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THE MODERATING ROLE OF SPIRITUALITY UPON THE RELATIONSHIP BETWEEN  
DISCRIMINATION AND MENTAL HEALTH AMONG PERSONS WITHOUT HOMES

Dissertation

by

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## **Abstract**

### **The Moderating Role of Spirituality upon the Relationship Between Discrimination and Mental Health among Persons without Homes**

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Homelessness is an ever expanding and complex phenomena that adversely affects the well-being of individuals and society. Research suggests the experience of homelessness and its correlates, including discrimination, are especially detrimental to mental health. However, the prevalence of discrimination endured by the Unhoused Community is unclear. There is also a dearth of research concerning factors that may promote resilience in the face of these stressors. Therefore, the purpose of the current study was to determine the extent of discrimination experienced by Persons without Homes and assess the potential of spirituality to buffer the association between discrimination and mental health. A quantitative analysis of responses from 206 participants revealed the correlational and moderational effect of various aspects of spirituality on discrimination and its association with self-esteem, depression, and anxiety. As hypothesized, higher levels of discrimination were significantly correlated with lower levels of self-esteem, greater levels of anxiety, and more depressive symptomatology among Persons without Homes. In addition, all five aspects of spirituality measured (spiritual belief, private spiritual behavior, public spiritual behavior, spiritual social support, and daily spiritual experiences) had a significant moderating effect on the adverse association of discrimination on depression. Two aspects of spirituality (spiritual belief and public spiritual behavior) also significantly moderated the negative association of discrimination on self-esteem. In summary, various aspects of spirituality attenuated the adverse association between discrimination and

mental health. These findings have multiple implications for future policy, research, clinical work, social service delivery, and pastoral care.

Keywords: homelessness, discrimination, spirituality, mental health, moderation

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“Let mutual love continue. Always show kindness to strangers,  
lest you entertain angels unawares” (Hebrews 13:1-2).

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## **Chapter I.**

### **Introduction**

Homelessness is an ever-expanding and multifaceted phenomenon that is reaching epidemic proportions in the United States. The United States (U.S.) Department of Housing and Urban Development (HUD) estimates that 1.56 million people per calendar year live without stable housing in America (Henry et al., 2015). There are myriad physical, mental, and emotional consequences of homelessness. A decreased sense of self-esteem, increased levels of depression, and increased levels of anxiety are outcomes of living on the streets (Diblasio & Belcher, 1993; North et al., 1998). Routine discrimination and shaming are thought to contribute to the loss of hope and self-worth which persons without stable housing experience (National Coalition for the Homeless, 2014). As such, determining which factors moderate the negative effects of discrimination upon the overall mental health (self-esteem, depression, anxiety) of persons who are homeless is warranted in the effort to promote resilience (Kidd & Shahar, 2008).

Spirituality is a multidimensional construct that correlates positively with a robust sense of resilience and overall wellbeing (Dierendonck, 2004; Zika & Chamberlain, 1992). Religiosity and spirituality often provide a framework for coping with adverse circumstances for both housed and unhoused persons (Hurlbut et al., 2011; Pargament, 2002). However, spiritual forms of coping with difficulty and discrimination may be more salient for the latter population due to its availability in settings where tangible resources such as meals and shelter are already provided (Gabbard, 2004). Persons without Homes and others may find that positive spiritual beliefs about their self-worth, calming spiritual activities like prayer, religiously-based social

support, and spiritual experiences to be a great comfort as they seek to survive austere settings (Brush & McGee; 2000; Gabbard, 2004; Rasmussen & Pidgeon, 2011).

Although spirituality provides numerous benefits, the extent to which it buffers the corrosive effects of discrimination upon the mental health of Persons without Homes remains unknown. It is also unclear if spirituality has a moderating effect across a range of health indices, including self-esteem, depression, and anxiety. Knowing if healthy spirituality is a significant factor that can moderate the adverse effects of discrimination upon the mental health of Persons without Homes is of critical importance for ethical, clinical, academic, civic, religious, and community leaders. As such, this study will seek to determine the extent to which spirituality moderates the association between discrimination and the mental health factors of depression, anxiety, and self-esteem among Persons without Homes.

## **Background of the Problem**

### ***Prevalence of Homelessness***

Homelessness is a complex socioeconomic condition that as of 2009 affected at least 1 of every 200 persons living in the U.S. (Khadduri et al., 2010). Although intentional programming and coordination of care among governmental and private entities has resulted in a slight overall decline in homelessness among veterans and other protected populations since that time, homelessness has continued to grow in urban areas (HUD, 2015). Multiple origins ranging from increasing rent to greater substance abuse and dependence, rejection of sexual identity by family members, a rise in the prevalence of Intimate Partner Violence (IPV) and Post Traumatic Stress Disorder (PTSD), lack of adequate transitional and vocational programming for formerly incarcerated individuals, and decreased community care for persons with disability and severely and persistently mental ill individuals has resulted in higher rates of homelessness in U.S. cities

(National Law Center on Homelessness & Poverty, 2015). All of the aforementioned risk factors can contribute to a loss of family and social support. It is thought that the loss of social connection and assistance is what leads to further socioeconomic and emotional decline for individuals with challenges and eventually to homelessness (Johnstone et al., 2015; Laudet et al., 2006).

### ***Homelessness and Discrimination***

The existing physical and mental health challenges that Persons without Homes face are magnified by the discrimination and dehumanization they endure daily on the streets (Corrigan et al., 2003; Krieger, 1999; Williams, 1999; Williams et al., 2003). Discrimination ranges from housed persons averting their gaze from persons without homes to avoid discomfort regarding economic disparity to actively moving away from Persons without Homes in shared public spaces due to ignorance about the actual threat that mental health or other co-occurring issues may pose to their well-being according to the National Coalition for the Homeless (NCH, 2014). Verbal taunts and refusal of emergency services are also commonly experienced by Persons without Homes who are “stemming” or begging for funds in shared civic spaces such as the library, sidewalks, and transportation hubs (NCH, 2014). Even resting in a shared civic space has become illegal for Persons without Homes, as a number of states have passed ordinances against “loitering” according to a report by the National Law Center on Homelessness and Poverty (Bauman et al., 2014).

Discrimination against Persons without Homes also takes on physical form in urban settings via the abuse that occurs in both shelter and street settings (Lee & Schreck, 2005). One particularly disturbing trend of discrimination consists of the physical abuse and torture of Persons without Homes by those who are housed (O’Keefe, 2010). This extreme form of

discrimination consists of verbally berating, physically beating, urinating on, or setting Persons without Homes on fire (O'Keefe, 2010). These egregious forms of abuse and discrimination are thought to be a result of the general dehumanization and stigmatizing "othering" of Persons without Homes in a capitalist society that prizes meritocracy above circumstance (O'Keefe, 2010; Phelan et al., 1997). Meeting basic needs for shelter and sustenance on a daily basis while shouldering the psychological burden of constantly having to fear for one's physical safety and emotional well-being is exhausting for Persons without Homes and puts them at greater risk for the development of depression, anxiety, schizophrenia, PTSD, and substance abuse and dependence (O'Connell, 2004).

Researchers have consistently found that discrimination adversely affects Persons without Homes (Corrigan et al., 2003; O'Keefe, 2010). A recent quantitative survey in Washington D.C. found that over 90% of respondents felt discriminated against because they were homeless (NCH, 2014). In contrast to the aforementioned study, most of the research that has been done on discrimination and related negative health outcomes among Persons without Homes has been qualitative in nature. Thus, it is unclear exactly how many Persons without Homes are affected by discrimination. The dearth of data concerning the prevalence and nature of the relationship between mental health and discrimination against Persons without Homes thwarts clinical, academic, and community-based efforts to alleviate the effects of homelessness. It also silences the voices of persons experiencing homelessness. The current study will address these concerns by utilizing quantitative methods and a large number of participants who will give direct feedback on their varied experiences.

### ***Homelessness and the Mental Health of Persons without Homes***

The negative health outcomes experienced by Persons without Homes are not limited to physical conditions and affect conceptions of the self (Meanwell, 2012; O'Connell, 2004). For instance, the social exclusion that Persons without Homes routinely experience erodes their sense of self and belief in their ability to effect change (Johnstone et al., 2015). Social scientists note that the stigmatizing attitudes of housed persons and related discriminatory behavior contributes to lower levels of self-esteem and self-efficacy among Persons without Homes (Harris & Fiske, 2006). The degradation of self-esteem among Persons without Homes due to discrimination is even more pernicious than it is for other oppressed communities because positive identification with the group as a whole is internally and externally discouraged. More precisely, Persons without Homes often internalize the discrimination they endure and judge themselves as harshly as society does (Johnstone et al., 2015).

Depression is an additional mental health concern associated with the experience of homelessness. Robertson (1992) found that between 47-75% of the homeless community surveyed was dealing with depression. The lack of tangible and health-related resources available to Persons without Homes in urban areas adds to the psychological burden of hopelessness that depression already presents. In addition, the loss of physical and emotional safety forces Persons without Homes to continuously expend enormous amounts of energy to rework their identity and their view of the world (Meanwell, 2012).

The extra effort and vigilance required to survive in a consistently dangerous environment also contributes to the elevated prevalence of anxiety disorders seen among Persons without Homes. Moreover, marginalized subsets of the homeless population experience greater levels of anxiety than both their housed and unhoused peers. Veterans, persons who are aging, and persons with chronic illnesses such as AIDS are particularly vulnerable to the amplification

of psychological stress that living on the street already entails (DeAngelis, 2013; Milloy et al., 2012; O'Connell et al., 2004). Furthermore, the social isolation caused by discrimination acts as a catalyst for the development of maladaptive anxiety because it prevents Persons without Homes from pursuing usual avenues of social support to cope with everyday difficulties (Leary, 1990). In summary, the presence of discrimination adversely affects the overall mental health (self-esteem, depression, anxiety) of Persons without Homes.

### **Minority Stress Model and Mental Health**

The Minority Stress Model (MSM) provides a possible explanation for how discrimination might relate to the increased incidence of negative physical and emotional health outcomes seen among Persons without Homes, especially when compared to their housed peers (Meyer, 2003; Meyer, 1995). Members of marginalized groups in society routinely experience more social exclusion than those in majority or dominant positions. This leads to a denial of self, the build-up of anxiety, and increasing social isolation over time. It is unclear if the same dynamic might also be at play between housed and unhoused persons as the latter endure daily discrimination. Very few studies have explored the connection between discrimination and health outcomes among Persons without Homes using the MSM. Thus, more research examining discrimination and its moderators in the homeless community is warranted.

### **Use of the Concepts of Religiosity and Spirituality**

Spirituality and religiosity are systems of belief and practice that can be useful to populations, including Persons without Homes, who are seeking to make meaning of suffering, discrimination, and milestones in their lives (Dinsmore, 2007; Pargament, 2002). However, the use of the term religion or religiosity and spiritual or spirituality have changed dramatically over the last 50 years. Specifically, spirituality has grown in popularity and usage, while religion has

become somewhat reified and stagnant. For instance, most people surveyed by Koenig, McCullough et al. (2001) felt that spirituality was a broader, more emotionally freeing, and porous construct than religiosity. Mahoney and Graci (1999) found, that religiosity was seen as a largely formal, emotionless, and institutionalized concept. Hill and Pargament (2003) observe the increasing polarization of the terms with caution. They note that it could lead to unnecessary duplication of assessments and measures. Hill and Pargament (2003) also stress that for most people, spirituality finds its original and lasting expression in religious contexts and social settings. The measured opinion of researchers in the field of Psychology of Religion and Spirituality and the more inclusive valence of latter motivates the use of the term, spirituality, to describe both spiritual and religious aspects of belief, behavior, belonging, and experience in the current study with Persons without Homes.

### ***Spiritual Coping among Persons without Homes***

Spiritual resources have been shown to help people cope positively with illness, anxiety, and a lack of community (Burkhart & Hogan, 2008; Koenig, George, Blazer, et al., 1993). As such, it is not surprising that spiritually based coping contributes to overall wellbeing among Persons without Homes (Nixon, 2013). Religious traditions enlivened by healthy spiritual beliefs, behaviors, experiences, and sense of belonging have a particular salience among the homeless community. This dynamic exists for a number of reasons. First, spiritual systems of meaning have been utilized by persons throughout time to resist unjust prejudice and discrimination (King Jr., 1963). Second, spirituality provides a way for Persons without Homes adults to transcend their current circumstances as well as offer a safe space for them to make meaning of the actual and existential suffering they endure on a daily basis (Dinsmore, 2007). Third, spiritual belief systems provide a method that Persons without Homes can use to

reconstruct newer and more positive identities than the ones offered to them by society at large (Dinsmore, 2007; Nixon, 2013). Indeed, individuals who cope in adaptive ways use sacred texts to define themselves and navigate adverse circumstances in a resilient manner (Kiesling et al., 2006; Pargament, 2002). The structure that healthy spiritual beliefs provide enables Persons without Homes to maintain a sense of hope and gives substance to self-esteem. Fourth, spirituality and related religious expression can have a strong positive effect on mental health during difficult times (Runquist & Reed, 2007). Spiritual activities can foster adaptive behaviors that sustain Persons without Homes (Fitzpatrick et al., 2013). Thus, healthy spirituality could have a significant effect on the mental health of Persons without Homes that are dealing with discrimination. In particular, spiritual (beliefs, behaviors, sense of belonging, and experiences) may moderate the relationship between discrimination and the mental health (self-esteem, depression, and anxiety) of Persons without Homes.

#### **Covariates of Mental Health among Persons without Homes: Health Status, Education Level, Ability Status, and Substance Use**

Health status, education level, ability status, and substance use are covariates or factors that often vary with and are predictive of the mental health (self-esteem, depression, anxiety) of Persons without Homes. For instance, discrimination has been shown to relate in a negative way with health status (Krieger, 2014). Discrimination also correlates with depression among both Domiciled Persons and Persons without Homes who are living with a disability (Hackett et al., 2020; Mejia-Lancheros et al., 2020). Education level, substance use, and housing instability are associated with adverse mental health outcomes in a significant manner as well (Brown & McCann, 2020). These and other findings from the literature indicate that covariates must be

taken into account when considering the unique relationship between discrimination and the mental health of Persons without Homes.

### **Statement of the Problem**

Although spirituality has been shown to help Persons without Homes cope in extreme environments, the role of spirituality in buffering the effects of discrimination upon the mental health of Persons without Homes remains unknown. This constitutes a significant gap in the knowledge in the field. In particular, it is unclear whether spiritual beliefs about the positive worth and dignity of each person, calming spiritual behaviors such as meditation, prayer, a sense of belonging in religious and spiritual communities, and spiritual experiences buffer the detrimental effects of discrimination upon the self-esteem, depression, and anxiety of homeless persons. Elucidating the role of spirituality as a buffer to the negative effects of discrimination upon the mental health of Persons without Homes, while controlling for health status, education level, ability status, and substance abuse, represents a unique contribution to the literature.

### **Purpose of the Study**

The purpose of the proposed quantitative study is to contribute in a substantive way to the literature about the nature of the relationships between the independent variables of discrimination, spirituality (spiritual beliefs, private spiritual behaviors, public spiritual behaviors, spiritual social support, and daily spiritual experiences) and the dependent variables of self-esteem, depression, and anxiety among Persons without Homes, while controlling for health status, education level, ability status, and substance use. Further, the study seeks to determine the degree to which spirituality acts as a buffer to the negative effects of discrimination upon the mental health of Persons without Homes.

### **Significance of the Study**

There is an ethical and clinical imperative to identify factors that can attenuate the deleterious impact of discrimination upon the mental health of Persons without Homes. Knowing more about accessible individual and communal techniques and methods that can effectively buffer the negative impact of discrimination is crucial to addressing the undesirable mental health sequela that occurs among Persons without Homes due to the routine abuse and discrimination they experience on the streets (Paradis et al., 2008). Determining exactly which factors attenuate the adverse effects of discrimination can help boost mood and preserve self-esteem among Persons without Homes. This is important to clinicians as the latter two factors correlate positively with resilience via the mind-body connection (Kidd & Shahar, 2008). In addition, answering the aforementioned questions with new data will fill the existing gap in the literature concerning homelessness and discrimination.

Furthermore, research designed to assist persons in the homeless community who are enduring discrimination is critical to the development of appropriate evidence-based practices and responsive public policy. Knowing the degree to which the independent variables of spirituality and discrimination moderate the self-esteem, depression, and anxiety of Persons without Homes will enable clinicians, researchers, civic leaders, and spiritual institutions to better meet the needs of members of the unhoused community who are experiencing discrimination on a daily basis. It will also amplify the voices of Persons Experiencing Homelessness and encourage the efficacious use of community resources in accordance with principles of social justice and consumer input.

## Chapter II.

Homelessness is an emotionally costly and complex societal phenomenon that is on the rise in urban centers in the U.S. Curiously, Persons without H are not only marginalized within society itself but also marginalized within academia. Specifically, there is a paucity of rigorous quantitative studies that address the needs of Persons without Homes in the literature. The studies that do focus on Persons without Homes are rarely peer-reviewed and are often conducted on a small scale (Gabbard, 2004). Moreover, research exploring the existence of widespread discrimination against members of the homeless community often highlights the perspective of Persons with Homes rather than Persons without Homes. In particular, stigmatized thought is often addressed while its deleterious impact on the mental health of Persons without Homes is left unexplored. Evidence of the latter point may be found in the fact that as of today there are no known quantitative measures of discrimination against Persons without Homes that exist in the psychological literature despite annual reports by legal centers noting the extent to which Persons without Homes are routinely and violently victimized (NLCHP, 2014).

The dearth of research on the experience of discrimination and its adverse effect on the mental health of Persons without Homes motivates the current study. In particular, the current quantitative study aims to document the prevalence of discrimination perpetrated against Persons without Homes and its effect on their mental health. The MSM will also be reviewed as a theoretical pathway for how discrimination effects negative mental health outcomes among members of the homeless community. Furthermore, the current study is designed to determine if a particular factor (spirituality) moderates the relationship between discrimination and self-esteem, depression, and anxiety among Persons without Homes. Spirituality, operationalized as

beliefs, behaviors, belonging, and experiences, was chosen as the primary moderating factor of interest for this study due to its prominence in religious settings where services for Persons without Homes are most often accessed in the U.S. (Murphy, 2018). Spirituality was also selected due to its significance in the psychological literature on coping in adverse circumstances and for its cultural import among Persons without Homes (Dinsmore, 2007; Nixon, 2013; Pargament, 2002; Rennebohm, 2008.)

### **Prevalence and Definition of Homelessness**

Dynamic definitions of what constitutes homelessness shape understanding of the phenomenon and its reported prevalence (Lee et al., 2010). For instance, the U.S. Department of Housing and Urban Development (HUD) characterizes a person who is homeless as someone who is without adequate and stable housing at night. The HUD (2009) definition of homelessness includes persons and families staying in governmental or private shelters. Governmental sources (HUD) estimate that approximately 549,928 persons experience homelessness on a nightly basis in the United States of America (2016). The way that HUD classifies homelessness could be expanded however because it doesn't account for persons in undocumented transitional housing and those who are at immediate risk for homelessness including: survivors of intimate partner violence, formerly incarcerated and hospitalized persons, refugees, immigrants, and veterans who have no home to return to upon completion of service.

The overall prevalence of homelessness increases when more inclusive definitions of homelessness are used in addition to government systems of classification. For instance, the National Law Center on Homelessness and Poverty (NLCHP) found that “2.5 to 3.5 million Americans sleep in shelters, transitional housing, and public spaces not meant for human habitation” annually (2015, p. 1). Moreover, in 2014 approximately 7 million people were

staying temporarily with friends or extended family members to avoid homelessness (Homeless Research Institute, 2016). An example of the aforementioned phenomenon is “couch surfing” and it is a frequent experience for women fleeing intimate partner violence (Tutty et al., 2013). The National Health Care for the Homeless Council (NHCHC) (2016) builds upon the previously offered definitions of homelessness stating “A homeless person is an individual without permanent housing who may live on the streets; stay in a shelter, mission, single room occupancy facilities, abandoned building or vehicle; or in any other unstable or non-permanent situation”(Section 330 of the Public Health Service Act, 42 U.S.C., 254b, 2016).

In summary, it appears that broader definitions of homelessness provide for greater accuracy in accounting for the true number of persons living without stable housing in the U.S. Thus, the definition of homelessness that will be used for the current study will contain aspects of the all of definitions offered previously. It will also be expanded slightly to include persons who were formerly homeless at any time in the last 3 calendar years. The latter criteria are offered as transition into private, state or federally supported housing is not immediate or permanent (Lee et al., 2010). It should also be noted that Persons without Homes have expressed the desire to be known as people and not merely defined by the sum of their housing status. As such, this author wishes to recognize homelessness as an experience and not an identity.

### **Definition and Discussion of Discrimination**

Discrimination can be defined as “intolerant behavior to those who are perceived to be different, including harassment that stems from bias and emotional responses such as fear and hate” (Milburn et al., 2006, p.658). Discrimination has also been described by Milburn et al. (2006) as “a multidimensional process that includes the source (e.g., police) of the discrimination or actor who engages in the intolerant behavior and the social status (e.g., race/ ethnicity) that is

the target of the discrimination or triggers the intolerant behavioral response" (p. 2). This study will combine aspects of the two aforementioned quotations to define homeless related discrimination as: the perception of intolerant, judgmental, fearful, aggressive, or avoidant behavior by housed persons towards Persons without Homes based upon the latter groups assumed socio-economic and housing status.

