MINDFULNESS FOR MORE:
PILOTING A MINDFULNESS PROGRAM FOR UNDERSERVED POPULATIONS

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MINDFULNESS FOR MORE:

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ABSTRACT

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Interventions engaging individuals in mindfulness practices and activities are being used to improve a variety of physical and mental ailments in many different populations. The body of research on mindfulness is rapidly growing. However, there is a notable lack of research regarding the utilization of mindfulness-based interventions among some of the most stressed populations such as those with insecure housing. Conducted within the context of an ongoing participatory community action research project (“Behavioral Activation Research Project in Homeless Shelters”), which has been a collaboration between the University of Dayton and St. Vincent de Paul in Dayton, Ohio (Reeb et al., 2017) since 2012, this study piloted a new mindfulness program in two gateway facilities utilized by men and women with insufficient housing. Although the focus of this study was on the development of the program and testing it’s feasibility, mixed model, repeated measure ANOVAS were used to determine if state anxiety from pre- to post- intervention within each shelter, as well as by type of first session attended. Result suggested that participating in a single mindfulness session decreased state anxiety
for participants, implicating that benefits are received from a single mindfulness practice.
Dedicated to my parents, Edward L. Parker and Diane A. Parker, and my family at Pine View, Tamara K. Conmay and Peg L. Phillips, as well as a special dedication to Adam J. Schattschneider, to whom I am sorry was unable to see where he led me in life.

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INTRODUCTION

Mindfulness has been a popular area of research in the past decade. However, there is a considerable lack in the research related to those facing significant distress, such as those with insufficient housing. The following is an attempt to contribute to this area of research. The literature review contains an overview of two relevant areas of research: homelessness and mindfulness. First, a general discussion of homelessness is provided by reviewing 1) how being without sufficient housing impacts mental health, 2) how stress and physical health interact within the homeless population, 3) how stress, homelessness and mental illness interact in a reciprocal nature, and 4) how the pattern of emotion regulation is interrupted in the face of financial stress associated with homelessness. Second, mindfulness is discussed, reviewing the impacts mindfulness practice has on physical health and mental health. Finally, the current study is described, attempting to bridge the void that exists between homelessness research and mindfulness research by investigating how feasible implementing a mindfulness based program in two homeless shelters is and how this implementation could impact state anxiety.

Homelessness

On any given night, 578,424 people in the United States are homeless, according to the Homeless Research Institute (HRI, 2015). Many assume that homelessness is often the result of an individual’s actions and can be easily escaped. However, research suggests that individuals who lack stable housing are likely caught in the throes of
reciprocal determinism, which explains that “behavior, internal personal factors, and environmental influences all operate as interlocking determinants of each other” (Bandura, 1978, p. 346). Living on the street or in shelters exposes individuals to circumstances of vulnerability, such as hunger and environmental threats (Whitbeck, Hoyt & Bao, 2000) and can lead to isolation, distrust and the breakdown of relationships (Goodman, Saxe & Harvey, 1991). Homeless populations also face the chronic stress imposed by economic problems and subsequent deterioration of relationships (Muñoz, Vázquez, Bermejo & Vázquez, 1999).

Chronic stress has a multitude of effects on mental, physical, and emotional health (D’Andrea, Sharma, Zelechoski, & Spinazzola, 2011; Palgi, 2013; Gallo, Jiménez, Shivpuri, de los Monteros, & Mills, 2011). In this context, anxiety is caused from a lack of control, specifically in reaction to potential danger, whether concrete or perceived, and could, as a result of this inability towards control, be seen as a sense of helplessness in those who experience it (Barlow, 2000). When anxiety occurs, stress begins to take a toll on the body in a strong physiological way in an attempt to prepare to counteract whatever threat may be encountered. This is done through the repeated activation of the hypothalamic pituitary adrenocortical (HPA) axis. When an individual perceives stimuli as stressful, this system releases hormones into the body, which trigger an ongoing release of cortisol throughout the bloodstream. Eventually, in healthy individuals, the bloodstream reaches a protective concentration of cortisol, at which point the body stops the release and regains homeostasis. However, in individuals who experience chronic stress, such as homelessness, relationship deterioration, and financial struggles, the HPA axis is constantly activated, and the body rarely returns to a state of homeostasis,
resulting in negative emotionality, depression, and tension (Barlow, 2000). When an individual is exposed to a small amount of stress, or is exposed for a short amount of time, psychological and physiological responses are likely to be normative and healthy. However, when an individual is exposed to chronic stress or intense, sudden stress, the body’s natural stress response is likely to become pathological, potentially resulting in psychiatric disturbances (Lopes, Lemes, Melo-Thomas, Schor, de Andrade, Machado, Horta-Júnior, Céspedes, & Viana, 2016). Prolonged or acute stress is damaging to physical, emotional, and psychological well-being (Maccari & Morley-Fletcher, 2007; Boscarino, 1997; D’Andrea et al., 2011).

**Mental Health.** The initial process of becoming homeless itself can cause psychological trauma. Not only is there the loss of housing, but also the loss of neighbors and/or social support, familiar social roles and routines, and potentially even family members (Goodman, Saxe & Harvey, 1991). If the sudden loss of these aspects does not manifest as psychological trauma initially, the ongoing stress of living in unsafe, unpredictable, and uncontrollable circumstances are detrimental to an individual’s general ability to cope with stress. Reductions in coping capacity increase the susceptibility to psychological trauma (Goodman, Saxe & Harvey, 1991).

Prolonged or extreme stress compromises mental health. Research involving unpredictable chronic mild stress in animal models demonstrates that exposure to prolonged and unpredictable stress at even mild levels leads to an increase in behaviors similar to depression (Mineur, Belzung, & Crusio, 2006). Those who have been exposed to multiple early life traumatic stressors are at an increased risk for major depression, generalized anxiety, substance abuse, sleep difficulties, and panic disorder (Barlow,
Additional research involving mice suggests that after being exposed to acute stress, the ability to assess risk and use appropriate caution towards risk is reduced (Quartermain, Stone, & Charbonneau, 1996). Research by Huang, Zhao, Gao, Zhang, Xu, Li, & Lv (2016) explains that stress associated with social defeat alters levels of dopamine in animal models as well, affecting abilities to learn and use memory. This research also shows that social defeat stress, meaning distress induced in an individual who feels subordinate to another, induces anxiety and depression-like behavior (Huang et al., 2016). Furthermore, research has shown individuals with mood disorders are significantly less likely to respond to treatment if they experienced early life traumatic stressors (Nanni, Uher, & Danese, 2012).

Other research which examined the relationship between ongoing cumulative chronic stressors (OCCS) and psychological well-being indicates a negative correlation between the two. The more OCCS experienced by an individual, the more negatively the individual’s psychological well-being is affected in the future (Palgi, 2013). This research suggests evidence for allostatic load theory, theorizing that responding to continuous stress causes damage to both one’s physical and mental health (Palgi, 2013; Gallo et al., 2011). Furthermore, avoidant behaviors such as behavioral avoidance or cognitive reappraisal, have been shown to negatively impact aspects of psychological well-being when used to cope with stress (Wolgast, Lundh & Viborg, 2013). In particular, one’s positive emotionality and quality of life are significantly impacted by the emotional regulation response involved in avoidance (Wolgast, Lundh & Viborg, 2013).

**Stress and Physical Health.** When an individual actively experiences stress on a daily basis, the body responds by suppressing reproductive, growth, thyroid and immune
functions (Maccari & Morley-Fletcher, 2007). The dysregulation within these systems then has the potential to lead to the development of pathology. In particular, when a developing brain is exposed to severe and/or prolonged stress, personality-altering results can occur. For example, when the stress system is activated for a prolonged period of time, individuals are more prone to mood disorders, addiction, and poor impulse control (Maccari & Morley-Fletcher, 2007).

Traumatic events such as physical abuse and sexual abuse, neglect, car accidents, natural disasters, and exposure to community violence can greatly affect the severity of psychological symptoms, causing them to manifest in more intense ways (Felitti et al., 1998). Additionally, those who experience chronic stress have a depleted resilience against further burdens, causing otherwise manageable incidents to be perceived as traumatic (D’Andrea et al., 2011). Multiple traumatic experiences increase one’s risk for disease, especially diabetes, heart disease and cancer (Felitti et al., 1998). Other health conditions, for example, musculoskeletal, digestive, endocrine, and circulatory disorders also become more prevalent (Boscarino, 1997). Prolonged stress has been associated with fluctuating heart rates, consistent elevated levels of blood pressure and an increase in the likelihood of experiencing a future coronary issue (Boscarino & Chang, 1999; Wilson, Kliwer, Plybon, Zacharias, Teasley, & Sica, 1998; Brydon, Magid, & Steptoe, 2006). Additionally, immune system dysfunction caused by prolonged stress often leads to other neuroinflammatory diseases, such as migraines, arthritis, irritable bowel syndrome, and interstitial cystitis of the urinary bladder (Theoharides & Cochran, 2004). Other research which examined the effect of fluctuation in financial stressors on reported health
symptoms demonstrates that the more prevalent financial stress is, the more likely an individual will experience negative health symptoms (Skinner, Zautra, & Reich, 2004).

Chronic physical illness also contributes to other life stressors among homeless populations. For example, of the 1.6 million estimated homeless population residing in shelters, about 37% are living with a disability. This estimate is much higher than that of both the 25% of individuals living in poverty and of the 15.3% living in the general population (Maness & Khan, 2014). Other research has shown that the stress caused by inescapable loss and chronic illness is directly related to lower levels of self-esteem and the feelings of self-efficacy on mastery, which is the ability to see oneself as in control of the things that impact one’s life (Vilhjalmsson, 1998). Research on prevalence and association between self-reported health and sleep inadequacy among homeless populations demonstrated that poor self-rated health was significantly higher in homeless individuals when compared to a national representative sample, and nearly half of the homeless sample did not receive an adequate number of hours of sleep each day (Chang, Fisher, Reitzel, Kendzor, Nguyen, & Businelle, 2015). These physical health conditions are particularly pressing issues in light of the fact that the homeless population is often unable to afford medical care (Substance Abuse and Mental Health Services Administration (SAMHSA), 2013).

**Stress, Homelessness and Mental Illness.** Around 20-25% of the homeless population suffers from symptoms of mental illness (National Coalition for the Homeless, 2009). Research has demonstrated that among homeless individuals aged 14-25 years, 82% reported a psychological health problem (Reid & Klee, 1999). Reciprocally, when an individual has a mental illness, they are more likely to endure chronic homelessness
Furthermore, research by Coohey, Easton, Kong, and Bockenstedt (2015) indicated that when homeless individuals perceive aspects of their life as troubling, they are more likely to experience psychological pain, resulting in suicidal thoughts.

Substance use is also common among the homeless population (Coohey et al., 2015; Tyler & Melander, 2015). Research which involved qualitative interviews with street youth determined that persistent feelings of being lonely, hopeless, trapped and worthless—specifically related to the trauma experienced during previous sexual and physical abuse, victimization, and the death of family and friends—contributed to the prevalence of suicidal thoughts. Often used as coping techniques for feeling trapped and isolated, substance abuse and addiction were considered by the youth as antecedent to these suicidal thoughts (Kidd, 2004). Other research which examined the mental health of homeless young adults suggested that individuals who experience both sexual and physical abuse during childhood likely experience substance abuse, future violent relationships and street victimization as homeless adults (Tyler & Melander, 2015).

Additional research involving interviews targeting street youth and the association between homelessness and depressive symptoms, determined that victimization was the strongest predictor of symptoms related to mental illness among the youth, including conduct problems, substance abuse, and depression (Whitbeck, Hoyt & Bao, 2000). Additionally, research suggests that individuals who have experienced victimization prior to becoming homeless may experience similar psychological trauma after becoming homeless. This pattern can in turn create an added obstacle hindering the path to recovering, often manifesting as learned helplessness and social disaffiliation (Goodman,
Saxe & Harvey, 1991). Furthermore, due to the prevalence of aberrant behavior and substance abuse among the homeless population, symptoms of depression are often dismissed by health care professionals while co-occurring conditions are addressed (Whitbeck, Hoyt & Bao, 2000).

**Emotion Regulation in the Face of Financial Stressors.** Research which examined the correlation of financial stressors and affect demonstrated that when experiencing high levels of financial stress, individuals also experienced higher levels of negative affect, resulting in poorer emotional stability (Skinner, Zautra, & Reich, 2004). Many people utilize avoidant behavior, such as suppression, to cope when encountering a stressor. Suppression refers to the act of ignoring or disguising one’s negative reaction to a stressor (D’Andrea et al., 2011). When suppression becomes habitual, one’s ability to maintain emotional equilibrium is at risk. For instance, emotional suppression is closely associated with memory difficulties and memory loss regarding specific details related to the stressor. Moreover, individuals who habitually suppress their feelings tend to be perceived as “less likeable” due to the disruptive nature that their emotional lability has on their ability to communicate with others (Butler, Egloff, Wilhelm, Smith, Erickson, & Grosset, 2003). Consequently, the breakdown of interpersonal relationships can lead to a loss of social support that can help reduce the negative impacts of stress, potentially leading to isolation (D’Andrea et al., 2011). In this respect, stress can be a self-sustaining predicament as stress leads to isolation, isolation becomes in itself a stressor, and the pattern continues to repeat indefinitely.

Furthermore, when an individual experiences stress, the brain reallocates attention resources to the stressor, diminishing attention resources for other areas of the brain
(Alomari, Fernandez, Banks, Acosta, & Tartar, 2015). This causes the stressed individual to be hyper-vigilant towards emotional stimuli while lacking in other abilities related to executive functioning, including behavior regulation, reasoning, working memory, reflection, and attentional flexibility. Attention reallocation can cause individuals to experience difficulties performing everyday tasks, such as planning a schedule, budgeting finances, making decisions and remembering key information, all of which make applying for and/or maintaining a job difficult (Alomari et al., 2015; Blair, 2016).

