cited above.

Further, findings from Hypotheses 1 and 2 indicate that when homeless people have mental illness, they are viewed as more dangerous and fear-provoking than homeless people without mental illness. Moreover, results associated with Hypothesis 2 suggest that homeless people are viewed as even more dangerous and fear-provoking if the mental illness began during a period of homelessness, rather than before a period of homelessness. It appears that people may have less stigmatizing attitudes and behaviors if the mental illness is perceived as causing the homeless condition than if the mental illness is perceived to be a result of the homeless condition. Despite this finding relating to danger, the variable of schizophrenia onset (prior vs. during homelessness) did not influence participants in their expression of anger toward, nor their wish to segregate, the homeless person.
Regarding the finding that the homeless person was perceived as more dangerous if schizophrenia onset occurred during (as opposed to before) homelessness, the following speculation seems tenable: People may believe that, if a homeless person has just recently developed schizophrenia (i.e., in the active phase for the very first time), the person is more dangerous, fear-provoking, and violent; in contrast, the public may assume that a person who has lived with schizophrenia for a more significant period of time would have been hospitalized or imprisoned by now, if he or she had a proclivity for violent behavior. Further, if the evaluator believes that a person developed schizophrenia as a response to homelessness, it may be assumed that the person is reacting to some homelessness-related traumatic event(s), and this could make the evaluator perceive the person as even more out of control and potentially dangerous. It must be understood that these are only speculations, as there is no other research examining public opinion of dangerousness of the homeless as a function of documentation of mental illness onset (i.e., prior to vs. during homelessness). Nevertheless, the validity of these potential reasons could be examined in studies with a methodology similar to the present study. For example, vignettes could be used where a particular traumatic event (e.g., being raped or mugged on the streets) is inserted as an event occurring prior to the onset of schizophrenia while having another vignette with no mention of a traumatic event during the course of homelessness and schizophrenia development. Then, the research could examine the extent to which dimensions of the Attribution Questionnaire vary depending on presence or absence of a traumatic event.

Considering that there were no significant differences between any of the conditions on willingness to help, findings from both Hypothesis 1 and 2 converge on the
idea that people seem to be willing to help homeless individuals in relatively equal ways, regardless of whether there is mention of a comorbid mental illness (regardless of onset documentation). Across all conditions, this study found that people seemed moderately willing to help homeless individuals regardless of mental illness comorbidity, since the mean rating was 17.64 on a scale ranging from 3 to 27. Past research has shown that the public seems to be particularly willing to help the homeless population in a variety of ways, but mostly on a structural/societal level, such as being willing to pay for it through taxes (Arumi et al., 2007, Toro & McDonell, 1992). This study seems to extend past research; that is, not only are people willing to help on a societal level (e.g., pay taxes to support homelessness program), people may also be willing to help the homeless directly, since there was moderate endorsement of items such as, “I would be willing to talk to Taylor about his/her problems.”

In regards to feelings of pity, findings from Hypothesis 1 and 2 converge on a conclusion that people experienced stronger feelings of pity for homeless people with mental illness, regardless of whether the mental illness developed before or during a period of homelessness, than for a homeless person without mental illness. In past research when there has been more blame placed on a particular individual, people have less pity for that person (Angermeyer et al., 2003; Corrigan et al., 2003; Corrigan et al., 2005). However, we did not find this pattern even though homeless individuals who develop a mental illness during a homeless period evoked more personal blame beliefs than homeless individuals who develop a mental illness prior to a homeless period. It seems that people feel pity for those who are homeless with mental illness and that level
of pity does not significantly differ regardless of onset (before vs. after homelessness) of the mental illness.

**Limitations**

Several limitations of the present study should be noted. This study utilized a sample of undergraduate students and so it is unclear if results would generalize to community populations. It may be that college students differ in their attribution beliefs, relative to people of various ages in the community. Further, there was a lack of diversity in the participant sample of the present study, since the majority of participants consisted of Caucasian students from a private, Midwestern University. To supplement studies of this kind, there is a need for studies that use community samples in order to gain a more diverse group of participants, including age, race, and gender.