Despite the magnitude of the epidemic of homelessness in America, there remains a paucity of research addressing the experiences of Persons without Homes in the U.S. with respect to discrimination. A literature review using an electronic database revealed that much of the existing research concerning homelessness addresses the needs of young Persons without Homes. Although youth are an important population to examine, they may be overrepresented when compared to adults without housing in the literature because they are more likely to have had recent contact with structured systems, like schools, that recognize they are in need (Kidd & Shahar, 2008). The current study will address the aforementioned gap in the literature by focusing on the relationship between discrimination and the mental health of Adults without Homes.

The research that does exist concerning discrimination and the mental health of Persons without Homes has rarely been peer-reviewed. More precisely, most research on Persons without Homes is found in dissertation databases and institutional reports prepared by advocacy centers or government agencies (Gabbard, 2004; Meanwell, 2012). Moreover, the studies that are peer-reviewed are often very limited in sample size because their authors employed a qualitative methodology. Quantitative methods are often difficult with the unhoused population as obtaining the trust of hundreds of potential participants requires the formation of authentic relationships over time (O'Connell, 2015). Specifically, the dearth of large-scale quantitative

studies in the field concerning everyday discrimination against Persons without Homes may relate to the fact that it is often challenging for researchers to obtain access to the homeless community. Persons without homes do not readily lend their trust to housed persons. It is thought that the exceptional ability of Persons without Homes to accurately judge the motives of others is part of the repertoire of "street smarts" they must develop in order to survive (Boster et al., 2016). The current study will employ a quantitative methodology to address these concerns.

Much of the existing research regarding discrimination and Persons without Homes examines the concept of stigma. Stigmatizing attitudes towards Persons without Homes include the perception that they are: lazy, bums, "playing" people to get money for substances, dirty, and mentally ill (Johnstone et al., 2015; Rayburn & Guittar, 2013; Schneider & Remillard, 2013, p. 103). Worse yet, Persons without Homes are often viewed as less than human and "derelicts to be eliminated or contained"(Belcher & DeForge, 2012, p. 931; Harris & Fiske, 2006). As such, studying stigma against "the homeless" is important to changing negative societal attitudes about Persons without Homes. Understanding stigma is also critical because it is viewed as the cognitive precursor to discriminatory behavior (Link & Phalen, 2001). Learning what motivates discriminatory behavior and how to dismantle it is crucial to the self-esteem and self-efficacy of oppressed persons (Freire, 1968/1990). The current study intends to build upon previous research by examining the relationship between discrimination and mental health among Persons without Homes, a marginalized population who's lived experience is often overlooked (Meanwell, 2012). Specifically, the current study will lift up the perspective of Persons without Homes and explore what moderates the relationship between discrimination and mental health.

Although some studies examine how discrimination adversely affects Persons without Homes, there is still no known normed measure of discrimination against the homeless that

exists to date (Corrigan et al., 2003; O'Keefe, 2010). As such, it is unclear exactly how many Persons without Homes endure discriminatory behavior on a daily basis. As noted, the majority of the studies in the field concerning discrimination among Persons without Homes have utilized a qualitative approach. While a qualitative approach enables researchers to describe a phenomenon in detail, it does not involve large sample sizes that can be used to predict significant relationships between variables. However, a recent survey found that almost 93% of Persons without Homes in Washington, D.C. felt that they had been discriminated against (NCH, 2014). As mentioned previously, the lack of research exploring the rates of discrimination against the homeless is an issue that the current study will address by using a quantitative method.

### **Discrimination and the Minority Stress Model**

Meyer's (2003) Minority Stress Model (MSM) builds upon the principles of Social Exclusion Theory (SET). Like SET, the MSM contends that social exclusion relates to negative mental health outcomes. However, the MSM is unique in that it explores how particular aspects of identity affect social exclusion practices and thereby negative health outcomes among persons who are oppressed (Dentato, 2012). The MSM explains how stigmatizing beliefs and discriminatory behaviors by members of majority populations lead to difficult social situations that cause elevated levels of daily and chronic stress among minority populations (Meyer, 2003). Prejudice-based stress is thought to have a complicated and cumulative negative effect on the mental and physical health of persons who experience discrimination.

Discrimination, prejudice, and exclusion that occur outside of the minority individual are called distal stressors in the MSM (Meyer, 2007). These external distal stress processes are then thought to act as catalysts for proximal stress processes that occur within the individual (Meyer,

2007). Proximal stress processes result in extra vigilance and anxiety regarding one's minority status. This in turn often leads to concealment of one's true identity for protective purposes (Bruce et al., 2014; Meyer, 2003). Hiding one's true identity and ruminating upon prior experiences of social exclusion based upon discrimination can lead to a sense of hopelessness and overall shame (Hatzenbuehler et al., 2009). It can also motivate minority persons to avoid identifying with other members of their specific population. This leads to further social isolation and stress as social support networks are short-circuited by external and internalized prejudice. Thus, from an MSM perspective, exposure to both distal and proximal stressors can adversely impact the mental and physical health of minority populations.

The MSM has been applied to study discrimination and health across myriad specific populations (Bennett et al., 2005; Wei et al., 2008). Few studies to date, however, have utilized the MSM to explore the effect of discrimination upon the health of unhoused populations (Botha & Frost, 2020; Douglas et al., 2014). As such, research inspired by the MSM that explores factors that moderate the relationship between discrimination and the mental health of Persons without Homes is warranted.

### **Mental Health Outcomes of Note among Persons Without Homes**

Persons without Homes are acutely aware of the stigma that housed persons have toward them (Dinsmore, 2007; Murphy, 2018; National Coalition for the Homeless, 2014). Moreover, unhoused persons understand intimately how stigmatized beliefs translate into discriminatory behavior. For instance, a recent report included the following sentiment, "One individual explained that being homeless made you feel 'disconnected from the world... people walk by you and not make eye contact with you'" (National Coalition for the Homeless, 2014, p. 3). It is thought that the type of social exclusion that Persons without Homes experience corrodes self-

esteem and contributes to the development of depression and anxiety by acting as a stressor (Krieger, 1999; Meyer, 1995). Indeed, researchers note, "Pervasive discrimination experienced by people who are homeless, particularly discrimination based on access to accommodation and goods and services, contributes to the high rates of poor health" (Phelan et al., 1997; Lynch and Staggoll, 2002).

Researchers studying discrimination against the homeless community have consistently found that it adversely impacts the wellbeing of Persons without Homes (Williams, 1999; Williams et al., 2003). Specifically, discrimination contributes to a multitude of negative emotional and physical health outcomes among Persons without Homes (Corrigan et al., 2003; O'Keefe, 2010). Persons without Homes who endure discrimination on a routine basis exhibit lower levels of self-esteem, have a greater incidence of depression, and experience more anxiety than their housed peers (Diblasio & Belcher, 1993; North et al., 1998). Preserving self-esteem is key as it has "emerged as a key protective factor" for the trajectories and resilience of Unhoused Youths (Kidd & Shahar, 2008, p. 163).

The emotional, social, medical, and civic costs of homelessness divest individuals, families, and communities of valuable resources (O'Connell, 2004). Persons experiencing homelessness have over twice the average rate of severe mental illness as their housed peers (Lebrun-Harris et al., 2012). Indeed, a study of Persons without Homes in three urban areas of varying size indicated 92.8% of participants met criteria for a current mental disorder (Krausz et al., 2013, p. 1235). Krausz et al. (2013) go on to note that 82.6% of participants were living with alcohol or drug dependence, while 57.3% had an anxiety disorder and 31.5% were dealing with a mood disorder (p. 1235). In addition, over half of the participants, 53.4%, met criteria for a concurrent disorder (Krausz et al., 2013, p. 1235). Persons without Homes also have an average

life expectancy of 41 years old, which is roughly half the average life expectancy of Domiciled Persons (Morrison, 2009).

### **Definition and Discussion of Self-Esteem**

Self-Esteem has been most often defined as a person's positive or negative appraisal of the self in the context of community (Rosenberg, 1965). Hewitt (2002) expanded upon this concept, describing self-esteem as a social construct that is responsive to norms established by the self, friends, family, and social group. Thus, self-esteem may depend on social influence and in-group, out-group dynamics. Lecomte et al. (2006) further postulate "self-esteem is neither a static trait nor a transient state but rather a self-concept that can fluctuate with social feedback and self-evaluations" (p. 100). Lecomte et al. (2006) continues "As such, self-esteem develops and is at times maintained stable-through the critical evaluation an individual has of his/her reaction to difficult or stressful life events, which is then internalized as a personal characteristic as well as from external feedback" (p. 100). Although some researchers have conceptualized self-esteem as a dynamic and state-based concept, it will be operationalized in the current study as a global trait-based phenomenon consistent with Rosenberg's (1965) Self-Esteem Theory.

Sociologists use the Social Exclusion Theory (SET) to explain how persons, like members of the homeless community, who experience routine social exclusion develop negative mental health outcomes such as depression, anxiety, and low self-esteem (Leary, 1990). More precisely, proponents of the social exclusion theory posit that people are inherently built to belong (Baumeister et al., 1995). Thus, avoiding exclusion from important social groups is a primary motivator of all human behavior for evolutionary, emotional, and cognitive purposes (Leary, 1990). The majority of social interactions are an effort to improve inclusionary status

according to the SET. Thus, being "othered" due to factors outside of one's control leads to real distress and a loss of self-esteem among Persons without Homes.

The shaming which Persons without Homes experience everyday compounds the aforementioned mental health concerns and leads to further isolation and a loss of hope (Meanwell, 2012; O'Connell, 2004). This dynamic contributes to the development of co-occurring conditions as social exclusion and dehumanization already degrade the self-esteem of Persons without Homes (Harris & Fiske, 2006). Moreover, the absence of community and belief in one's agency is even more destructive for Persons without Homes than members of other under-represented populations because the former do not enjoy the benefit of group self-esteem and pride (i.e. Black Power, LGBTQ Pride, Feminist Identity, Dis/ability Pride) that serves a protective function for the latter groups (Johnstone et al., 2015). In light of the current literature, discovering the exact nature of the relationship between discrimination and the self-esteem of Persons without Homes is an important aim of ongoing research.

### **Definition and Discussion of Depression**

Cognitive behavioral perspectives hold that depression arises from a lack of integrity in a person's operative schemas when compared with reality. Specifically, Beck (1967) defined depression as a form of cognition and mood characterized by negative views about oneself, the world, and the future. Therefore, for the purposes of this study depression will be examined using Beck's perspective. The psychosocial losses and trauma that accompany being homeless add to the hopelessness that characterizes one-third of Beck's cognitive triad of depression (1976). More precisely, Beck hypothesizes that environmental stimuli can trigger negative automatic thoughts, negative schemas about the world, negative core beliefs about the self, and errors in judgment. The combination of these factors in environmentally vulnerable persons then

fosters more depressive and addictive behaviors, thoughts, and moods that continue in a downward spiral (Diblasio & Belcher, 1993). These processes are compounded by discrimination. Discrimination adds to the degradation of mental health among Persons without Homes by: increasing hopelessness, encouraging cognitive misattribution of who is responsible for the unjust social structures that currently exist, and by falsely suggesting that the nature of the world is inherently negative and will never change.

The loss of social-support and safe spaces (both literal and figurative) comes at a great emotional cost to Persons without Homes (Goodman et al., 1991). Persons without Homes have to put forth great effort each day to generate hope and retain a coherent sense of identity in the face of harassment by business owners, civic authorities, and strangers (Meanwell, 2012; National Coalition for the Homeless, 2014). Thus, it is not surprising that researchers and clinicians have identified depression as an additional negative health outcome related to discrimination based upon one's housing status. Estimates of the prevalence of depression among Persons without Homes range from almost 50% to 75% of all survey participants (Robertson, 1992). Understanding more about the relationship between discrimination and depression is a key aspect of addressing disparities in mental health between housed and unhoused persons.

### **Definition and Discussion of Anxiety**

Anxiety is commonly understood as a heightened state of worry, apprehension, and nervousness. More precisely, it has been defined as a spontaneous or triggered response to physical, emotional, or a cognitive stimulus that is characterized by fear, elevated concern, or disquieting apprehension (Beidel et al., 2000, p. 212). There are three facets of disordered anxiety. The first facet is an elevated somatic or a bodily-based response to stimuli. Physical

indications of anxiety may include: sweating, rapid heartbeat, tingling, numbness, shortness of breath, chest pain, trembling, light headedness, gastrointestinal upset, and rapid fluctuations in body temperature (Beidel et al., 2000). Cognitive distress comprises the second facet of disordered anxiety. Symptoms of elevated cognitive distress in response to stimuli include intrusive thoughts, concerns, or images (Beidel et al., 2000). Distressing cognition may be in flashback format, catastrophic and fear-based, or compulsive in nature. The third facet of anxiety disorders is behavioral in nature and consists primarily of avoidance (Beidel et al., 2000). Avoidance of somatic or cognitive distress may take the form of actual attempts to escape from stimuli or the enacting of repetitive rituals designed to calm the person down. Variations of all three components may be present in specific types of anxiety disorders to include: phobias, Post-Traumatic Stress Disorder (PTSD), Obsessive Compulsive Disorder (OCD), and Generalized Anxiety Disorder (GAD), among others. For the purposes of the current study, anxiety will be operationalized as an adverse physical and cognitive response to negative stimuli.

There is an increased incidence of anxiety-based disorders, including PTSD, among Persons without Homes when compared to their housed peers (Krausz et al., 2013; North & Smith, 1992). A recent study with five-hundred participants found that over 57% of Persons without Homes had a diagnosable anxiety disorder (Krausz et al., 2013). The elevated prevalence of anxiety disorders in the Unhoused Community may be related to the fact that living outdoors is very stressful from a physical and emotional standpoint. Moreover, specific populations within the homeless community may be more at risk for developing an anxiety disorder than others. For instance, persons with chronic illnesses, veterans, and the aging are more likely than other Persons without Homes to suffer from the magnification of existing stress due to their unique concerns (DeAngelis, 2013; Milloy et al., 2012; O'Connell et al., 2004). The

discrimination that these community members face due to being homeless adds to their sense of loneliness and hampers their efforts to access assistance and social support (Leary, 1990).

Ascertaining the relationship between discrimination and anxiety could be particularly helpful to clinicians looking to assist specific populations as well as the entire community of Persons without Homes (Sun, 2012).

In summary, discrimination against Persons without Homes can affect mental health outcomes via a number of routes. According to the MSM, discrimination leads to uncomfortable social situations that in turn result in increased levels of immediate and long-term stress among Persons without Homes. The cumulative effect of the stressors coming from outside Persons without Homes then act as a catalyst for internal stressors within Persons without Homes, which results in a host of negative health outcomes. Alternatively, the SET posits that frustration of the basic need for attachment leads to negative affective states in persons who are marginalized. Leary (1990) found that anxiety increases when persons perceive that their inclusionary status in key social networks is less than that which they thought was necessary. This is certainly true for Persons without Homes. Furthermore, reflection upon social rejection leads to loneliness and low self-esteem. Depression can then arise from ruminating upon one's less than desired status among important social groups such as family and society (Leary, 1990). According to the principle of equifinality, discrimination can lead to negative health outcomes and decreased quality of life among Persons without Homes via multiple pathways.

### **Definition and Discussion of Spirituality**

The meaning of the word spirituality has evolved over time. Principe (1983) notes that the original use of it is found in the New Testament-Letters of St. Paul where it appears as "pneuma or spiritus" (p. 130). Its counterpart in the Old Testament or Hebrew Bible is "ruach"

which translates to wind or breath. Thus, the spirit is seen in the Judeo-Christian tradition as the life-giving breath of God indwelling in every being. As such, being spiritual originally meant to be “guided by the ‘Spirit of God’ in inner life or personal piety” (Principe, 1983, p. 130).

Schneiders (1990) notes that the term "spiritual" grew from describing an “interior life” to connoting the "life of the person as a whole, including its bodily, psychological, social, and political dimensions” (p. 18). As such, Schneiders defines spirituality as a “conscious striving to integrate one’s life in terms not of isolation and self-absorption but of progressive self-transcendence toward the ultimate value one perceives” (1990, p. 23). Principe (1983) concurs and proposed a universal conception of spirituality inspired by Swiss theologian Hans Urs von Balthasar. Principe defines spirituality as “the way in which a person understands and lives within his or her historical context that aspect of his or her religion, philosophy or ethic that is viewed as the loftiest, the noblest, the most calculated to lead to the fullness of the ideal or perfection [completeness] being sought” (1983, p. 136).

Clinicians and theologians reflect "on one hand, it [spirituality] may mean an inner quality that facilitates connectedness with the self, other people, and nature—a relative quality that each person defines uniquely. On the other hand, the traditional definition involves one’s acknowledgement of and relationship with a Supreme Being” (Musgrave et al., 2002, p. 557). Indeed, the term spiritual currently describes, “the process through which people discover, conserve, and rediscover the sacred” (Pargament, 2002, p.169) or that which one considers worthy of veneration and respect (Pargament & Mahoney, 2002). As such, spirituality can be characterized as “a basic or inherent quality in all humans that involves a belief in something greater than the self and a faith that positively affirms life” (Musgrave et al., 2002, p. 557).

Spirituality has been described in more relational terms as a diverse and dynamic force that can be experienced by individuals as well as persons in communal settings (Hinterkopf, 2005). While spirituality has been understood as “an overarching construct, (that) refers more generally to (personal) transcendent beliefs and practices” (Walsh, 1999, p. 6), it also has been seen by therapists as “a commitment to choose, as the primary context for understanding and acting, one’s relatedness with all that is...It places relationships at the center of awareness, whether they be interpersonal relationships with the world or other people, or intrapersonal relationships with God or other nonmaterial beings” (Griffith & Griffith, 2002, p. 16). In summary, it would seem that spirituality is an experiential manner of relating to that which is transcendent and not fully known and where the “whole is greater than the sum of its parts” (Sue et al., 1999, p. 1065).

Schneiders (1990) notes that although spirituality seems “fluid” and ambiguous, it can no longer be regarded by the institutional church and the Academy as an inconsequential construct (p. 15). For better or worse, it functions in an anthropologically significant way for persons and groups to make meaning, be connected, define the sacred, and find continuity in life (Pargament, 2002). Indeed, William James, the secular founder of American Psychology defined religion at the turn of the century as “the feelings, acts, and experiences of individual...so far as they apprehend themselves to stand in relation to whatever they may consider the divine” (1902/1985, p. 31). Accordingly, for the purposes of the current study, spirituality will be defined as a dynamic cognitive and affective, behavioral, relational, social, transcendent and mundane experiential phenomenon that can be characterized by and operationalized as spiritual: beliefs, behaviors, sense of belonging, and experiences.

## **Spirituality as a Potential Moderator of the Relationship between Discrimination and Mental Health among Persons without Homes**

Spirituality is a complex construct that is positively associated with overall wellbeing and the ability to function successfully in austere environments (Dierendonck, 2004; Hook, 2013; Peres et al., 2007; Zika & Chamberlain, 1992). This finding may be related to the fact that religiosity and spirituality provide a way for persons to cope and make meaning in challenging circumstances (Chamberlin & Zika, 1992; Hurlbut et al., 2011; Pargament, 2002). For instance, spiritual practices such as meditation and prayer have consistently been found to be helpful coping resources for persons who are anxious or acutely ill (Koenig, George, & Peterson, 1998). Spiritual practices have also been employed by religious leaders and more recently by clinicians to promote healing among persons dealing with trauma (Peres et al., 2007). In addition, having a sense of spiritual connection to the divine and others has been shown to promote abstinence from alcohol and decrease the isolation that often accompanies depression (Laudet et al., 2006). Thus, spiritually-based beliefs, private and public behaviors, sense of belonging, and experiences may explain why persons who identify as religious and spiritual exhibit healthier behaviors and possess a greater sense of hope even when facing grave challenges, including terminal illnesses, than those who do not (Larson & Larson, 2003).