**Mindfulness**

With the negative effects of stress prevalent among the population, it is not surprising that stress-reduction is the focus of many different therapies and interventions. As a newer approach, much research has outlined the effectiveness of mindfulness based therapies on different aspects of physical and psychological health. Originating from Buddhist practices, mindfulness is a practice of intentional awareness of the present moment accompanied by a nonjudgmental attitude towards what is happening in the passing moments (Kabat-Zinn, 2003; Cullen, 2011). More specifically, the recognition of one’s body, emotions, thoughts and mental states are the “Four Foundations of Mindfulness,” based upon the Theravada branch of Buddhism (Cullen, 2011). During a mindfulness-based intervention, participants are taught to focus on the present moment in a non-judgmental and accepting way through different exercises designed to promote awareness within the individuals (Kabat-Zinn, 2003). This encourages those engaging in mindfulness to dismiss ruminating thoughts of the past and troublesome thoughts of the future.
Mindfulness Impacts on Physical Health. A growing body of research has demonstrated the significant impact mindfulness-based interventions have on different aspects of physical health. Roth and Creaser (1997) implemented a meditative mindfulness-based stress reduction (MBSR) program to a low-income patient population and results showed a significant decrease in medical symptoms among the patients. Further research has demonstrated that individuals who exemplify mindful behavior report less distress when enduring physiological stress reactions (Feldman, Lavallee, Gildawie, & Greeson, 2016). Moreover, involvement in mindfulness-based programs improves systolic and diastolic blood pressure, as supported by Palta, Page, Piferi, Gill, Hayat, Connolly, & Szanton (2012).

Research examining the effect mindfulness-based interventions have on chronic pain indicates that those who participated in the mindfulness-based program significantly improved on several attributes related to pain management (Morone, Rollman, Moore, Qin, & Weiner, 2009; Veehof, Oskam, Schreurs, & Bohlmeijer, 2011). Among the facets which improved significantly were pain, disability, and self-efficacy (Morone et al., 2009). Another study, which explored the feasibility of implementing a mindfulness-based program for patients with lower back pain, suggests that the involvement in mindfulness-based techniques improves pain-related facets, such as self-reported physical functioning and role limitations caused by physical health (Schütze, Slater, O’Sullivan, Thornton, Finlay-Jones, & Rees, 2014).

Mindfulness and Mental Health. Studies examining the effectiveness of mindfulness-based therapies on mental health have also been promising. For example, research which studied a multi-ethnic, low-income female population has demonstrated
that after being involved in MBSR classes, levels of anxiety reduced significantly (Abercrombie, Zamora & Korn, 2007). Other research indicates that participation in mindfulness-based programs significantly reduced self-reported symptoms of anxiety, depression, obsession, and somatization (Biegel, Brown, Shapiro, & Schubert, 2009; Manotas, Segura, Eraso, Oggins, & McGovern, 2013; Cavanagh, Strauss, Forder, & Jones, 2014). In congruence with this, a completed study, which determined the feasibility of a mindfulness-based online program, indicated that a brief intervention can decrease anxiety, depression and perceived stress among individuals (Cavanagh, Strauss, Cicconi, Griffiths, Wyper, & Jones, 2013; Grabbe, Nguy, & Higgins, 2012).

Furthermore, research by Canby, Cameron, Calhoun, & Buchanan (2015) showed that after a six-week involvement in a mindfulness-based intervention the prevalence of psychological symptoms decreased significantly. This same research supports a large effect size on psychological distress in non-clinical populations (Canby et al., 2015). Additionally, mindfulness-based interventions have been shown to increase quality of sleep among their participants (Beigel et al., 2009). Other research which examined the effect of a mindfulness-based intervention on levels of psychological distress, perceived stress and persistent fatigue among individuals in a workplace showed a significant improvement (Huang, Li, Huang, & Tang, 2015). Additionally, other risk factors associated with poor mental health, such as health-related quality of life, also improved after the implementation of a mindfulness-based intervention (López-Navarro et al., 2015).

Moreover, research which studied parents and children with developmental delays showed additional positive effects of participating in mindfulness-based programs
(Neece, 2014). Results indicated that parents who had undergone a mindfulness program reported a significant decrease in parental stress and depression (Neece, 2014). In addition to these reductions, parents reported an increase in general life satisfaction after participating in the intervention (Neece, 2014). Other research done by Beigel and colleagues (2009) demonstrated that when involved in MBSR classes, individuals indicated higher levels of self-esteem, and lower levels of perceived stress and interpersonal problems. Other research has shown that mindfulness-based interventions increase individual’s self-control and self-reported mindful awareness (Canby et al., 2015). Additionally, subjective vitality, which often counters low energy associated with high levels of stress, also showed a significant increase with the implementation of a mindfulness-based program (Canby et al., 2015).

Research has also revealed how the involvement in mindfulness can indirectly affect aspects of social functioning (Lewallen & Neece, 2015). For example, a study was conducted to examine how MBSR for parents involved with developmentally delayed children can impact the development of the children’s social skills (Lewallen & Neece, 2015). Results indicated a significant improvement in parent-child relationships, as well as in self-control, social engagement, expression of empathy, and assertion among the children (Lewallen & Neece, 2015). Furthermore, research conducted by Feldman and colleagues (2016) demonstrated that a mindful disposition reduces the impact of executive function lapses—which might include the inability to direct attention, regulate memory or inhibit thoughts—on affect.

A recently published study demonstrated that individuals who engaged in a mindfulness intervention had more control of the physiological responses to stress
experienced, specifically over heart rate variability (Shearer, Hunt, Chowdhury, & Nicol, 2016). This suggests that mindfulness-based intervention participants may be better able to cope with stress. This research also demonstrated that when encountering challenges, those who have engaged in mindfulness practices approach the challenge with reduced anxiety and negative affect in comparison to those in a comparison and no treatment group (Shearer et al., 2016). Individuals tend to rely on coping strategies that have been effective in the past during times of distress (McKay, Rogers, & McKay, 1989). If a program can demonstrate an effective way of reducing state anxiety, and an individual can make this behavior habitual, then the reduction of state anxiety has the potential to reduce overall trait anxiety.

**The Current Study**

Though many populations have been studied, little research exists on whether mindfulness-based stress reduction is feasible for individuals outside of mainstream society such as adult shelter residents. With the evident stress and unpredictability of the life as a homeless individual, research is needed to explore methods for improving the quality of life for this population. This study aimed to develop and determine the feasibility of implementing a brief mindfulness-based program to benefit an underserved population within the context of an ongoing participatory community action research project (“Behavioral Activation Research Project in Homeless Shelters”), which has been a collaboration between the University of Dayton and St. Vincent de Paul in Dayton, Ohio (Reeb et al., 2017) since 2012.
METHOD

The current study received approval from the University of Dayton’s Institutional Review Board for minor revisions to a pre-existing project (“Behavioral Activation Research Project in Homeless Shelters; Reeb et al. 2017), which has been ongoing since 2012. The minor revisions submitted to the Institutional Review Board, as well as a letter of support from David Bohardt, the Executive Director of St. Vincent de Paul, is provided in Appendix C.

Participants

Participants in this study were residents at two gateway shelters, one male shelter and one female and family shelter. A gateway shelter is one in which residents receive the resources and networking to assist in the advancement of obtaining safe housing. Participants consisted of 48 individuals from the women and family shelter and 58 individuals from the men’s shelter (52.8% female). To be considered for participation, individuals had to consent to participate, confirmed by signing the “Informed Consent FOR GUESTS to Participate in a Research Project” (see Appendix E). Due to the vulnerability of this population and policies put into place by the shelters used, further demographic information of participants was not available at the time of this thesis was completed.

Though there are many physiological and psychological benefits associated with practicing mindfulness, participants were not further reimbursed for their involvement in
Setting

Men’s Shelter. The men’s facility was a building that once served as a prison. It is on the outskirts of the city and still exhibits several aspects of a correctional facility. The shelter’s mission serves to provide 24 hour emergency shelter to single men in the area. Guests of the shelter spent a large amount of time in the shelter within a large gym during the day. Meditations were held in one of two rooms, depending on availability. One room was a small conference room with a large table with chairs. The other was set up as space to do group support sessions, crafts, and other activities. This room had three smaller tables in the center of the room, all surrounded by chairs. There were shelves in this room stacked with games and other project materials.

Women’s Shelter. The women’s facility, also a 24 hour emergency shelter, aimed to serve women, children and married men in the area. This building was located close to downtown and was much easier to access via public transportation. It was within a short walking distance to several types of businesses. Guests of the shelter spent a large amount of time in the shelter within an open “day space” which contained lockers for each guest, tables and chairs, and a television set. Meditations were held in one of two rooms, depending on availability. One, used only twice due to scheduling conflicts, was a small classroom-like setting off of this space. The room contained several tables set up in a “U” shape with chairs on one side of each of the tables. This room was set up to house behavioral activation sessions with the guests and contained art supplies, a piano and several computers. The second room, which held a majority of the mindfulness sessions
in this studied contained large conference tables surrounded by chairs. There were no windows in this room, therefore when the lights were off the room was pitch black.

**Behavioral Activation Research Project in Homeless Shelters**

The current study was conducted within the context of a larger, pre-existing study that has been in place since 2012 (Reeb et al., 2017). The study is an ongoing participatory community action research project, which employs different activities to empower, instill coping skills, and build rapport at the shelter between students at the University of Dayton who volunteer at the shelter and shelter guests. Guests who participate in this ongoing study engage in group sessions that involve varying activities, such as playing BINGO, interacting in a mental health support group, and many other activities. Participants complete the same measure used in the current study to measure feasibility (see below) at the end of each behavioral activation session within the Reeb et al (2017) project.

**Procedure**

Participants were recruited by encouraging verbal announcements from the shelters’ staff members. To participate in the study, individuals were first required to complete the “Informed Consent FOR GUESTS to Participate in a Research Project”, providing their written consent to participate (see Appendix E). They then were required to attend at least one session, but were encouraged to attend daily. Each session was approximately one hour in length, including the time used to complete the initial informed consent and required pre- and post-tests. Sessions were held once each day, Monday through Friday for four weeks at each of the shelters (see Appendix C for a full script of each session’s activity). Participants could attend as many sessions each week as
they would like, and they could start with any day of the week. They did not have to attend consecutive days to be considered for participation, and they could attend sessions during all four weeks if they wished to do so. The participants were assigned a random research identification number to keep track of their data and participation throughout the duration of the four weeks. Upon completion of each session, participants were administered the post-test questionnaires (see Measures below) and were verbally debriefed by the co-facilitators (see Appendix F for the debriefing procedure).

Each day of the week, Monday through Friday, consisted of a different mindfulness, meditative script. The sessions were employed as follows, with Session One indicating the activity for each Monday of the four weeks:

**Session One.** During this session, participants were asked to engage in a meditative mindfulness script on mindful breathing. This script brought the participants’ awareness to the breath. Doing this encouraged participants to recognize the difference between how s/he normally breathes and how s/he mindfully breathes.

**Session Two.** The participants were asked to engage in a body scan activity for this session. This activity was devoted to participants’ recognition of the sensations in their body as a whole. The body scan was an activity which had the participant focus on different attributes of their being in a guided manner. The attributes were targeted as follows: breath, mind, face, neck/shoulders, abdomen, and lower body.

**Session Three.** This session was devoted to developing awareness for the present moment through a meditative mindfulness script. Participants learned to recognize thoughts as distractions that can be let go, almost as though watching them float away on a river.
**Session Four.** During this session, participants were asked to engage in a progressive muscle relaxation exercise. This body scan activity demonstrated for participants which muscle groups they might experience ongoing tension in. Additionally, this activity taught participants to learn the difference between deep relaxation and extreme tension.

**Session Five.** During this session, focusing on “Loving Kindness Meditation,” participants were encouraged to embody an attitude of positivity and love—both towards themselves and towards others. This session demonstrated the idea of separating a negative action from the person who performed it.

**Facilitators.** Three facilitators assisted in the running of each session (described below). In order to assist with the current study, facilitators had to attend an orientation for working within the shelters. This orientation provided a rigorous review of the Shelter Safety Procedures for the Behavioral Activation Project, the St. Vincent de Paul Code of Conduct, and paperwork completion that is required by all individuals (including community volunteers) who work within the shelter systems in Dayton, Ohio. Additionally, each facilitator was required to complete relevant modules within the Collaborative Institutional Training Initiative (CITI), to ensure they understood the ethical and professional implications that coincide with working with vulnerable populations. Lastly, the facilitators gained familiarity with the protocol by shadowing and researchers on the Behavioral Activation Project, who later assisted with data collection. Facilitators included two male and one female facilitator. The female facilitator, who was also the principal investigator for the study, read the scripts at thirteen of the twenty sessions. On the days she was unable to attend the sessions due to scheduling conflicts
(the remaining seven of the twenty session), a pre-recorded audio-recording of her reading the session’s script was played for the participants. This was done in an attempt to keep the voice of the scripts consistent throughout the entire program.

**Measures**

**State Anxiety.** The Spielberger State-Trait Anxiety Inventory (Short Form) was administered before and after each activity (see Appendix A for a full copy of the questionnaire; Marteau & Bekker, 1992; This questionnaire is available in the public domain and can be accessed through Marteau & Bekker, 1992). This questionnaire is titled “Self-Evaluation Questionnaire” in the appendix, as this is what the participants were presented with. This was done to prevent participants from being primed by the term “anxiety” in the title of the original document. The questionnaire was a six-item short-form of the Spielberger State-Trait Anxiety Inventory (STAI; Spielberger, 1983). This questionnaire was developed from Spielberger State-Trait Anxiety Inventory, consisting of 40 items, $\alpha = .91$ (Marteau & Bekker, 1992). This brief alternative has produced similar results as the much longer state anxiety inventory. Additionally, it has demonstrated reliability and validity and “remains sensitive to different degrees of anxiety” (Marteau & Bekker, 1992). All six items on the questionnaire measure state anxiety. The six items are four point Likert scales of agreement, ranging from 1 to 4 ($1 = Not At All; 4 = Very Much), $\alpha = .77$ (Marteau & Bekker, 1992).