Further, this study utilized self-report measures of attribution beliefs, which rely on the participants to subjectively report stigmatizing attitudes. While the present study was unique in statistically controlling for the social desirability bias, additional methods of assessment in future research may provide interesting information regarding the stigmatizing attitudes toward the homeless with mental illness. For example, implicit tests may be used to record underlying stigmatizing feelings as well as physiological measures or measures that track changes in mood after reading about a homeless person. Future studies should also consider directly observing behavior. As an example, community members could be observed interacting with homeless individuals living on the streets.

Finally, the vignette character in this study suffered from schizophrenia and, since schizophrenia represents one of many diagnostic categories that vary in important ways
(e.g., psychotic vs. non-psychotic), the results may or may not generalize across different diagnostic categories. In other words, people may have different attribution beliefs and stigmatizing attitudes, depending on the mental illness portrayed in the vignette. Future studies should replicate this study but using other mental disorders, such as depression and substance abuse. Despite these limitations, the findings from this study have important implications for both clinical work and community anti-stigma interventions, as delineated below.

**Clinical and Community Implications**

Approximately 20-27% of homeless individuals have a severe diagnosable mental illness (National Resource Center on Homelessness and Mental Illness, 2003; The U.S. Department of Housing and Urban Development, 2011a), and some homeless people without a diagnosable mental disorder appear to have maladaptive psychological traits (e.g., learned helplessness) (Goodman et al., 1991). Further, homeless people are frequently exposed to traumatic events (e.g. Coates & McKenzie-Mohr, 2010; Taylor & Sharpe, 2008), which may cause or exacerbate mental illness and/or psychological vulnerabilities (Goodman et al., 1991). Therefore, it seems likely that many (or perhaps most) mental health professionals will encounter clients who are homeless, have a history of chronic or episodic homelessness, or are at risk for homelessness. This likelihood seems increased, if one considers that the recent definition of homelessness is more inclusive. Until recently, the federal definition of homelessness included sleeping in (a) places not intended for human residence (e.g., park, automobiles), (b) emergency shelters or transitional housing, or (c) any other emergency accommodation paid by homeless program vouchers (Burt, 2007). However, in 2009, the federal definition became more
inclusive, and includes four categories of individuals (see Table 3) (U.S. Department of Housing and Urban Development, 2011b). This new federal definition of homelessness is likely to be more helpful in identifying individuals and families in need of homelessness-related intervention (and prevention) services.

It is important for clinicians to consider stigma as they provide mental health services to clients who have mental illness and/or are at risk of homelessness. Clinicians can use this information in a number of ways to enhance the likelihood of positive treatment outcome. There is a need for clinicians to educate clients about stigmatization and facilitate their ability to cope with stigma. In particular, it is important to work with clients to prevent self-stigmatization. As noted in the Introduction, self-stigmatization refers to the internalization of public stigma, and it can result in a loss of self-esteem and self-efficacy as well as blaming oneself for his or her condition and feeling shame for it (Corrigan, 2000; Corrigan & Watson, 2002). Since self-stigmatization can provoke exacerbation of the disorder, lead to additional complications in the course of a mental disorder, and create obstacles to recovery, the need to address this issue within the context of service provision seems self-evident but is often overlooked (Wahl, 2012).

Further, research has shown that family members of those with mental illness often experience “stigma by association,” which can motivate family members to distance themselves from a relative with a mental illness in order to avoid the negative effects of stigma (van der Sanden, Bos, Stutterheim, Pryor, and Kok, 2013). Such a decrease in social support may exacerbate mental illness (Hendryx, Green, Perrin, & 2009; Johnson, Meyer, Winett, & Small, 2000) and, in some cases, may increase the
Table 3

New Federal Definition for Homelessness: Four Categories

1. **Literally Homeless:** “An individual or family who lacks a fixed, regular, and adequate nighttime residence.” This includes: (a) An “individual or family with a primary nighttime residence that is a public or private place not designed for or ordinarily used as a sleeping accommodation for human beings...”; (b) “An individual or family living in a supervised publicly or privately operated shelter designed to provide temporary living arrangements...”; or (c) “An individual who is exiting an institution where he or she resided for 90 days or less and who resided in an emergency shelter or place not meant for human habitation immediately before entering that institution.”