Determining which factors moderate the negative association between discrimination and the overall mental health (self-esteem, depression, anxiety) of Persons without Homes is warranted in the effort to promote resilience (Kidd & Shahar, 2008). Although spiritual forms of coping with difficulty and discrimination can benefit Domiciled Persons and Persons without Homes, it may be accessed more often by the latter population due to its prominence in settings that serve the Unhoused Community to include food pantries, soup kitchens, and shelters run by

religious groups (Gabbard, 2004; Hurlbut et al., 2011). Spiritual settings often offer both practical and more esoteric resources that support self-esteem and affect among Persons without Homes. A Recently Housed Mother stays connected with the church community that sustained her physically and spiritually by cooking meals for currently Unhoused Community Members each week. An example of the emotionally sustaining function of spirituality in her life may be seen the following poem she composed. Cocchi (2021) states:

I am helping people that need it...I wish there were more I could do for the homeless.  
 [So] I wrote a prayer for the homeless...Dear God, please put your hand on the homeless  
 and keep them warm and safe. Could you please give them a place to live so they don't  
 have to be in this bad world that we are in? We are all your children. Please help us.  
 Amen. (p. 10)

Although indoor and outdoor churches (religious and spiritual communities designed for Persons without Homes) offer food and basic supplies like socks and hand warmers, it has been suggested that it is the spiritually based communal activities that truly empower attendees. It is thought that the social support offered in spiritual settings inspires Persons without Homes to persist despite the hardships and discrimination they face on the streets every day (Connor et al., 1999; Irwin et al., 2008). In particular, the "sacred" space that spiritual experiences and communities provide enables Persons without Homes to experience acceptance and a form of social support that can elevate their affect (Irwin et al., 2008). An example of how community-based spiritual activities positively affects Persons without Homes may be found in the following reflection by a Poet without a Home who is part of a church-based Unhoused Writers' group. [They] write:

Today I woke up in a homeless shelter. No family, no [partner], no dogs, or cats. Sad. But I did start the day with an AA meeting, so the day started right. Yesterday, I felt isolated. Now I know why. My oldest [child's] birthday is [date]. [They've] been deceased for over [XX] years. I joined a ministry at [church name] to help deal with the pain... We all understand each other. (Author Redacted for Privacy, "My Own Words", The Pilgrim, May 24, 2016)

Persons without Homes may find that positive spiritual beliefs about their self-worth, calming spiritual activities like prayer, and spiritual experiences to be a great comfort as they seek to survive challenging settings (Brush & McGee; 2000; Gabbard, 2004; Rasmussen & Pidgeon, 2011). For instance, learning about encouraging spiritual beliefs concerning the dignity of every human being, relational spiritual behaviors like coming together to worship and hear sermons on equality, spiritual experiences like singing protest songs and praying for peace, and feeling connected to others in sacred spaces who share the same sentiments are all positive forms of resistance that Persons without Homes can access, participate in, and feel inspired by (Nixon, 2013). "Derek", a Poet without a Home reflects to himself:

I believe in you, I have faith in you, I know you got guts, I know you're not a coward, I know you don't fear nobody, Because Jesus is in you, You are a fighter, There's a champion in you, There's a hero in you, There's nobody like you, Show the world what you can give it, Show the world what you got. ("Courage", The Pilgrim, August 9, 2016)

Although spirituality appears to provide myriad benefits, the degree to which it buffers the negative effect of discrimination upon the mental health of Persons without Homes remains unclear. Specifically, it is unknown if spirituality has a moderating effect upon the mental health (self-esteem, depression, anxiety) of Persons without Homes. Determining if healthy spiritual

beliefs, behaviors, sense of social support, and experiences moderate the corrosive effects of discrimination upon the mental health of Persons without Homes is of the utmost importance to ethical, clinical, academic, civic, religious, and Unhoused and Housed Community Members. Accordingly, this study seeks to determine the extent to which spirituality moderates the association between discrimination and the mental health factors of depression, anxiety, and self-esteem among Persons without Homes.

### **Discussion of Covariates of Mental Health among Persons without Homes: Health Status, Education Level, Ability Status, and Substance Use**

A comprehensive exploration of how spirituality moderates the relationship between discrimination and mental health among Persons without Homes must consider and control for relevant covariates. Education level, ability status, health status, and substance use are four variables that often correlate with mental health outcomes in predictable ways among Persons without Homes. For instance, the absence of a High School Diploma or GED correlates with a much higher likelihood of youths going on to experience homelessness in the next 12 months (Morton et al., 2018). Experiencing homelessness exacerbates existing trauma and further compromises the mental health of vulnerable youths (Bao et al., 2000).

In addition, both international and domestic studies have found that intellectual disabilities are over-represented in the Unhoused Community (Brown & McCann, 2020; Nishio et al., 2017; Oakes & Davies, 2008). Intellectual disabilities can make re-accessing stable housing and adequate physical and mental health care even more challenging for Persons without Homes. Unhoused Persons also live with more physical and psychiatric disabilities than their housed peers (Kehn et al., 2013; Metraux et al., 2016). A paucity of social support, recent trauma, and living simultaneously with disabilities and housing instability often leads to chronic

health issues (Chambers et al., 2014). Coping with the aforementioned factors in turn saps remaining reservoirs of hope and emotional endurance among Persons without Homes, thereby leading to an increased prevalence of negative mental health outcomes including substance use disorders according to the Institute of Medicine (United States) Committee on Health Care for Homeless People (1988).

As noted, many Persons without Homes self-medicate with substances to mediate the emotional and psychological sequela of trauma and daily discrimination (Laudet et al., 2006). Toro et al. (1995) found that Women without Homes had a significantly higher rate of addiction-based disorders than their Housed Peers. Moreover, Nyamathi et al. (2000) discovered that Women experiencing Homelessness and living on the street had even greater challenges with addiction than Women experiencing Homelessness and staying in shelter settings. Interviews with 389 Men and Women without Homes in London in 2009 revealed that 83% of respondents had used drugs in the past month, while 25% were dependent upon alcohol (Fountain et al. 2009). It is not clear if substance use preceded or followed the loss of stable housing. However, it is evident that substance use disorders are often unaddressed on the streets (Lee et al., 2010). This creates a cascading effect in which the psychological and physical health of Persons without Homes rapidly deteriorates.

### **Summary**

The expansion of the social ill of homelessness negatively affects the mental health of individuals and communities across America. Anecdotal evidence and small-scale studies indicate that living without a home has a particularly deleterious effect on the mental health of Members of the Unhoused Community. The Minority Stress Model suggests the othering and discrimination that Persons without Homes endure causes increased anxiety and further social

isolation that is then self-perpetuating. This study seeks to document the incidence of discrimination against Persons without Homes on a larger scale. It also endeavors to determine if an economically accessible and culturally preferred factor, spirituality, may effectively buffer the negative effect of discrimination upon the self-esteem, depression, and anxiety of Persons without Homes.

## **Chapter III.**

### **Method**

The purpose of this chapter is to review the methods and research design that was utilized in this study. As such, it will define the primary research questions and related hypotheses, describe the participant sample, and outline the sampling procedures used during data collection. Relevant measures and their psychometric properties as well as statistical analyses used will also be reviewed.

#### **Review of Purpose**

As stated previously the purpose the current study was to determine the nature of the relationships between the independent variables of discrimination and spirituality and the dependent variables of self-esteem, depression, and anxiety among Persons without Homes, while controlling for health status, education level, ability status, and substance use. Further, this study was designed to determine the degree to which spirituality acts as a buffer to the negative effects of discrimination upon the mental health of Persons without Homes. Thus, three models were tested to determine if spirituality had a moderating effect upon the relationship between discrimination and the mental health of Persons without Homes.

#### **Primary Research Questions and Hypotheses**

Primary Research Question 1 and Hypotheses 1a, 2a, and 3a were designed to assess whether a significant relationship exists among all of the aforementioned variables.

##### **Primary Research Question 1**

- 1.) What is the nature of the relationship between spirituality, discrimination, depression, anxiety, and self-esteem among Persons without Homes?

## Primary Research Question 1 Hypotheses

### Hypotheses 1a

The null hypothesis for Research Question 1.) is: There **are no** significant relationships among spirituality, discrimination, and **self-esteem** among Persons without Homes.

The alternative hypothesis for Research Question 1.) is: There **are** significant relationships among spirituality, discrimination, and **self-esteem** among Persons without Homes.

### Hypotheses 2a

The null hypothesis for Research Question 1.) is: There **are no** significant relationships among spirituality, discrimination, and **depression** among Persons without Homes.

The alternative hypothesis for Research Question 1.) is: There **are** significant relationships among spirituality, discrimination, and **depression** among Persons without Homes.

### Hypotheses 3a

The null hypothesis for Research Question 1.) is: There **are no** significant relationships among spirituality, discrimination, and **anxiety** among Persons without Homes.

The alternative hypothesis for Research Question 1.) is: There **are** significant relationships among spirituality, discrimination, and **anxiety** among Persons without Homes.

Primary Research Question 2 and Hypothesis 2b were designed to test Model 1 in which spirituality potentially moderates the relationship between discrimination and self-esteem among Persons without Homes.

## Primary Research Question 2

- 2.) To what degree does spirituality moderate the relationship between discrimination and the **self-esteem** of Persons without Homes when controlling for health status, education level, ability status, and substance use?

## **Primary Research Question 2 Hypotheses**

### **Hypotheses 2b**

The null hypothesis for Research Question 2.) is: Spirituality **does not** moderate the association between discrimination and **self-esteem** of Persons without Homes when controlling for health status, education level, ability status, and substance use.

The alternative hypothesis for Research Question 2.) is: Spirituality **does** moderate the association between discrimination and **self-esteem** of Persons without Homes when controlling for health status, education level, ability status, and substance use.

Primary Research Question 3 and Hypothesis 3c are designed to test Model 2 in which spirituality potentially moderates the relationship between discrimination and depression among Persons without Homes.

## **Primary Research Question 3**

- 3.) To what degree does spirituality moderate the relationship between discrimination and **depression** among Persons without Homes when controlling for health status, education level, ability status, and substance use?

## **Primary Research Question 3 Hypotheses**

### **Hypotheses 3c**

The null hypothesis for Research Question 3.) is: Spirituality **does not** moderate the association between discrimination and **depression** of Persons without Homes when controlling for health status, education level, ability status, and substance use.

The alternative hypothesis for Research Question 3.) is: Spirituality **does** moderate the association between discrimination and the **depression** of Persons without Homes when controlling for health status, education level, ability status, and substance use.

Primary Research Question 4 and Hypothesis 4d are designed to test Model 3 in which spirituality potentially moderates the relationship between discrimination and anxiety Persons without Homes.

#### **Primary Research Question 4**

- 4.) To what degree does spirituality moderate the relationship between discrimination and **anxiety** of Persons without Homes when controlling for health status, education level, ability status, and substance use?

#### **Primary Research Question 4 and Hypotheses**

##### **Hypotheses 4d**

The null hypothesis for Research Question 4.) is: Spirituality **does not** moderate the association between discrimination and **anxiety** of Persons without Homes when controlling for health status, education level, ability status, and substance use.

The alternative hypothesis for Research Question 4.) is: Spirituality **does** moderate the association between discrimination and the **anxiety** of Persons without Homes when controlling for health status, education level, ability status, and substance use.

#### **Research Design**

A quantitative correlational design was utilized for this study. A brief outline of the variables assessed follows immediately, while a more detailed description of each measure appears after the Participants and Procedures sections of this chapter. Each measure is also included in totality in Appendices A-K of this dissertation.

The independent variables in the present study were discrimination and spirituality. Participants were asked to rate the everyday discrimination they endured due to being homeless (Williams, 2012). Spirituality was operationalized in the current study as a multidimensional construct that includes: beliefs, behaviors, sense of belonging, and experiences. As such, spirituality was assessed using measures of religious and spiritual beliefs, private and public religious behavior, spiritual social support, and daily spiritual experiences (National Institute in Aging & John E. Fetzer Institute, 1999). Participants were also asked to specify their denomination if they indicated that they were currently a member of a church, synagogue, mosque, or other spiritual/religious group (Ellison, 1999).

The dependent variables in the current study were self-esteem, depression, and anxiety. Self-esteem, depression, and anxiety were assessed using normed quantitative measures (Lovibond & Lovibond, 1995; Rosenberg, 1965). The covariates in the current study were health status, education level, ability status, and substance (alcohol & drug) use as these factors all vary with mental health among Persons without Homes (Hesse & Thiesen, 2007; Bender et al., 2010). As such, participants were asked to share demographic data including: health status, education level, ability status, and to fill out a brief screening for problematic use of substances (Brown & Rounds, 1995).

### **Demographic Data**

Two-hundred and six Persons without Homes participated in the present study. Inclusion criteria for participants included being: 18 years of age or older and unhoused or without stable housing currently or in the last 36 months. Exclusion criteria included anyone who was: under 18 years of age, not able to give informed consent, currently in possession of stable housing or had consistently stable housing for the preceding 36 months or longer. All potentially salient

aspects of individual identity were included in the current study insofar as they were reasonably measurable. Persons from a diverse range of ages, races, ethnicities, sexual orientations, gender identities, nationalities, non-religious or non-spiritual persuasions, spiritual or religious orientations, religious denominations, veteran statuses, ability levels, socioeconomic, and educational levels, family statuses, and health statuses participated in the current study. As such, participants filled out a general demographic questionnaire that assessed many of the aspects of identity listed above. Appendix K contains the demographic rubric that was used in the current study and Table 1 contains demographic data about participants.

### **Procedures**

A convenience sample of participants for the current study was recruited via flyers and in-person announcements at a variety of publicly accessible secular and spiritual settings in Boston that serve Persons without Homes. Recruitment sites included the: Boston Health Care for the Homeless program at Boston Medical Center, the Monday Dinner program hosted at the Church on the Hill in Boston, public transportation centers, the Friday Café hosted by the United Congregational Church in Cambridge, Massachusetts, public shopping centers, public areas and squares, the Boston Rescue Mission in Downtown Crossing, Boston, Massachusetts, and various branches of the Boston Public Library.

Recognition of the value of community perspectives motivated the involvement of Persons without Homes in the proposed study as consultants. Specifically, a limited number ( $n = 8$ ) leaders from the currently or formally Unhoused Community in Boston were asked to serve as consultants for the current study. These consultants reviewed potential measures, shared information about the progress of the study proposal and data collection timeline with peers, gave input on what they felt was appropriate compensation for participation in the study, and

added community-based insight concerning interpretation of overall results and findings.

Structured informed consent policies were reviewed verbally and in writing with each potential study participant. Participants were notified that they could revoke consent at any time before, during, or after data collection without penalty. Participants were also made aware of accessible helping resources and primary researcher contact information should answering survey questions be problematic in any way. Participants were also given a tangible symbol of appreciation for their time and attention with regard to the study. Each participant received a small plastic bag containing a soft nutritional bar, a new pair of socks, a paper listing of local resources, and a \$10 gift card to a coffee shop or grocery store. Participants did not have to commence or complete the study to receive compensation. All of the aforementioned plans were submitted to and approved by the Boston College Institutional Review Board before data collection began.

### **Preliminary Analyses**

Preliminary analyses of data using SPSS was comprised of: management of missing values, execution of descriptive statistics including an examination for possible kurtosis and skewedness or non-normative distribution of the data, coding and re-coding as appropriate, and an exploration of basic correlations among variables. A separate linear multiple regression analysis was then run for Model 1, Model 2, and Model 3 respectively to determine the moderating role that spirituality had upon the relationship between discrimination and self-esteem, discrimination and depression, and discrimination and anxiety among Persons without Homes.

## **Measures**

### **Independent Variables**

### ***Discrimination***

The (Expanded) Everyday Discrimination Scale (EDS) is a 10-item measure of perceived discrimination that was developed by Williams (2012) in conjunction with the Harvard University Department of Public Health. The original EDS was a 9-question measure (Williams, 1997). A 10<sup>th</sup> question was added to the original EDS when used in later studies including the 2008 National Survey of American Life and the South African Stress and Health Survey (Williams et al., 2008). The 10th question is “You are followed around in stores” (Williams, 2012, p. 6).

Sample items from the EDS include the aforementioned question regarding being followed in stores, as well as other prompts such as “You are treated with less courtesy than other people are,” and “People act as if they are afraid of you” (Jefferson, 2014, p. 4). The suggested answers are a measure of frequency on a 6-point Likert scale ranging from “1 = Almost every day” to “6 = Never” (Jefferson, 2014, p. 4). A validation study indicated that the EDS is valid and can be reliably employed as demonstrated by a Cronbach’s alpha of .74 (Krieger et al., 2005). Internal consistency reliability estimates with Cronbach’s alpha for the 10-item Everyday Discrimination Scale used in the present study was .92.

Although the original EDS was developed to measure perceived discrimination with respect to racial factors, it has been altered for use in a number of other populations including with sexual minorities and individuals who misuse substances (Jefferson, 2014). The original EDS measure was also modified for use with Persons without Homes by the Centre for Urban and Community Studies (Paradis et al., 2008). Accordingly, the (Expanded) EDS (including the 10th question) was used in the current study. The EDS was chosen to assess for everyday discrimination endured by Persons without Homes because it measures daily experiences of

discrimination that are both overt and subtle. In addition, the perspective captured by the EDS highlights the experiences of the person who endures discrimination, not that of the perpetrator.

### *Spirituality*

Spirituality was an independent variable in the present study. It is a dynamic multidimensional construct that can be operationalized in myriad ways. Five key and quantifiable aspects of spirituality were measured in the current study. More precisely, five subscales drawn from the Brief Multidimensional Measure of Religiousness/ Spirituality for Health Research (BMMRS) were used to assess the religious and spiritual beliefs, behaviors (private and public), sense of belonging, and experiences of study participants (NIA & Fetzer, 1999).

The BMMRS is a 10-scale measure that was developed in consultation with leaders in the field of the psychology of religion and experts in the measurement of religion and spirituality in the social and health sciences (NIA & Fetzer, 1999). The BMMRS was chosen as an appropriate instrument to draw from when operationalizing religion and spirituality in relation to discrimination and mental health among Persons without Homes due to its routine use in health care settings and the General Social Surveys of 1998 and 2002 (Bush et al., 2012; Idler et al., 2003; Stewart & Koeske, 2006). A brief review of each of the BMMRS subscales used in the current study follows.

**Beliefs.** The Beliefs subscale of the BMMRS was developed by Idler (1999). It has both a long and a short form, which contain 7 and 2 questions respectively. The long form was used in the current study because it captures the cognitive aspects of “believers” or persons who use religion and spirituality to make meaning especially under adverse circumstances.

Understanding how religious and spiritual beliefs function across traditions is critical to physical

and mental health outcomes because the former may impact the latter for the better by instilling hope, or for the worse by increasing judgment of self or others. A sample question from the Beliefs subscale is “Despite all the things that go wrong, the world is still moved by love” (Idler, 1999, p. 32). All items on the Beliefs subscale were scored using a Likert scale of 1-5 possible responses ranging from “1 = Agree Strongly” to “5 = Disagree Strongly” (Idler, 1999, p. 32-33). Higher overall scores on the Beliefs subscale indicate a greater amount of spiritual and religious beliefs. Internal consistency reliability estimates with Cronbach’s alpha for the 7-item Beliefs subscale is .64 in the General Social Survey of 1997-1998. Internal consistency reliability estimates with Cronbach’s alpha for the 5-item Beliefs subscale used in the present study was .81.

**Behavior.** Religious and spiritual behaviors are another key component of faith for most people. Behaviors, like prayer, can occur informally and privately or communally and publicly. As such, Levin (1999) developed a 4-item assessment for Private Religious Practices (PRP) for the BMMRS that captures the frequency of which people pray privately, tune into religious media or music, read sacred texts, and give thanks for food. Three of the items on the PRP are scored using a Likert scale of 1-8 possible responses ranging from “1 = Several Times a Day” to “8 = Never” (Levin, 1999, p. 41). The final item on the PRP ranges from 1-5, where “1 = At All Meals” and “5 = Never” (Levin, 1999, p. 42). Lower overall scores on the PRP subscale of the BMMRS indicate a greater frequency of private religious and spiritual behavior among participants than higher overall scores. Internal consistency reliability estimates with Cronbach’s alpha for the 4-item PRP subscale was .72 in the General Social Survey of 1997-1998. Internal consistency reliability estimates with Cronbach’s alpha for the 4-item Private Religious Practices subscale used in the present study was .75.

In contrast, Idler (1999) developed an 8-item long form and 2-item short form assessment of Organizational Religiousness (OR) for the BMMRS that measures more communal and external or public forms of religious and spiritual behavior. The short form of the OR was used in the current study instead of the long form because the long form repeatedly references commitment to housed congregations that Persons without Homes often feel cut off from due to stigma and the transitional nature of life on the streets. The 2 items on the OR short form assess frequency of attendance at places of worship for services and attendance at activities that occur at places of worship but are not inherently spiritual or religious in nature. The OR utilizes a Likert scale ranging from 1-9 possible responses in which “1 = Never” and “9 = Several Times a Week”. The internal consistency reliability estimates for the 2-item OR subscale was .82 in the General Social Survey of 1997-1998. The correlation of the 2-item Organizational Religiousness subscale used in the present study was .36 and the internal consistency reliability estimate was .53 for the present study. Upon review of the distribution, it was noted that both variables had a bimodal distribution that was flat between the two extremes (1 = Never and 8 = Once a Week).

**Belonging.** Social scientists have long recognized the positive impact that spiritually and religiously based social support or sense of belonging can have on the physical health and mental well-being of Persons with and without Homes. As such, the 12-item long form Religious Support (RS) subscale developed by Krause (1999) was utilized in the current study to assess the emotional support given and received in spiritual and religious communities. Anticipated religious support and negative interactions were also assessed. Sample questions from the RS subscale include “How often do the people in your congregation listen to you talk about your private problems and concerns?” and “How often do you make the people in your congregation feel loved and cared for?” (Krause, 1999, p. 60-61). All items on the RS subscale

are scored using a Likert scale of 1-4. Possible responses range from “1 = A Great Deal” to “4 = None” (Krause, 1999, p. 60-61). With the exception of the Negative Interaction subsection, higher overall scores on the RS subscale of the BMMRS indicate a greater amount of social support experienced by participants via religious and spiritual networks. Internal consistency reliability estimates with Cronbach’s alpha for the RS subscale was .75 in the General Social Survey of 1997-1998. Internal consistency reliability estimates with Cronbach’s alpha for the 12-item Religious Support subscale used in the present study was .82.