Two additional items were included at the end of the STAI to gather additional information about the participants’ experience of the sessions. These items were not part of the original questionnaire. The items collected qualitative data, answering the questions, “Would you please write a brief statement to let us know your past experience
with stress management activities?” and “Please write any other comments you have about this experience today that you would like to share”. These items were optional, but the participants were encouraged to include feedback about the sessions and other information they felt was important to share under these items, which might help in the development of a more long-term intervention program. These items were created by the researcher to gather qualitative data, therefore there is no validity/reliability information to include for these two items.

**Feasibility.** In addition to the STAI, each participant completed the Activity Evaluation Process Measure (AEPM) after each mindfulness session (see Appendix B for a full copy of the questionnaire; Reeb, Farmer, Glendening, & Kinsey, 2014). This brief questionnaire consisted of five items. Four of these items are seven point Likert scales measuring how the participant rated the session in regards to how much they enjoyed the activity (1 = Not at All, 7 = Very Enjoyable), how meaningful they found the activity (1 = Not at All, 7 = Very Meaningful), how much they would like to repeat the activity (1 = Not at All, 7 = Definitely Again), and how important they consider the activity to be for guests at the shelter they were at (1 = Not at All, 7 = Definitely), α = .915. The final item on the questionnaire is an open-ended question asking for comments from the participants.

**Analysis**

A mixed method research design was used to analyze quantitative and qualitative data collected from participants. For the six Likert items on the STAI, a mixed model, repeated measures ANOVA was used to examine the pre- to post- change in state anxiety as the within subjects factor, and the type of first session attended as the between subject
factor. Additionally, a mixed model repeated measures ANOVA was used to examine the pre- to post- state anxiety as the within subjects factor and the shelter as the between subject factor. For the AEPM, single sample t-tests were conducted for each session and each combined week to determine if the participants found the mindfulness activities meaningful, worth repeating, important, and enjoyable above an average available response (4 – It was ok; 4 – Maybe) on each item. One-sample t-tests were used to analyze the difference between means for each question across all four weeks to determine whether the participants found the intervention meaningful, worth repeating, important, and enjoyable above an average available response. Lastly, the responses between shelter groups were analyzed using independent samples t-tests to determine if there was a significance difference in any of the four items for each weeks’ averages and each session completed.

For the qualitative data collected, grounded theory methods were used to analyze the comments provided on both the STAI pre- and post-tests as well as those collected during the AEPM administration. More specifically, the comments were analyzed and sorted thematically by two researchers, one who was familiar with the project and one who was not. Once the comments were sorted individually by each researcher, the two analyses were discussed to determine the similarities and differences between the themes that surfaced from the qualitative data.
RESULTS

Quantitative Results

STAI. The STAI was administered pre- and post- mindfulness interventions during each session to measure the change in self-reported state anxiety for each participant. A mixed model, repeated measures ANOVA was used to analyze whether the pre- to post-test state anxiety reported by the participants changed significantly after the first session they attended was completed, with the type of session analyzed as a between subjects factor. According to this analysis, there was a significant decrease in state anxiety from pre- (\(M = 15.53, SE = .57\)) to post- (\(M = 11.69, SE = .45\)) intervention, \(F(1, 93) = 47.01, p < .0001, \eta^2_p = .336, 95\% CI [2.73, 4.95]\), after participants attended a single session. The main effect of first session type (i.e., Breathing, Body Scan, etc.) was not significant, \(F(4,93) = 1.04, p = .931, \eta^2_p = .043\). The interaction effect between the change from to pre- to post-intervention and first session type was not significant, \(F(4,93) = 0.78, p = .541, \eta^2_p = .032\).

A mixed model, repeated measures ANOVA was also used to analyze whether state anxiety decreased significantly during the first session, depending on whether the participants were located at the men’s or women’s shelter. There was a significant interaction found between the decrease in state anxiety from pre- to post- intervention and the shelter, \(F(1, 96) = 6.94, p = .010, \eta^2_p = .067\). This interaction indicated that state
anxiety decreased significantly more for those at the women’s shelter from pre- \((M = 16.51, SD = 4.30)\) to post- intervention \((M = 11.69, SD = 3.95)\) than the men’s shelter did from pre- \((M = 13.40, SD = 4.28)\) to post intervention \((M = 11.28, SD = 3.12)\).

**AEPM.** One-sample t-tests were used to examine whether the participants found each activities enjoyable, meaningful, worth repeating and important (see Table 1).

Because the items use a seven point Likert scale, the average score of four was used for comparison on each of the four quantitative items. Results indicated that participants found the activities to be significantly enjoyable, meaningful, worth repeating and important to the guests at the shelter, and effect sizes (Cohen’s \(d\)) were computed for these comparisons (Table 1). Additionally, all four items were significantly higher than average for every session across the four weeks.

According to multivariate tests, the results of the AEPM do not vary significantly as a function of the shelter that the individual participated at, \(F(4,86) = 0.75, p = .560\). Additionally, the type of first session that each participant attended (i.e., Breathing, Body Scan, Non-Doing, Progressive Muscle Relaxation, and/or Loving Kindness) did not significantly impact the results of the AEPM, \(F(16,263.37) = 0.62, p = .867\). Finally, the interaction effect between the shelter and first session type attended did not significantly impact the results of the AEPM, \(F(16,263.37) = 1.19, p = .278\).

**Qualitative Results**

A grounded theory approach was used to analyze the comments provided on each of the measures used in this study (Corbin & Strauss, 1990). Though the standardization of grounded theory is more concrete than it has been in the past, there remains some
flexibility in how this analysis can be applied to qualitative data. Therefore, a detailed summary of how this theory was implemented for the current study follows.

**Qualitative Data Analysis Procedure.** Coding was done with this approach in three steps. First, the principle investigator collected participants’ comments from all completed questionnaires and separated them by tool of measurement (i.e., STAI and AEPM). Second, a compilation of each measure’s data were shared with an additional researcher, who has had prior experience with coding qualitative data but did not have any knowledge about what was being tested in the current study. This was an attempt to limit the biases of the coding. This additional researcher and the principle researcher each sorted through the data, looking for potential relationships between responses. The relationships between responses that were identified were then used by each researcher to depict major themes that surfaced throughout the data. As explained by Corbin and Strauss (1990), concepts and/or phrases that seemed to pertain to the same phenomenon were grouped into the same category. Lastly, both researchers coalesced to determine the similarities and differences between the categories that they each grouped the qualitative data into, and the differences were discussed further to reach an agreed upon decision (Corbin & Strauss, 1990). The results from this discussion follow.

**Comments Collected on the STAI and AEPM.** Six themes categorized the additional comments collected with each administration of the STAI pre- and post-intervention measures as well as the AEPM. Categories that emerged from the data include: 1) Ambiguous Positive Feedback, 2) Feedback about Prior Stress Management Experience, 3) Specific Positive Feedback Describing Outcomes, 4) Extremely Ambiguous Feedback about Circumstances, 5) Specific Negative Feedback Describing
Outcomes, and 6) Comments Describing Both Positive and Negative Outcomes. See Table 2 for supporting quotes.

**Ambiguous, Positive Feedback.** The data that were coded into this category included comments that included words that clearly indicated positive outcomes, such as ‘good’ or ‘best’ (n = 128, 27.23%). Examples of comments in this category include “I've always been skeptical about meditation, but I love it just having done it once,” “Helps a lot more than I thought it would,” and “It's been a good experience to share.”

**Feedback about Prior Stress Management Experience.** The data that was coded into this category included comments that clearly referenced the participants’ previous experience with stress management activities, or lack of experience, and not the program as a whole (n = 118, 25.1%). Examples of comments in this category include “anger management, positive thinking, hobbies, church, exercise, work, crossword puzzles & uno,” “I've never had any stress management activities. I am hoping this will help me so I don’t want to self medicate,” and “New to stress management, learning how to be in better touch with my feelings and emotions”.

**Specific Positive Feedback Describing Outcomes.** The data that was coded into this category included comments that referenced specific outcomes/factors, that should be used for identification of specific positive aspects of the program (n = 96, 20.43%). Examples of comments in this category include “I enjoyed this experience its nice to get some peace and quiet exspecially in a place like this,” “VERY RELAXING. Not only for the body but my mind as well,” and “I feel relaxed and content and ready to focus on what I need to do.”
Extremely Ambiguous Feedback about Circumstances. The data that was coded into this category included comments that did not seem to be written in reference to anything specific about the program (i.e., a particular question) \((n = 68, 14.47\%)\). Examples of comments in this category include “My mom is here at the shelter as well and now she has joined the session,” “This is my first time!”, and “I am homeless not living the way I want to live. The circumstances that made me homeless are not my fault!!!!”

Specific Negative Feedback Describing Outcomes. The data that was coded into this category included feedback that referenced negative results of the program, either vaguely or specifically using words like ‘bad’ or worst’ \((n = 44, 9.36\%)\). Examples of comments in this category include “nothing that’s worked. Told to change my thoughts. pretend I was putting it all in a balloon then release it. it's all bull hockey [sic],” “Sorry but I don't feel anything from this. I think something is wrong with me,” and “I do feel more calm but I can't get my brain to not think about that this doesn’t change my situation any so all the problems are still there.”

Comments Describing Both Positive and Negative Outcomes. The data that was coded into this category included comments which cited both positive and negative results of the program in the same comment \((n = 16, 3.40\%)\). Examples of comments in this category include “This was and experience but yet a challenge. Only because of the situation but the narrarator of the activity was fun, [sic]” and “wish we could do this activity on the weekend it really does help. With relaxation I really enjoy this part of the day at the shelter [sic]”.
General Observations

In addition to the qualitative comments provided by the participants, many observations were made throughout the duration of this study by the facilitators of the intervention. Each of the three facilitators provided feedback on the observations they made about the program. A compilation and summary of these observations are provided next. Some observations are accurate to state about both settings. However, some observations were unique to each shelter. Shared observations will be discussed next, followed by observations specific to each of the individual settings. Finally, the co-facilitator at each shelter was asked to provide their general impressions of the program, and these are provided under each shelter’s subsection below.

**Observations shared across both shelters.** In both settings, the guests at the shelter seemed to be discussing the program with one another, per the report of student volunteers who interacted with the guests throughout the day when mindfulness sessions were not being conducted. As the program progressed, the guests became more familiar with the facilitators, and the guests demonstrated more excitement during the recruitment of each day’s session at the arrival of the facilitators. This was exhibited by shelter guests approaching the facilitators upon their arrival, asking when the session would start without being prompted by the facilitators, as well as positive emotional reactions to the facilitators’ arrival (i.e., positive facial expressions, hugs, handshakes, etc.). Additionally, shelter guests began asking if other friends, peers, and family members who also resided at the shelters could attend the sessions as well.

In regards to the session topics for each day of the program, many participants at both shelters verbalized a less positive attitude toward engaging in the progressive muscle
relaxation sessions, explaining that muscle tension from other medical conditions often made this difficult. Additionally, many participants expressed a dislike for the loving kindness meditation due to memories that surfaced related to loved ones in their lives.

During every Loving Kindness session, at least one participant displayed escalated emotion on these days (i.e., tears during the meditative script reading, anger when thinking about those who reject the participant, dissociation when acknowledging the isolation the now feel after losing loved ones, etc.). Moreover, on days that a recording of the meditation was used rather than a script read by the facilitator, participants expressed less appreciation, enjoyment, and self-reported effectiveness than on days that the facilitators read the scripts aloud. Lastly, as this was a project within a larger set of activities taking place at the shelter, several staff members (who were not facilitators) commented on the popularity of the mindfulness sessions. These were the most popular sessions that were not “leisure activity”-based, such as bingo or sessions that discussed popular musical interests.

**Women’s Shelter Observations.** At the women’s shelter, the program overall appeared to be more integrated, combining the mindfulness practice from the session with more general information about the practice. The women engaged daily in discussion around how to implement the session’s topic into everyday use at the conclusion of the session. Additionally, female guests tended to verbalize prior to the start of the session that simply attending the sessions was building cohesion and interpersonal relationships among the guests in the shelter exhibited by less interpersonal conflict throughout the day at the shelter. Though this was often the case, it is also accurate that several individuals who regularly attended sessions verbalized their refusal
to come on particular days when individuals they did not get along with also planned to attend. Lastly, participants at the women’s shelter frequently sought private conversation with the facilitators after the sessions to discuss personal reactions that surfaced during the program’s activities, especially on days devoted to Loving Kindness. Several guests disclosed personal information that they, per their report, had never disclosed with others during these conversations, and many sought answers related to the circumstances of their homelessness (e.g., individuals asked about interpersonal conflict with their family and peers and questioning their own agency in their homelessness). Positive attributes of the female participants’ lives were often brought up at this time as well, including aspects such as appointments to tour potential housing, positive outcomes discovered in personal therapy, and employment opportunities.

When asked to provide his general impressions of the mindfulness-based sessions within the women’s shelter, the co-facilitator at this shelter explained:

“The mindfulness sessions at the women's shelter were probably one of the best implemented programs within the behavioral activation project. It was not only an activity that the guests readily engaged in but it is also an activity they have been requesting since its implementation. I still continue to work with some of the guests who went through the mindfulness-based stress reduction program and they still talk about its effects on them today [6 months later] and they're continuing to practice some of the practices. Furthermore, many of the guests have shared the information with their friends and loved ones tempting them to practice mindfulness as well. I truly do believe that the mindfulness-based stress reduction program will be instrumental to the behavioral activation project in the long term and will probably have one of the greatest effects on mental empowerment for the coping ability of the guests at the shelter.”

Men’s Shelter Observations. Participants at the men’s shelter did not seem interested in learning about mindfulness as a practice as much as simply engaging in the activity to alleviate stress in the present moment. This was demonstrated in their lack of engagement in discussing mindfulness after each session. However, shelter staff members
frequently commented on their appreciation for the program and noticeable differences that they were witnessing in specific individuals. For example, student volunteers at the shelter stated that the guests were asking each day what time the mindfulness session would occur for that day. Additionally, the participants at the men’s shelter were more willing to attend the sessions when the female facilitator was running the sessions as opposed to the male facilitator who used the recorded sessions, demonstrated frequently by session attendance and the comments of the participants when the female facilitator was present. They often stated that though the recording of the session is of the same female facilitator, it was not the same experience as having her in-person at the sessions.