2. **Imminent Risk of Homelessness:** “An individual or family who will imminently lose their primary nighttime residence,” provided that: (a) “The primary nighttime residence will be lost within 14 days of the date of application for homeless assistance;” (b) “No subsequent residence has been identified;” or (c) “The individual or family lacks the resources or support networks...needed to obtain other permanent housing.”

3. **Homeless Youth and Families:** “Unaccompanied youth under 25 years of age, or families with children and youth, who do not otherwise qualify as homeless under this definition,” but who, (a) are defined as homeless under other federal laws; (b) “Have not had a lease, ownership interest, or occupancy agreement in permanent housing at any time during the 60 days immediately preceding the date of application for homeless assistance;” (c) Have experienced persistent instability as measured by two moves or more during the 60-day period immediately preceding the date of applying for homeless assistance;” or (d) Can be expected to continue in such status for an extended period of time because of chronic disabilities...histories of domestic violence or childhood abuse...two or more barriers to employment...”

4. **Fleeing Life-Threatening Conditions:** “Any individual or family” who: (a) “is fleeing...domestic violence, dating violence, sexual assault, stalking, or other dangerous or life-threatening conditions that relate to violence against the individual or a family member...”; (b) “has no other residence;” or (c) lacks the resources or support networks...to obtain other permanent housing.”

likelihood of homelessness (Mayock, Corr, & O’Sullivan, 2011). It is feasible to see how distance from family members can lead to homelessness due to a lack of support. Thus, the issue of “stigma by association” should be considered within the context of family therapy as well as family support services. For example, NAMI provides a number of community services aimed at supporting family members and caregivers of those with mental illness (e.g., Family-to-Family) (Dixon et al., 2011). Lefley (1989) provides a helpful discussion of the concepts of family stress, family burden, family stigma in the treatment of mental illness.

Finally, knowledge of the patterns of attributions identified in this study and other studies in the literature could prevent a clinician from fueling the stigmatization of his or her clients. Recently, there has been an increase in the awareness that there is stigmatization within the fields (e.g., psychology, psychiatry, social work, and nursing) that aim to treat those with mental illness (Heflinger & Hinshaw, 2010; Sadow & Ryder, 2008). For instance, Sevais and Saunders (2007) found that clinical psychologists disidentify and distance themselves from persons with severe mental illness and tend to fall victim to the same stereotypical thinking of the public that promotes mistrust of those with mental illness. When this information is considered, it can be seen that, in addition to targeting public stigma, anti-stigma campaigns need to also address stigma among mental health professionals.

Strategies that have been developed to reduce stigma related to mental illness should be considered when developing anti-stigma programs related to homelessness. As discussed by Corrigan and O’Shaughnessy (2007), there are three strategies for reducing stigma: protest, education, and contact. Protest strategies involve either an economic
boycott targeting a producer of stigmatizing material or a moral protest that presents a position that is objectionable from an ethical standpoint and not supported by research (e.g., “Homeless people should be institutionalized because all of them are mentally ill”), and then rebuke people or organizations who hold the view. While there is some anecdotal evidence that protests can have an impact on the media, there is a lack of research to show that protests cause change in the public’s stigmatizing beliefs. Some research suggests that protests even cause an attitude rebound (i.e., a worsening of negative attitudes) because people often resent being told what to believe. Some research has shown that the education strategy can be effective, but the intensity and duration of the effects on attitudes may be restricted. Research also suggests that people may need to already be somewhat inclined to agree with a particular message in order the message to cause (or contribute to) positive attitude change (Corrigan & O’Shaughnessy, 2007).