**Experiences.** Spirituality was assessed in the present study using a modified or short form version of the Daily Spiritual Experience Scale-Long Form (DSES-LF) developed by Underwood and Teresi (2002). The DSES-LF a 16-item self-report scale that measures daily or mundane spiritual experiences (Underhill, 1914; Underwood & Teresi, 2002). The DSES-LF is unique among spirituality assessments in that it is not denominationally specific or theologically limited. Thus, it assesses a broad range of spiritual experiences as they may appear in various cultures. For instance, a sample item is “I experience a connection to all life” (Underwood & Teresi, 2002, p. 26). The first 15 items on the DSES are scored using a modified Likert scale, with 6 possible responses ranging from “1 = Many times a day” to “6 = Never or almost never” (Underwood & Teresi, 2002, p. 25). The final item has four response categories that enable a participant to select how close they feel to God ranging from “4 = Not close at all” to “1= As close as possible” (Underwood & Teresi, 2002, p. 25). Thus, lower DSES-LF scores indicate a higher incidence of spiritual experiences. Internal consistency reliability estimates with Cronbach’s alpha for the 16-item DSES range from .91 in the General Social Survey of 1998 to .96 in a study of psychometric properties (Underwood & Teresi, 2002).

As noted, a modified and normed short form (SF) version of the DSES was used in the current study (Bailly & Roussiau, 2010). The DSES-SF is composed of 6 items that were borrowed directly from the original DSES-Long Form (LF). Prompts on the DSES-SF are also answered on a 6-point Likert scale with responses ranging from “1 = Many times a day” to “6 = Never or almost never”. As with the DSES-LF, lower scores on the DSES-SF indicate a greater incidence of daily spiritual experiences. The DSES-SF was shown to have a Cronbach's Alpha or internal consistency rating of 0.91 in the General Social Survey of 1998-2004 and 0.89 in a more recent validation study (Bailly & Roussiau, 2010).

The DSES-SF was selected over the longer DSES-LF after community consultants revealed that they felt the conventional assessment was too much of a time burden to potential Participants without Homes who would already be tasked with answering over 100 questions. In addition, the DSES-SF proved to be particularly popular with potential participants and community consultants of Color. Community consultants who identified as racial or ethnic minorities indicated that spiritual experiences were central to their understanding of spirituality and specifically asked that the DSES-SF be kept in consideration for the study when measures were being selected. The DSES-SF is appropriate for the aforementioned requests as it has been shown to have an internal consistency rating of 0.81-0.86 in a study of African-Americans (Loustalot et al., 2007). Internal consistency reliability estimates with Cronbach's alpha for the 6-item Daily Spiritual Experiences-Short Form subscale used in the present study was .87.

### **Dependent Variables**

#### **Self-Esteem**

Self-esteem has been understood to represent a person's appraisal of themselves in relation to the appraisal of others (Rosenberg, 1965). A positive appraisal or image of the self is

a protective factor that is correlated with better mental health, while low self-esteem can make one vulnerable to the development of depression (Orth et al., 2008). Both positive and negative feelings about the self were measured in the current study using the Rosenberg Self-Esteem Scale (RSES). The RSES is a 10-item scale and is believed to be an assessment of self-esteem when the latter is defined as a uni-dimensional construct. The RSES was chosen over the Self-Esteem Rating Scale (SERS) by Nugent (1995) due to its brevity, ease of administration, extensive use in other studies, and high level of internal validity with an American sample (Schmidt & Allik, 2005).

The Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965) examines self-perceptions of worthiness. Sample items include, “I feel that I have a number of good qualities” and “All in all, I am inclined to feel that I am a failure” (Rosenberg, 1965, p. 3-4). Each item is rated on a 4-point scale ranging from “1 = Strongly agree” to “4 = Strongly disagree” (Rosenberg, 1965, p. 3-4). The scale has been shown to have a Cronbach’s alpha of internal reliability of .88. The RSES also exhibits good convergent validity with other measures of self-esteem (Silber & Tippet, 1965). Internal consistency reliability estimates with Cronbach’s alpha for the 10-item Rosenberg Self-Esteem Scale used in the present study was .84.

### **Depression and Anxiety**

Depression and anxiety were assessed in the current study using the Depression and Anxiety subscales of the Depression, Anxiety, and Stress Scale (DASS). The DASS is a 21-item scale that was developed by Lovibond and Lovibond (1995). The DASS was designed to measure the prevalence of a range of symptoms common to Depression, Anxiety, and Stress. However, only the 7-item Depression subscale and the 7-item Anxiety subscale were used in the current study. The DASS was selected over other equally normed measures of depression and

anxiety due to its brevity, ease of administration, ability to meet the needs of persons with varying degrees of education, and accuracy in screening for mental health outcomes of anxiety and depression.

The DASS asks participants to indicate the presence of depressive or anxiety-based states experienced during the previous week. Each item is scored on a 4-point Likert scale that ranges from 0-3, with “0-never” to “3-almost always”. Examples of prompts for depression on the DASS include “I felt that life was meaningless” and “I felt that I had nothing to look forward to”. Some prompts for anxiety were “I felt I was close to panic” and “I felt scared without any good reason” (Lovibond & Lovibond, 1995, p. 1-3). Henry and Crawford validated the DASS-21 and its specificity for depression and anxiety with a large non-clinical sample in 2005. A Cronbach’s alpha reliability coefficient of .88 was established for the depression subscale, while a .82 was established for the anxiety subscale (Henry & Crawford, 2005). Internal consistency reliability estimates with Cronbach’s alpha for the 7-item Depression subscale used in the present study was .91 and was .85 with the 7-item Anxiety subscale used in the present study.

### **Covariates**

#### **Substance Use (Alcohol & Drugs)**

The “CAGE-AID” Questionnaire is a brief 4-question self-report measure that, was used to assess for problematic behavior regarding substance use. CAGE is an acronym that stands for 4 questions concerning whether a participant has: felt the need to “Cut” down on drinking alcohol or using drugs, been “Annoyed” by others criticizing them for drinking too much alcohol or using drugs, felt “Guilty” about their drinking habits or drug use, and ever needed an “Eye-opener” drink or hit the first thing in the morning to reverse the symptoms of withdraw (i.e. calm nerves, stop delirium tremens, relieve headache, prevent crash). Some clinicians feel that a

positive response to the Eye-opener prompt is a sign of alcohol abuse and one or more affirmative answers regarding drugs warrants further screening.

Although other screening instruments (AUDIT & MAST) have been used widely in physical and behavioral health settings to screen for alcohol use disorder, the CAGE-AID was chosen for use in this study because it assesses for problematic use of both alcohol and drugs. The CAGE-AID is well regarded, succinct, and easy to administer in primary care settings. It has also been successfully utilized to assess potential issues with alcohol use disorder in other homeless communities such as in the city of Copenhagen, Denmark (Hesse & Thiesen, 2007) and when exploring drug use in other marginalized populations in the U.S. (Leonardson et al., 2005). Specifically, a Cronbach's alpha reliability coefficient of .84 was established among Persons without Homes in Denmark who completed the CAGE as well as a test of liver enzymes to assess for problematic behavior concerning alcohol use. In the USA, a Cronbach's alpha reliability coefficient of .90 was established with the CAGE-AID among Northern Plains American Indians (Leonardson et al., 2005). Internal consistency reliability estimates with Cronbach's alpha for the 4-item CAGE-AID questionnaire used in the present study was .82.

## Chapter IV.

### Results

#### Preliminary Analyses

##### *Data Cleaning*

Accompanying participants throughout the informed consent and survey process yielded a high rate of completion and a nominal amount of missing values across all surveys taken ( $n = 206$ ). The latter number of surveys were analyzed for missing values using SPSS. In particular, list-wise deletion was employed to account for the minimal amount of missing data resulting in a final sample of 209 participants. The data were then input into SPSS and then analyzed for accuracy of entry. Necessary corrections were made and responses to measures were coded or re-coded as appropriate for computation. Diagnostic testing was then undertaken to assess for a normal distribution of survey responses for each variable. All variables exhibited distributions with normal patterns that were neither highly skewed nor demonstrating high kurtosis.

##### **Correlations**

Bivariate correlations were conducted for all measures used. Descriptive statistics and correlations are reported in Table 2. Specifically, correlations among discrimination, self-esteem, depression, anxiety, spiritual beliefs, private spiritual behavior, public spiritual behavior, spiritual social support, daily spiritual experiences, and problematic substance use were run. All correlational relationships were consistent with theoretical expectations that greater spirituality is thought to correlate with lower levels of depression and anxiety and higher levels of self-esteem among both housed and unhoused persons.

##### **Regression**

##### *Moderation Analyses for Self-Esteem*

First, to test whether the association between discrimination and self-esteem was moderated by persons' reported level of spiritual belief, a hierarchical regression analysis was conducted. The main effects of discrimination and spiritual belief were entered on Step 1 and their interaction was entered on Step 2, with self-esteem included as the dependent variable. In addition, persons' reported substance use, chronic health concerns, ability status, and highest reported education level were included as covariates in the model (this was done for all subsequently reported models). As hypothesized, the interaction between discrimination and spiritual belief was significant ( $\beta = .15, p = 0.03$ ). All effects are presented in Table 3. The model accounted for 19% of the variance in self-esteem ( $R^2 = .19$ ).

A follow-up test of the association between discrimination and self-esteem for individuals reporting lower or higher spiritual belief ( $\pm 0.5$  standard deviations from the mean) indicated that discrimination was more strongly associated with lower self-esteem among those reporting lower spiritual belief ( $\beta = -.40, p < .01$ ) than higher spiritual belief ( $\beta = -.16, p > .05$ ). Figure 1 portrays the significant interaction effect.

Second, to test whether the association between discrimination and self-esteem was moderated by persons' reported level of private spiritual behavior, the main effects of discrimination and private spiritual behavior were entered on Step 1 and their interaction was entered on Step 2, with self-esteem included as the dependent variable. All covariates were also included, as described previously. Contrary to proposed hypotheses, the interaction between discrimination and private spiritual behavior was not significant ( $\beta = .09, p > .05$ ) in predicting self-esteem, nor was the main effect of private spiritual behavior significant in predicting self-esteem ( $\beta = .05, p > .05$ ). All effects are presented in Table 3. The model accounted for 12% of the variance in self-esteem ( $R^2 = .12$ ).

Third, to test whether the association between discrimination and self-esteem was moderated by persons' reported level of public spiritual behavior, the main effects of discrimination and public spiritual behavior were entered on Step 1 and their interaction was entered on Step 2, with self-esteem included as the dependent variable. All covariates were also included, as described previously. As hypothesized, the interaction between discrimination and public spiritual behavior was significant ( $\beta = .17, p < .05$ ). All effects are presented in Table 1. The model accounted for 14% of the variance in self-esteem ( $R^2 = .14$ ). A follow-up test of the association between discrimination and self-esteem for individuals reporting lower or higher public spiritual behavior ( $\pm 1$  standard deviation from the mean) indicated that discrimination was more strongly associated with lower self-esteem among those reporting lower public spiritual behavior ( $\beta = -.42, p < .05$ ) than higher public spiritual behavior ( $\beta = .08, p > .05$ ). Figure 2 portrays the significant interaction effect.

Fourth, to test whether the association between discrimination and self-esteem was moderated by persons' reported level of spiritual social support, the main effects of discrimination and spiritual social support were entered on Step 1 and their interaction was entered on Step 2, with self-esteem included as the dependent variable. All covariates were also included, as described previously. Contrary to proposed hypotheses, the interaction between discrimination and spiritual social support was not significant ( $\beta = .14, p > .05$ ). However, the main effect of spiritual social support on self-esteem was significant ( $\beta = .20, p < .01$ ). All effects are presented in Table 3. The model accounted for 16% of the variance in self-esteem ( $R^2 = .16$ ).

Fifth, to test whether the association between discrimination and self-esteem was moderated by persons' reported level of daily spiritual experiences, the main effects of

discrimination and daily spiritual experiences were entered on Step 1 and their interaction was entered on Step 2, with self-esteem included as the dependent variable. All covariates were also included, as described previously. Contrary to proposed hypotheses, the interaction between discrimination and daily spiritual experiences was not significant ( $\beta = .10, p > .05$ ). However, the main effect of daily spiritual experiences on self-esteem was significant ( $\beta = .31, p < .001$ ). All effects are presented in Table 3. The model accounted for 21% of the variance in self-esteem ( $R^2 = .21$ ).

### ***Moderation Analyses for Depression***

First, to test whether the association between discrimination and depression was moderated by persons' reported level of spiritual belief, the main effects of discrimination and spiritual belief were entered on Step 1 and their interaction was entered on Step 2, with depression included as the dependent variable. All covariates were also included, as described previously. As hypothesized, the interaction between discrimination and depression was significant ( $\beta = -.14, p = .03$ ). All effects are presented in Table 4. The model accounted for 25% of the variance in depression ( $R^2 = .25$ ).

A follow-up test of the association between discrimination and depression for individuals reporting lower or higher spiritual belief ( $\pm 0.5$  standard deviations from the mean) indicated that discrimination was more strongly associated with greater levels of depression among those reporting lower spiritual belief ( $\beta = .36, p < .05$ ) than higher spiritual belief ( $\beta = .21, p > .05$ ).

Figure 3 portrays the significant interaction effect.

Second, to test whether the association between discrimination and depression was moderated by persons' reported level of private spiritual behavior, the main effects of discrimination and private spiritual behavior were entered on Step 1 and their interaction was

entered on Step 2, with depression included as the dependent variable. All covariates were also included, as described previously. As hypothesized, the interaction between discrimination and depression was significant ( $\beta = -.15, p < .05$ ). All effects are presented in Table 4. The model accounted for 24% of the variance in depression ( $R^2 = .24$ ). A follow-up test of the association between discrimination and depression for individuals reporting lower or higher private spiritual behavior ( $\pm 1$  standard deviation from the mean) indicated that discrimination was more strongly associated with greater levels of depression among those reporting lower private spiritual behavior ( $\beta = .68, p < .001$ ) than higher private spiritual behavior ( $\beta = .19, p > .05$ ). Figure 4 portrays the significant interaction effect.

Third, to test whether the association between discrimination and depression was moderated by persons' reported level of public spiritual behavior, the main effects of discrimination and public spiritual behavior were entered on Step 1 and their interaction was entered on Step 2, with depression included as the dependent variable. All covariates were also included, as described previously. As hypothesized, the interaction between discrimination and public spiritual behavior was significant ( $\beta = -.16, p < .05$ ). All effects are presented in Table 4. The model accounted for 21% of the variance in self-esteem ( $R^2 = .21$ ). A follow-up test of the association between discrimination and depression for individuals reporting lower or higher public spiritual behavior ( $\pm 1$  standard deviation from the mean) indicated that discrimination was more strongly associated with greater levels of depression among those reporting lower public spiritual behavior ( $\beta = .51, p < .01$ ) than higher public spiritual behavior ( $\beta = .01, p > .05$ ). Figure 5 portrays the significant interaction effect.

Fourth, to test whether the association between discrimination and depression was moderated by persons' reported level of spiritual social support, the main effects of

discrimination and spiritual social support were entered on Step 1 and their interaction was entered on Step 2, with depression included as the dependent variable. All covariates were also included, as described previously. As hypothesized, the interaction between discrimination and spiritual social support was significant ( $\beta = -.20, p < .01$ ). All effects are presented in Table 4.

The model accounted for 27% of the variance in self-esteem ( $R^2 = .27$ ). A follow-up test of the association between discrimination and depression for individuals reporting lower or higher spiritual social support ( $\pm 1$  standard deviation from the mean) indicated that discrimination was more strongly associated with greater depression among those reporting lower spiritual social support ( $\beta = .54, p < .01$ ) than higher spiritual social support ( $\beta = .11, p > .05$ ). Figure 6 portrays the significant interaction effect.

Fifth, to test whether the association between discrimination and depression was moderated by persons' reported level of daily spiritual experiences, the main effects of discrimination and daily spiritual experiences were entered on Step 1 and their interaction was entered on Step 2, with depression included as the dependent variable. All covariates were also included, as described previously. As hypothesized, the interaction between discrimination and daily spiritual experiences was significant ( $\beta = -.14, p < .05$ ). All effects are presented in Table 4. The model accounted for 29% of the variance in self-esteem ( $R^2 = .29$ ). However, a follow-up test of the association between discrimination and depression for individuals reporting lower or higher daily spiritual experiences ( $\pm 1$  standard deviation from the mean) indicated that discrimination was not significantly associated with depression for individuals, regardless of whether they reported lower daily spiritual experiences ( $\beta = .25, p > .05$ ) or higher daily spiritual experiences ( $\beta = .29, p > .05$ ). Figure 7 portrays the significant interaction effect.

### *Moderation Analyses for Anxiety*

First, to test whether the association between discrimination and anxiety was moderated by persons' reported level of spiritual belief, the main effects of discrimination and spiritual belief were entered on Step 1 and their interaction was entered on Step 2, with anxiety included as the dependent variable. All covariates were also included, as described previously. Contrary to proposed hypotheses, the interaction between discrimination and spiritual belief was not significant ( $\beta = -.05, p = 0.43$ ). However, there was a main effect of spiritual belief upon anxiety ( $\beta = -.14, p = .04$ ). All effects are presented in Table 5. The model accounted for 22% of the variance in anxiety ( $R^2 = .22$ ).

Second, to test whether the association between discrimination and anxiety was moderated by persons' reported level of private spiritual behavior, the main effects of discrimination and private spiritual behavior were entered on Step 1 and their interaction was entered on Step 2, with anxiety included as the dependent variable. All covariates were also included, as described previously. Contrary to proposed hypotheses, the interaction between discrimination and private spiritual behavior was not significant ( $\beta = -.08, p > .05$ ), nor was the main effect of private spiritual behavior upon anxiety ( $\beta = -.20, p > .01$ ). All effects are presented in Table 5. The model accounted for 27% of the variance in anxiety ( $R^2 = .27$ ).

Third, to test whether the association between discrimination and anxiety was moderated by persons' reported level of public spiritual behavior, the main effects of discrimination and public spiritual behavior were entered on Step 1 and their interaction was entered on Step 2, with anxiety included as the dependent variable. All covariates were also included, as described previously. Contrary to proposed hypotheses, the interaction between discrimination and public spiritual behavior was not significant ( $\beta = -.04, p > .05$ ), nor was the main effect of public

spiritual behavior upon anxiety ( $\beta = -.02, p > .05$ ). All effects are presented in Table 5. The model accounted for 23% of the variance in anxiety ( $R^2 = .23$ ).

Fourth, to test whether the association between discrimination and anxiety was moderated by persons' reported level of spiritual social support, the main effects of discrimination and spiritual social support were entered on Step 1 and their interaction was entered on Step 2, with anxiety included as the dependent variable. All covariates were also included, as described previously. Contrary to proposed hypotheses, the interaction between discrimination and spiritual social support was not significant ( $\beta = -.11, p > .05$ ), nor was the main effect of spiritual social support upon anxiety ( $\beta = -.10, p > .05$ ). All effects are presented in Table 5. The model accounted for 24% of the variance in anxiety ( $R^2 = .24$ ).

Fifth, to test whether the association between discrimination and anxiety was moderated by persons' reported level of daily spiritual experiences, the main effects of discrimination and daily spiritual experiences were entered on Step 1 and their interaction was entered on Step 2, with anxiety included as the dependent variable. All covariates were also included, as described previously. Contrary to proposed hypotheses, the interaction between discrimination and daily spiritual experiences was not significant ( $\beta = -.02, p > .05$ ), nor was the main effect of daily spiritual experiences upon anxiety ( $\beta = -.11, p > .05$ ). All effects are presented in Table 5. The model accounted for 24% of the variance in anxiety ( $R^2 = .24$ ).

## **Chapter V.**

### **Discussion**

Persons without Homes continue to experience elevated levels of adverse physical and mental health outcomes in communities across the United States (Koh & O'Connell, 2016). Moreover, Persons without Homes routinely endure harassment, danger, and discrimination due to their actual and perceived housing status (Bauman et al., 2014; Lee & Schreck, 2005). Discrimination negatively affects the mental health of Persons without Homes, including their self-esteem, depression, and anxiety (Diblasio & Belcher, 1993; North et al., 1998). Therefore, it is ethically and clinically imperative to understand more about how Persons without Homes successfully cope with the aforementioned challenges.

Results of the current study indicated that discrimination, spirituality, and mental health were significantly associated, even when adjusting for other covariates (e.g., health status, education level, ability status, substance use). Discrimination was negatively associated with self-esteem and positively associated with symptoms of depression and anxiety among Persons without Homes. Moreover, various aspects of spirituality moderated the associations between discrimination and these indicators of mental health. For instance, all five aspects of spirituality (i.e., spiritual belief, private spiritual behavior, public spiritual behavior, spiritual social support, and spiritual experiences) attenuated the relationship between discrimination and depression among Persons without Homes. Although none of the spiritual factors buffered the association between discrimination and anxiety in a statistically significant way, spiritual belief and public spiritual behavior did positively moderate the relationship between discrimination and self-esteem among Persons without Homes. Findings from the present study have the potential to

inform public policy, social service delivery, and therapeutic interventions designed to assist Persons without Homes.

### **Foundational Evidence of Discrimination, Spirituality, and Mental Health**

A variety of sources have suggested that belief in God and spiritually-based coping is common in the Unhoused Community (Brush & McGee, 2000; Gabbard, 2004; Hurlbut et al., 2011; Nixon, 2013; Rennebohm, 2008). Indeed, over 84% of all Persons without Homes in the present study noted that religion was a source of strength and comfort or they believed in life after death. Although the majority of Persons without Homes in the present study endorsed spiritual belief, only 38% of participants also indicated that they were denominationally affiliated. Research suggests that the prevalence of stigma in public spaces and in some faith-based settings may contribute to decreased socialization with the Domiciled Community in general and less denominational affiliation among Persons without Homes in particular (Anderson et al., 1994; Tushnet, 2017).