Lastly, several male participants had a noticeably more difficult time enduring the entire session for many of the days. In regards to this, many of these participants often commented on having too much on their minds to feel like they could benefit from the activity. During many sessions, participants expressed feeling too overwhelmed to feel the benefits of the activities due to the thoughts and feelings that surfaced during the mindfulness activities that they had learned to avoid confronting for most of their lives. On several occasions, individuals commented on how they have been conditioned through re-experiencing of hardships to disengage from their feelings, explaining that it makes day-to-day life more manageable. On some occasions when feeling too overwhelmed, participants would leave the session, explaining to the co-facilitator that it was too difficult or that they could not finish participating that particular day.

When asked to provide his general impressions of the mindfulness-based sessions within the women’s shelter, the co-facilitator of the men’s shelter mindfulness sessions explained:
“Getting a chance to teach mindfulness skills to homeless men was a great thrill as the reactions to the exercises were all over the map. Most of the men really liked it and took to its known anxiety and stress reduction benefits. Others I think understood why people enjoy meditation, but just couldn’t get themselves to go through the beginning struggles of learning the “practice.” Finally, and most interesting, were the men that actively hated mindfulness meditation as when they slowed down their constant stream of thoughts of doing (i.e., practical concerns regarding housing, jobs, hunger, family, drugs) they found this other side of themselves that was deeply frightening. Like a child suddenly becoming aware of itself, becoming self-conscious, some of the men recoiled from hearing that authentic inner voice come out. To me, meditation and mindfulness is not just an empirically proven tool to de-stress, but also an equally effective means of getting in touch with ourselves in ways that daily life often does not allow - especially for those homeless men and women whose primary concern includes finding housing, not necessarily finding themselves.”
DISCUSSION

As one of the most prevalent and well-known mental health conditions in the nation, anxiety impacts individuals on a biological and emotional level (Barlow, 2000). With the many challenges that accompany homeless life, the transient population faces anxiety at even higher frequencies than the general population (Maness & Khan, 2014). Treatment for anxiety disorders are often costly. In fact, it is estimated that individuals who struggle with anxiety often pay out twice the expenses for health care services than those who do not (Simon, Ormel, Vonkoff, & Barlow, 1995). Considering the financial difficulties faced by individuals who experience homelessness, these services are often a luxury that they cannot afford.

Despite the “self-perpetuating and self-defeating nature” of anxiety and stress, the physiological cycle that is triggered when one encounters a perceived threat can be interrupted (Barlow, 2000; Mowrer, 1950). Mindfulness is one way to enact such disruption. By increasing one’s ability to quickly employ cognitive flexibility, the practice of mindfulness allows an individual to switch from a reactive, hyper-vigilant and stressed state to a more logical and relaxed state in a shorter period of time (Moore & Malinowski, 2009). Although mindfulness has been shown to improve a myriad of conditions related to both physical and mental health (Palta et al., 2012; Morone et al., 2009; Veehoff et al., 2011; Roth & Creaser, 1997; Canby et al., 2015), there is a lack in the research literature demonstrating the benefits of implementing a mindfulness-based
intervention program in homeless shelters. This study intended to determine the feasibility of implementing a mindfulness program with gateway shelter residents, contributing to the lack of research available in regards to this population. Additionally, state anxiety was measured to determine whether participation in a mindfulness session decreased the experienced anxiety of those involved.

**State Anxiety.** Overall, participating in the mindfulness sessions significantly decreased the state anxiety reported by the participants when the data from all four weeks (i.e., all 20 sessions) was taken into consideration. Upon examining each individual session, analyses showed that state anxiety similarly decreased following participation in all types of sessions (i.e. Breathing mediation, Body Scan, Non-Doing Meditation, Progressive Muscle Relaxation, and Loving Kindness mediation), with the exception of just two sessions. However, the two sessions that did not suggest significant improvement were trending towards significance.

Additionally, participation in a single mindfulness-based session provided significant improvement related to state anxiety for residents at both shelters, suggesting that participating just once in a brief mindfulness intervention can have a positive effect on those involved at least momentarily. To determine whether the type of session participants attended first impacted the degree to which their state anxiety was reported, comparisons were made to see if any session type was superior to the others. These comparisons delineated that no session was better than another. However, when the first session attended was a Loving Kindness meditation, the intervention did not impact state anxiety as significantly as the other days did. The Loving Kindness script provokes individuals to bring to mind individuals they care about, are in conflict with, and have
lost in their lifetime. Due to the isolation and family disruptions that often accompany homelessness, it is speculated that this was a particularly difficult session for residents to experience. The thought that residents were potentially ruminating on prior family losses/conflict, etc. is supported by some of the qualitative data provided. For example, one individual wrote, “I don’t understand why family hate me [sic]” and many residents described the conflicts they were either involved in or witnessed occurring between guests at the shelter.

Supported by the observations made by facilitators, there were differences worth mentioning between the shelters. First, 16 of the 20 sessions demonstrated improvement on state anxiety at the women’s shelter, whereas only seven of the 20 sessions showed improvement at the men’s shelter. When examined further, participants’ state anxiety decreased more if they were at the women’s shelter as opposed to those at the men’s shelter, which be a result of the setting. The sessions at the men’s shelter were often interrupted by case workers and disruptive noises, which may have made it difficult to embody the full practice of mindfulness during sessions.

**Feasibility.** Though the shift in state anxiety is important to determine whether or not the intervention is in any way effective, this study was aimed at determining whether or not implementing such a program was feasible in this type of setting. This objective is more so measured by the AEPM, which identified whether or not the participants found the activities to be meaningful, worth repeating, enjoyable and important to guests at the shelter. Analysis of these factors demonstrated that participants viewed the sessions as significantly meaningful, worth repeating, enjoyable and important to the residents. This
was supported by the dominant themes that surfaced in the qualitative data related to feedback provided for the program on the STAI and AEPM.

The results discussed above generally support the feasibility of implementing such a program long-term in homeless shelters similar to those used in the current study. The sessions were well received by guests at the shelter and showed to offer improvement for many of the guests that were willing to attend at least one session. This suggests that implementing mindfulness-based sessions at other shelters may be feasible in terms of willing attendance on behalf of the shelter residents. However, due to the transient nature of the population, the sessions should be run as ‘open’ groups that allow guests to come to sessions as they are available to do so (i.e., requiring attendance will likely result in less consistency from guests as it is not feasible for such a transient population to commit to the groups). Additionally, it is not recommended that these groups be implemented in shelters that do not have a space that could be dedicated to these groups for the required length of time needed to complete the session each day. This may not be feasible for all shelters, especially in those that have limited resources. Loud spaces or spaces that contain a great deal of activity introduce a large amount of distraction that may make the task of practicing mindfulness more difficult for those who are not experienced in the practice. This was seen as a difficult obstacle at the men’s shelter used in the current study, and might be a factor that caused the results to be less significant there when compared to the women’s shelter. Importantly, this study supports the feasibility of conducting mindfulness groups and suggests that it would be worthwhile to conduct additional research to test the effectiveness of such programs.
General Discussion

Overall, the current research provides information about the implementation of mindfulness-based interventions within a homeless shelter environment. Although each shelter in the United States has unique policies and procedures that guide the interactions between staff, volunteers, and shelter guests, this study aimed to provide information that might be generalizable to other shelters. The following discussion provides the implications that the above results have on physical and mental health among this marginalized population, as well as the clinical/practice-related implications that can be drawn from the current study.

Physical Health. Though physiological measures of anxiety were not measured in this study, there are still implications that can be drawn from the results regarding the physical health of transient populations. Prior research suggests practicing mindfulness improves one’s health, reducing the presence of symptoms requiring medical attention and reactivity when engaged with physiological stressors (Roth & Creaser, 1997; Feldman, et al., 2016), and improving blood pressure (Palta, et al., 2012). Additionally, perception of pain, restrictions related to one’s role in daily life, and physical functioning in general all improve through mindfulness practice, as is implied by prior research (Morone et al., 2009; Schütze, et al., 2014).

Along with these direct correlations, reducing the way an individual perceives stress has its own implications regarding the interaction between mindfulness practice and physical health. Many individuals who have experienced trauma in their lives have a hypervigilant reactivity response cycle that they get stuck in. This cycle involves the continuous harmful release of cortisol in the body, which leads to such consequences as
depression and muscle tension in the chronically stressed individual (Barlow, 2000). Mindfulness is one strategy that can be used to intervene in this destructive cycle. Engaging in mindfulness increases one’s ability to quickly disengage from the reactivity of this maladaptive reactivity to perceived threats and/or stressors, triggering the parasympathetic nervous system that begins to resolve the reactions of the body and repair the damage done when triggered (Moore & Malinowski, 2009).

**Mental Health.** The results of the current study support prior research exploring the multifaceted benefits of mindfulness based interventions on mental health. Prior research has suggested individuals’ experiences of anxiety, depression, obsession, somatization, and perceived stress have improved as a result of engaging in mindfulness-based practices (Biegel, et al., 2009; Manotas, et al., 2013; Cavanagh, et al., 2014; Cavanagh, et al., 2013; Grabbe, et al., 2012; Bohlmeijer, Prenger, Taal, & Cuijpers, 2010). Additionally, even online-delivered interventions with a focus on teaching mindfulness have shown significant effects for depression, anxiety and stress as shown in a meta-analysis of randomized control trials comparing mindfulness to control groups (Spijkerman, Pots, & Bohlmeijer, 2016).

Importantly, however, there were some activities that may have been somewhat distressing to participants such as the Loving Kindness meditation. Though stress-reducing, these activities may have also led participants to show more emotions such as sadness. This is not a surprising result as shown in prior research. Meditative practices can result in “relaxation-induced anxiety and panic, paradoxical increases in tension, and parasympathetic rebound” (Lazarus & Mayne, 1990, p. 261) for a small portion of the population. It is possible that this exercise (i.e., the Loving Kindness meditation)
prompted the participants to recognize and focus more intently on negative emotions that they often cast aside, making them experience a level of distress while the negative emotions were emphasized. Alternatively, this session (i.e., the Loving Kindness meditation) was always held on Friday, which was the least attended session of the week. With this confound, it is impossible to do more than speculate at why this session was less impactful than the others.

The current study, combined with results from other research and theory, suggests that there are many benefits to be gained for homeless populations by implementing mindfulness-based interventions within shelters that attempt to provide resources to this transient group. Due to the intense and chronic stress that this population faces, having mindfulness interventions available to relieve anxiety for even a short amount of time is imperative, especially since the outcomes of this study suggest participating in a single session results in benefits. Moreover, many interventions for anxiety, such as exposure-based therapies, or cognitive behavioral therapy, are time consuming and require a trained mental health professional to do ongoing treatment with the guests. Mindfulness sessions, similar to what was provided in this program, are activities that clients recognize as important, worth repeating, enjoyable and meaningful to those housed within the shelters, even after attending only one session.

Clinical Practice-related Implications. The theoretical premise of mindfulness is based on the ideology that developing these skills will result in the genuine acceptance of all experience, decreasing the likelihood of experiencing psychological symptoms as negative (Gu, Strauss, Bond, & Cavanagh, 2015). By learning mindfulness practices, shelter residents who are experiencing unstable and inconsistent housing are gaining
internal tools and empowerment to cope with a fraction of the stress they are encountering on a day-to-day basis. Learning the concepts of mindfulness, as well as the theoretical foundation, may lead to a more inclusive, all-encompassing acceptance of the obstacles that stand between this marginalized population and their happiness. Though it may be unreasonable to think that practicing mindfulness on a day-to-day basis will overshadow the multitude of hardships that these individuals face, it is a practice that they can carry with them regardless of their circumstances. It is free of cost to them, and it can act as a resource to help cope with physical and mental health ailments.

**Limitations and Directions for Future Research**

Because the focus of the current study was to develop a mindfulness program intended for implementation among homeless populations and a test of that program’s feasibility, further research will need to be conducted to determine the effectiveness this program has on improving state anxiety as the analyses conducted here are preliminary at best. More specifically, the question of “does the change in state anxiety from pre- to post-intervention depend on the shelter/gender of the participants?” would be better answered with moderator analysis of the data testing for interactions. However, due to the small sample that could be recruited for the present study, such an analysis did not have enough power to be an accurate representation of the data.

Logistical concerns dictated that including a control group would be outside the scope of this project. For example, participants’ length of stays at the shelters used are typically short and facility census varies widely, presenting a possible barrier to recruiting adequate numbers of participants for sufficiently long periods of time. Future research will need to address these problems by deploying this program with similar
populations in a project of broader scope and possibly by including a waitlist control group to rule out possible confounds. For example, one confound in the current study was that the time of the session varied by shelter and often changed from day to day. Additionally, when the principle researcher was not able to facilitate the groups, a pre-recorded audio file was used to play the script for those sessions, possibly affecting the participants’ experience on those days (as noted in several of the qualitative comments). Future research should control for this by providing consistency across time of sessions and facilitator.

In addition to the prior potential confounds, this research was conducted within the context of an ongoing, participatory community action research project, which has been in place since 2012. This project provides activities within each of the two shelters designed to incorporate behavioral activation among the shelter guests. The type of sessions conducted and attended by the participants of the current study were not tracked, making it impossible to know the impact prior attended sessions had on the acceptance and effectiveness of the mindfulness sessions initiated in this study. In addition to this, the nature of the previously established ongoing project was pertinent to the ease and feasibility of introducing the interventions described in this thesis. Without the pre-existing collaboration that was constructed and maintained by the “Behavioral Activation Research Project in Homeless Shelters” since 2012 (Reeb et al., 2017), it would be much more difficult to introduce an intervention of this nature into these settings. This particular factor is of utmost importance to consider for those who might wish to implement a similar intervention with other homeless populations.
Lastly, the physical environment at the shelters varied significantly, potentially accounting for some of the variability of effectiveness seen between facilities. The women’s facility provided a conference room that was isolated from much of the building, ensuring much less interruptions from caseworkers, staff, and noise from the general homeless population in the rest of the shelter. This was not the case at the men’s shelter, where the sessions were often interrupted by caseworkers and little space separated the men’s meeting space from the residents who chose not to participate. This created little muffling for the sound from the area that served as the “day space” for those who were not involved in this study. Future research should ensure equivalent spaces for each facility and control for outside individuals disrupting the mindfulness activities.
CONCLUSION

The present research study piloted a mindfulness-based program in two gateway homeless shelters to determine whether it is feasible to implement this type of program with such a transient population. The program conducted a brief mindfulness session five days a week, including sessions related to breathing, a body scan, doing the “non-doing,” progressive muscle relaxation and loving kindness. State anxiety was measured before and after each session to determine whether state anxiety decreased significantly following participation in a mindfulness activity. Additionally, a measure was administered to determine whether the guests found the activities to be meaningful, enjoyable, worth repeating and important to the residents at the shelter.