According to research, the contact strategy (i.e., social interaction between citizens and people in a stigmatized group) is more likely to dispel myths, promote positive attitudes, and increase empathy.

Therefore, it seems likely that the contact strategy in combination with the education strategy may be promising in reducing stigma against homeless people. A study conducted by Corrigan and colleagues (2001a, 2001b) demonstrated improvements in attitudes and helping behavior among community college students who participated in an educational and contact program with a focus on personal responsibility and dangerousness of those with mental illness. The present study suggests that the content of anti-stigma campaigns meant to enhance understanding and promote change in attitudes and behavior need to focus on educating the public on the causes of both mental
illness and homelessness, as well as the association between mental illnesses and homelessness, including the reciprocal effects of mental illness and homelessness events (e.g., trauma). Further, sustained emphasis needs to be placed on clarifying the risk of dangerous behavior among those with mental disorders, which seems to be impacting public perception of the homeless with mental illness.

With regard to the contact strategy, it may be beneficial to have community members without a history of homelessness interact with homeless individuals who may or may not have a mental illness. Having contact with homeless individuals who also have mental illness and do not have a history of violence, may mitigate the association with dangerousness, which in turn could reduce feelings of fear. This contact may also give people a better idea of the causes of a person’s homeless period, which may reduce personal blame attitudes and increase empathy.
SUMMARY AND CONCLUSIONS

The present study explored whether a person’s stigmatizing attitudes and discriminatory behaviors differ depending on the following: (a) whether or not there is a coexisting mental illness; and (b) whether the mental illness developed before or during homelessness. Overall, it appears that evaluators are more likely to fear homeless individuals if they are known to have mental illness but, at the same time, evaluators appear less likely to blame homeless individuals for their condition if mental illness is clearly documented. The public may be more likely to fear and avoid the homeless person, segregate the person, and/or coerce the person into treatment due to this association between mental illness and dangerousness; at the same time, however, the public may be more likely to pity the person for his or her homeless condition if the person has a documented mental illness. Further, it appears that people may have less stigmatizing attitudes and behaviors if the mental illness is perceived as developing prior to (and perhaps causing) the homeless condition relative to cases wherein the mental illness is perceived as developing after (and perhaps due to) the homeless condition. Results were interpreted within the context of past theory and research, and recommendations for future studies were provided. Limitations of the study were noted, and recommendations for addressing these limitations in future research were highlighted. Implications of the findings were considered for clinical work as well as community anti-stigma intervention.
REFERENCES


Pescosolido, B. A., Monahan, J., Link, B. G., Stueve, A., & Kikuzawa, S. (1999). The public’s view of the competence, dangerousness, and need for legal coercion of


Appendix A

HOMELESSNESS VIGNETTES

NOTE: Depending on which vignette condition a participant is randomly assigned to, one of the following four vignettes will be inserted into the Attribution Questionnaire in Appendix C.

Homeless With Mental Illness Diagnosed Prior to Becoming Homeless

Taylor is 30 years old and is currently homeless. Taylor is not married and does not have any children. Taylor has a long history of estranged family relationships. Taylor has been living in shelters for homeless people. Before becoming homeless, Taylor held a number of low-paying jobs including working at a large paper manufacturing company. However, Taylor has been unemployed for over a year now. Before becoming homeless, Taylor developed schizophrenia. In the past, Taylor had entered a mental hospital for treatment, but has since been released.

Homeless With Mental Illness Diagnosed During Homelessness

Taylor is 30 years old and is currently homeless. Taylor is not married and does not have any children. Taylor has a long history of estranged family relationships. Taylor has been living in shelters for homeless people. Before becoming homeless, Taylor held a number of low-paying jobs including working at a large paper manufacturing company. However, Taylor has been unemployed for over a year now. After being homeless for a period of
time, Taylor developed schizophrenia. In the past, Taylor had entered a mental hospital for treatment, but has since been released.