Discrimination is a prevalent and caustic force in the Unhoused Community (Johnstone et al., 2015; Lynch & Stagoll, 2002; Phelan et al., 1997). Almost three-fourths of participants in the current study experience discrimination due to perceived housing status. Moreover, recent research suggests that intersectionality or simultaneous membership in more than one marginalized community may amplify the discrimination that Persons without Homes already experience (Wrighting et al., 2019). Various forms of discrimination have also consistently been shown to correlate with adverse mental and physical health outcomes among diverse populations (Krieger, 2014; Wei et al., 2008; Williams et al., 1997). Discrimination is especially destructive to the well-being of Persons without Homes because experiencing homelessness is already inherently traumatic (Goodman et al., 1991). For example, Persons without Homes in the current

study who experienced greater levels of discrimination also reported lower levels of self-esteem and greater symptoms of depression and anxiety. Although spirituality has consistently had a salutary effect on physical and mental health among members of the general public, its significant association in the current study with mental health outcomes among Persons without Homes is a distinctive finding as is the potential spirituality has to buffer the effects of discrimination and preserve mood and self-esteem among this already marginalized population (George et al., 2000).

### **Correlations among Spirituality, Mental Health, and Discrimination**

Significant correlations were found among all of the factors studied. Specifically, statistically significant associations were found between discrimination, self-esteem, depression, anxiety, spiritual beliefs, private spiritual behavior, public spiritual behavior, spiritual social support, daily spiritual experiences, and problematic substance use among Persons without Homes. Moreover, all correlational relationships were consistent with theoretical expectations (e.g., greater spirituality was correlated with lower levels of depression and anxiety and higher levels of self-esteem). As noted, these findings are consistent with existing research highlighting the utility of spirituality in preserving mental health-especially when persons are coping with adversity.

Findings from the present study build upon the literature as they focus on the unique role spirituality has in aiding an understudied population who endures everyday discrimination. Existing research suggests that spirituality has a specific cultural and practical import in the Unhoused Community (Brush & McGee; 2000; Gabbard, 2004; Irwin et al., 2008; Rasmussen & Pidgeon, 2011). For instance, it is thought that the use of spirituality to make meaning may be more common among Persons without Homes than their housed peers due to the inherently

existential nature of navigating suffering on the streets (Dinsmore, 2007; Nixon, 2013; Rennebohm & Paul, 2008). In addition, spiritual settings are also where practical resources (i.e., soup, shelter, clothing) and social support are often offered to Persons without Homes (Gabbard, 2004; Hurlbut et al., 2011; Lee et al., 2010). The current study extends the findings from prior qualitative research within the Unhoused Community because it explores associations among relevant variables on a larger scale and with a larger sample. For example, discrimination was inversely related to mental health while daily spiritual experiences were found to positively correlate with greater self-esteem and fewer symptoms of depression among Persons without Homes. Documenting the magnitude of the relationships between discrimination, overall mental health, and spirituality uniquely adds to the store of knowledge in the fields because it confirms the cultural relevance and potential clinical utility of the latter variable among Persons without Homes.

### **Moderating Effect of Spirituality on Overall Mental Health among Persons without Homes**

Findings from the current study suggest that various aspects of spirituality buffered against the adverse impact of discrimination. For instance, the association between greater discrimination and lower self-esteem was not as strong for Persons without Homes who had higher levels of spiritual belief or participated in more public spiritual behavior. Spirituality had a similarly protective role in preserving mood in the face of everyday discrimination. More precisely, all five aspects of spirituality measured significantly moderated symptoms of depression among Persons without Homes who were enduring greater discrimination. Although spirituality was correlated with lower levels of anxiety among Persons without Homes, it did not appear to moderate the relationship between discrimination and symptoms of anxiety at a statistically significant level. The results of the current study match with existing research

suggesting that spirituality contributes to less depression and a stronger sense of confidence and well-being, especially in the face of adverse circumstances and illnesses among many people (Brown et al., 2013; Koenig et al., 2001; D. B. Larson & S. S. Larson, 2003; Starnino, 2016). However, the findings are distinctive in that they examine these relationships among an understudied population and explore the interaction between spirituality, mental health, and discrimination in a quantitative manner.

### **Moderating Effects of Various Aspects of Spirituality on Specific Mental Health Outcomes among Persons without Homes**

As noted, various aspects of spirituality appeared to have a significant moderating effect on the association between discrimination and mental health among Persons without Homes in the current study. More precisely, spiritual belief, private spiritual behavior, public spiritual behavior, spiritual social support, and daily spiritual experiences attenuated the relationship between discrimination and depression, while spiritual belief and public spiritual behavior also moderated this association for self-esteem. In contrast, none of the aspects of spirituality measured appeared to significantly moderate the association between discrimination and anxiety.

#### **Spiritual Belief**

Anecdotal materials and prior research suggest that spiritual belief systems can provide a narrative structure for making meaning and sustaining well-being among Unhoused Persons (Brush & McGee, 2000; Douglas et al., 2008). Furthermore, spiritual beliefs can foster hope and help persons manage stress and anxiety in challenging settings (Chamberlain & Zika, 1992; Gravell, 2013). Findings from the present study extend prior work as greater levels of spiritual belief were correlated with higher self-esteem, less depression, and lower anxiety among Persons without Homes when covariates (i.e., health status, ability status, educational level, and

substance use) were considered. The moderating effect of spiritual belief on the association of discrimination and mental health is important because discrimination was found to be a statistically significant predictor of self-esteem, depression, and anxiety in the current study. Specifically, on average and without considering the moderating effects of spirituality, discrimination was associated with lower levels of self-esteem, higher levels of depression, and higher levels of anxiety among Persons without Homes. The negative relationship found between discrimination and self-esteem and discrimination and depression is also consistent with prior research within other marginalized communities in society (Greene et al., 2006; Hackett et al., 2020).

Although the salutary effects of spirituality and religiosity upon health and well-being is well documented in the literature (George et al., 2000; Koenig et al., 2002), the results of the present study expand upon past findings because they highlight the associations between spiritual beliefs and the mental health in the Unhoused Community. Findings from the current study indicate that higher levels of spiritual belief predicted higher levels of self-esteem and lower levels of depression among Persons without Homes even though discrimination was present. Spiritual beliefs may be associated with a more robust sense of self-esteem and more euthymic mood among Persons without Homes because they affirm the inherent dignity and worth of each person independent of their housing or socioeconomic status. Indeed, ancient texts from the Judeo-Christian tradition (Hiesberger, 1995, Genesis 1:27, Genesis 1:31, Matthew 5:3, Proverbs 22:2) and seminal theologians note that all humans are worthy of love and created in the *Imago Dei* or “image of the divine” (Aquinas, 1265-1273/2008, Part 1, Question 93, Article 4). In addition, sacred texts note that hope is “the anchor of the soul” and “joy comes in the morning” after times of trial (Hiesberger, 1995, Hebrews 6:19, Psalm 30:5).

Even though spiritual belief was positively associated with self-esteem and negatively with depression among Persons without Homes, it did not appear to predict symptoms of anxiety in the present study. This finding is inconsistent with a long-standing history of spiritual modalities assisting in the amelioration of anxiety (Anderson & Nunnelley, 2016; Boelens et al., 2009). More recently, mindfulness-based spiritual modalities have also been used successfully with clients living with anxiety disorders (Hofmann et al., 2010). The omnipresence of trauma in the Unhoused Community may have hindered the ability of spiritual belief to significantly moderate the association between discrimination and anxiety in the present study (Bender et al., 2010; Padgett & Struening, 1992). In addition, anxiety may reflect a more physiological and biometric response to experiencing homelessness than depression which may be part of a more socio-emotional response to the same condition. Spirituality is more socio-emotional than biometric in nature. As such, spirituality may have been able to effectively buffer against the association of discrimination and depression, but not discrimination and anxiety, in the current study.

### **Private Spiritual Behavior**

Findings from the current study suggest that private spiritual behavior is related to beneficial mental health outcomes among Persons without Homes. For instance, a significant inverse association existed between private spiritual behavior and anxiety and private spiritual behavior and depression among Persons without Homes when covariates (i.e., health status, ability status, education level, and substance use) were taken into consideration. In addition, private spiritual behavior significantly moderated the association between discrimination and depression in the Unhoused Community. Behavioral expressions of spirituality have been found to positively impact the mental health and well-being of persons enduring suffering (Koenig et

al., 2001). Moreover, research and colloquial materials suggest Persons without Homes regularly engage in spiritually-based behavior to help maintain future orientation and cope with the emotional stress that accompanies the experience of homelessness (Cocchi, 2021; Piraino et al., 2014; Sharp, 2010).

Findings from the current study are both distinct from and in harmony with existing literature. For instance, research suggests partaking in private spiritual behaviors, like prayer, can be of great comfort to persons coping with illness or other difficulties (Koenig et al., 1998; Peres et al., 2007). However, private spiritual behavior seemed to have a neutral rather than salutary effect on the self-esteem of Persons without Homes who are facing everyday discrimination. This finding was unexpected and may relate to the fact that the vast majority of research concerning spiritual behavior and coping has been conducted with participants who are housed (Ladd & Spilka, 2013; Levine, 2008). In contrast, Persons without Homes experience reduced access to spiritual media (TV, radio, phone, religious books, magazines) that often facilitate participation in private spiritual behavior. In addition, Persons without Homes prioritize daily tasks related to survival (i.e., finding shelter, obtaining food, meeting with social service providers) before devoting time and effort to an extensive practice of private spiritual behavior (Gravell, 2013).

Discrimination was not a significant predictor of self-esteem. Specifically, it was expected that private spiritual behavior would relate to greater self-esteem while discrimination would be associated with lower self-esteem (Anderson & Nunnelley, 2016; Belcher & DeForge, 2012; Ferrari et al., 2015). However, participating in private spiritual behavior may have resulted in less external validation than public spiritual behavior for Unhoused Persons. Thus, the former unlike the latter, may have failed to reduce the sense of social isolation, distancing,

and minority stress that Persons without Homes often experience in shared public settings due to discrimination (Harris & Fiske, 2006; Krieger, 1999). These considerations may have contributed to why private spiritual behavior was not a significant predictor of self-esteem or discrimination and furthermore why it did not moderate the association between discrimination and self-esteem as expected. Both private spiritual behavior and discrimination were significant predictors of anxiety in Persons without Homes in the current study. However, private spiritual behavior did not moderate the association between discrimination and anxiety. While engaging in private spiritual behavior may have inversely affected the anxiety level of Persons without Homes, it may not have done so to the point that participants could overcome the deleterious effects of discrimination upon their emotional and physiological state.

### **Public Spiritual Behavior**

Although public spiritual behavior was not a significant predictor or moderator of anxiety in the overall regression model, it did buffer the association between discrimination and self-esteem and depression. Findings from the present study are seminal because they illustrate the positive impact that an accessible spiritual activity could have on mental health in an under-represented population that endures daily oppression. Gathering together publicly to express spirituality in a collective manner has been correlated with a host of positive mental and physical health outcomes among Housed Persons (Baetz et al., 2006; George et al., 2000). Persons without Homes in the current study also appear to benefit from a shared external expression of spirituality, even when experiencing discrimination.

Findings from the current study affirm research concerning the centrality of spiritual behavior in the maintenance of self-esteem and mood among other oppressed communities domestically and internationally. More precisely, research suggests Housed and Unhoused

African American women utilize spirituality to cope, increase courage, recognize their purpose, achieve growth, and maintain self-esteem when joining together to pray and address inequality (Douglas et al., 2008; Mattis, 2002). African American youths also experienced enhanced self-esteem and less depression due to the influence of spirituality because it acted as buffer against the pernicious effects of racism and discrimination (Hill, 2006). Recent research suggests that the protective effects of participation in religious activities may be even more salient for Caribbean Black Adolescents than African American adolescents (Butler-Barnes et al., 2018). Qualitative research conducted in the United Kingdom found that participation in faith-based activities enhanced self-appraisal and positive thinking because it provided the opportunity for Persons without Homes to construct enriched alternative identities (Gravell, 2013).

Similarly, Persons without Homes in the current study may have found that public spiritual behavior empowered them to defy discrimination by preserving affect and enabling the construction of a positive sense of self. The construction of an identity rooted in shared spiritual activities, not housing status, may be particularly helpful to the preservation of self-esteem as societal stigma often generates a global sense of shame within Persons who endure the indignities of living on the streets (Luffborough, 2017; Ryan-DeDominicis, 2021). The finding that public spiritual behavior attenuates the effect of discrimination upon self-esteem and mood among Persons without Homes furthers prior research concerning the sustaining role of spirituality among marginalized populations in America and abroad.

In contrast, public spiritual behavior did not correlate with anxiety among Persons without Homes. It also did not moderate the association between discrimination and depression as expected. However, discrimination was predictive of anxiety in the overall regression model. The persistence of anxiety in the current study, despite various spiritual factors, may give some

indication of how pernicious discrimination is for the emotional health of Persons without Homes. Indeed, existing research has documented how stigma and discrimination adversely impact the treatment trajectories of Unhoused Persons (Mejia-Lancheros et al., 2020). Findings from the current study also suggest there is a need to search for more efficacious modalities to address anxiety in the Unhoused Community despite the established literature on spiritual behavior and mental health among Housed Persons (Anderson & Nunnelley, 2016; Brown et al., 2013).

### **Spiritual Social Support**

Although spiritual social support was not a significant predictor or moderator of anxiety in the overall regression model, it did correlate with higher levels of self-esteem among Persons without Homes. Spiritual social support also significantly buffered against the impact of discrimination upon depression when covariates were considered (i.e., health status, ability status, education level, and substance use). Findings from the present study are pioneering because they suggest that spiritual social support has a unique and significant impact on the self-appraisal and affect of Persons without Homes. It is worth noting that the positive effect of spiritual social support upon depression persisted despite the presence of discrimination due to housing status. The aforementioned results are somewhat expected as higher levels of perceived social support were associated with fewer symptoms of depression and less loneliness in a recent meta-analysis with Housed Persons (Wang et al., 2018). In addition, an extension of religious social support (religious social capital) appeared to provide resources that enabled Persons without Homes to not only cope but also make progress when facing challenges (Irwin et al., 2008). Current findings build upon prior work by focusing on the moderating role spiritual

social support has on the association of discrimination and various aspects of mental health among Persons without Homes.

Knowing more about accessible modalities that can bolster the mental health of Persons without Homes and help them reconnect with themselves and others in a healthy way is key for policy, service delivery, and future research. As noted, documenting the significant moderating effect that spiritual social support has on the association of discrimination on depression among Persons without Homes is critical for service delivery. Specifically, findings from the current study are consistent with research indicating that persons experiencing homelessness may seek shelter, obtain meals, and access services more consistently in settings where spiritual social support is present because it helps preserve mood and reduce loneliness (Gravell, 2013; Piraino et al., 2014). Findings from the present study illumine understanding about accessible resources, like spiritual social support, that Unhoused Persons may avail themselves of to navigate adverse circumstances, including discrimination, that affect daily life and mental health.

Exploring the potential effect of spiritual social support on self-esteem was a focus of the current study because social connectedness and self-esteem have been shown to relate to positive mental health outcomes among Persons without Homes (Dang, 2014; Kidd, & Shahar, 2008). Although spiritual social support was significantly associated with positive self-esteem, it did not relate to lower levels of anxiety in the current study. Spiritual social support also did not moderate the association between discrimination and self-esteem or anxiety as hypothesized. Recent research suggests that the Minority Stress Model (MSM) may extend to additional marginalized communities (i.e., Unhoused Community) in that discrimination may add to anxiety and decrease self-esteem, thereby putting stress on the relationships Persons without Homes may be seeking to establish in main-stream social settings (Botha & Frost, 2020; Meyer,

2003). This dynamic could then disrupt the positive potential spiritual social support has to buffer the effects of discrimination.

### **Daily Spiritual Experience**

Daily spiritual experience had a significant and positive relationship with self-esteem among Persons without Homes in the current study. In addition, daily spiritual experience significantly interacted with discrimination in predicting depression among Persons without Homes. In particular, daily spiritual experience appeared to buffer against the adverse effects of discrimination endured every day by Persons in the Unhoused Community. Findings from the current study resonate with a recent review by Underwood and Vagnini (2021) who found that daily spiritual experience is associated with resilience, post-traumatic growth, increase in mood, reduction of substance misuse, and stress buffering among diverse populations including refugees and trauma survivors. Thus, findings from the present study re-affirm the relevance of daily spiritual experiences for populations facing adverse circumstances and extend this literature to Persons without Homes who are also experiencing discrimination.

The inherently existential nature of the experience of homelessness may provide Persons without Homes more opportunity than their Housed Peers to reflect upon daily spiritual experiences and transcendent relationships with the divine and each other. Runquist and Reed (2007) state, “vulnerability arising from critical health and life experiences such as homelessness can increase the need for a greater sense of connectedness to processes that transcend one’s current situation or limitations” (p. 6). As such, daily spiritual experiences may be a culturally appropriate and endemic approach for making meaning and forming positive identity among Persons without Homes. The finding that daily spiritual experience moderates the association between discrimination and depression may be especially salient for the helping professions as it

suggests there is an accessible set of experiences that can be used successfully by Persons without Homes to buffer against the affective distress associated with the stigmatizing behavior of others. Accordingly, attention to daily spiritual experience could broaden the range of potential interventions that policy makers, researchers, and clinicians consider when seeking to boost efficacy and preserve mood among Persons experiencing homelessness in the future.

Although daily spiritual experience was positively associated with self-esteem and moderated the association of discrimination on depression among Persons without Homes, it did not appear to significantly predict or moderate symptoms of anxiety in the present study. The pattern of non-significance found across all aspects of spirituality measured in relation to anxiety, with the exception of main effects for spiritual belief and private spiritual behavior, is perplexing because it diverges from a multitude of research suggesting that spiritual perspectives and experiences are significantly associated with feelings of peace, tranquility, love, harmony, and comfort (Brush & McGee, 2000; Underwood & Vagnini, 2021; Underwood & Teresi, 2002). The presence of discrimination as a significant predictor in every anxiety regression model in the study, except for private spiritual behavior, may be overriding any beneficial effect that spiritual factors might potentially have on the emotional and physiological response state of Persons without Homes.

### **Summary of Moderating Effects of Spirituality on Mental Health Outcomes among Persons without Homes**

An abridgement of findings from the current study would suggest that spirituality is positively associated with a number of advantageous mental health outcomes, even among a population navigating austere circumstances. These findings are consistent with research detailing the utility of spirituality in helping people cope effectively with illness, trauma, and

displacement (Bush et al., 2012; Koenig et al., 2002; D. B. Larson & S. S. Larson, 2003; Peres et al., 2007). However, findings from the present study are also innovative as they document the significant moderating impact that various aspects of spirituality have on the mental health of Persons without Homes who are dealing with everyday discrimination.

The correlations with and impact of spirituality on discrimination among Persons without Homes varied by mental health outcome. For instance, spiritual belief and private spiritual behavior exhibited a main effect in the anxiety regression model in which higher levels of spiritual belief and private spiritual behavior predicted lower levels of anxiety among Persons without Homes. Moreover, higher levels of discrimination predicted higher levels of anxiety among Persons without Homes in all five regression models. In addition, there was no significant interaction effect between spirituality and discrimination in any of the anxiety regression models tested. Taken together, these findings indicate that while spiritual belief and private spiritual behavior may be inversely associated with anxiety in a significant way, they did not adequately shield Persons without Homes from the perilous effects of discrimination.

The inability of various aspects of spirituality to significantly moderate the association between discrimination and anxiety in the present study may reflect the psychophysiological nature of anxiety-based responses to experiencing homelessness. More precisely, anxiety is comprised of both affective and physiological components, which may be less amenable to spiritual intervention than depression, which could be classified as inherently more affective in nature. In addition, the prevalence of past and ongoing trauma among Persons without Homes may have acted as a confound to the measurement of anxiety in the present study.

Spirituality appeared to have a greater effect on self-esteem than anxiety among Persons without Homes in the current study. For instance, there was a significant main effect on self-

esteem for four out of five regression models tested (spiritual belief, public spiritual behavior, spiritual social support, & daily spiritual experience). While there was no significant effect noted for private spiritual behavior on self-esteem among Persons without Homes, there were significant interactions between spiritual belief and discrimination and public spiritual behavior and discrimination such that participants with higher levels of spiritual belief or public spiritual behavior were able to preserve self-esteem despite varying levels of discrimination. The opposite effects were noted with regard to discrimination in all five regression models in which lower levels of self-esteem among Persons without Homes were predicted by higher levels of discrimination. In summary, spiritual belief, public spiritual behavior, spiritual social support, and daily spiritual experience predicted higher levels of self-esteem among Persons without Homes, while spiritual belief and public spiritual behavior also served as effective buffers against some of the adverse effects of discrimination on mental health in the Unhoused Community.

Spirituality appeared to have the greatest correlational and protective effect on an affect related aspect of mental health among Persons without Homes in the current study. More precisely, a significant interaction existed between spirituality and the association of discrimination on depression in all five regression models tested: spiritual belief, private spiritual behavior, public spiritual behavior, spiritual social support, and daily spiritual experience. The significant moderating effect of spirituality on the association of discrimination and depression in each of the aforementioned analyses is revealed in plots of the means in Figures 1-7. Although the amount of variance accounted for differed slightly in each model, the moderational effect of discrimination on depression was significant and similar across all models. So, Persons without Homes with higher levels of spiritual belief, private spiritual behavior, public spiritual behavior,

spiritual social support, or daily spiritual experience did not experience greater levels of depression even when discrimination levels were higher. The significant moderational effect of all five spiritual factors assessed on discrimination and depression in the present study illustrates the pro-active role spirituality may have in maintenance of mood in extreme circumstances. Similarly, the significance of the positive role that spiritual belief and behaviors appear to have across mental health outcomes (self-esteem, depression, and anxiety) highlights spirituality's potential relevance as an accessible coping resource in the Unhoused Community.