Though the main emphasis of this study was not on the effectiveness of the intervention, preliminary analysis of the change in state anxiety was conducted. These results indicated that state anxiety did decrease significantly across all four weeks for those who participated in the sessions. Moreover, participating in a single session reduced state anxiety in participants, suggesting that anxiety will be reduced even if the individual only attends one brief mindfulness session while residing at a homeless shelter. Further analyses demonstrated that the residents found all the sessions to be significantly meaningful, important, worth repeating and enjoyable across all four weeks. These findings were supported by much of the qualitative data collected.
At times, mindfulness practice has often been considered a practice for the upper, socioeconomically stable, Caucasian population, despite its Buddhist origins (Blum, 2014). However, the benefits this practice offers should be available to those of all socioeconomic statuses, racial identities, ethnicities, nationalities, and other living circumstances. It is time we begin conducting research that shows how different interventions can be used to benefit the populations who often do not have access to education, or those who find themselves without housing for a myriad of reasons. The hopes behind this pilot study are to increase the awareness of how mindfulness can be used within marginalized populations to provide much-needed benefits to those who are underserved.
Table 1

**AEPM Differences for the Entirety of the Program**

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
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<tr>
<td>How much did you enjoy the activity?</td>
<td>99</td>
<td>5.98</td>
<td>1.16</td>
<td>98</td>
<td>17.07</td>
<td>&lt;.001</td>
<td>1.716</td>
</tr>
<tr>
<td>How meaningful was this activity to you?</td>
<td>99</td>
<td>5.87</td>
<td>1.20</td>
<td>98</td>
<td>15.45</td>
<td>&lt;.001</td>
<td>1.552</td>
</tr>
<tr>
<td>How much would you like to do this activity again?</td>
<td>99</td>
<td>5.99</td>
<td>1.31</td>
<td>98</td>
<td>15.12</td>
<td>&lt;.001</td>
<td>1.519</td>
</tr>
<tr>
<td>I believe that the activities of this study are important for guests at this shelter</td>
<td>99</td>
<td>6.35</td>
<td>1.02</td>
<td>98</td>
<td>22.81</td>
<td>&lt;.001</td>
<td>2.293</td>
</tr>
</tbody>
</table>

**NOTE.** This table includes statistics for each of the four items on the AEPM. Specifically, each participant’s responses were compared to the average item (‘4’) on a Likert scale from 1 to 7, where 4 indicates a neutral response (‘4 - it was ok’; ‘4 - maybe’).
Table 2

Themes Emerging from the STAI and AEPM Comments

<table>
<thead>
<tr>
<th>Theme 1: Feedback about Prior Stress Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Only thing close to this that I have experienced was probably my 1st son being born, and the breathing classes I had to go to with he's mom.”</td>
</tr>
<tr>
<td>“I have done some yoga before”</td>
</tr>
<tr>
<td>“If I can for me I sleep”</td>
</tr>
<tr>
<td>“I have done a flexibility class before at sinclair and it really helped me with my stress level. We did different stretches to loosen up air muscles”</td>
</tr>
<tr>
<td>“Working on stress management with my counselor”</td>
</tr>
<tr>
<td>“Hate stress I'm always stress and haven't used any stress management activities”</td>
</tr>
<tr>
<td>“Excise class talking to my theropsyst”</td>
</tr>
<tr>
<td>“Inpatient and outpatient therapy.”</td>
</tr>
<tr>
<td>“Music is the best thing for me”</td>
</tr>
<tr>
<td>“I use to take a stress management class called project Impact.”</td>
</tr>
<tr>
<td>“New to stress management, learning how to be in better touch with my feelings and Emotions”</td>
</tr>
<tr>
<td>“Music Therapy. Praying &amp; Taking long walks.”</td>
</tr>
<tr>
<td>“I've never had any stress managements activities. I am hoping this will help me so I don’t want to self medicate”</td>
</tr>
<tr>
<td>“I have been in classes before about stress and I believe it has helped in this situation and continuing”</td>
</tr>
<tr>
<td>“angeR management, positive thinking, hobbies, chuRch, exeRcise, woRk, cRosswoRd puzzles &amp; uno.”</td>
</tr>
<tr>
<td>“mind control”</td>
</tr>
<tr>
<td>“TiCHi”</td>
</tr>
<tr>
<td>“Ti Ci AnD PRayER AnD StuDy of BiBle, QuARAN AND TORAH!”</td>
</tr>
<tr>
<td>“PLAYBasketball, ListeN to Music”</td>
</tr>
<tr>
<td>“I hAve peace, trANquility And I hAve LoVe.”</td>
</tr>
<tr>
<td>“A relaxing game of pool”</td>
</tr>
<tr>
<td>“take deep bReaths, angeR management &amp; church”</td>
</tr>
<tr>
<td>“Easing, &amp; relaxing &amp; flexing of the multiple body muscle, etc.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme 2: Ambiguous, Positive Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>“When I have done the activity they have help me to feel relaxed and calm afterwards”</td>
</tr>
<tr>
<td>“I enjoyed the last stress management activity I did w/ mindfulness”</td>
</tr>
<tr>
<td>“More of this seems good.”</td>
</tr>
<tr>
<td>“I have somewhat relax”</td>
</tr>
<tr>
<td>“I feel good!!”</td>
</tr>
<tr>
<td>“Would like to learn, more about mindfullness and meditation.”</td>
</tr>
<tr>
<td>“DoNe this pReviously, ENJoY it”</td>
</tr>
<tr>
<td>“You need to keep doing this group &amp; have it when you have more time”</td>
</tr>
<tr>
<td>“Love Mindfullness Activities Very Comfortable”</td>
</tr>
</tbody>
</table>
- “learned to relaxed”
- “It Works”
- “You guys did good”
- “Very Well! Good, aNd OK for those who participate”
- “Helps A lot moRE thAn I thought it would”
- “It’s beeN A good experieNce to share.”
- “you guys do a great job.”
- “I think some of my paiNs are goNe.”
- “These are wonderful”
- “I <3 the Mindfulness group Please keep doing the group it helPs.”
- “GREAT TIMING!”
- “I’ve always been skeptical about meditation, but I Love it just having done it once”
- “calming”
- “I highly recommend this”
- “I realy enJoyed i Need more of This”
- “It felt good”
- “Study are important for guests. Shelter. Activity How meaningful. Enjoy very enjoYabLE”
- “IT was Nice. More people are coming”
- “I think everyone here should do this since we are all going thru a very tough time”
- “I Appreciate this exercise!”
- “I LOVE it!”
- “:)”
- “Very nice”
- “:)”
- “I think once we get deeper into this it will be very good for all of us.”
- “Good”
- “:)”
- “:)”
- “Keep doing a great job.”
- “Right now this is my 1st mEEting & I did Enjoy it.”
- “EvEryThing is NoT 4 EvEyoNe, this sEssion is 4 mE. Thanks And C U Tommorrow. ThAnks Again.”
- “AMAZInG”
- “ThaNk you for comeing”
- “I have a ver good day”
- “This Group iN AN Awsome Group.”
- “ExcEllENt follow-up”
- “very useful”
- “Very important as always”
- “GREAT to do "in pERon" w/ ChElSEA”
- “<3”
- “Very Good”
- “I do Believe it is AlwAys gooD To injoy”
“I enjoyed the class. It was my first time so I'm sure it will be more rewarding the next time.”
“I really enjoyed mindfulness it have help me so more.”
“spot on today!”

**Theme 3: Specific Positive Feedback Describing Outcomes**

- “The stress management activities keeps myself busy and having something to do.”
- “A lot of stress is released with these sessions.”
- “I think this experience will deep me relax and calm until tomorrow.”
- “Meditation is excellent! Very relaxed after every session.”
- “Uplifting & inspirational.”
- “By having these sessions a lot of my stress has been diminished.”
- “I really feel that the class has helped me to deal with some of the things that I face everyday.”
- “Very helpful to remind myself I am the power to overcome the stress I have.”
- “The instructors seem very helpful, and positive; and want to help us which is very nice. I appreciate their helpfulness.”
- “Like incorporating these techniques into my daily life experiences.”
- “I enjoyed this experience its nice to get some peace and quiet especially in a place like this.”
- “Glad to be here than in the cold.”
- “Nice the exercise took me to another part of my brain.”
- “I feel relaxed and content and ready to focus on what I need to do.”
- “It helped me to feel better.”
- “Stress management is comforting to be involved in. I personally enjoy the speaker voice.”
- “Helps very much do to the situation at hand. I guess because I'm a young guy, and a women's voice soothes me anyway especially when she's calm and seems to really be a nice person. I thank all of you.”
- “Good it help me to solve situations different.”
- “My Numbers has changed im less in my negative state of mind as well as my feelings.”
- “At least for the moment - gave me strength and others to be aware and help themselves and myself.”
- “I keep coming back so I do enjoy it & would like to get into meditation a little/a lot more.”
- “Thank you Guys very much seriously really It means a lot and I really appreciate everything and the time put in to this.”
- “Thank you Guys very much seriously really It means a lot and I really appreciate everything and the time put in to this.”
- “New experience learning about mindfulness, interesting.”
- “Thank you this helped me relax very much”
- “This is the first time I relaxed”
- “I did like it and want to come back.”
- “I enjoy my body feel so relax”
"Having a better experience with meditation each time, seems to be benifiting my self more each day."

“I am relaxing more to night than Last night The more i come the Better It will Be”

“Very Relaxing Thank you!”

“Very Relaxing and gave me a sense of peacefulness.”

“Very Relaxing Thank You”

“MEANINGFULL/HELPFUL TO OTHERS”

“VeRy RelaxiNg, I feel calm.”

“The study makes me lose the stress.”

“Very relaxing activity to particiatae”

“In this shelter of course we are homeless w/ out a home and are stressed out. People are Lashing out and it is chaotic at times. So this minfullness session is very helpful to provide people to relax”

“I believe this is more of a possitive movement Not just for shelter but everyday life. Children Elders and all young adults It makes sense”

“becAuse wheN appRoached with a situatioN they cAN gatheR themselves with their bReathing”

“The meddcine oF This TReATmeNT is NeedFuL AND Helps As A wAy to cope witH pressure.”

“This excersize mAde me feel cAlm. I Dreamed of A place where I go to be aloNe also meditAte.”

“I have been able to start feeling more relax with each passing time of trying to meditate.”

“MeditAtioN is good for relAxAtioN aNd It also helps us to kNow our iNNer feelings”

“RELAXing - - a must for shElTEr guEsts!”

“Needed that sense of peace, today.”

“I think this activity is much needed in here because it will help to reduce stress”

“Relaxing & Refreshing of mind & body”

“I could finally hear it. TY”

“very uplifting and inspirational relieves stress and made me feel relaxed”

“This shelter nees more activities like this, they are very uplifting and inspirational, good for such a stressfull enviornment”

“It's been a joy to be able to meditAte aNd relAx”

“This frees my miNd from problems.”

“This helps me relax my mind and body. It makes me more aware of my surroundings.”

“This was a amazing 4 weeks. Miss Chelsea and mR. Charles did a amazing Job with us Ladies at the shelter here.”