**Homeless with Mental Illness (No Indication of Time of Onset of Mental Illness)**

Taylor is 30 years old and is currently homeless. Taylor is not married and does not have any children. Taylor has a long history of estranged family relationships. Taylor has been living in shelters for homeless people. Before becoming homeless, Taylor held a number of low-paying jobs including working at a large paper manufacturing company. However, Taylor has been unemployed for over a year now. Taylor developed schizophrenia. In the past, Taylor had entered a mental hospital for treatment, but has since been released.

**Homeless Vignette Without Mention of Mental Illness**

Taylor is 30 years old and is currently homeless. Taylor is not married and does not have any children. Taylor has a long history of estranged family relationships. Taylor has been living in shelters for homeless people. Before becoming homeless, Taylor held a number of low-paying jobs including working at a large paper manufacturing company. However, Taylor has been unemployed for over a year now.
Appendix B
 DEMOGRAPHIC QUESTIONNAIRE

Please take a few moments to complete the following demographic information.

1. Age: __________________

2. Gender:       Male       Female

3. Ethnicity (check all those that apply):      Caucasian  African
American Latino/a  Asian/Pacific Islander  Native
American   Other: Please describe:

________________________________________________________________________

4. Year in School:      Freshman       Sophomore       Junior
Senior

5. Major: _______________________________

6. Highest Level of Education Completed by Mother:
   High School Diploma     Some College     Associate’s Degree
   Bachelor’s degree       Graduate/Professional Training

7. Highest Level of Education Completed by Father:
   High School Diploma     Some College     Associate’s Degree
   Bachelor’s Degree       Graduate/Professional Training
8. Where did you grow up?

City  Suburb  Small Town (population under 50,000)

Rural area outside a Metropolitan Region
Appendix C

ATTRIBUTION QUESTIONNAIRE

Please read the following paragraph statement about Taylor:

(NOTE: A vignette from Appendix B will be inserted here)

Now answer each of the following questions about Taylor. For each item, please indicate the number that best answers the question.

**Blame**

10. I would think that it was Taylor’s own fault that he/she is in the present condition.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>no, not at all</td>
<td>yes, absolutely so</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

11. How controllable, do you think, is the cause of Taylor’s present condition?

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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all under personal control</td>
<td>completely under personal control</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

23. How responsible, do you think, is Taylor for his/her present condition?

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<tr>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all responsible</td>
<td>very much responsible</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Anger

1. I would feel aggravated by Taylor.

   1 2 3 4 5 6 7 8 9

   not at all   very much

4. How angry would you feel at Taylor?

   1 2 3 4 5 6 7 8 9

   not at all   very much

12. How irritated would you feel by Taylor?

   1 2 3 4 5 6 7 8 9

   not at all   very much

Pity

9. I would feel pity for Taylor.

   1 2 3 4 5 6 7 8 9

   none at all   very much

22. How much sympathy would you feel for Taylor?

   1 2 3 4 5 6 7 8 9

   none at all   very much

27. How much concern would you feel for Taylor?

   1 2 3 4 5 6 7 8 9

   none at all   very much

Help

8. I would be willing to talk to Taylor about his/her problems.

   1 2 3 4 5 6 7 8 9

   not at all   very much
20. How likely is it that you would help Taylor?

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9
\]
definitely       definitely
would not help   would help

21. How certain would you feel that you would help Taylor?

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9
\]
not at all certain       absolutely certain

Dangerousness

2. I would feel unsafe around Taylor.

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9
\]
no, not at all       yes, very much

13. How dangerous would you feel Taylor is?

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9
\]
not at all       very much

18. I would feel threatened by Taylor.

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9
\]
no, not at all       yes, very much

Fear

3. Taylor would terrify me.

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9
\]
not at all       very much

19. How scared of Taylor would you feel?

\[
1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9
\]
not at all       very much
24. How frightened of Taylor would you feel?