### **Strengths and Limitations**

The present study has several strengths and limitations. Strengths include a focus on Persons without Homes, a resilient, oppressed, and underserved population; an emphasis on a contextual factor (i.e., discrimination) that adversely impacts their mental health on a daily basis; with inclusion of a larger number of participants to allow for a quantitative methodological approach. More precisely, Persons without Homes are a diverse yet understudied population as the vast majority of research concerning homelessness assesses the attitudes of Housed Persons toward Unhoused Persons. In contrast, the current study surveyed Unhoused Persons directly and highlighted their unique experiences of everyday discrimination. It also systematically examined the moderating effects of various aspects of a culturally familiar and practically accessible coping resource (i.e., spirituality) upon the association between discrimination and mental health among Persons without Homes. Discovering and documenting the significant role that spirituality has in preserving mood and self-esteem by buffering against discrimination in the Unhoused Community is important for policy, public health, future research, social service delivery, clinical outreach, and pastoral care.

Despite noted strengths, the current study also has limitations. Some of the limitations concern challenges in finding normed measures that address discrimination among this population. For instance, there is no known measure to assess discrimination, specifically, as it may be experienced by Persons without Homes. Accordingly, a measure of discrimination due to race was amended for use with Persons without Homes for the present study. Similarly, even though the spirituality measures in the present study have been used in many different populations, they have not been specifically utilized within the Unhoused Community. Another limitation concerns the fact that recruitment and data collection was limited to a large urban area in the Northeast. Thus, findings regarding the prevalence of discrimination and level of mental health concerns among Unhoused Persons in this region may not generalize to other parts of the country. In addition, although the sample size was larger than is commonly found in research among Persons without Homes, it was a convenience sample. The majority of participants were middle-aged (48 years old) men (79%) who identified as heterosexual (86%) and had been unhoused for 6 years total. The racial composition of the sample varied with participants self-identifying as: (54%) White and (45%) Persons of Color. Thus, it was not diverse enough to allow for comparisons based upon multiple demographic factors. It would be advantageous for future research to intentionally focus on sub-populations of the Unhoused Community who are perhaps even more vulnerable to discrimination than the majority of their Unhoused Peers due to intersectional factors.

## **Implications**

### **Implications of Findings for Policy**

The results of the present study can be fruitfully applied to civic policy, clinical practice, and research. For example, Persons without Homes would likely benefit from greater civil

protection and amended public policy regarding the right to move about freely and congregate in public spaces without the danger of being arrested, searched, harassed, and subjected to other forms of discrimination and prejudice. In addition, offering social services (i.e., Elders Rapid Housing Signup, Unhoused Veterans Outreach, etc.) in spiritual settings that acknowledge the inherent worth of every person regardless of their housing status could contribute to positive mental health outcomes among Persons without Homes by protecting against discrimination while simultaneously offering practical resources and coordination of care in a non-shaming environment. Spiritual settings may also be able to support political agency, self-esteem, and advocacy in the Unhoused Community by offering a welcoming space in which civic leaders and Persons without Homes may interact to share ideas about future and current policy initiatives. It may be of note that a similar model has been used successfully in Boston, Massachusetts with the Mayor's Office and the Many Angels Needed Now and Always (MANNA) community of St. Paul's Episcopal Cathedral.

### **Implications of Findings for Clinical Practice**

As noted, findings from the present study indicate that various aspects of spirituality could help combat the negative effects of discrimination, preserve positive mood, assist with social support, and enhance self-esteem among Persons without Homes. These findings have implications for providers across the helping professions. For instance, mental health clinicians might find it efficacious to consider the potential role spirituality could have in individual and group therapy with Persons without Homes due to its salutary impact on self-esteem and depression despite the corrosive presence of discrimination. As noted, all aspects of spirituality measured appeared to have a significant moderating effect on the association of discrimination on mood and two aspects of spirituality measured (spiritual belief & public spiritual behavior)

seemed to have a significant moderating effect on self-esteem among Persons without Homes. The ramifications of the effects of spirituality upon mental health may be even more salient than current results suggest as it is often the preferred way that Persons without Homes make meaning, cope in proactive ways, and sustain hope in times of crisis and transition on the streets.

Offering clinical and medication management services in a familiar and culturally amenable space, like a spiritual setting, could also strengthen existing spiritual social support networks among Persons without Homes. Leveraging spiritual social support is important for mental health as the former was correlated with higher levels of self-esteem and lower levels of depression among Unhoused Persons in the current study. Spiritual social support may also increase treatment adherence by acting as a proxy pro-social peer group for Unhoused Persons. Staff and volunteers trained in spiritual belief systems that promote equity among all persons may also be helpful in preventing internalization of discrimination because they can combat stereotypes and provide relational reinforcement to Unhoused Community Members. Staff, volunteers, and Unhoused Peers might also be able to provide culturally appropriate spiritual resources for the construction of positive identity among Persons without Homes in lieu of the stigma or absence of acknowledgement that can exist in service delivery spaces that aren't designed to honor the inherent dignity of members of the Unhoused Community (i.e., major medical centers).

Clinicians may find it helpful to utilize spiritual settings as accessible avenues for mental and physical health service delivery because Persons without Homes are likely already accessing practical resources in such settings (i.e., Monday Night Dinner at Church on the Hill, etc.). In addition, various aspects of spirituality have historically been utilized by Persons without Homes to cope with the affective, cognitive, behavioral, and logistical challenges of experiencing

homelessness and its correlates (Douglas et al., 2008; Irwin et al., 2008). Persons without Homes have also employed spirituality to help make meaning and seek support when in crisis or experiencing a life transition (Luffborough, 2017; Rennebohm & Paul, 2008). For instance, Persons without Homes access social and practical support in spiritual settings when re-entering society after being incarcerated or recovering from serious illness. In addition, both Persons with and without Homes regularly engage in recovery activities in spiritual settings as many anonymous self-help groups (i.e., Alcoholics Anonymous, Narcotics Anonymous, etc.) hold meetings in spiritual settings. Offering therapeutic and recovery-based care in a setting that is positively associated with relationships and resources is advantageous for clinicians looking to establish trusting relationships with Persons without Homes.

### **Implications of Findings for Research**

Findings from the current study suggest valuable avenues for future research in the Unhoused Community. For instance, prior research and comments made by participants during and after data collection in the current study indicate that Persons without Homes felt understood and validated when asked to share their experiences of discrimination, mental health status, or thoughts about spirituality (Gravell, 2013; Piraino et al., 2014). Many participants also voiced appreciation for the opportunity to be “be heard” and contribute to existing knowledge about discrimination, mental health, and engagement with spirituality that often accompanies the experience of being unhoused. It appears that being “seen” in a society and discipline in which they are often figuratively and literally invisible was very empowering for Persons without Homes. As such, it would be advantageous for scholars to use Participatory-Action Research (PAR) approaches when joining with members of the Unhoused Community in the future as it could enhance self-efficacy. PAR would also enable Persons without Homes to have direct

involvement in designing and conducting research that could highlight instances of oppression, resilience-based responses, and emic ways of making meaning.

Knowing more about culturally relevant and readily accessible coping options preferred by Unhoused Persons would also enable social scientists to propose more evidenced-based research in the future. For instance, forthcoming research could determine if additional aspects of spirituality (e.g., compassion, forgiveness, intrinsic orientation, extrinsic orientation, meditation, prayer) also moderate the association between discrimination and mental health among Persons without Homes. Social scientists may also want to learn more about how various aspects of identity impact discrimination, mental health, and coping among Unhoused Persons. For instance, examining the role of intersectionality might be especially illuminating as research suggests that Persons living with an exceptionality or disability, Persons who identify as part of the LGBTQIA community, and BIPOC experience additional forms of discrimination while unhoused (Douglas et al., 2008; Fraser et al., 2019; Nishio et al., 2017). Unhoused Persons from these particular communities may also differ in preferred coping styles due to sociocultural location and a range of historical interactions with spiritual communities. Although spirituality buffered against the negative associations between discrimination and self-esteem and discrimination and depression among Persons without Homes, it did not have a significant moderating effect in all areas of mental health assessed. For example, none of the aspects of spirituality measured had a significant moderating effect on the relationship between discrimination and anxiety among Persons without Homes. As such, this finding may be a constructive area of focus for future research. For instance, it may be helpful to explore the potential role that trauma has in generating and maintaining high anxiety levels among Persons without Homes despite the potential availability of spiritual coping resources (Tutty et al., 2013).

Similarly, examining the relationships between the aforementioned factors might yield data suggesting how spiritual interventions could be modified to better serve Persons without Homes as research suggests experiencing homelessness is fundamentally traumatizing and anxiety inducing (Bender et al., 2010; Krausz et al., 2013).

Findings from the present study might also motivate researchers to consider if other third-space or in-between creative pursuits such as play (i.e., recreational sports teams, therapeutic movement, board games) or artistic activities (i.e., poetry, painting, singing) might also positively moderate the effect of discrimination upon mental health (Jurgensmeier, 2012; Winnicott, 1971). The impact of participation in advocacy groups, spiritual gatherings designed by and for Unhoused Persons, and volunteering to care for others (i.e., Peer Resource Specialist, Outreach Worker, etc.) are additional foci of research concerning accessible and emic coping strategies that would build upon the current study to preserve mental health in the face of daily discrimination among Persons without Homes (Cocchi, 2021; McCarthy et al., 2019). In summary, findings from the present study have multiple implications for future research, clinical practice, social service delivery, public policy, and pastoral care designed to meet the particular needs of Persons without Homes who experience discrimination.

## **Conclusion**

The present study sought to address the paucity of research concerning the prevalence and impact of discrimination against Persons without Homes. It also endeavored to examine the potential role an accessible coping factor, spirituality, might have in moderating the relationship between discrimination and mental health outcomes, including mood, anxiety, and self-esteem, among Persons without Homes. As hypothesized, higher levels of discrimination were correlated with lower levels of self-esteem and higher anxiety and depression in the Unhoused

Community. In addition, various aspects of spirituality significantly buffered against the associations between discrimination and the aforementioned indicators of wellbeing.

Specifically, all five aspects of spirituality moderated the deleterious impact of discrimination upon depression and two moderated the adverse impact of discrimination upon self-esteem.

None of the dimensions of spirituality measured successfully moderated the association of discrimination upon anxiety among Persons without Homes. Thus, findings reaffirm the pervasiveness of discrimination and how detrimental it is to the mental health of oppressed populations. However, findings also represent a unique opportunity to learn from the lived experiences and expertise of Persons without Homes. More precisely, Persons without Homes effectively employ spiritual belief, spiritual behaviors, daily spiritual experiences, and spiritual social support to ameliorate the adverse effects of discrimination upon their mental health. This revelation has the potential to positively shape future research, clinical practice, social service delivery, and pastoral care by, with, and on behalf of the citizens of our nation who are currently forced to call the streets home.

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Table 1  
*Demographic Aspects of Identity of Persons without Homes*

Demographic Variable	N (%) = Categorical	M (SD)
Gender Identity	206	
Male	163 (79.1)	
Female	38 (18.4)	
Transgender	2 (1)	
Other (Written in Response)	3 (1.5)	
Total Time Homeless	-	6.9 years
Age	-	47.9 years
Race/Ethnicity	205	
Black/African-American	39 (18.9)	
White/Caucasian	112 (54.4)	
Spanish/Hispanic/Latino	8 (3.9)	
Native American	5 (2.4)	
Pacific Islander	0	
Asian-American	2 (1.0)	
Bi-Racial	6 (2.9)	
Other (Written in Response)	14 (6.8)	
Multiple Entries	19 (9.2)	
Not reported or Missing	1 (0.5)	
Member of Spiritual Community or Religious Tradition	79 (38.3)	
Highest Level of Education	205	
Less than 9th Grade	7 (3.4)	
9th-12th Grade (No Diploma)	29 (14.1)	
High School Graduate or GED	73 (35.4)	
Professional Trade School	4 (1.9)	
Some College (No Degree)	43 (20.9)	
Associate's Degree	16 (7.8)	
Bachelor's Degree	21 (10.2)	
Graduate or Professional Degree	12 (5.8)	
Not Reported	1 (0.5)	
Sexual Orientation	205	
Gay	10 (4.9)	
Lesbian	0	
Straight	178 (86.4)	
Bisexual	11 (5.3)	
Questioning	1 (0.5)	
Other (Written in Response)	3 (1.5)	
Multiple Entries	2 (1.0)	
Not Reported	1 (0.5)	
Reported Having a Disability	132 (64.1)	
Reported Chronic Health Issues	110 (53.4)	
Identified as Veteran	28 (13.6)	

*Note.* Total sample size:  $n = 205$  across variables. Some variables had missing data. Regressions were run listwise and correlations were run pairwise to adjust for these differences.

Table 2.  
*Descriptive Statistics and Correlation of Continuous Variables.*

Measure	1	2	3	4	5	6	7	8	9	10
1. Discrimination	—									
2. Self-Esteem	-.18**	—								
3. Depression	.31***	-.63***	—							
4. Anxiety	.38***	-.35***	.60***	—						
5. Spiritual Beliefs <sup>†</sup>	.15*	.30***	-.30***	-.08	—					
6. Spiritual Behavior <sup>†</sup> (Private)	.15*	.08	-.22**	-.13	.50***	—				
7. Spiritual Behavior <sup>†</sup> (Public)	.06	.03	-.15*	-.02	.25***	.34***	—			
8. Spiritual Social Support <sup>†</sup>	.06	.20**	-.23***	-.06	.28***	.28***	.31***	—		
9. Daily Spiritual Experience <sup>†</sup>	.16*	.35***	-.32***	-.04	.68***	.65***	.27***	.43***	—	
10. CAGE-AID	.17*	-.19**	.24***	.20**	-.05	-.14*	-.01	.02	-.12	—
<i>M</i> ( <i>SD</i> )	4.34 (1.33)	2.95 (0.55)	1.00 (0.69)	0.96 (0.68)	4.24 (0.87)	0.00 (0.76)	5.27 (2.33)	2.92 (0.59)	0.00 (0.78)	2.36 (1.59)
Possible range	1.00 - 6.00	1.00 - 4.00	0.00 - 3.00	0.00 - 3.00	1.00 - 5.00	1 - 8, 1-5	1.00 - 9.00	1.00 - 4.00	1 - 6, 1-4	0.00 - 4.00
Actual range	1.00 - 6.00	1.50 - 4.00	0.00 - 3.00	0.00 - 3.00	1.00 - 5.00	-1.24 - 1.55	1.00 - 9.00	1.50 - 4.00	-2.00 - 1.13	0.00 - 4.00

*Note.* Sample range is  $n = 202$  to  $206$ . Possible range = minimum to maximum statistic of possible scale scores on measure. Actual range = minimum to maximum statistic of actual scale scores on measure. <sup>†</sup>Variables were transformed into Z-scores for analyses.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 3

*Moderating Effect of Spirituality on the Relationship between Discrimination and Self-Esteem*

Variable	Model 1: Spiritual Beliefs				Model 2: Spiritual Behavior Private				Model 3: Spiritual Behavior Public			
	B	SE	$\beta$	95% CI	B	SE	$\beta$	95% CI	B	SE	$\beta$	95% CI
Discrimination	-0.09*	0.04	-0.17	[-0.17, -0.02]	-0.08	0.04	-0.14	[-0.16, 0.00]	-0.06	0.04	-0.11	[-0.14, 0.12]
CAGE-AID	-0.03	0.02	-0.09	[-0.08, 0.02]	-0.03	0.03	-0.10	[-0.08, 0.02]	-0.04	0.02	-0.11	[-0.09, 0.01]
Health Status	-0.21**	0.07	-0.19	[-0.35, -0.06]	-0.21**	0.08	-0.19	[-0.36, -0.06]	-0.22**	0.08	-.20	[-0.37, -0.06]
Education Level	0.17*	0.07	0.15	[0.02, 0.31]	0.18*	0.08	0.16	[0.02, 0.33]	0.16*	0.08	0.15	[0.01, 0.31]
Disability Status	0.08	0.08	0.07	[-0.08, 0.24]	0.08	0.08	0.07	[-0.09, 0.25]	0.08	0.08	0.07	[-0.09, 0.24]
Spiritual (Main)	0.16***	0.04	0.31	[0.09, 0.23]	0.03	0.04	0.06	[-0.04, 0.11]	0.02	0.04	0.03	[-0.06, 0.09]
Disc. $\times$ Spirit	0.07	0.03	0.15	[0.01, 0.14]	0.05	0.04	0.09	[-0.03, 0.12]	0.08*	0.03	0.17	[0.02, 0.15]

*Note.* CAGE-AID = problematic substance use; Health Status is dichotomized as 0 = no health concern(s), 1 = at least one health concern; Education Level is dichotomized as 0 = high school graduate or below, 1 = college or professional classes or degree; Disability is dichotomized as 0 = No disability, 1 = person lives with a cognitive, psychiatric, emotional, developmental, and/or physical disability; Spiritual (Main) for Model 1 = main effect of Spiritual Beliefs, Model 2 = main effect of Spiritual Behavior-Private, Model 3 = main effect of Spiritual Behavior-Public; Disc.  $\times$  Spirit for Model 1 = interaction between Discrimination and Spiritual Beliefs, Model 2 = interaction between Discrimination and Spiritual Behavior-Private, Model 3 = interaction between Discrimination and Spiritual Behavior-Public.

\*  $p < .05$ . \*\*  $p \leq .01$ . \*\*\*  $p < .001$ .

Table 3

*Moderating Effect of Spirituality on the Relationship between Discrimination and Self-Esteem (continued)*

Variable	Model 4: Spiritual Social Support				Model 5: Spiritual Experiences			
	B	SE	$\beta$	95% CI	B	SE	$\beta$	95% CI
Discrimination	-0.08*	0.04	-0.15	[-0.16, 0.00]	-0.10*	0.04	-0.18	[-0.17, -0.02]
CAGE-AID	-0.04	-0.02	-0.12	[-0.09, 0.01]	-0.02	0.02	-0.05	[-0.06, 0.03]
Health Status	-0.21**	0.08	-0.19	[-0.36, -0.05]	-0.17*	0.07	-0.16	[-0.32, -0.03]
Education Level	0.15	0.08	0.14	[0.00, 0.30]	0.15*	0.07	0.14	[0.00, 0.29]
Disability Status	0.09	0.08	0.08	[-0.07, 0.25]	0.06	0.08	0.05	[-0.10, 0.22]
Spiritual (Main)	0.10**	0.04	0.19	[0.03, 0.18]	0.18***	0.04	0.32	[0.10, 0.25]
Disc. $\times$ Spirit	0.07	0.04	0.14	[0.00, 0.14]	0.06	0.04	0.10	[-0.02, 0.13]

*Note.* CAGE-AID = problematic substance use; Health Status is dichotomized as 0 = no health concern(s), 1 = at least one health concern; Education Level is dichotomized as 0 = high school graduate or below, 1 = college or professional classes or degree; Disability is dichotomized as 0 = No disability, 1 = person lives with a cognitive, psychiatric, emotional, developmental, and/or physical disability; Spiritual (Main) for Model 4 = main effect of Spiritual Social Support, Model 5 = main effect of Spiritual Experiences; Disc.  $\times$  Spirit for Model 4 = interaction between Discrimination and Spiritual Social Support, Model 5 = interaction between Discrimination and Spiritual Experiences.

\*  $p \leq .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 4

*Moderating Effect of Spirituality on the Relationship between Discrimination and Depression*

Variable	Model 1: Spiritual Beliefs				Model 2: Spiritual Behavior Private				Model 3: Spiritual Behavior Public			
	B	SE	$\beta$	95% CI	B	SE	$\beta$	95% CI	B	SE	$\beta$	95% CI
Discrimination	0.21***	0.05	0.30	[0.12, 0.30]	0.20***	0.05	0.29	[0.11, 0.30]	0.17***	0.05	0.25	[0.08, 0.27]
CAGE-AID	0.05	0.03	0.12	[0.00, 0.11]	0.05	0.03	0.11	[0.00, 0.11]	0.06*	0.03	0.15	[0.01, 0.12]
Health Status	0.22*	0.09	0.16	[0.04, 0.40]	0.20*	0.09	0.14	[0.01, 0.38]	0.21*	0.09	0.15	[0.03, 0.40]
Education Level	-0.18	0.09	-0.13	[-0.36, -0.01]	-0.18*	0.09	-0.13	[-0.36, 0.00]	-0.17	0.09	-0.12	[-0.35, 0.02]
Disability Status	-0.07	0.10	-0.05	[-0.27, 0.12]	-0.08	0.10	-0.05	[-0.27, 0.12]	-0.06	0.10	-0.04	[-0.26, 0.14]
Spiritual (Main)	-0.22***	0.04	-0.32	[-0.30, -0.13]	-0.15***	0.05	-0.22	[-0.24, -0.06]	-0.11*	0.05	-0.15	[-0.20, -0.01]
Disc. $\times$ Spirit	-0.09*	0.04	-0.14	[-0.16, 0.01]	-0.10*	0.04	-0.15	[-0.19, -0.01]	-0.10*	0.04	-0.16	[-0.18, -0.02]

*Note.* CAGE-AID = problematic substance use; Health Status is dichotomized as 0 = no health concern(s), 1 = at least one health concern; Education Level is dichotomized as 0 = high school graduate or below, 1 = college or professional classes or degree; Disability is dichotomized as 0 = No disability, 1 = person lives with a cognitive, psychiatric, emotional, developmental, and/or physical disability; Spiritual (Main) for Model 1 = main effect of Spiritual Beliefs, Model 2 = main effect of Spiritual Behavior-Private, Model 3 = main effect of Spiritual Behavior-Public; Disc.  $\times$  Spirit for Model 1 = interaction between Discrimination and Spiritual Beliefs, Model 2 = interaction between Discrimination and Spiritual Behavior-Private, Model 3 = interaction between Discrimination and Spiritual Behavior-Public.