“uplifting & inspiratioal makes me less anxious Helps me deal with Stress from living in such a negative facility”

“very enjoyable & relaxing”

“I thiNk wheN you ReALLy get iNto this slAss it helps you do deal with the stressful situatioNs thAt you fAce eveRydAy.”
<table>
<thead>
<tr>
<th>Theme 4: Extremely Ambiguous Feedback about Circumstances</th>
</tr>
</thead>
<tbody>
<tr>
<td>• “8 PHONES HAVE BEEN STOLEN IN 6 DAYS. SO I AM GLAD YOU HAVE THIS (ON THIS COLD DAY) FOR EVERYONE ATTENDING.”</td>
</tr>
<tr>
<td>• “is know calm find tense How I feel upset no I am relaxed I feel content Have I am worried”</td>
</tr>
<tr>
<td>• “This MorNiNg I experieNced the spirit of the lord aNd I’ve beeN excited all day aNd eveN though this exercise is useful it was hard for Me to reMatN still?”</td>
</tr>
<tr>
<td>• “I good at Night-because I take my medicne-Through The day-I am NOT Relaxed”</td>
</tr>
<tr>
<td>• “They have been helpful Not sure about today I am really tense and stressed out”</td>
</tr>
<tr>
<td>• “We ALL NeeDs self-evaluation QuestionnaiRe Honestly Appropriate INDICAte moments.”</td>
</tr>
<tr>
<td>• “This experience was helpful but I am so tired and done”</td>
</tr>
<tr>
<td>• “usually this helps but today I am done and stressed”</td>
</tr>
<tr>
<td>• “There's sometime about this class. But it's cool.”</td>
</tr>
<tr>
<td>• “Most of the time I fell asleep”</td>
</tr>
<tr>
<td>• “To me interruptions was not good for the class today. Yet, I will be back tomorrow.”</td>
</tr>
<tr>
<td>• “[illegible text] positive Today was A Rough day.”</td>
</tr>
<tr>
<td>• “your feel moRe tense I fee some wiTH CALM I feel some with content very much HOPE YOUR FEELINGS THE SAME THANK YOU!!!!”</td>
</tr>
<tr>
<td>• “I FEEL CALM I AM TENSE KNOW UPSET SO RELAXED”</td>
</tr>
<tr>
<td>• “I didn't even know I could gather myself in this way”</td>
</tr>
<tr>
<td>• “it was good but there better. God Bless me.”</td>
</tr>
<tr>
<td>• “I think this is a good activity to do in the evening I feel ready to sleep”</td>
</tr>
<tr>
<td>• “Treating people like people!”</td>
</tr>
<tr>
<td>• “I THINK KNOWING THE GUESTS THAT DON'T KNOW MUCH ABOUT EACH OTHER-THIS CLASS HELPS THEREFORE WOULD BE MORE COMFORTABLE IN COMMUNICATING AND BE LESS STRESSFULL.”</td>
</tr>
<tr>
<td>• “sometime I wish peopLe would miNd there buisNess.”</td>
</tr>
<tr>
<td>• “I worried about BraiN Surgery [additional note illegible] ”</td>
</tr>
<tr>
<td>• “BIAS but GOOD”</td>
</tr>
<tr>
<td>• “Treat others the way you want to be treated”</td>
</tr>
<tr>
<td>• “I DON't unederstand why Family hate me.”</td>
</tr>
<tr>
<td>• “More Cowbell!”</td>
</tr>
<tr>
<td>• “If only the person can handle it.”</td>
</tr>
<tr>
<td>• “It's always differeNi”</td>
</tr>
<tr>
<td>• “THEY DON'T TAKE IT SERIOUSLY THEY PLAY GAMES LIFE AND THIS THERAPY IS NOT NO JOKE LEVEL PEOPLE HERE ARE RARE”</td>
</tr>
<tr>
<td>• “Calm experience never paid attention to breathing patterns.”</td>
</tr>
<tr>
<td>• “The lights turned off was very helpful Trying not to fall asleep.”</td>
</tr>
<tr>
<td>• “Let's Go to fl. 303805 Love yah [participant name] go Coll. Stude”</td>
</tr>
<tr>
<td>• “[under item B.] AT firsT Not at aLL BuT I Like”</td>
</tr>
<tr>
<td>• “Will we Do it again a week is Better for me myself to Lean and listeds.”</td>
</tr>
<tr>
<td>• “KEEp coming back”</td>
</tr>
<tr>
<td>• “BraiN Brain can Leandings one Day a time Slow and know fasteds.”</td>
</tr>
</tbody>
</table>
• “Leaning is Brain thinks Like Smat one Dat at a times help your Brain slowings...”
• “It's All to the mediAtioN of the mediAtioN to reality from A spirituAl aspect to thiNk good of these groups.”
• “Better problems is a story”
• “I feel Like a Study you get pon't's have a lots to going to collges see you next times arounds night and Days.”
• “I think more guys should at lease give it a try. Don't nothing beat a failure but a try. I will try again”
• “It was weird I have a lot of emotions and to try to shut it off is hard It hurts so much to the Point I cry”
• “I WILL TRY TO SEE IF IT WORKS”
• “keeps Them have more pont's and study important in school s activities s A's and B's C's wILL Be needs for cHoces.”
• “NEVER LISTEN TO MAJOR LEAGUE BASEBALL WHILE MEDITATION. SORRY, CHELSIA.”

Theme 5: Specific Negative Feedback Describing Outcomes

• “I DON'T REALLY HAVE ANY OTHER THAN NA”
• “Not I caN Remember”
• “family”
• “I thow things”
• “I more stress about on place”
• “I just relaxed today but get with next week.”
• “Well miss is real go walking or reading and color.”
• “it about someone is make me upset so I was ok for day but went I went to Dinner that went I was upset and that all a person.”
• “TRYING TO GO OUT EVERYDAY USED TO GO TO HOUSE OF BREAD.”
• “A little stress to be here at Gateway”
• “distRactioN”
• “I am homeless not living the way I want to live. The circumstances that made me homeless are not my fault!!!!”
• “Nothing but the Homeless life really sickens me.”
• “Right now I can't rEally Explain it, I fEEl stress out, tirE, worried”
• “I am tirEd of woRRing-I stress out!”
• “I realy enjoyed this, but I am kinda hard of hearing”
• “This would work very well in a Low Light and Quiet place.”
• “If done in another Location of the building”
• “just need you to talk a little ouder-I am kinda deaf”
• “I wish everydayby here would Join / aLso men”
• “it would Nice iF The sTAFF would JoiN.”
• “Lights Off/Dim would be much more enjoyable”
• “Being at the womens shelter is very stressful & Busy w/ PeoPle running Around ever which causes Anxiety/Anxiety Attacks & Stressful Days where certain females Argue & fight for no reason”
• “everyone should do it at once!”
“for me, turn of cell phones before coming into this room”
“I just wish I felt something, I keep hoping It's going to work.”
“If everyone would like take a moment to calm themselves before responding to chaotic situation there may be less conflict. Weekend sessions would be great!”
“All I can say now is that a lot of tension is separation in all areas.”
“It would be nice - if we do this on weekend?”
“Offer to send recordings home if it is wanted :)”

Theme 6: Comments Describing Both Positive and Negative Outcomes

“Staff out here could do a better job.”
“Should put on zen music it's very calming for body & mind”
“I must be broken or don't do it right. I feel nothing from this.”
“It needs calming tunes”
“Please brief statement to let us like past experience stress management activities, ....”
“Didn't really take hold of the experience.”
“People need to quit talking during class. It totally distracted me.”
“Same as I said before. I'm still stressed out!”
“Why do we not do music meditation like Kenny G.”
“Sorry but I don't feel anything from this. I think something is wrong with me.”
“Nothing that's worked. Told to change my thoughts. Pretend I was putting it all in a balloon then release it. It's all bull hockey.”
“Pissed off beyond words!”
“I was actually falling to sleep.”
“I do feel more calm but I can't get my brain to not think about that this doesn't change my situation any so all the problems are still there.”
“enjoyed this group too, but when she was here in person I think it was better.”
“I couldn't get focus and relaxed because of my surrounding and my thoughts”
“This would be much better with the lights OFF/Dim”
“When I am stressed I usually beat dogs with cats!!! : )”
“Trying to visualize the stuff going up in a balloon-Bull crap.”
“I haven't experienced a lot of past stress management. I am not good at dealing with stress.”
“I'm always getting stressed out about life and have not had stress management activities”

I haven't experienced a lot of past stress management. I am not good at dealing with stress.
“Wish we could do this activity on the weekend. It really does help. With relaxation I really enjoy this part of the day at the shelter.”
“This was and experience but yet a challenge. Only because of the situation but the narrator of the activity was fun [sic].”
REFERENCES


randomized controlled trial of a brief online mindfulness-based intervention. *Behaviour Research and Therapy, 51*, 573-578. doi: 10.1016/j.brat.2013.06.003


Feldman, G., Lavallee, J., Gildawie, K., & Greeson, J. M. (2016). Dispositional mindfulness uncouples physiological and emotional reactivity to a laboratory
stressor and emotional reactivity to executive functioning lapses in daily life.

*Mindfulness, 7*, 527-541. doi: 10.1007/s12671-015-0487-3


populations at the national and state levels. Washington, DC: National Alliance to End Homelessness.


Kidd, S.A. (2004). ‘The walls were closing in, and we were trapped’: A qualitative analysis of street youth suicide. *Youth & Society, 36*, 30-55. doi: 10.1177/0044118X03261435


service-learning students implementing participatory community action research in homeless shelters. Paper presented at the annual meeting of the International Association for Research on Service-Learning and Community Engagement, Galway, Ireland.


APPENDIX A

Self-Evaluation Questionnaire

Circle the most appropriate number to the right of the statement to indicate how you feel right now, at this moment. There are no right or wrong answers. Please answer honestly.

<table>
<thead>
<tr>
<th></th>
<th>Not At All</th>
<th>Somewhat</th>
<th>Moderately</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel calm</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I am tense</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I feel upset</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I am relaxed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I feel content</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I am worried</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Would you please write a brief statement to let us know your past experience with stress management activities?

Please write any other comments you have about this experience today that you would like to share:
APPENDIX B

Activity Evaluation Process Measure (AEPM)

Activity: ___________________________ Date: ______________

Please circle the number that best answers the questions about the activity you just completed.

A. How much did you enjoy this activity?

1 2 3 4 5 6 7
Not at all It was okay Very enjoyable

B. How meaningful was this activity to you?

1 2 3 4 5 6 7
Not at all It was okay Very meaningful

C. How much would you like to do this activity again?

1 2 3 4 5 6 7
Not at all Maybe Definitely Again

D. I believe that the activities of this study are important for guests at this shelter.

1 2 3 4 5 6 7
Not at all Maybe Definitely

Comments: _______________________________________________________

______________________________________________________________

______________________________________________________________
APPENDIX C
Session Scripts

Session One
“Mindful Breathing - Embracing the Calm

Description: During the first session, participants will be asked to focus on their breathing. They will be asked to focus on the feeling of each breath, from start to finish, and to ignore all other thoughts that come to mind. The following script (in blue) is from http://www.livingwell.org.au/mindfulness-exercises-3/5-breathing-mindfulness/. This will be used, with adjustments and/or additions (made in black).

Why Do This?: This exercise brings the participants’ awareness to the breath. By doing this they are able to recognize the difference between how s/he normally breathes and how s/he mindfully breathes. As awareness for this component of their everyday life increases, breathing mindfully can be used as a tool during times of heightened stress, anxiety and many other distressing emotions. This session is the foundation for all other sessions included in this intervention.

Script: The purpose of this exercise is to simply notice, accept and be aware of your breath – it is not about relaxation or stress reduction, although this may well occur. Breathing is something we all do – if you have a pulse then you breathe. Your body knows how to do this; it has done it since birth. This is simply about breathing mindfully. Breathing is something you carry with you everywhere; you are just not usually aware of it.

Sit quietly in a chair with both feet on the ground and your hands in your lap, touching your stomach enough so you can feel the movement of your breaths. Allow yourself to feel centered in the chair. Bring all of your attention to the physical act of breathing. Start to notice the breath as it enters your body through your nose [pause] and travels to your lungs [pause]. Notice with curiosity whether the inward and outward breaths are cool [pause] or warm [pause]. and notice where the breath travels as it enters [pause] and departs [pause]. Take a moment now to take a few deep breaths, bringing your attention to the areas I have just mentioned. [pause]

Also notice the breath as your lungs relax and you inhale through your nose [pause]. Don’t try to do anything with your breathing – simply notice it, pay attention to it and be aware of it [pause]. It doesn’t matter if your breathing is slow or fast, deep or shallow [pause]; it just is what it is. Allow your body to do what it does naturally [pause].

You will start to notice that each time you breathe in, your diaphragm or stomach will
expand [pause]... and each time you breathe out your diaphragm or stomach will relax. [pause] Again, don’t try to do anything – just be aware of the physical sensations of breathing in [pause] and breathing out [pause]. If you find that thoughts intrude, this is okay. Don’t worry, just notice the thoughts, allow them to be, and gently bring your awareness back to your breath. [pause]

As you continue to breathe, I am going to say some different phrases. Try to focus on one of the phrases as a way to focus your thoughts. If you can’t remember the full line I have said, it’s ok. Just continue on, focusing on the experience of breathing without judgment or distress.

(The statements below are taken from Emet’s Buddha’s Book of Sleep):

*The past has already gone and the future is yet to come. I am concentrating on being peaceful, happy, and free in this present moment.* [pause Pause]

*Now I’m concentrating on being aware of each breath. My attention on the breath is continuous. I follow the breath as it begins, and my abdomen starts to expand. I continue to pay attention as my abdomen rises and falls with each breath, like a child going high and low on a swing.* [pause Pause]

*I embrace my breath with all my care and attention, like a mother holds her baby. Thoughts stay in the background.* [pause Pause]

*I enjoy the rhythmic rise and fall of my abdomen; I enjoy staying in the here and now. I have stopped running forward and backward.* [pause Pause]

*My mind keeps producing thoughts; that is its nature. I do not follow the thoughts. I concentrate on my breath.* [pause Pause]

*I’m comfortable and at ease. With each breath, I let go of tension somewhere in my body and mind.* [pause Pause]

Take a moment to take a couple more slow, deep breaths [pause], and as you feel comfortable, slowly bring your attention back to the room. And, when you are ready, open your eyes.

You can also do this exercise lying down in bed if you have difficulty sleeping. It is simply a way of allowing you to have more mindful and conscious awareness of your body and its surroundings, its breathing and its capacity to relax. When our breathing relaxes our muscles relax.

As the session comes to a close, I would like to challenge you to remember how it felt to be this aware of your breathing between now and our next session. The way you have focused on your breathing throughout this session with me today and the relaxation it may have brought to you can easily apply in situations that arise before our next session anytime you feel stressed, overwhelmed, or you are having trouble falling asleep.
Session Two
“Body Scan”

Description: This session is devoted to participants’ recognition of the sensations in their body as a whole. The body scan is an activity, which has the participant focus on different attributes of their being in a guided manner. The attributes are targeted as follows: breath, mind, face, neck/shoulders, abdomen, and lower body. The following script (in blue) is used (Reference: Mindfulness Meditation, CD Series 1, Jon Kabat-Zinn from http://mindfulnesshamilton.ca/meditation-scripts):

Why Do This?: The body scan activity allows the participant to use the focus they have on each body part in a way to promote complete relaxation, releasing noticed tension part by part until no tension remains.

Script: This guided body scan meditation is intended to help you enter a very deep state of relaxation. It is best if you can manage to stay awake throughout the entire exercise. It’s important to remember to not try to relax. This will just create tension. What you’ll be doing instead is becoming aware of each passing moment and just accepting what is happening within you, seeing it as it is. Let go of the tendency of wanting things to be different from how they are now and allow things to be exactly as you find them. Just watch the activity of your mind, letting go of judgmental and critical thoughts when they arise, and just doing what the exercise guides you to do as best you can.