1 2 3 4 5 6 7 8 9
not at all very much

Avoidance (reverse score all three questions)

7. If I were an employer, I would interview Taylor for a job.

1 2 3 4 5 6 7 8 9
not likely very likely

16. I would share a car pool with Taylor every day.

1 2 3 4 5 6 7 8 9
not likely very much likely

26. If I were a landlord, I probably would rent an apartment to Taylor.

1 2 3 4 5 6 7 8 9
not likely very likely

Segregation

6. I think Taylor poses a risk to his/her neighbors unless he/she is hospitalized.

1 2 3 4 5 6 7 8 9
none at all very much

15. I think it would be best for Taylor’s community if he/she were put away in a psychiatric hospital.

1 2 3 4 5 6 7 8 9
not at all very much

17. How much do you think an asylum, where Taylor can be kept away from his/her neighbors, is the best place for him/her?

1 2 3 4 5 6 7 8 9
not at all very much
Coercion

5. If I were in charge of Taylor’s treatment, I would require him/her to take his/her medication.

1  2  3  4  5  6  7  8  9
not at all        very much

14. How much do you agree that Taylor should be forced into treatment with his/her doctor even if he/she does not want to?

1  2  3  4  5  6  7  8  9
not at all        very much

25. If I were in charge of Taylor’s treatment, I would force him/her to live in a group home.

1  2  3  4  5  6  7  8  9
not at all        very much

Note: Items are organized according to subscale. The item number indicates the item’s actual placement in the questionnaire as completed by the participant.
Appendix D

BALANCED INVENTORY OF DESIRABLE RESPONDING

Using the scale below as a guide, indicate how much you agree with each statement.

<table>
<thead>
<tr>
<th></th>
<th>Not true</th>
<th>Somewhat True</th>
<th>Very true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
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<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

**Self-Deceptive Enhancement Subscale:**

<table>
<thead>
<tr>
<th></th>
<th>My first impressions of people usually turn out to be right.</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
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</table>

<table>
<thead>
<tr>
<th>2</th>
<th>It would be hard for me to break any of my bad habits.  (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3</th>
<th>I don’t care to know what other people really think of me.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4</th>
<th>I have not always been honest with myself. (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5</th>
<th>I always know why I like things.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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</table>

<table>
<thead>
<tr>
<th>6</th>
<th>When my emotions are aroused, it biases my thinking. (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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</table>

<table>
<thead>
<tr>
<th>7</th>
<th>Once I’ve made up my mind, other people can seldom change my opinion.</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
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<table>
<thead>
<tr>
<th>8</th>
<th>I am not a safe driver when I exceed the speed limit. (R)</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>9</th>
<th>I am fully in control of my own fate.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
10. It’s hard for me to shut off a disturbing thought. (R) | 1 2 3 4 5 6 7
11. I never regret my decisions. | 1 2 3 4 5 6 7
12. I sometimes lose out on things because I can’t make up my mind soon enough. (R) | 1 2 3 4 5 6 7
13. The reason I vote is because my vote can make a difference. | 1 2 3 4 5 6 7
14. My parents were not always fair when they punished me. (R) | 1 2 3 4 5 6 7
15. I am a completely rational person. | 1 2 3 4 5 6 7
16. I rarely appreciate criticism. (R) | 1 2 3 4 5 6 7
17. I am very confident in my judgments. | 1 2 3 4 5 6 7
18. I have sometimes doubted my ability as a lover. (R) | 1 2 3 4 5 6 7
19. It’s all right with me if someone people happen to dislike me. | 1 2 3 4 5 6 7
20. I don’t always know the reasons why I do the little things I do. (R) | 1 2 3 4 5 6 7