\*  $p \leq .05$ . \*\*  $p < .01$ . \*\*\*  $p \leq .001$ .

Table 4

*Moderating Effect of Spirituality on the Relationship between Discrimination and Depression (continued)*

Variable	Model 4: Spiritual Social Support				Model 5: Spiritual Experiences			
	B	SE	$\beta$	95% CI	B	SE	$\beta$	95% CI
Discrimination	0.16***	0.05	0.24	[0.07, 0.26]	0.22***	0.05	0.31	[0.12, 0.31]
CAGE-AID	0.08**	0.03	0.18	[0.02, 0.13]	0.04	0.03	0.09	[-0.02, 0.10]
Health Status	0.24**	0.09	0.17	[0.06, 0.42]	0.19*	0.09	0.14	[0.01, 0.36]
Education Level	-0.11	0.09	-0.08	[-0.29, 0.07]	-0.16	0.09	-0.12	[-0.34, 0.01]
Disability Status	-0.12	0.10	-0.09	[-0.32, 0.07]	-0.06	0.10	-0.04	[-0.25, 0.13]
Spiritual (Main)	-0.19***	0.04	-0.27	[-0.27, -0.10]	-0.22***	0.05	-0.32	[-0.31, -0.13]
Disc. $\times$ Spirit	-0.13**	0.04	-0.20	[-0.22, -0.05]	-0.10*	0.05	-0.14	[-0.20, -0.01]

*Note.* CAGE-AID = problematic substance use; Health Status is dichotomized as 0 = no health concern(s), 1 = at least one health concern; Education Level is dichotomized as 0 = high school graduate or below, 1 = college or professional classes or degree; Disability is dichotomized as 0 = No disability, 1 = person lives with a cognitive, psychiatric, emotional, developmental, and/or physical disability; Spiritual (Main) for Model 4 = main effect of Spiritual Social Support, Model 5 = main effect of Spiritual Experiences; Disc.  $\times$  Spirit for Model 4 = interaction between Discrimination and Spiritual Social Support, Model 5 = interaction between Discrimination and Spiritual Experiences.

\*  $p < .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ .

Table 5

*Moderating Effect of Spirituality on the Relationship between Discrimination and Anxiety*

Variable	Model 1: Spiritual Beliefs				Model 2: Spiritual Behavior Private				Model 3: Spiritual Behavior Public			
	B	SE	$\beta$	95% CI	B	SE	$\beta$	95% CI	B	SE	$\beta$	95% CI
Discrimination	0.24***	0.05	0.35	[0.15, 0.33]	0.25***	0.05	0.37	[0.16, 0.34]	0.22***	0.05	0.33	[0.13, 0.32]
CAGE-AID	0.04	0.03	0.09	[-0.02, 0.09]	0.03	0.03	0.06	[-0.03, 0.08]	0.04	0.03	0.10	[-0.02, 0.10]
Health Status	0.29**	0.09	0.21	[0.11, 0.47]	0.27**	0.09	0.20	[0.10, 0.45]	0.29**	0.09	0.21	[0.11, 0.47]
Education Level	0.02	0.09	0.02	[-0.16, 0.20]	0.03	0.09	0.02	[-0.15, 0.21]	0.02	0.09	0.02	[-0.16, 0.20]
Disability Status	0.13	0.10	0.09	[-0.07, 0.32]	0.15	0.10	0.11	[-0.04, 0.34]	0.13	0.10	0.09	[-0.07, 0.33]
Spiritual (Main)	-0.09*	0.04	-0.14	[-0.18, 0.01]	-0.14**	0.04	-0.21	[-0.23, -0.05]	-0.01	0.05	-0.02	[-0.10, 0.08]
Disc. $\times$ Spirit	-0.03	0.04	-0.05	[-0.11, 0.05]	-0.06	0.04	-0.08	[-0.14, 0.03]	-0.03	0.04	-0.04	[-0.11, 0.06]

*Note.* CAGE-AID = problematic substance use; Health Status is dichotomized as 0 = no health concern(s), 1 = at least one health concern; Education Level is dichotomized as 0 = high school graduate or below, 1 = college or professional classes or degree; Disability is dichotomized as 0 = No disability, 1 = person lives with a cognitive, psychiatric, emotional, developmental, and/or physical disability; Spiritual (Main) for Model 1 = main effect of Spiritual Beliefs, Model 2 = main effect of Spiritual Behavior-Private, Model 3 = main effect of Spiritual Behavior-Public; Disc.  $\times$  Spirit for Model 1 = interaction between Discrimination and Spiritual Beliefs, Model 2 = interaction between Discrimination and Spiritual Behavior-Private, Model 3 = interaction between Discrimination and Spiritual Behavior-Public.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 5

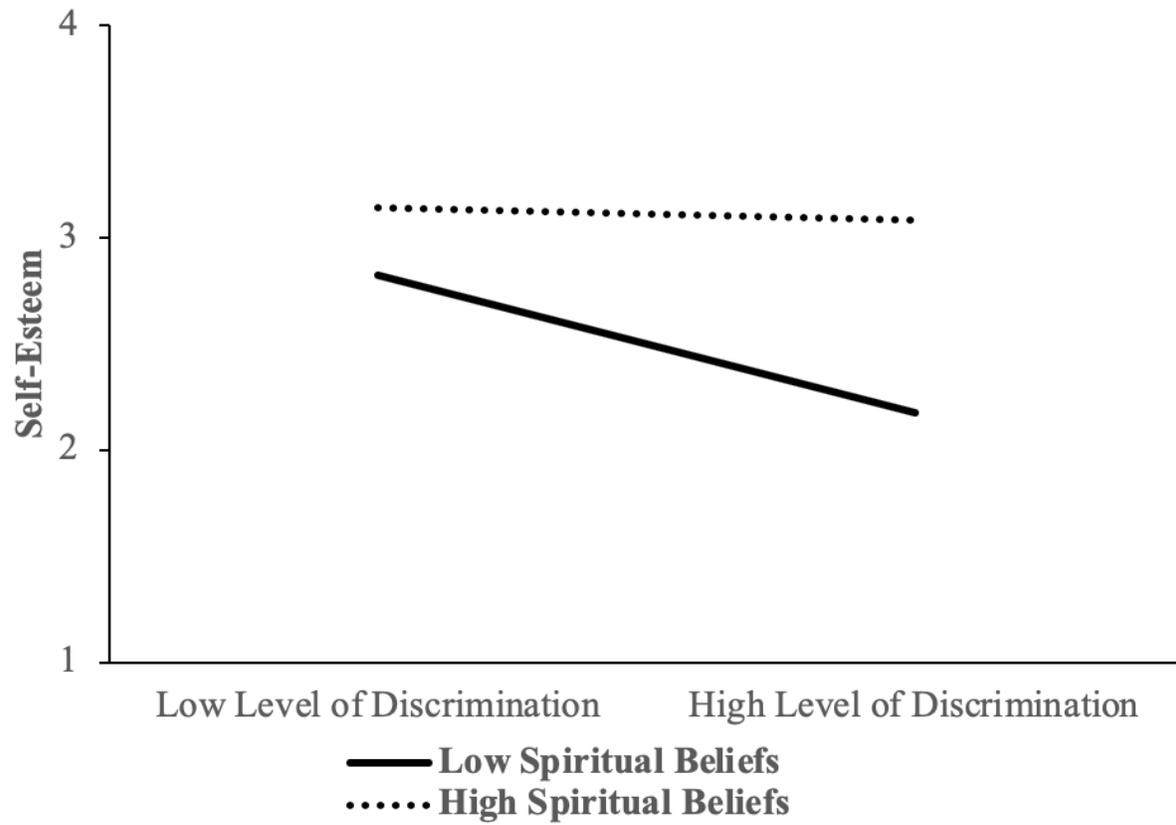
*Moderating Effect of Spirituality on the Relationship between Discrimination and Anxiety (continued)*

Variable	Model 4: Spiritual Social Support				Model 5: Spiritual Experiences			
	B	SE	$\beta$	95% CI	B	SE	$\beta$	95% CI
Discrimination	0.23***	0.05	0.34	[0.14, 0.32]	0.24***	0.05	0.35	[0.15, 0.33]
CAGE-AID	0.04	0.03	0.10	[-0.01, 0.10]	0.03	0.03	0.08	[-0.02, 0.09]
Health Status	0.28**	0.09	0.21	[0.10, 0.46]	0.28**	0.09	0.20	[0.10, 0.46]
Education Level	0.04	0.09	0.03	[-0.15, 0.22]	0.03	0.09	0.02	[-0.15, 0.21]
Disability Status	0.12	0.10	0.09	[-0.07, 0.32]	0.14	0.10	0.10	[-0.06, 0.33]
Spiritual (Main)	-0.06	0.05	-0.09	[-0.15, 0.02]	-0.08	0.05	-0.11	[-0.17, 0.01]
Disc. $\times$ Spirit	-0.07	0.04	-0.11	[-0.16, 0.02]	-0.01	0.05	-0.02	[-0.11, 0.08]

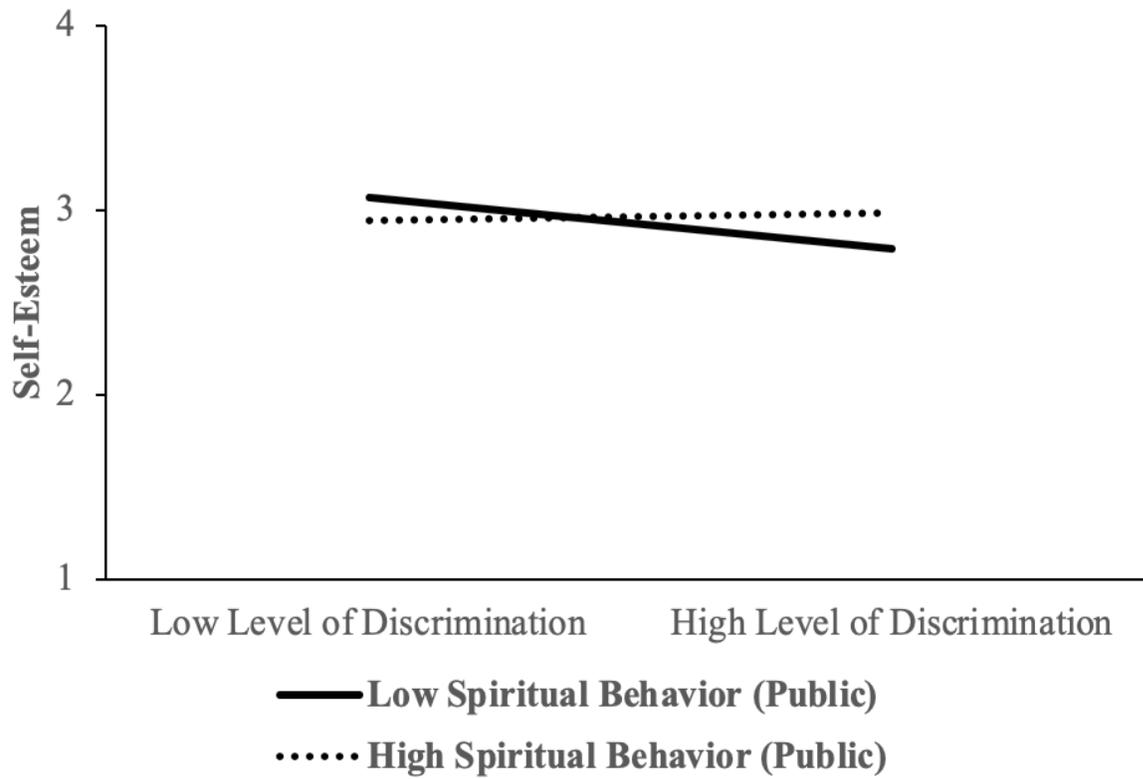
*Note.* CAGE-AID = problematic substance use; Health Status is dichotomized as 0 = no health concern(s), 1 = at least one health concern; Education Level is dichotomized as 0 = high school graduate or below, 1 = college or professional classes or degree; Disability is dichotomized as 0 = No disability, 1 = person lives with a cognitive, psychiatric, emotional, developmental, and/or physical disability; Spiritual (Main) for Model 4 = main effect of Spiritual Social Support, Model 5 = main effect of Spiritual Experiences; Disc.  $\times$  Spirit for Model 4 = interaction between Discrimination and Spiritual Social Support, Model 5 = interaction between Discrimination and Spiritual Experiences.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

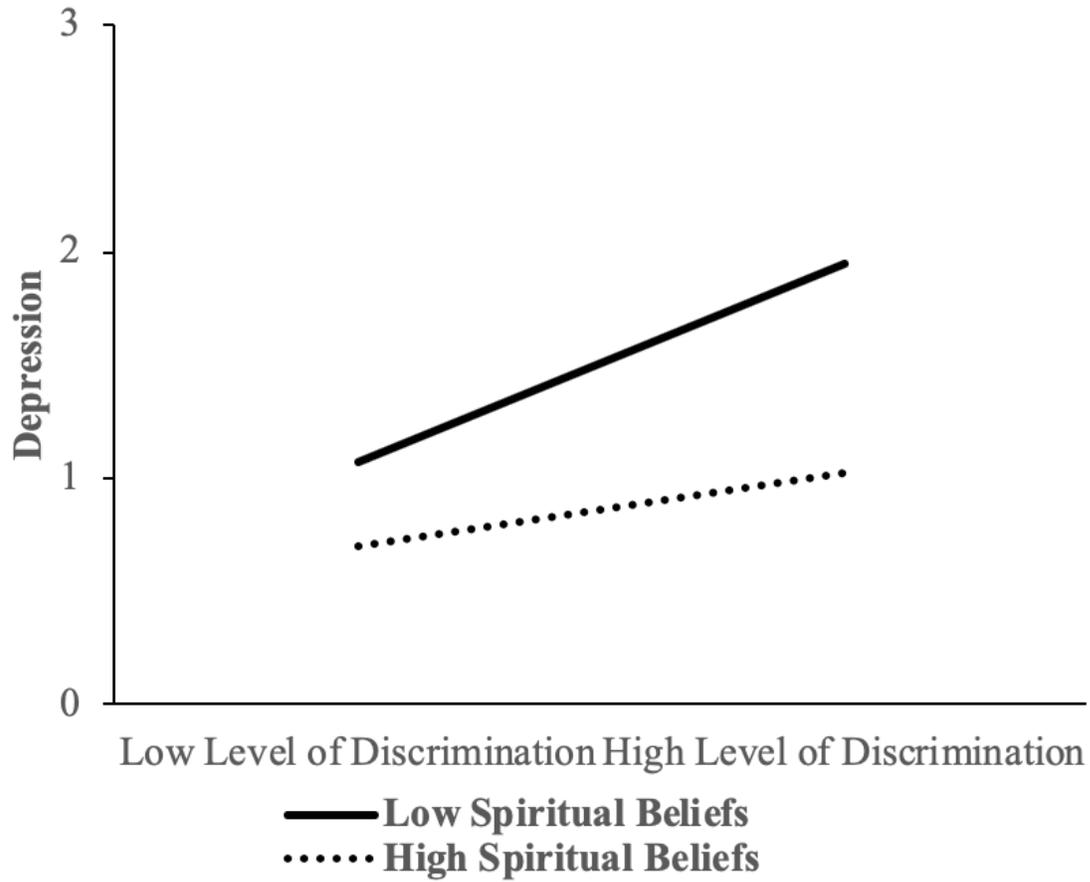
**Figure 1. Interaction of Discrimination and Level of Spiritual Belief Predicting Self-Esteem of Persons without Homes**



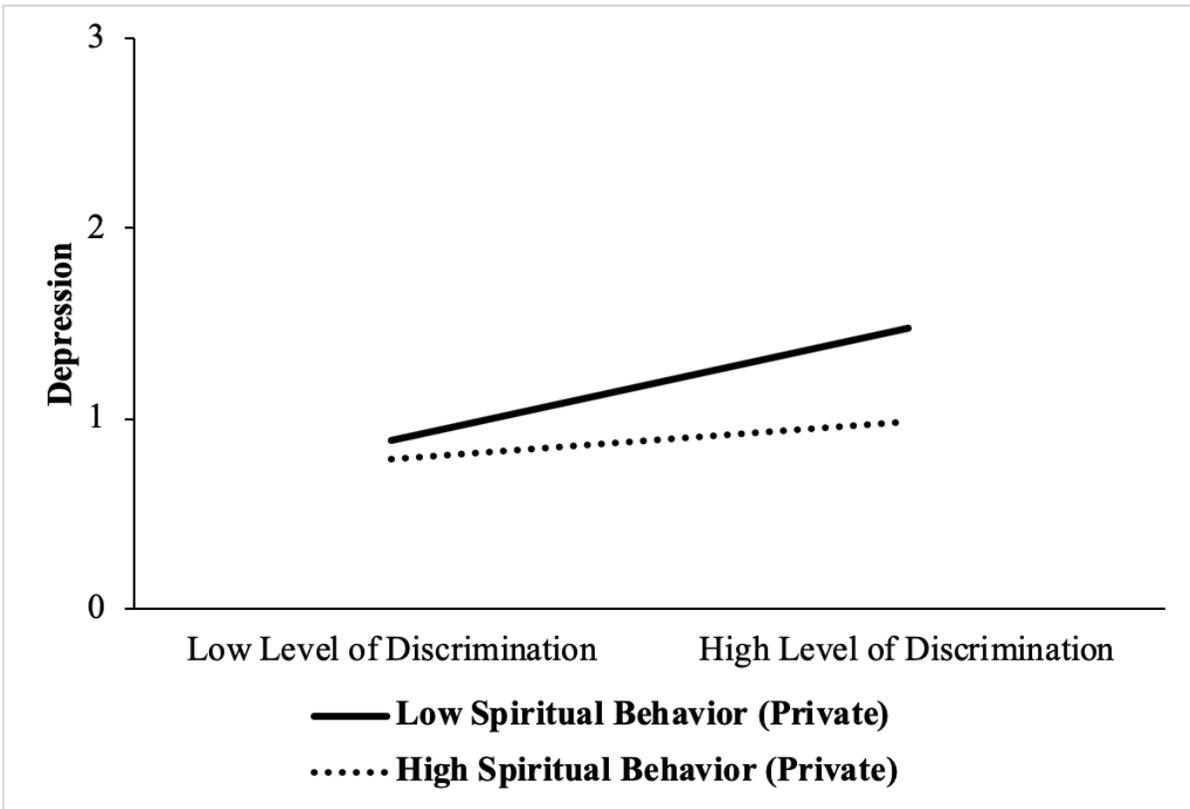
**Figure 2. Interaction of Discrimination and Level of Spiritual Behavior (Public) Predicting Self-Esteem of Persons without Homes**



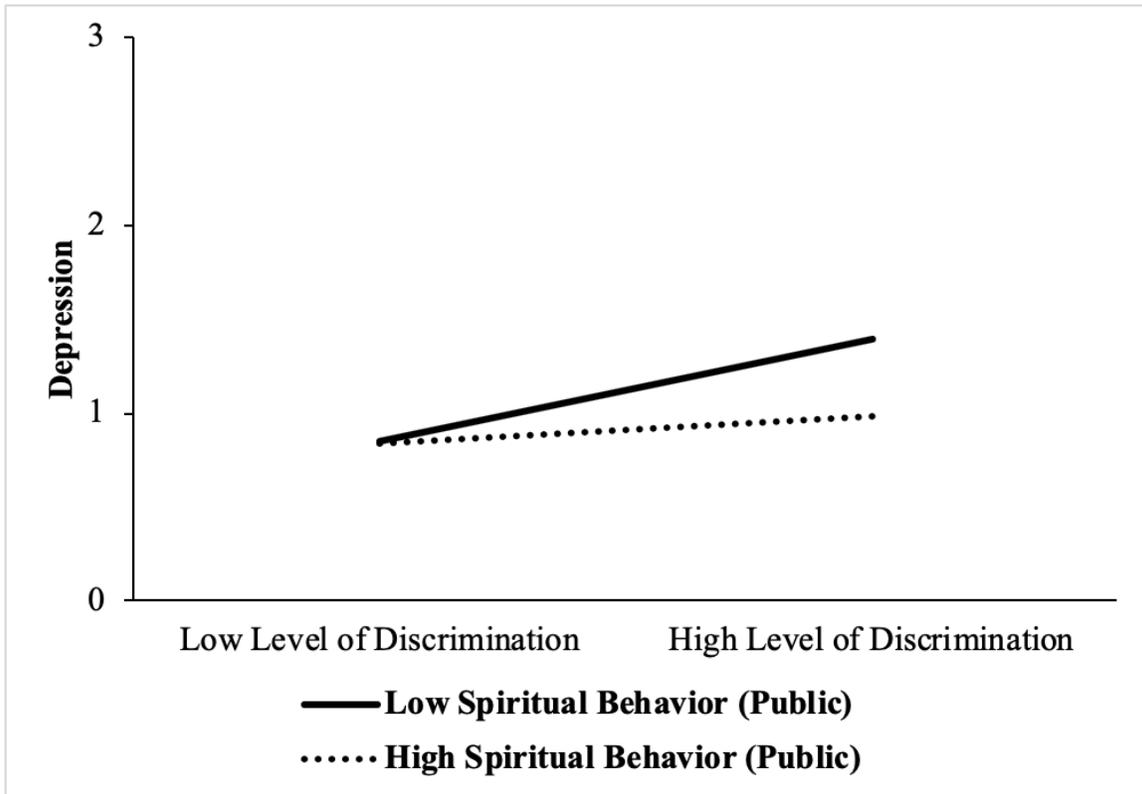
**Figure 3. Interaction of Discrimination and Level of Spiritual Belief Predicting Depression of Persons without Homes**