Sit in a comfortable position, with your feet flat on the floor and your hands relaxed. [Pause] Closing your eyes, and letting your arms lie alongside your body, your feet falling away from each other and slowly bringing your attention to the fact that you are breathing. [Pause]. Not trying to control your breath in any way [Pause] but simply experiencing it as the air moves in and out of your body [Pause] and noticing your abdomen and feeling the sensations there as your breath comes into your body and your abdomen gently expands. [Pause] Then noticing your belly deflate as the breath comes out of your body. [Pause] And following the rhythmic movement of each breath…the rising of your belly on the inbreath and on each out breath just letting go, [Pause] letting your body become heavy as it sinks a little bit deeper into relaxation. Just bringing full attention to each breath in each moment. [Pause].

Now bringing your attention to your feet, becoming aware of whatever sensations are there. [Pause] If you are registering a blank as you tune in, then just experiencing nothing. [Pause]. And as you breathe in, imagine your breath moving all the way down to your feet and then when you reach your feet, begin your out breath and let it move all the way up your body and out your nose. [Pause]. So that you’re breathing in from your nose and breathing out from your feet. [Pause]. And when you are ready, letting your feet dissolve in your mind’s eye. [Pause] Become aware of the shins and calf muscles and the sensations in the lower legs. [Pause] not just on the surface but right down into the bones, [Pause] experiencing and accepting what you feel here and breathing into it. [Pause] then breathing out from it. [Pause] Then letting go of your lower legs as you relax into the chair. And moving now into the thighs [Pause] and if there’s any tension just noticing
that.  

Shift your attention to your pelvis now.  

Noticing your buttocks in contact with the chair.  

And the sensations of contact and of weight.  

And whatever sensations or lack of sensations you are experiencing.  

And directing your breath down into your pelvis, breathing with the entirety of your pelvis.  

And as you breath out, moving the breath back up through your body and out your nose.  

Letting your pelvis soften and release all tension as you sink even deeper into a state of relaxed awareness and stillness.  

Totally present in each moment.  

Content to just be, and to just be right here as you are right now.  

Direct your attention now to your lower back.  

And just experiencing your back as it is.  

Letting your breath penetrate and move into every part of your lower back on the in-breath.  

And on the out-breath, just letting any tension, any tightness, any holding on just flow out as much as it will.  

And then letting go of your lower back.  

And moving up into your upper back now.  

Just feeling the sensations in your upper back.  

You may even feel your ribcage, in back as well as in front, expand on the in-breath.  

And any tightness, fatigue or discomfort in this part of your body, just letting them dissolve and move out with the outbreath as you let go and sink even deeper into stillness and relaxation.

And now shifting your attention to your belly again and experiencing the rising and falling of your belly as you breathe.  

Feeling the movements of your diaphragm, that umbrella-like muscle that separates your belly from your chest.  

And experiencing the chest as it expands on the in-breath and deflates on the out-breath.  

And if you can, tune into the rhythmic beating of your heart within your chest.  

Feeling it if you can.  

As well as the lungs expanding on either side of your heart.  

Just experiencing your chest, your belly, as you sit here...the muscles on the chest wall, the breasts, the entirety of the front of your body.  

And now just letting this region dissolve into relaxation as well.  

Moving your attention now to your fingertips and to both hands together.  

Just becoming aware of the sensations now in the tips of your fingers and thumbs where you may feel some pulsations from the blood flow, a dampness or a warmth or whatever you feel.  

Just feeling your fingers.  

And expand your awareness to include the palms of your hands and the backs of your hands and your wrists.  

And here again perhaps picking up the pulsations of the arteries in your wrists as the blood flows to and from your hands.  

And becoming aware as well of the forearms.  

And the elbows.  

Any and all sensations regardless of what they are.  

Allowing the field of your awareness to include now the upper arms.  

Right up to your shoulders.  

Just experiencing your shoulders and if there are any tensions, breathing into your shoulders and arms.  

And letting that tension dissolve as you breathe out.  

Letting go of the tension and letting go of your arms.  

All the way from your fingertips, right through to your shoulders.  

As you sink even deeper into a state of relaxed awareness.
each moment. Letting go of whatever thoughts come up or whatever impulses to move and just experiencing yourself in this moment.

And now focus your attention on your neck and throat and feel this part of your body, experiencing what it feels like perhaps when you swallow and when you breathe. And then letting it go. Letting it relax and dissolve in your mind’s eye. Becoming aware of your face now. Focusing on the jaw and the chin, just experiencing them as they are.

Becoming aware of your lips and your mouth. And becoming aware of your cheeks now… feeling the breath as it moves in and out at the nostrils. And be aware of your eyes. And the entire region around your eyes and eyelids. And if there’s any tension, letting it leave as the breath leaves. And now the forehead letting it soften to let go of stored emotions. And the temples. And if you sense any emotion associated with the tension or feelings in your face, just being aware of that. Breathing in and letting the face dissolve into relaxation and stillness. And now become aware of your ears. And back and top of your head. Now letting your whole face and head relax. For now, just letting it be as it is. Letting it be still and neutral. Relaxed and at peace.

Now letting your breath move through your entire body in whatever way feels natural for you. Through the entire length of your body. All of your muscles in a deep state of relaxation. And your mind simply aware of this energy of this flow of breath. Experiencing your entire body breathing. Sinking deeper and deeper into a state of stillness and deep relaxation. Allow yourself to feel whole. In touch with your essential self in a realm of silence, of stillness, of peace. And seeing that this stillness is in itself healing. And allowing the world to be as it is beyond your personal fears and concerns. Beyond the tendencies of your mind to want everything to be a certain way. Seeing yourself as complete right now as you are. As totally awake right now.

As the exercise ends, bring your awareness back to your body again, feeling the whole of it. You may want to wiggle your toes and fingers. Allow this calmness and this centeredness to remain with you when you move. Congratulate yourself on having taken the time to nourish yourself in this way. And remember that this state of relaxation and clarity is accessible to you by simply paying attention to your breath in any moment, no matter what’s happening in your day. Let your breath be a source of constant strength and energy for you.

Session Three
“Doing the Non-Doing”

Description: During this session, the focus is on being aware of the present moment. Participants learn to recognize thoughts as distractions that can be let go, almost as though watching them float away on a river. The following script (in blue) is used
(Reference: Mindfulness Meditation, CD Series 1, Jon Kabat-Zinn from http://mindfulnesshamilton.ca/meditation-scripts):

**Why Do This?:** By recognizing thoughts as distractions that can be let go, one will be more likely to control focus and attention during stressful times or during times of rumination, depression and/or anxiety. Ruminating on the past or worrying about the future is not beneficial to anyone. Learning to let go of those thoughts is the first step towards creating a better “here-and-now.”

**Script:** Put yourself in a comfortable seated position, placing your feet flat on the floor, and as you begin to take a few deep breaths, close your eyes. This guided sitting meditation will help you learn to simply be and to look within yourself with mindfulness and equanimity. Allow yourself to switch from the usual mode of doing to a mode of non-doing. Of simply being. As you allow your body to become still, bring your attention to the fact that you are breathing. And become aware of the movement of your breath as it comes into your body and as it leaves your body. Not manipulating the breath in any way or trying to change it. Simply being aware of it and of the feelings associated with breathing. And observing the breath deep down in your belly. Feeling the abdomen as it expands gently on the inbreath, and as it falls back towards your spine on the outbreath. Being totally here in each moment with each breath. Not trying to do anything, not trying to get any place, simply being with your breath.

You will find that from time to time your mind will wander off into thoughts, fantasies, anticipations of the future or the past, worrying, memories, whatever. When you notice that your attention is no longer here and no longer with your breathing, and without judging yourself, bring your attention back to your breathing and ride the waves of your breathing fully conscious of the duration of each breath from moment to moment. Every time you find your mind wandering off the breath, gently bringing it back to the present, back to the moment-to-moment observing of the flow of your breathing. Using your breath to help you tune into a state of relaxed awareness and stillness.

Now as you observe your breathing, you may find from time to time that you are becoming aware of sensations in your body. As you maintain awareness of your breathing, see if it is possible to expand the field of your awareness so that it includes a sense of your body as a whole as you sit here. Feeling your body, from head to toe, and becoming aware of all the sensations in your body.

Being here with whatever feelings and sensations come up in any moment without judging them, without reacting to them, just being fully here, fully aware of whatever you’re experiencing. And again whenever you notice that your mind wandered off, just bringing it back to your breathing and your body as you sit here not going anywhere, not doing anything just simply being, simply sitting. Moment to moment, being fully present, fully with yourself.
Now as you sit here once again allowing the field of your awareness to expand. [Pause] This time, expanding your awareness to include thoughts as they move through your mind. [Pause] So letting your breathing and sense of your body be in the background [Pause] and allowing the thinking process itself to be the focus of your awareness. [Pause] And rather than following individual thoughts and getting involved in the content and going from one thought to the next, simply seeing each thought as it comes up in your mind as a thought [Pause] and letting the thoughts just come and go as you sit and dwell in stillness, [Pause] witnessing them and observing them. [Pause] Whatever they are… [Pause] just observing them as events in the field of your consciousness… [Pause] as they come into your awareness and they linger and as they dissolve. [Pause]

If you find yourself at any point drawn into this stream of thinking and you notice that you are no longer observing them, just coming back to observing them as events [Pause] and using your breathing and the sense of your body to anchor you [Pause] and stabilize you in the present. [Pause]

The thoughts can take any form, they can have any content and they can be either neutral or very highly charged. [Pause] If thoughts come up that have fear in them, then just be aware of fear being here [Pause] and letting these thoughts come and go. [Pause] The same for worries, [Pause] preoccupations, [Pause] and so on. [Pause] Regardless of the feeling that a thought might create for you, just observing it as simply a thought [Pause] and letting it be here without pursuing it [Pause] or without rejecting it. [Pause] Noticing that from moment to moment, new thoughts will come and go. [Pause]

As the meditation ends, you might give yourself credit for having spent this time nourishing yourself in a deep way by dwelling in this state of non-doing, in this state of being. [Pause] For having intentionally made time for yourself to simply be who you are. [Pause] And as you move back into the world, allow the benefits of this practice to expand into every aspect of your life.

Session Four
“Progressive Muscle Relaxation”

Description: The following script (Davis, Eshelman & McKay, 1995) is used.

Why Do This?: Everyone holds tension within their bodies in a variety of ways. Surprisingly, most individuals are not aware of which muscle groups they chronically tense in response to stress. Progressive relaxation allows individuals to become aware of where they are holding their tension. Additionally, it allows them to begin to differentiate the experience of tension and relaxation in their bodies (Davis, Eshelman & McKay, 1995).

Script: Get in a comfortable position and relax. [Pause] Now clench your right fist, tighter and tighter, studying the tension as you do so. Keep it clenched and notice the tension in your fist, hand, and forearm. [Pause] Now relax. [Pause] Feel the looseness in
your right hand, and notice the contrast with the tension. [Pause] Now clench your left fist, tighter and tighter, noticing the tension as you do so. Keep it clenched and notice the tension in your fist, [Pause] your hand, [Pause] and forearm [Pause]. As you relax, recognize that this is the opposite of tension [Pause]. Now clench both fists at the same time. Tighter and tighter. Feel the tension as you clench both fists as hard as you can. [Pause]. Notice the tension in both fists [Pause], both hands, [Pause], and both forearms [Pause]. Sit with this tension for a few seconds longer… [Pause], and now relax [Pause]. Feel the looseness in both arms, and notice the contrast with the tension [Pause].

Now bend your elbows and tense your biceps. Tense them as hard as you can and observe the feeling of tautness. [Pause] Relax, straighten out your arms. [Pause] Let the relaxation develop and feel that difference. As we repeat this, continually keep in mind the difference in feelings between the act of tensing and the act of relaxing. [Pause]. Start to bend your elbows and tense your biceps [Pause]. Tense them as hard as you can, really letting the tension come into your awareness [Pause]. Now, relax and straighten out your arms [Pause].

Turning attention to your head, wrinkle your forehead as tight as you can. [Pause] Now relax and smooth it out. [Pause]. Let yourself imagine your entire forehead and scalp becoming smooth and at rest. [Pause] Now frown and notice the strain spreading throughout your forehead. [Pause] Let go. [Pause] Allow your brows to become smooth again. [Pause] Close your eyes now, squint them tighter. Look for tension. [Pause] Relax your eyes. [Pause] Let them remain closed gently and comfortably. [Pause] Now clench your jaw, bite hard, notice the tension throughout your jaw. [Pause] Relax your jaw. [Pause] When the jaw is relaxed, your lips will be slightly parted. Let yourself really appreciate the contrast between tension and relaxation. [Pause] Now press your tongue against the roof of your mouth. Feel the ache in the back of your mouth. [Pause] Relax. [Pause] Press your lips now, purse them into an “O.” [Pause] Relax your lips. [Pause] Notice that your forehead, scalp, eyes, jaw, tongue and lips are all relaxed. [Pause]

Press your head back as far as it can comfortably go and observe the tension in your neck. [Pause] Roll it to the right and feel the changing locus of stress, roll it to the left. [Pause] Straighten your head and bring it forward, press your chin against your chest. [Pause] Feel the tension in your throat, the back of your neck. [Pause] Relax, allowing your head to return to a comfortable position. [Pause] Let the relaxation deepen. [Pause] Now shrug your shoulders. [Pause] Keep the tension as you hunch your head down between your shoulders. [Pause] Relax your shoulders. [Pause] Drop them back and feel the relaxation spreading through your neck, throat and shoulders, pure relaxation, deeper and deeper. [Pause]

Give your entire body a chance to relax. [Pause] Feel the comfort and the heaviness. [Pause] Now breathe in and fill your lungs completely. Hold your breath. Notice the tension. [Pause] Now exhale, let your chest become loose, let the air hiss out. [Pause] Continue relaxing, letting your breath come freely and gently. Repeat this several times, noticing the tension draining from your body as you exhale. [Pause] Next, tighten your stomach and hold. [Pause] Note the tension, then relax. [Pause] Now place your hand on
your stomach. Breathe deeply into your stomach, pushing your hand up. Hold and
and relax. [Pause] Feel the contrast of relaxation as the air rushes out. Now arch your
back, without straining. [Pause] Keep the rest of your body as relaxed as possible. Focus
on the tension in your lower back. [Pause] Now relax, deeper and deeper. [Pause]
Tighten your buttocks and thighs. [Pause] Flex your thighs by pressing down your heels
as hard as you can. [Pause] Relax and feel the difference. [Pause] Now curl your toes
downward, making your calves tense. [Pause] Study the tension. [Pause] Relax. [Pause]
Now bend your toes toward your face, creating tension in your shins. [Pause] Relax
again. [Pause]
Feel the heaviness throughout your lower body as the relaxation deepens. [Pause] Relax
your feet [Pause], ankles [Pause], calves [Pause], shins [Pause], knees [Pause],
thighs [Pause], and buttocks [Pause]. Now let the relaxation spread to your stomach
[Pause], lower back [Pause], and chest [Pause]. Let go more and more [Pause].
Experience the relaxation deepening in your shoulders, arms, and hand. [Pause] Deeper
and deeper. [Pause] Notice the feeling of looseness and relaxation in your neck, jaws,
and all your facial muscles. [Pause].