**Impression Management Subscale:**

21. I sometimes tell lies if I have to. (R) | 1 2 3 4 5 6 7
22. I never cover up my mistakes. | 1 2 3 4 5 6 7
23. There have been occasions when I have taken advantage of someone. (R) | 1 2 3 4 5 6 7
24. I never swear. | 1 2 3 4 5 6 7
25. I sometimes try to get even rather than forgive and forget. (R) | 1 2 3 4 5 6 7
26. I always obey laws, even if I’m unlikely to get caught. | 1 2 3 4 5 6 7
<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>27.</td>
<td>I have said something bad about a friend behind his or her back. (R)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>28.</td>
<td>When I hear people talking privately, I avoid listening.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>29.</td>
<td>I have received too much change from a salesperson without telling him or her. (R)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>30.</td>
<td>I always declare everything at customs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>31.</td>
<td>When I was young I sometimes stole things. (R)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>32.</td>
<td>I have never dropped litter on the street.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>33.</td>
<td>I sometimes drive faster than the speed limit. (R)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>34.</td>
<td>I never read sexy books or magazines.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>35.</td>
<td>I have done things that I don’t tell other people about. (R)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>36.</td>
<td>I never take things that don’t belong to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>37.</td>
<td>I have taken sick-leave from work or school even though I wasn’t really sick. (R)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>38.</td>
<td>I have never damaged a library book or store merchandise without reporting it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>39.</td>
<td>I have some pretty awful habits. (R)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>40.</td>
<td>I don’t gossip about other people’s business.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: Items are organized according to subscale. “R” = reverse score.
Appendix E

EXPOSURE TO HOMELESSNESS SCALE

1. Growing up, how frequently did you observe or encounter people who you believe to be homeless?
   
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Seldom</td>
<td>Occasionally</td>
<td>Often</td>
<td>Always</td>
</tr>
</tbody>
</table>

2. Since coming to the University of Dayton, how frequently do you observe or encounter people who you believe to be homeless?

<table>
<thead>
<tr>
<th>1</th>
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<th>4</th>
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</thead>
<tbody>
<tr>
<td>Never</td>
<td>Seldom</td>
<td>Occasionally</td>
<td>Often</td>
<td>Always</td>
</tr>
</tbody>
</table>

3. Have you engaged in any community service activities where you interacted with the homeless?

   Yes____________  No_____________

4. If you answered “yes” to question #3 above, please list and briefly describe the difference experiences that you obtained in working with the homeless.

   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
Appendix F

INFORMED CONSENT TO PARTICIPATE IN A RESEARCH PROJECT

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>Thinking About Homelessness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investigator(s):</td>
<td>Nyssa Snow, B.A; Roger Reeb, PhD</td>
</tr>
<tr>
<td>Description of Study:</td>
<td>Participants will complete questionnaires that collect basic demographic information and</td>
</tr>
<tr>
<td></td>
<td>assess various opinions of an individual after reading a brief description of a homeless</td>
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<td>person. You will also complete two additional surveys that ask you to elaborate on your</td>
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<td>opinions and to discuss your past experiences with the homeless population. You will</td>
</tr>
<tr>
<td></td>
<td>also be asked to complete a questionnaire that asks questions about how you feel about life.</td>
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<td>Adverse Effects and</td>
<td>This study involves minimal risks. No adverse effects or significant risks are expected to</td>
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<td>Risks:</td>
<td>arise during the present study. Even though dangers and risks are not anticipated, the</td>
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<td>telephone number for the UD Counseling Center is provided here (937-229-3141) in case a</td>
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<td>student would want to obtain services for whatever reason. Services at the UD Counseling</td>
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<td>Center are free for all undergraduate students at the University of Dayton. You are free to</td>
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<td>terminate your participation at anytime or skip questions that you do not feel comfortable</td>
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<td>answering, and there are no negative consequences for withdrawing. Due to the number and</td>
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<td>types of demographic questions that are asked, anonymity cannot be guaranteed, though there</td>
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<td></td>
<td>is no intention to identify specific individuals.</td>
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<td>Study Duration:</td>
<td>The study will take approximately 45 minutes to complete.</td>
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<td>Confidentiality of</td>
<td>Both your name and the data will be kept in a locked filing cabinet and online in a secure</td>
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<tr>
<td>Data:</td>
<td>file. Only the investigators named above will have access to the locked filing cabinet and</td>
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<td></td>
<td>secure file. Your name will not be revealed in any document resulting from this study.</td>
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</table>
Participants may contact Nyssa Snow, SJ 313, snownl@muohio.edu or Roger Reeb, PhD, SJ 306, (937) 229-2395, rreeb1@udayton.edu. If you have questions about your rights as a research participant, you may contact the chair of the Research Review and Ethics Committee, Greg Elvers, PhD in SJ 312, (937) 229-2171, gelvers1@udayton.edu.