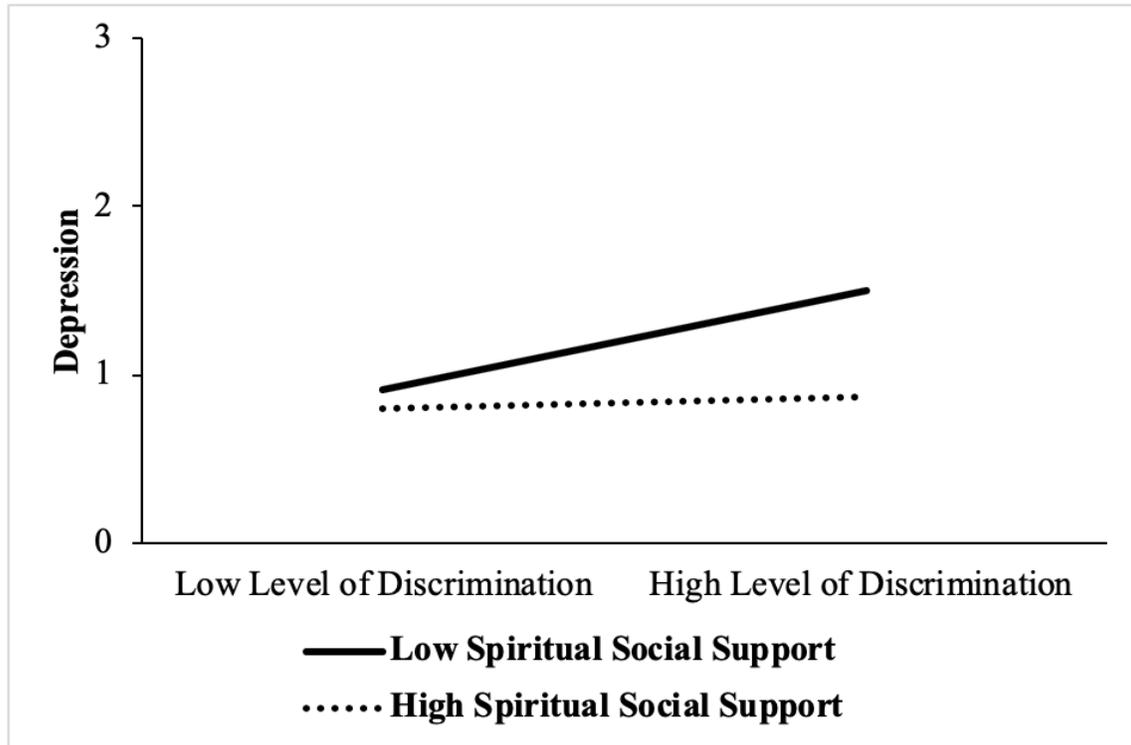
**Figure 4. Interaction of Discrimination and Level of Spiritual Behavior (Private) Predicting Depression of Persons without Homes**



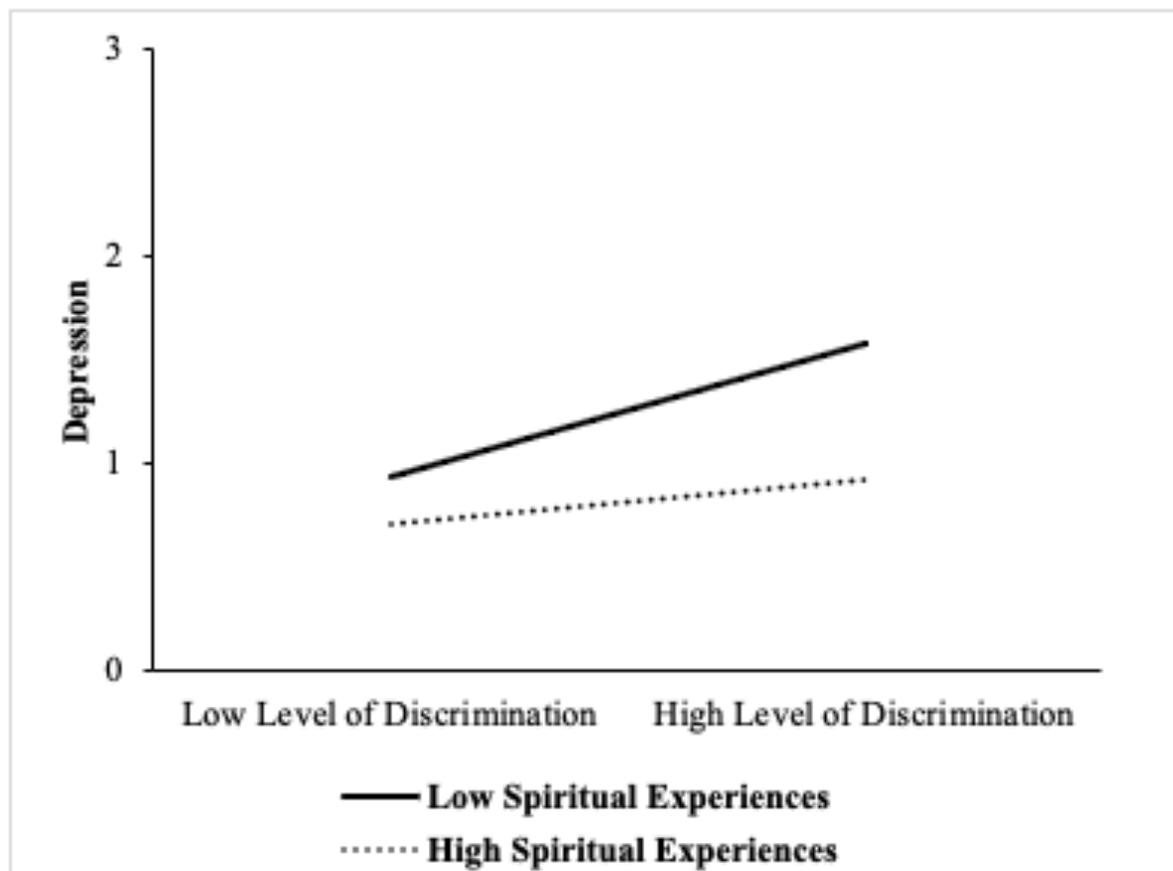
**Figure 5. Interaction of Discrimination and Level of Spiritual Behavior (Public) Predicting Depression of Persons without Homes**



**Figure 6. Interaction of Discrimination and Level of Spiritual Social Support Predicting Depression of Persons without Homes**



**Figure 7. Interaction of Discrimination and Spiritual Experiences  
Predicting Depression of Persons without Homes**



## Appendix A: Discrimination

### The Everyday Discrimination Scale (EDS)

One of the most widely used measures for perceived discrimination is the Everyday Discrimination Scale. The EDS measures perceived discrimination from the perspective of the survivor, not perpetrator. The original version of the EDS consisted of nine items that were scored using a Likert scale with a 6-point range. Modified versions of the EDS have different numbers of items depending on the sample used. For the purpose of this study, question 10 was included to measure discrimination against those without homes by storeowners as prior research suggests that merchants often harass persons without homes.

#### **EDS:**

In your day-to-day life, how often do any of the following things happen to you?

1. You are treated with less courtesy than other people are.
2. You are treated with less respect than other people are.
3. You receive poorer service than other people at restaurants or stores.
4. People act as if they think you are not smart.
5. People act as if they are afraid of you.
6. People act as if they think you are dishonest.
7. People act as if they're better than you are.
8. You are called names or insulted.
9. You are threatened or harassed.
10. You are followed around in stores.

Recommended response categories for all items:

- 1-Almost everyday
- 2-At least once a week
- 3-A few times a month
- 4-A few times a year
- 5-Less than once a year
- 6-Never

## Appendix B: Spirituality (Belief)

### Description

A subscale of the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) by (Fetzer, 1999), the Beliefs scale is a 7-question form that is simple and can be self-administered or administered by phone or in-person.

### Scale

1. How much is religion a source of strength and comfort to you?
2. Do you believe there is a life after death?
3. God's goodness and love are greater than we can possibly imagine.
4. Despite all the things that go wrong, the world is still moved by love.
5. When faced with a tragic event I try to remember that God still loves me and that there is hope for the future.
6. I feel that it is important for my children to believe in God.
7. I think that everything that happens has a purpose.

### Instructions:

*Note: There are 3 scales depending upon the question per the following instructions:*

Score question 1 on the following scale:

- 1 - None
- 2 - A little
- 3 - A great deal

Score question 2 on the following scale:

- 1 - Yes
- 2 - No
- 3 - Undecided

Score questions 3-7 on the following scale:

- 1 - Agree strongly
- 2 - Agree somewhat
- 3 - Can't decide
- 4 - Disagree somewhat
- 5 - Disagree strongly

## Appendix C: Spirituality (Private Behavior)

### Private Religious Practices

#### Description

A subscale of the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) by (Fetzer, 1999), the Private Religious Practices scale is a 4-question form designed to assess private religious and spiritual practices, a conceptual domain or dimension of religious involvement often characterized by terms such as non-organizational, informal, and non-institutional religiosity that is simple and can be self-administered or administered by phone or in-person.

*Note: Some of the questions on this scale will require minor alteration to adjust to the lifestyle of the homeless target population, such as removing “in your home” from question 4 and adding “or in person” to question 2.*

#### Scale

1. How often do you pray privately in places other than at church or synagogue?
2. How often do you watch or listen to religious programs on TV or radio?
3. How often do you read the Bible or other religious literature?
4. How often are prayers or grace said before or after meals in your home?

#### Instructions:

*Note: There are 2 scales depending upon the question per the following instructions:*

Score questions 1-3 on the following scale:

- 1 - Several times a day
- 2 - Once a day
- 3 - A few times a week
- 4 - Once a week
- 5 - A few times a month
- 6 - Once a month
- 7 - Less than once a month
- 8 - Never

Score question 4 on the following scale:

- 1 - At all meals
- 2 - Once a day
- 3 - At least once a week
- 4 - Only on special occasions
- 5 - Never

## Appendix D: Spirituality (Public Behavior)

### Organizational Religiousness - Short Form

#### Description

A subscale of the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) by (Fetzer, 1999), this 2-question measure assesses the involvement of the respondent with a formal public religious institution: a church, synagogue, temple, mosque, ashram, etc. It can include both behavioral and attitudinal dimensions.

*Note: Question 2 may be altered to include the phrase "including an outdoor place of worship".*

#### Scale

1. How often do you attend religious services?
2. Besides religious services, how often do you take part in other activities at a place of worship?

#### Instructions:

Score each question on the following scale:

- 1 - Never
- 2 - Less than once a year
- 3 - About once or twice a year
- 4 - Several times a year
- 5 - About once a month
- 6 - 2-3 times a month
- 7 - Nearly every week
- 8 - Every week
- 9 - Several times a week

## **Appendix E: Spirituality (Social Support)**

### **Religious Support**

#### **Description**

A subscale of the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) by (Fetzer, 1999), the 12 items in this measure are designed to measure select aspects of the social relationships between study participants and others in their shared place of worship.

*Note: The wording of “in your congregation” may need to be altered to be more appropriate for the outdoor churches utilized by those without homes.*

#### **Scale**

##### **Emotional Support Received from Others**

The following questions deal with the relationships you’ve had with the people in your congregation.

1. How often do the people in your congregation make you feel loved and cared for?
2. How often do the people in your congregation listen to you talk about your private problems and concerns?
3. How often do the people in your congregation express interest and concern in your wellbeing?

##### **Emotional Support Provided to Others**

The following questions deal with things you may do for the people you worship with.

4. How often do you make the people in your congregation feel loved and cared for?
5. How often do you listen to the people in your congregation talk about their private problems and concerns?
6. How often do you express interest and concern in the wellbeing of people you worship with?

##### **Negative Interaction**

Sometimes the contact we have with others is not always pleasant.

7. How often do the people in your congregation make too many demands on you?
8. How often are the people in your congregation critical of you and the things you do?
9. How often do the people in your congregation try to take advantage of you?

##### **Anticipated Support**

These questions are designed to find out how much help the people in your congregation would be willing to provide if you need it in the future.

10. If you were ill, how much would the people in your congregation be willing to help out?

11. If you had a problem or were faced with a difficult situation, how much comfort would the people in your congregation be willing to give you?

12. If you needed to know where to go to get help with a problem you were having, how much would the people in your congregation be willing to help out?

**Instructions:**

*Note: There are 2 scales depending upon the question per the following instructions:*

Score questions 1-9 on the following scale:

- 1 - Very often
- 2 - Fairly often
- 3 - Once in a while
- 4 - Never

Score questions 10-12 on the following scale:

- 1 - A great deal
- 2 - Some
- 3 - A little
- 4 - None

## Appendix F: Spirituality (Daily Experience)

### Daily Spiritual Experience Scale (DSES-SF)

#### Description

A shortened subscale of the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) by (Fetzer, 1999), the DSES-SF is a 6-item self-report measure designed to assess ordinary experiences of connection with the transcendent in daily life. It includes constructs such as awe, gratitude, mercy, and awareness of discernment/inspiration and a sense of deep inner peace. It also contains four explicit items on giving and receiving compassionate love.

#### Scale

You may experience the following in your daily life. If so, how often?

- 1.) I experience/feel God's presence.
- 2.) I find strength and comfort in my religion or spirituality.
- 3.) I feel deep inner peace or harmony.
- 4.) I feel God's love for me, through others.
- 5.) I am spiritually touched by the beauty of creation.
- 6.) I desire to be closer to God or in union with the divine.

#### Instructions:

When introducing the Daily Spiritual Experience-SF items to subjects, please inform them, *"The list that follows includes items you may or may not experience. Please consider if and how often you have these experiences, and try to disregard whether you feel you should or should not have them. In addition, a number of items use the word 'God'. If this word is not a comfortable one, please substitute another idea that calls to mind the divine or holy for you."*

*Note: There are 2 scales depending upon the question per the following instructions:*

#### Score questions 1-14 on the following scale:

- 1 - Many times a day
- 2 - Every day
- 3 - Most days
- 4 - Some days
- 5 - Once in a while
- 6 - Never or almost never

#### Score questions 15-16 on the following scale:

- 1 - Not close at all
- 2 - Somewhat close
- 3 - Very close
- 4 - As close as possible

## Appendix G: Self-Esteem

### Rosenberg Self-Esteem Scale (RSES)

#### Description

A 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be uni-dimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree.

#### Scale

- 1.) I believe that I am a person of worth, at least on an equal plane with others.
- 2.) I feel that I have a number of good qualities.
- 3.) All in all, I am inclined to feel that I am a failure.
- 4.) I am able to do things as well as most other people.
- 5.) I feel I do not have much to be proud of.
- 6.) I take a positive attitude toward myself.
- 7.) On the whole, I am satisfied with myself.
- 8.) I wish I could have more respect for myself.
- 9.) I certainly feel useless at times.
- 10.) At times I think I am no good at all.

#### Instructions:

When introducing the Rosenberg Self-Esteem Scale to participants please state,  
*“Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle (1). If you agree with the statement, circle (2). If you disagree, circle (3). If you strongly disagree, circle (4).”*

#### Score questions 1, 2, 4, 6, 7 on the following scale:

- 1 - Strongly Agree
- 2 - Agree
- 3 - Disagree
- 4 - Strongly Disagree

#### Score questions 3, 5, 8, 9, 10 on the following scale:

- 4 - Strongly Agree
- 3 - Agree
- 2 - Disagree
- 1 - Strongly Disagree

## Appendix H: Anxiety

### Depression Anxiety Stress Scales (DASS) - Anxiety Subscale

#### Description

The DASS 21 is a 21 item self-report questionnaire designed to measure the severity of a range of symptoms common to both Depression and Anxiety. For the purpose of this study, we will use the 7-question component for the Anxiety subscale but we will not use the 7-question component for the Stress subscale. In completing the DASS, the individual is required to indicate the presence of a symptom over the previous week. Each item is scored from 0 (did not apply to me at all over the last week) to 3 (applied to me very much or most of the time over the past week).

#### Scale

- 1.) I was aware of dryness of my mouth.
- 2.) I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).
- 3.) I experienced trembling (e.g., in the hands).
- 4.) I was worried about situations in which I might panic and make a fool of myself.
- 5.) I felt I was close to panic.
- 6.) I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).
- 7.) I felt scared without any good reason.

#### Instructions:

When introducing the Depression Anxiety Stress Scales (DASS) - Anxiety Subscale to participants please state, *“Please read each statement and circle a number 0, 1, 2, or 3, which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.”*

#### Scoring scale is as follows:

- 0 - Never (did not apply to me at all)
- 1 - Sometimes (applied to me to some degree, or some of the time)
- 2 - Often (applied to me to a considerable degree, or a good part of time)
- 3 - Almost Always (applied to me very much, or most of the time)

## Appendix I: Depression

### Depression Anxiety Stress Scales (DASS) - Depression Subscale

#### **Description**

The DASS 21 is a 21 item self-report questionnaire designed to measure the severity of a range of symptoms common to both Depression and Anxiety. For the purpose of this study, we will use the 7-question component for the Depression subscale but we will not use the 7-question component for the Stress subscale. In completing the DASS, the individual is required to indicate the presence of a symptom over the previous week. Each item is scored from 0 (did not apply to me at all over the last week) to 3 (applied to me very much or most of the time over the past week).

#### **Scale**

- 1.) I couldn't seem to experience any positive feeling at all.
- 2.) I found it difficult to work up the initiative to do things.
- 3.) I felt that I had nothing to look forward to.
- 4.) I felt down-hearted and blue.
- 5.) I was unable to become enthusiastic about anything.
- 6.) I felt I wasn't worth much as a person.
- 7.) I felt that life was meaningless.

#### **Instructions:**

When introducing the Depression Anxiety Stress Scales (DASS) - Depression Subscale to participants please state, *"Please read each statement and circle a number 0, 1, 2, or 3, which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement."*

#### **Scoring scale is as follows:**

- 0 - Never (did not apply to me at all)
- 1 - Sometimes (applied to me to some degree, or some of the time)
- 2 - Often (applied to me to a considerable degree, or a good part of time)
- 3 - Almost Always (applied to me very much, or most of the time)

## Appendix J: Substances (Alcohol & Drugs)

### CAGE-AID Screening Questionnaire

#### Description

The CAGE-AID is a four-item self-report measure of alcoholism and drug abuse. The name CAGE-AID is an acronym for the four questions in the instrument.

#### Scale

1. Have you ever felt that you ought to Cut down on your drinking or drug use? (YES / NO)
2. Have people Annoyed you by criticizing your drinking or drug use? (YES / NO)
3. Have you ever felt bad or Guilty about your drinking or drug use? (YES / NO)
4. Have you ever had a drink or used drugs first thing in the morning (Eye-opener) to steady your nerves or get rid of a hangover? (YES / NO)

#### Instructions:

Two "yes" responses indicate the possibility of alcoholism while one "yes" response for illicit substance use should be investigated further for clinical purposes because it constitutes substance abuse.

**Appendix K: Demographic Questionnaire**

1.) What is Your Current Age? (\_\_\_\_\_ Years Old)

2.) Gender Identity: How Do You Identify? (Check All that Apply)

- Male
- Female
- Transgender
- Other (Preferred Description:\_\_\_\_\_)

3.) Approximately How Long Have You Been Homeless?

\_\_\_\_\_ Number of Years    \_\_\_\_\_ Number of Months    \_\_\_\_\_ Number of Days

4.) Are You Currently A Member Of A Church, Synagogue, Mosque, or Other Spiritual/Religious Group?

- Yes
- No

5.) What is your Race/Ethnicity?

- Black/African-American
- White/Caucasian
- Spanish/Hispanic/Latino
- Native American
- Pacific Islander
- Asian American
- Bi-Racial
- Other (specify) (\_\_\_\_\_)

6.) What is Your Sexual Orientation?

- Gay
- Straight
- Lesbian
- Bisexual
- Questioning
- Queer
- Asexual
- Other (Preferred Description:\_\_\_\_\_)

7.) What is your Ability Status?

- Disabled
- Non-Disabled

8.) Do You Live with any Chronic Health Issues?

- Yes
- No

9.) What is Your Highest Level of Education?

- Less than 9th Grade
- 9<sup>th</sup> -12<sup>th</sup> Grade (No Diploma)
- High School Graduate or GED
- Some College (No Degree)
- Associate's Degree
- Bachelor's Degree
- Graduate or Professional Degree

10.) Are You a Veteran of the Armed Forces?

- Yes
- No