Session Five
“Loving Kindness Meditation”

Description: The following script (in blue) is used (Reference: Mindfulness Meditation,

Why We Do This: In such a stigmatized, poorly treated population, thoughts of anger,
hate, or irritation would not be surprising. This session, focusing on “Loving Kindness
Meditation”, encourages the participants to embody an attitude of positivity and love--
both towards themselves and others. This session demonstrates the idea of separating
a negative action from the person who performed it.

Script: Get into a comfortable, seated position, with your feet flat on the floor and your
body relaxed. If you are comfortable, close your eyes. [Pause] In this meditation on
loving kindness, allow yourself to switch from the usual mode of doing to a mode of non-
doing. [Pause] Of simply being. [Pause] As your body becomes still, bring your
attention to the fact that you are breathing. [Pause] And become aware of the movement
of your breath as it comes into your body [Pause] and as it leaves your body. [Pause]
Not manipulating the breath in any way or trying to change it. [Pause] Simply being
aware of it and of the feelings associated with breathing. [Pause] And observing the
breath deep down in your belly. [Pause] Feeling the abdomen as it expands gently on the
inbreath, [Pause] and as it falls back towards your spine on the outbreath. [Pause] Being
totally here in each moment with each breath. [Pause] Not trying to do anything. [Pause]
not trying to get any place, [Pause] simply being with your breath. [Pause] Giving full
care and attention to each inbreath [Pause] and to each outbreath. [Pause] As they
follow one after the other in a never ending cycle and flow. [Pause] If distracting
thoughts arise, acknowledge them, then return to the practice. [Pause]
And now bringing to mind someone for whom you have deep feelings of love. [Pause] Seeing or sensing this person and noticing your feelings for them arise in your body. [Pause] It may be simply a smile that spreads across your face, [Pause] or your chest becomes warm. [Pause] Whatever the effects, allow them to be felt. [Pause]

Now letting go of this person in your imagination, [Pause] and keeping in awareness the feelings that have arisen. [Pause]

Bring yourself to mind now. [Pause] And seeing if you can offer loving kindness to yourself, by letting these words become your words…

*May I be happy* [Pause]
*May I be healthy* [Pause]
*May I ride the waves of my life* [Pause]
*May I live in peace* [Pause]
*No matter what I am given* [Pause]

And noticing the feelings that arise and letting them be, [Pause] as you look within yourself with mindfulness and equanimity. [Pause]

When you are comfortable, try offering loving kindness to someone who supports you, [Pause] who has always "been on your side." [Pause] Bringing this person to mind, imagining them perhaps across from you, and letting these words become your words…

*May you be happy* [Pause]
*May you be healthy* [Pause]
*May you ride the waves of your life* [Pause]
*May you live in peace* [Pause]
*No matter what you are given* [Pause]

Once your feelings flow easily to a loved one, turn your attention now to someone with whom you have difficulty - it’s best not to start with the most difficult person, [Pause] but perhaps someone who brings up feelings or irritation or annoyance. [Pause] And seeing if you can let these words become your words as you keep this person in awareness…

*May you be happy* [Pause]
*May you be healthy* [Pause]
*May you ride the waves of your life* [Pause]
*May you live in peace* [Pause]
*No matter what you are given* [Pause]

Notice the sensations and feelings that arise within you. [Pause] And seeing if you can just allow them and let them be. [Pause]
And now bringing to mind the broader community of which you are a part. [Pause] You might imagine your family. [Pause] your workmates, [Pause] your neighbours, [Pause] or fan out your attention until you include all persons and creatures on the planet. [Pause] And including yourself in this offering of loving kindness, as you let these words become your words…

May we be happy [Pause]
May we be healthy [Pause]
May we ride the waves of our lives [Pause]
May we live in peace [Pause]
No matter what we are given [Pause]

Notice the sensations and feelings that arise within you. [Pause] Sitting with them for a few moments until you are ready to end the practice. [Pause]

As this session comes to a close, repeat the following lines after me:

Going to sleep tonight, I smile. [Pause]
Several beautiful hours of rest are before me. [Pause]
I look at all beings with eyes of compassion [Pause]
And savor the last moments of this day. [Pause]

[DO NOT READ:] The above lines are provided by Joseph Emet. If the session is not at a time close to the end of the day, consider handing out printouts with the previous four lines on them for the participants.

**References:**


APPENDIX D

Request for Minor Changes to an Approved Study

Research Review and Ethics Committee
Department of Psychology

Request for Minor Changes to an Approved Study

Investigator(s): Chelsey Parker, Charles Hunt, Nick Fadoir, Sara Wetter, Morgan Longstreth
Faculty Sponsor: Roger N. Reeb, Ph.D. & Greg Elvers, Ph.D.

1. Title of study as previously approved:

   “Opportunities to Participate in a Homeless Shelter”

2. Describe all adverse events that have occurred since the last approval. If no adverse events have occurred since the last approval, indicate so.

   There have been none. In the past, each and every time that there was an occurrence that could somehow (potentially) be construed as an adverse event, Dr. Reeb has discussed the matter with the Chair of the Research Review and Ethics Committee (Dr. Dixon, until recently), who decided each time that the occurrence did not qualify as an adverse event. Since the time that Dr. Kunz became Chair of the Research Review and Ethics Committee, there has not been an occurrence that even justified such a discussion or decision. Nevertheless, I will continue to keep in touch with the Committee Chair if any matter comes up that should be considered.

3. Describe all requested changes to the approved protocol. Attach all revised or added materials. If the consent and/or debriefing forms have changed, attach them.

   Under the activity session of “Learning more about how to cope with stress,” brief versions of stress-management approaches (e.g., relaxation training, mindfulness training) have been implemented with benefits for the shelter guests and without any difficulties. (Please see the letter from Mr. David Bohardt, Executive Director of St. Vincent de Paul, Dayton, Ohio). A graduate student (Chelsey Parker) wishes to collect data on a pilot study, which would involve administering a very brief state anxiety scale (included here) before and after certain stress-management sessions of this kind. Mr. Bohardt’s letter expresses approval for this addition, and he notes that it “represents only a very slight change from what is currently done at the shelters.”

   I added one sentence to the informed consent (included here, with new sentence highlighted).

4. Describe any additional information that might influence the committee’s decision to approve the changes to the proposal (such as new research findings, difficulties in recruiting participants, etc.)

   While inclusion of the scale is a very minor change in protocol, it could provide us with information that would allow us to improve sessions at the shelter.

   Signature of faculty sponsor: [Signature] Date: 2-17-17
February 16, 2017

To Whom It May Concern:

I know that "mindfulness training" sessions have been used in the Behavioral Activation Research Project in Homeless Shelters, and shelter guests have responded favorably to it. This type of session fits under the activity category of "Learning more about how to cope with stress." The purpose of this letter is to indicate my full approval to use the brief state anxiety scale at the beginning and end of stress-management sessions. I read the scale before writing this letter, and the scale seems appropriate and could help to know more about how our guests respond to stress-management procedures so that such procedures can be modified and improved. The addition of this brief scale represents only a very slight change from what is currently done at the shelters.

As a general statement, I want to say that the Behavioral Activation Project has been very helpful to our shelter guests, and I look forward to collaborating with Roger Reeb on this project.

If there are questions about this matter, please feel free to contact me.

Sincerely,

[Signature]

David Bohardt
Executive Director
St. Vincent de Paul
### APPENDIX E

**Informed Consent FOR GUESTS to Participate in a Research Project**

**Project Title:** Opportunities to Participate at the Homeless Shelter

**Investigator(s):** Roger N. Reeb, PhD (faculty sponsor), Greg C Elvers, PhD (faculty sponsor), and student researchers approved to assist with the study.

**Description of Study:** If you agree to be in this study, you can do even more activities at the shelter. These activities should be enjoyable and/or helpful to your personal growth. Examples of additional activities that may be available for people in the study are listed below. You get to choose which (if any) activities that you take part in.

- Computer training
- Assistance in job search
- Art participation or appreciation
- Music participation or appreciation
- Movies
- Coffee house (change to perform music or other artistic expressions)
- Miniature golf
- Gardening
- Yoga, meditation, or other similar activities
- Painting
- Recreational (non-aggressive) activities (examples: ping pong, basketball, flag football)
- Board games
- Creative writing and/or journal writing
- Cooking classes or cookouts
- Exercise classes
- Book club or other reading activities
- Volunteering (example: helping at the shelter or in the community)
- Wood shop
- Learning how to get more out of work experiences
- Learning more about goal-setting, planning, time management, and budgeting
• Learning more about mental illness, substance use, and treatment/support services
• Learning more about access to health care
• Learning more about current events
• Learning more about how to cope with stress
• Social support and sharing sessions (groups may involve other shelter guests, researchers, and/or community professionals)
• Learning more about self-care and healthy living
• Interfaith worship services
• Inspirational growth (example: listening to a motivational speaker)
• Learning more about planning for housing
• Learning more about legal issues

After each activity, a researcher will ask you a few questions about the activity. For some sessions that help guests to improve their coping with stress, a researcher will ask you to complete a very brief form before and after the session in order to see if the session helped to decrease anxiety. In addition, about once a month, a researcher will ask you to complete a brief form that asks about your mood, your current situation, and your thoughts about the shelter. If you agree to participate, researchers will have access to all of the information in your file. A staff member at the shelter will remove your name and other identifying information from the file. If you decide not to participate in this study, the activities at the shelter will still be available to you.

Adverse Effects and Risks: All activities have been approved by the shelter. Some of the activities have been offered at the shelter in the past. All of the activities are typical of the types of activities provided for guests at the shelter. Activities that involve some risk (e.g., sports) should not have more risk than activities routinely provided at the shelter. Activities will be supervised by a staff member or a researcher. If there is an injury, shelter staff will be available to provide first aid according to routing shelter procedures. The activity supervisor will have cell phone. If there is an emergency, they will alert shelter staff.

Duration of Study: The study will be ongoing. The duration of activities will vary greatly. You can choose to end your participation at any time. If you leave the shelter and then return, you may resume your participation in this study if you would like to do so, as long as the study is still ongoing at the time of your return.

Confidentiality of The information gathered in this study will be kept in a locked
Data: filing cabinet. Only designated staff and researchers approved to assist with the study will have access to the locked filing cabinet. Your name will not be revealed in any document resulting from this study.

Information about you will be kept confidential. **However, there are some limits to this confidentiality.** First, while researchers will keep information that you share confidential, we cannot guarantee that other shelter guests who are also participating in the activity will keep your information confidential. Second, researchers are required to inform a shelter staff member if information shared by a shelter guest causes us to suspect any of the following: (a) you or someone else is in danger; (b) a child is being (or is at risk of being) injured, abused, or neglected; (c) an adult is being (or is at risk of being) abused; (d) any person with a developmental disability is being (or is at risk of being) abused or neglected; or (e) there is domestic violence or abuse of some kind (or a risk of these problems). In such cases, the shelter staff member will follow through with reporting the information, consistent with shelter policies and Ohio Law.

Contact Person: If you have a concern, please discuss it with a shelter staff member. If the shelter staff member determines that your concern is relevant to the study or relevant to your rights as a research participant, then she will put you in direct contact with the appropriate professional at the University of Dayton. Otherwise, the staff member will attempt to resolve the matter following routine shelter procedures.

Consent to Participate: I have freely decided to take part in this study. All questions that I have about the study have been answered. This includes questions about the procedures involved and my participation. I know that a researcher will be present to answer my questions during the study. I know that I may quit the study at any time. I know that the researcher may remove me from the study if he or she feels this to be in my best interest. In addition, I certify that I am 18 (eighteen) years of age or older.

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<tr>
<th>Signature of Guest</th>
<th>Guest’s Name (printed)</th>
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<th>Signature of Witness</th>
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The University of Dayton supports researchers’ academic freedom to study topics of their choice. The topic and/or content of each study are those of the principal investigator(s) and do not necessarily represent the mission or positions of the University of Dayton.
APPENDIX F

Debriefing Procedure for Guests: Following Administration of the Activity Evaluation Process Measure (AEPM)

Instructions to Researcher:

1. At the end of each activity and before administering the Activity Evaluation Process Measure, please make debriefing statement below. (As deemed appropriate, such as when guests participate in back-to-back activities, the statement can be paraphrased).

“As part of this study, we ask questions about activities like the one you just participated in. This allows us to document that guests are participating. We appreciate your participation, but we remind you that you are not obligated and are free to withdraw at any time.”

2. After you administer the Activity Evaluation Process Measure, provide the debriefing below. Consistent with the procedures used for assessment, provide each participant with a hardcopy of the debriefing form, show the debriefing form through an overhead projector (or display on a large poster board with large font), or read it aloud to assist participants with reading difficulties. (As deemed appropriate, such as when guests participate in back-to-back activities, the statement can be paraphrased).

“Thank you for participating in this study. This study provides guests with activities that are meant to be enjoyable and/or beneficial to your well-being. If you have any questions about this project, please discuss it with a St. Vincent de Paul staff member.”