I have voluntarily decided to participate in this study. If I had questions about this study, I have contacted the investigator named above and he or she has adequately answered any and all questions I have about this study, the procedures involved, and my participation. I understand that I may voluntarily terminate my participation in this study at any time and still receive full credit. In addition, I certify that I am 18 (eighteen) years of age or older. By typing my name and date below, I consent to participate in this study. If I do not want to participate, I can close the browser.

Student’s Name (typed)
Date (typed)
Information about the Evaluation of Homelessness Study

Objective:
Stigma is defined as the social judgment and discrimination that some people place on individuals perceived to be different from him or herself. In separate studies, researchers have examined stigma toward individuals with mental illness and homeless individuals, but there is a lack of research examining the extent to which stigma is worse when there is a coexistence of mental illness and homelessness. Similar to past research in this general area (e.g., Corrigan et al., 2003), this study examines this question by having participants read and respond to hypothetical vignettes. Thus, participants were randomly assigned to read one of four different vignettes, which varied regarding the extent to which the homeless person was characterized as also having mental illness and, if so, whether the mental illness developed prior to or during homelessness. This will allow us to compare participants’ responses across groups in order to examine our hypotheses, as presented below.

Hypothesis:
The first main objective is to examine the general hypothesis that public stigma is greater when a homeless person is portrayed as also having a coexisting mental illness. The second objective is to determine the extent to which stigma varies depending on whether onset of mental illness is believed to have been prior to or after becoming homeless. The third objective is to verify that the observed results regarding public stigma towards the homeless with mental illness hold up after statistically controlling for social desirability bias, which is the tendency for respondents to answer questions in a manner that will be viewed favorably by others.

Your Contribution:
Your contribution will allow us to learn more about the social stigma of homelessness and its relation to mental illness.

Benefits:
Findings of this study will have both theoretical and practical implications. Theoretically, it is important to develop a conceptual model of this complex social problem, and this will require that we identify and understand the variety of factors contributing to the stigmatization of homelessness. From a practical standpoint, knowledge of these attitudes can help direct policymakers who are searching for public support for initiatives that concern the homeless population and this research could lead to the development of programs that reduce and prevent stigma.
Assurance of Privacy:
We are studying the effects of mental illness on the stigma of homelessness and are not evaluating you personally in any way. Your responses will be kept completely confidential and your responses will only be identified by a participant number in the data set with other participant numbers. Your name will not be revealed in any document resulting from this study.

Contact Information:
Students may contact Nyssa Snow, SJ 313, snownl@muohio.edu or Roger Reeb, PhD, SJ 306, (937) 229-2395, rreebl@udayton.edu, if you have questions or problems after the study. If you have questions about your rights as a research participant you may also contact the chair of the Research Review and Ethics Committee, Greg Elvers, PhD in SJ 312, (937) 229-2171, gelvers@udayton.edu. Even though dangers and risks are not anticipated, the telephone number for the UD Counseling Center is provided here (937-229-3141) in case a student would want to obtain services for whatever reason. Services at the UD Counseling Center are free for all undergraduate students at the University of Dayton.

Thank you for your participation. I will update your research credit on the online system.

References: